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A RATIONALE FOR TEACHER EDUCATION AT KANSAS STATE UNIVERSITY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Graduate School of The Ohio State University

By

Warren Ingram Paul, B.A., M.A.

* * * * * *

The Ohio State University
1972

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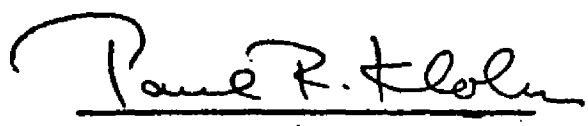

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Dean Samuel R. Keys of the College of Education, Kansas State University, and Dr. Arnold J. Moore, Head of the College's Department of Curriculum and Instruction also are herewith tendered the author's warm gratitude for their encouragement and support during this study, for making available a number of pertinent College of Education records, and for providing opportunities to improve the College's teacher preparation program.

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CHAPTER I

INTRODUCTION

"Who Dares To Teach Must Never Cease To Learn."[1] That motto directly challenges teachers. It also challenges institutions that prepare teachers to set examples of openness, flexibility, awareness of pertinent educational research data, and utilization of all these along with evaluative feedback from students and other sources.

Unfortunately, there seems to be a rather widespread and somewhat cynical feeling that large numbers of "professional education" courses presented in these institutions consistently fail either to exemplify the qualities cited above or to show how educational theory can be applied practically in "real life" school situations. Not that such criticism is new; nine years ago James Bryant Conant observed that "Many academic [i.e., Arts and Sciences] professors believe that the courses given by professors of education are worthless, and that the degrees granted students who have devoted much of their time to these courses are of little value."[2] Moreover, such criticism goes back more than half a century, he indicated.[3] Even teachers' associations'

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[1]The motto of Newark State College, Union, New Jersey.

[2]James Bryant Conant, The Education of American Teachers (New York: McGraw-Hill Book Company, Inc., 1963), p. 7.

[3]Ibid., pp. 1-4.

officials or representatives "acknowledge that some of the courses are repetitious and poorly taught,"[4] he added.

Conant's book, The Education of American Teachers, was published in 1963. That same year another book, more bluntly named The Miseducation of American Teachers,[5] also appeared. Its author, James Koerner, criticized teacher preparation programs even more harshly than Conant. For example, "Course work in Education deserves its ill-repute. It is most often puerile, repetitious, dull and ambiguous--incontestably . . . . The intellectual impoverishment of the course work remains a major characteristic of the field. And not a great deal is being done about it."[6]

The nine years since the publication of the Conant and Koerner books have seen almost incredible developments in the field of education technology. They have seen increasing sociological polarizations in our society. They have seen the dissemination of a large number of positive educational insights and techniques concerned with developing the humanistic potential of human beings as a complementary balance to their kinetic skills, in some cases indicating specific ways for overcoming effects of the polarizations.[7] Logically, these nine years

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[4]Ibid., p. 27.

[5]James D. Koerner, The Miseducation of American Teachers (Boston: Houghton Mifflin Company, 1963).

[6]Ibid., p. 18.

[7]As one example (of several citable), Donald H. Smith's address, "Imperative Issues in Urban Education," Teacher Education Issues and Innovations, Twenty-first Yearbook of The American Association of Colleges for Teacher Education (Washington, D.C.: The American Association of Colleges for Teacher Education, 1968), pp. 49-58.

should have seen corresponding general and widespread advances in teacher education--the programs intended to prepare the professionals responsible in turn for formally educating the citizens who maintain the functional economic and sociological relationships in our society, all hopefully achieving their own fulfillments along the way. Regretfully, despite encouraging experiments and pilot projects, no such broad improvement is readily discernible.

This near-inertia can be explained by a number of reasons (if not always by reason). Traditionally, the internal institutions of education are slow to change, partly because most effects of Educational programs are inherently long-range and often not adequately measurable. The vast majority of variables with which scientists and physicians are concerned are essentially concrete, no matter how elusive. But the many variables affecting educators' decisions, particularly where human beings are involved, are largely abstract and much more difficult to isolate or to view in context and contrast.

For that matter, there is no single, really professional large education group capable of guiding or influencing teachers and other educators toward concerns and goals which are truly and continuously professional (i.e., client [student] centered rather than essentially employer, or self, centered). As one result, it could be speculated that Education's still-low material incentive levels and incredible lack of public relations (an aspect of interpersonal communications, at which educators are supposed to be adept) have too often maintained a defensive sense of insecurity and even inferiority on the part of many educators, regardless of justification. Such responsiveness,

negative or otherwise, is linked to the reality that the public, which pays for education, often desires also to exert influence according to the perceived power of its special interests. It's the rare educator who can lead a community into innovations successfully and for long under such conditions.

The fact that too many people outside Education claim they believe that "Those who can, do; those who can't, teach; those who can do neither, teach teachers to teach" is depressing, too. Attitudes involved with misinformation are among the most difficult to change.

And now business enterprises, heretofore largely concerned only with supplying education, are being encouraged to implement aspects of it,[8] a clear indication that a number of people in government and other areas feel that educators are failing to meet their own goals, much less the "needs" of society.

Fortunately, a number of pilot programs and experimental models recently and currently being developed or projected offer a positive promise that real educational progress could begin to spread during the next several years.[9, 10, 11] Much of this will depend on financial

---

[8]For example, the hiring of a business firm in Texarkana, Arkansas, to teach potential dropouts, with economic incentives offered to the company, its teachers, and the students. Richard A. Bumstead, "Texarkana, The First Accounting," Educate, III (March 1970), pp. 24-28, 33-37, 52.

[9]For example, the Mid-Continent Regional Educational Laboratory's Cooperative Urban Teacher Education (CUTE) project, already underway in Wichita, Omaha, and Kansas City, Missouri.

[10]Also, the Ford-Foundation-supported Breakthrough Programs involving $70 million "seed money" and a fifteen-year time span. James C. Stone, Breakthrough in Teacher Education (San Francisco: Jossey-Bass, Inc., 1968).

[11]And the U.S. Office of Education-sponsored three-phase program

and humanly cooperative support, intelligent implementation, and demonstrable results. Nevertheless, the trend is encouraging.

Reasons for the Study

If one word could characterize most of the innovative teacher education proposals and programs of the last five years, it probably would be "diversity." This fits well with the current mood of the College of Education faculty at Kansas State University. The KSU teacher preparation program is at a crossroads, and every Education faculty member knows that he has an extremely unusual opportunity to influence, help develop, and carry through extensive changes that can affect the quality of the teachers educated at the University for perhaps decades to come.

The conditions and time seem very favorable. The College's Dean, Dr. Samuel R. Keys, who joined the faculty in September 1969, openly encourages innovation and is particularly interested in developing both the graduate area and an urban teacher education program to balance the more generally suburban- and rural-oriented offerings. Already he has suggested that any faculty member who wishes should propose an independent teacher education pilot project to involve, say, 15 to 20 students.[12]

---

to encourage universities and educational consortiums to develop comprehensive undergraduate and in-service teacher education programs for elementary teachers. Joel L. Burdin and Kaliopee Lanzillotti, eds., A Reader's Guide to the Comprehensive Models for Preparing Elementary Teachers (Washington, D.C.: ERIC Clearinghouse on Teacher Education, December 1969).

[12]Kansas State University College of Education faculty meeting, October 21, 1969.

In addition, the College admitted the first students in its newly approved Ph.D. program in September 1969.

Because it is expanding, and bulging the proverbial seams in ancient Holton Hall,[13] the College has been given number two priority (behind the campus physical plant's expansion) for new facilities. More than $5 million has been budgeted, although the Kansas Legislature has yet--as of April 1972--to pass the legislation appropriating the money. Even so, since November 1969 members of the College's building committee have been pressuring their faculty colleagues to submit ideas for all or part of as creative a new teacher education program as possible. Then the intention is that the new facility will be designed and constructed to support that program.

Most of the Education faculty members seem agreed that tinkering with and adding on separate courses or other elements in the College's present teacher education program would be inadequate. They wish to remodel or redevelop the entire program.

Any such "new" program, however much it includes flexibility, must have a unifying curricular theme. At the very least, the theme should be based on pertinent curricular guidelines established after key references have been reviewed.

The aim of this dissertation is to develop and suggest curricular

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[13]The edifice was built in 1900 for the Farm Department. In 1913 that and all the other occupying agriculture departments went to Waters Hall and the Vocational School moved in. From 1925 to date the building has housed first the Department, then the School, and now the College of Education. Known initially as the Agricultural Building and then as the Education Building, the structure became Holton Hall in 1951.

guidelines for the new program to prepare elementary and secondary teachers at Kansas State University.

Definitions of Terms Used

The terms included herein are defined or described largely as they apply to Education, even though many of the definitions are equally valid for other areas. Any exceptions or enlargements that may be made in this study will be explained as they occur.

All terms are listed alphabetically in the General Terms section. However, in order to group related technical or semi-technical terms, five other sections have been established, each including appropriate, alphabetically presented, definitions. The five are: Administrative Terms, Behavior and Learning Terms, Curriculum Implementation Terms, Institutional Terms, and Systems Terms.

General Terms

Academic.--Definitions may vary, depending upon the context. When used herein in conjunction with such words as "faculty" or "disciplines" (e.g., academic faculty), it refers to what is generally located in a college of arts and sciences (e.g., academic subjects as different from education subjects). Academic "work" or "accomplishment," however, includes any specified intellectually-oriented work or accomplishment regardless of under whose auspices in a university or school it is performed, again depending on the context.

Academic year.--See page 20 (Administrative Terms).

Administration.--See page 39 (Institutional Terms).

Affective behavior.--See Behavior, affective, page 28 (Behavior and Learning Terms).

Analysis.--See page 41 (Systems Terms).

Behavior.--See page 28 (Behavior and Learning Terms).

Behavioral objectives.--See Objectives, page 30 (Behavior and Learning Terms).

Block.--See page 21 (Administrative Terms).

Cell.--See page 41 (Systems Terms).

Certification.--See page 21 (Administrative Terms).

Cognitive behavior.--See Behavior, cognitive, page 29 (Behavior and Learning Terms).

Conative behavior.--See Behavior, psychomotor, page 29 (Behavior and Learning Terms).

Concept.--An understanding composed of several less complex elements of knowledge. (Also, a mental image of a thing formed by generalization from particulars; further, an idea of what a thing in general should be.) Concepts are built upon perceptions. They are more than facts, or details, or single skills.

Concept, self.--See Self concept, page 31 (Behavior and Learning Terms).

Concomitant Learning.--See page 29 (Behavior and Learning Terms).

Constraint.--See page 41 (Systems Terms).

Controllable variable.--See page 41 (Systems Terms).

Course.--See page 21 (Administrative Terms).

Covert behavior.--See page 29 (Behavior and Learning Terms).

Credit hour.--See page 21 (Administrative Terms).

Curricular element.--See page 31 (Curriculum Implementation Terms).

Curricular guideline.--See page 31 (Curriculum Implementation Terms).

Curricular module.--See page 31 (Curriculum Implementation Terms).

Curricular program.--See page 31 (Curriculum Implementation Terms).

Curricular sequence.--See page 31 (Curriculum Implementation Terms).

Curricular unit.--See page 31 (Curriculum Implementation Terms).

Curriculum.--See page 32 (Curriculum and Implementation Terms).

Discipline, academic.--See page 22 (Administrative Terms).

Discipline, applied (as in a classroom).--See page 29 (Behavior and Learning Terms).

Discipline, self.--See page 30 (Behavior and Learning Terms).

Dysfunction.--See page 39 (Institutional Terms).

Education, general.--Courses or subjects "required primarily to insure breadth and depth of intellectual experience, without respect to the particular subject a student is preparing to teach."[14] See also Education, professional, and Education, specialized, both below.

Education, professional.--Courses or subjects taught by members of the faculty of the College of Education and related directly to the theory and practice of public (or private) school and college teaching. See also Education, general, above, and Education, specialized, below.

Education, specialized.--"Courses in a particular subject or subject area, required largely because a college student proposes to teach that subject."[15] These would be the courses or subjects heavily involved with a student's major area of concentration. See also Education, general, and Education, professional, both above, and Major and Minor, located on pages 22 and 23, respectively, in the Administrative Terms section.

Education, teacher.--See Teacher education, page 18 in this General Terms section.

Element.--"One of the constituent parts, principles, or traits of anything."[16]

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[14]Conant, op. cit., p. 21 footnote. [15]Ibid.

[16]"Element," Webster's New Collegiate Dictionary (Springfield, Mass.: G. & C. Merriam Co., 1956), definition number 3, p. 265.

Elementary education.--In the United States, the formal education established primarily for children aged 5 through 11, usually in kindergarten through the sixth grade. Elementary education follows pre-school and procedes secondary education. As its name implies, elementary education broadly encompasses and (ideally) encourages learnings in fundamental skills considered essential for citizenship and everyday living. See also Secondary education and Higher education, on pages 16 and 12, respectively, in this General Terms section.

Evaluation.--Appraisal of the effectiveness of all or part of a program or an individual's efforts. Such appraisal can be made continuously, frequently, or at the end of a stage or sequence. Modifications it may suggest should be implemented as soon as possible. Evaluation could include interpretation of the results of measurement. See also Evaluation of learning, page 30 in the Behavior and Learning Terms section, Evaluation, systems analytical, page 42 in the Systems Terms section, and Measurement, page 13 in this General Terms section.

External factors.--See page 42 (Systems Terms).

Faculty.--See page 22 (Administrative Terms).

Feedback.--See page 42 (Systems Terms).

Flow model.--See page 42 (Systems Terms).

Function.--See page 39 (Institutional Terms).

General education.--See Education, general, page 10 in this General Terms section.

Graduate student.--See Student, graduate, page 26 in the Administrative Terms section.

Guide, to.--See page 32 (Curriculum Implementation Terms).

Higher education.--Education beyond secondary education and including advanced study in the fields of literature, the arts, and science, or advanced professional and technological preparation and training. This is usually accomplished in colleges and universities. The term used to include junior colleges and community colleges as a matter of course, especially since they offer the equivalent of a university's freshman and sophomore years; successful completion of the two-year program can lead to transfer to a four-year or upper-level institution and, in many schools, to an Associate degree. In recent years, however, state legislative authorities have begun to consider these two years as the thirteenth and fourteenth year extension of a K-12 program and thus to include them in secondary education for teacher certification and certain other purposes. This consideration should be kept in mind, depending on context or specific stipulation. In this dissertation, junior college and community college curricula will be considered as higher education only, since in Kansas preparation and certification to teach in those institutions must be accomplished on the graduate level. See also Secondary education and Elementary education, on pages 16 and 12, respectively, in this General Terms section.

Implement, to.--See page 32 (Curriculum Implementation Terms).

Input.--See page 43 (Systems Terms).

Institution.--See page 40 (Institutional Terms).

Institutional impact.--See page 40 (Institutional Terms).

Institutionalism.--See page 40 (Institutional Terms).

Instruction.--See page 32 (Curriculum Implementation Terms).

Instructional strategies.--See page 33 (Curriculum Implementation Terms).

Internal factors.--See page 43 (Systems Terms).

Intersession.--See page 22 (Administrative Terms).

Learning.--See page 30 (Behavior and Learning Terms).

Learning unit.--See page 33 (Curriculum Implementation Terms).

Lesson.--See page 34 (Curriculum Implementation Terms).

Lesson plan.--See page 34 (Curriculum Implementation Terms).

Major.--See page 22 (Administrative Terms section). See also Education, specialized, on page 10 in this General Terms section.

Matrix model.--See page 43 (Systems Terms).

Measurement.--The process of determining as accurately as possible the extent of a student's learning or behavioral change or the effectiveness of specific aspects of a program. See Evaluation,

page 11 (General Terms).

Media.--See page 35 (Curriculum Implementation Terms).

Methodology.--See page 35 (Curriculum Implementation Terms).

Minicourse.--See page 23 (Administrative Terms).

Minor.--See page 23 (Administrative Terms).

Model.--See page 43 (Systems Terms).

Module.--See Curricular module, page 31 in the Curriculum Implementation Terms section.

Needs.--See page 30 (Behavior and Learning Terms).

Objectives.--See page 30 (Behavior and Learning Terms).

Operational objectives.--See page 43 (Systems Terms).

Organization.--See page 40 (Institutional Terms).

Output.--See page 43 (Systems Terms).

Overt behavior.--See page 30 (Behavior and Learning Terms).

Paraprofessional.--See page 35 (Curriculum Implementation Terms)

Peer group.--See page 40 (Institutional Terms).

Perception.--See page 30 (Behavior and Learning Terms).

Philosophy.--The beliefs, concepts, and principles of an individual which he acknowledges as justifying and purposefully motivating his actual, intended, and possible actions. The same

definition can apply collectively to a professional, societal, or cultural (including academic and/or religious) grouping or group, although sometimes a group's philosophy may be apparent to or acknowledged by only a small number of astute members or perceptive outside observers. For educators, particularly, philosophy connotes an ethically-based rationale for goal-oriented behavior.

Practice teaching.--See Student teaching, page 27 in the Administrative Terms section.

Preparation.--See page 36 (Curriculum Implementation Terms).

Preparation, teacher.--See Teacher preparation, page 19 in this General Terms section.

Process.--See page 44 (Systems Terms).

Profession.--For Education, this involves the living and constant expression of a concept that considers client (student) interests to be its practitioners' primary responsibility. In this sense, a profession has six main characteristics: It provides an essential service. It has a highly developed methodology. The methodology is based on the best available, empirically verifiable, scientific data. The practitioners make judgments or decisions involving others. There is a written code of ethics. The implementation of the code is enforced by the profession's practitioners through individual and collective self-discipline and self-regulation.[17] See also Methodology, page 35

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[17]Derived from lectures at The Ohio State University by

in the Curriculum Implementation Terms section.

Professional education.--See Education, professional, page 10 in this General Terms section.

Professional semester.--See page 23 (Administrative Terms).

Psychomotor behavior.--See Behavior, psychomotor, page 29 (Behavior and Learning Terms section).

Pupil.--See page 23 (Administrative Terms).

Quarter.--See page 23 (Administrative Terms).

Quarter (credit) hour.--See page 24 (Administrative Terms).

Role.--See page 40 (Institutional Terms).

Resource unit.--See page 36 (Curriculum Implementation Terms).

Secondary education.--The formal education established to follow elementary education and to provide opportunities for pupils to explore various fields of knowledge and acquire further skills and tools for the solution of problems or as preparation for advanced learning. It usually involves children aged 12 through 17, in the seventh through the twelfth grades. These grade levels, however, may be grouped in several ways (perhaps involving more than one building in a school district), e.g.: junior high school, grades 7-8, and high school,

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Dr. Jack R. Frymier, Professor and Chairman, Curriculum and Foundations Faculty, College of Education, The Ohio State University, November 13, 1968, and February 12, 1969.

grades 9-12. Secondary schools include comprehensive, vocational, trade, commercial, and technical curricula, sometimes in combination, sometimes separately. Increasingly, and with some legal support, the term has been extended to include the "thirteenth" and fourteenth" grades of the two years of many junior colleges and community colleges. Because that often involves graduate school preparation for certification to teach in these institutions, however, in this dissertation the term covers only up to the twelfth grade. See also Elementary education and Higher education, on pages 11 and 12, respectively, in this General Terms section.

Self concept.--See page 31 (Behavior and Learning Terms).

Semester.--See page 24 (Administrative Terms).

Semester hour.--See page 25 (Administrative Terms).

Semester, professional.--See Professional semester, page 23 in the Administrative Terms section.

Semester quarter.--See Quarter, page 23 in the Administrative Terms section.

Socioeconomic class.--See page 41 (Institutional Terms).

Special student.--See Student, special, page 26 in the Administrative Terms section.

Special education.--See page 25 (Administrative Terms).

Specialized education.--See Education, specialized, page 10 in

this General Terms section.

Staff.--See page 26 (Administrative Terms).

Student.--See page 26 (Administrative Terms).

Student teaching.--See page 27 (Administrative Terms).

Supervising teacher.--See page 27 (Administrative Terms).

Supervision.--See page 36 (Curriculum Implementation Terms).

Supervisor, university.--See page 27 (Administrative Terms).

Syllabus.--See page 37 (Curriculum Implementation Terms).

System.--See page 44 (Systems Terms).

Teach, to.--See page 37 (Curriculum Implementation Terms).

Teacher.--See page 37 (Curriculum Implementation Terms).

Teacher aide.--See page 37 (Curriculum Implementation Terms).

Teacher education.--In the broadest sense, the knowledge and mental and moral development intended to result from the curriculum of studies, observations, interactions, and other learning experiences to be completed by every person intending to teach. This would include the humanities as well as the sciences, general education as well as specialized and professional education. See Teacher preparation and Teacher training, below, as well as Education, general, Education, professional, and Education, specialized all on page 10 in this

General Terms section. See also Teaching, page 37 in the Curriculum Implementation section.

Teacher preparation.--The program designed to initiate and increase awareness and knowledge of how aspects of general, specialized, and professional education can most effectively be applied by a teacher in learning situations for which he is primarily responsible. (This means that he must evolve an educational philosophy compatible with his personality and learn to know his own strengths and limitations as well as characteristics of the learners and others who are or may be involved.) The term further includes the development of the capability to make professionally-based decisions and value judgments in educational situations involving often complex human and/or curricular variables, alternatives, and ambiguities. See Teacher education, above; Teacher training, below; Education, general, Education, professional, and Education, specialized, all on page 10; as well as Philosophy, page 14, and Profession, page 15. See also Preparation and Teaching, pages 36 and 37 in the Curriculum Implementation Terms section.

Teacher training.--An often highly-structured program stressing instruction and drill and designed to develop skills and proficiencies with regard to specific educational techniques applicable in primarily mechanistic situations for which certain single approaches seem most effective. See Teacher education and Teacher preparation, above. See also Teaching, page 37 in the Curriculum Implementation Terms section.

Teaching.--See page 37 (Curriculum Implementation Terms).

Teaching assistant.--See page 27 (Administrative Terms).

Teaching unit.--See Learning unit, page 33 in the Curriculum Implementation Terms section.

Tenure.--See page 28 (Administrative Terms).

Transfer student.--See Student, transfer, page 26 in the Administrative Terms section.

Training, teacher.--See Teacher training, page 19 in this General Terms section.

Tutor.--See page 39 (Curriculum Implementation Terms).

Uncontrollable variable.--See page 44 (Systems Terms).

Undergraduate student.--See Student, undergraduate, page 26 in the Administrative Terms section.

University supervisor.--See Supervisor, university, page 27 in the Administrative Terms section.

Variable.--See page 44 (Systems Terms).

Administrative Terms

Academic year.--The period of time beginning with the fall semester or fall quarter and closing with the end of the summer semester or quarter 11 or 12 months later. The academic year differs from the chronological year, which runs from January 1 through December 31. See also Intersession, Quarter, and Semester, pages 22, 23, and 24, respectively.

Block.--At Kansas State University, the 7½- to 8-week senior-year period during which student teaching takes place. Currently the Block is preceded by 7 to 8 weeks of concentrated education courses and is followed by a one-day evaluation seminar back on campus. The "Block Semester" is the semester during which the Block takes place. At the present time, and as of the 1971-72 academic year, except for Home Economics Education students and certain special programs, there is no student teaching during the other-than-block weeks. Student teaching is intended to be a student's sole academic responsibility during the Block. See also Course, Professional semester, Quarter, and Semester, pages 21, 23, 23, and 24, respectively.

Certification.--Legal authorization for a teacher or other holder of a designated credential to perform specific services in the public schools of a state. The holder usually must meet both general requirements (such as citizenship) and minimum educational requirements.

Course.--A continuous presentation of material usually organized around one basic theme or subject and usually structured to fit into an arbitrary time frame such as a semester or a quarter. The course format can range from individually tailored assignments and learnings to large group presentations, such as lectures. See also Quarter and Semester, on pages 23 and 24, respectively, and Learning unit, page 33, Lesson, page 34, and Syllabus, page 37, all in the Curriculum Implementation Terms section.

Credit hour.--See Quarter (credit) hour and Semester hour on pages 23 and 24, respectively.

Discipline, academic.--In the scholarly context, discipline is "a branch of knowledge involving research."[18] An academic discipline is one involving primarily literary, classical, or liberal knowledge and expressions of such knowledge rather than knowledge primarily involved with technical or professional areas. See also Academic and Profession, on pages 7 and 15, respectively, in the General Terms section.

Faculty.--Collectively, the persons in a university or college directly responsible for teaching and the encouragement of student learning. The faculty also usually has certain governing responsibilities with regard to its educational institution. At Kansas State University, the full-time faculty includes the ranks of professor, associate professor, and assistant professor (all sometimes referred to as "professors"), instructor, and assistant instructor. See also Staff, page 26.

Graduate student.--See Student, graduate, page 26.

Intersession.--A brief period of time between semesters or quarters in which a minicourse or other academic experience is scheduled. Intersessions are usually not shorter than two weeks nor longer than four weeks. See Minicourse, Quarter, and Semester, on pages 23, 23, and 24, respectively.

Major.--The principal area of study chosen by a student, in

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[18]"Discipline," Webster's New Collegiate Dictionary, op. cit., definition number 2, p. 236.

which he is required to complete satisfactorily a certain minimum of concentrated courses as part of his degree program. See also Minor, below, and Education, specialized, on page 10 in the General Terms section.

Minicourse.--An often highly concentrated course usually presented during an intersession or during a period of time much shorter than a quarter or semester. See Course, Intersession, Quarter, and Semester, pages 21, 22, 23, and 24, respectively.

Minor.--A secondary area of study chosen by a student, in which he is required to complete satisfactorily a certain minimum of concentrated courses in conjunction with, and usually part of, his degree program. Minors are not necessarily required for a degree, but they can provide opportunities to study fields different from or related to a major and, for teachers, could also lead to certification eligibility to teach subjects in the minor area. See Major, above.

Professional semester.--At Kansas State University, the semester during which a student in the teacher education program completes his required education courses and his student teaching. See also Block, Course, Quarter, and Semester, pages 21, 21, 23, and 24, respectively.

Pupil.--A person enrolled in an elementary or secondary school. The term is not often applied to persons enrolled in high school, but in this dissertation it is, to avoid confusion with the term (college) "student." See also Student, page 26.

Quarter.--An administratively designated period of time (usually

shorter than a semester) allowing for registration, the presentation of academic courses and other academic experiences, and "final" evaluation. For example, at The Ohio State University, the academic year is divided into fall, winter, and spring quarters of about 11 weeks each and a summer quarter of 10 weeks. Currently, most of September is left as open time. The term "quarter" is not to be confused with "semester quarter," a term certain Kansas State University College of Education faculty members use to designate a contemplated division of the fall and spring semesters into two 8-week "quarters" each (i.e., four "quarters" in all, not counting the summer semester or any intersession). During a given semester one student might attend Education courses during the first "semester quarter" while another student was student-teaching in another community. For the second "semester quarter," the two would trade places, providing housing continuity for both, among other benefits. "Semester quarter" is also not the same as Block (see page 21). See also Academic year, Course, and Semester, on, respectively, pages 20, 21, and 24.

Quarter (credit) hour.--Similar to semester hour in definition, but courses meet fewer times than during a semester. (Even so, the amount of work required is often the same.) See Semester hour, below.

Semester.--An administratively designated period of time (usually longer than a quarter) allowing for registration, the presentation of academic courses and other academic experiences, and "final" evaluation. At Kansas State University, the academic year is divided into fall and spring semesters of about 17 weeks each and a summer semester of 8 weeks.

Currently, most of August is left as open time. Beginning with the 1970-71 academic year, the two-week period between New Year's Day and the beginning of the spring semester became KSU's first intersession, with minicourses and special studies. See also Academic year, page 20; Course, page 21; Intersession, page 22; Minicourse, page 23; and Quarter, page 23.

Semester hour.--An administrative unit indicating that a certain amount of academic work and, hopefully, learning has been accomplished. At Kansas State University, as a rule of thumb, the number of semester hours stipulated for a course frequently will equal the number of clock hours its classes meet during each week in a semester. This does not include the number of out-of-class hours a student is expected to study to prepare for each meeting, of course. Meeting hours and semester hours may vary widely, particularly for independent study and reading courses. Semester (or quarter) hours also may be known as credits, credit hours, or semester (or quarter) credits. Because of the semester-quarter time differential, for transfer credit purposes, one semester hour is equal to one and one-half quarter hours. (In other words, multiply semester hours by 1.5 to convert them to quarter hours. Conversely, divide quarter hours by 1.5 to convert them to semester hours.)

Semester, professional.--See Professional semester, page 23.

Semester quarter.--See Quarter, page 23.

Special education.--This term encompasses educational programs

involved with pupils and students for whom the curricula and curricular implementation designed for the majority of students are effective only partially or not at all. The term includes special preparation in such areas as mental retardation and speech pathology, for example.

Staff.--Generally, the persons in an educational institution who are responsible for its administration, although the teachers in an elementary or secondary school often are referred to as the "teaching staff." On the college level, persons with teaching responsibilities usually are considered members of the Faculty (see page 22).

Student.--A person officially admitted to Kansas State University (or, if specified, another university or college) and enrolled in courses there. See also Pupil, page 23, and, below, Student, graduate; Student, special; and Student, undergraduate.

Student, graduate.--A student, usually with a Bachelor's degree, who is enrolled in a program leading to a Master's or Doctor's degree or, in some cases, a Specialist's certificate.

Student, special.--A student enrolled in one or more college or university courses but not in a degree program. Such a student may or may not hold one or more degrees.

Student, transfer.--A student enrolled in a college or university degree program who has transferred from another educational institution.

Student, undergraduate.--A student enrolled in a college or university program leading to a Bachelor's degree, even if he might

already hold an Associate degree. Undergraduate students are also often further categorized as "lower classmen" if they are freshmen or sophomores and "upper classmen" if they are juniors or seniors.

Student teaching.--A future teacher's participation in the teaching and other activities of an elementary or secondary school under the guidance of the assigned Supervising teacher (see, below) and with the supervision of a representative (usually a professor) of the student teacher's college or university (e.g., of the College of Education of Kansas State University). At institutions other than Kansas State University, this participation sometimes is called Practice teaching. See also Supervisor, university, below.

Supervising teacher.--The elementary or secondary school ("cooperating") teacher who guides and supervises the student teacher assigned to him during the semester or quarter period designated for the student teaching experience. See also Student teaching, above, and Supervisor, university, below.

Supervisor, university.--At Kansas State University (and similar institutions), the College of Education representative, usually a professor of education, who visits, observes, and counsels a student teacher during the latter's student teaching experience. See also Student teaching and Supervising teacher, both above, and Faculty, page 22.

Teaching assistant.--A student, usually a graduate student, who assists college faculty members in teaching other students. See

Student and Student, graduate, pages 26 and 26, respectively.

Tenure.--Administrative protection against dismissal from a teaching position for political, personal, or frivolous reasons. Thus, tenure can act to protect the expression of academic freedom. Generally, the only major reasons justifying dismissal of a tenured teacher or professor are for specific cause (such as moral turpitude, demonstrated extreme incompetence, conviction of a crime in a court of law) or reductions of faculty or staff because of budgetary cutbacks. Usually dismissal for cause of a tenured professor cannot become final until after a hearing before, and approval of, a designated committee of other faculty members. Also, the time between notification of dismissal and the actual termination usually is longer for tenured educators than for those without tenure. Tenure is usually achieved after a teacher or professor has been reappointed to a given position or rank a specified number of times. (The term also can apply to the period of time an office is held.)

Behavior and Learning Terms

Affective behavior.--See Behavior, affective, below.

Behavior.--Any action or pattern of action which an organism exhibits. In this sense, learning involves a change in behavior. See Learning, page 30, and, below, Behavior, affective; Behavior, cognitive; and Behavior, psychomotor.

Behavior, affective.--Patterns of action based on individual values and attitudes; emotional behavior.

Behavior, cognitive.--Patterns of action based on knowledge and thought; mental behavior.

Behavior, conative.--See Behavior, psychomotor, below.

Behavior, psychomotor.--Patterns of action based on or involving physical actions or reactions. This includes essentially physical skills which can be used by an individual to earn his living in our society. The term sometimes is referred to as "conative behavior."

Behavioral objectives.--See Objectives, page 30.

Cognitive behavior.--See Behavior, cognitive, above.

Conative behavior.--See Behavior, psychomotor, above.

Concomitant learning.--Two or more learnings, often involving different skills, occurring simultaneously.

Covert behavior.--Behaviors or actions taking place within an individual and which an outside observer would not actually see, although he may see the results of them. See Overt behavior, page 30.

Discipline, applied. "Control gained by enforcing obedience or order,"[19] as in a classroom or school setting. Corrective action may include several approaches, possibly even punishment. Many applied discipline situations can be developed into positive learning experiences for those involved.

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[19]"Discipline," Webster's New Collegiate Dictionary, op. cit., definition number 5, p. 236.

Discipline, self.--Control of self and organization of one's life style and actions for the effective accomplishment of single or continuing purposes.

Evaluation of learning.--The successful or attempted ascertainment, qualitatively and quantitatively, of the extent of behavioral change in an individual as the result of a learning experience. Affective learnings are among the most difficult to ascertain. See also Evaluation, page 11, and Measurement, page 13, both in the General Terms section.

Learning.--Knowledge or skill proficiency attained through studying, practicing, or being taught. The attainment involves an overt or covert change in behavior, active or passive, to some degree. See Behavior, page 28.

Needs.--The lack of anything necessary. Sometimes the term is stretched to include things useful or desired, as well.

Objectives.--Goals. Instructional objectives are goals which the teacher and/or pupil set for the teaching-learning process. Behavioral objectives are involved with students' learning, i.e., goals intended to bring about and identify changes in behavior. See Behavior, page 28, and Evaluation of learning, above.

Overt behavior.--Behaviors or actions which can be observed. See Covert behavior, page 29.

Perception.--The process of approaching, recognizing, and fitting

some bit of knowledge into our store of cognitive, affective, and psychomotor behaviors.

Psychomotor behavior.--See Behavior, psychomotor, page 29.

Self concept.--One's perspective, belief, or idea about himself, his own worth as an individual, his relations with other people.

Curriculum Implementation Terms

Curricular element.--A constituent part of a curriculum. See Curriculum, page 32.

Curricular guideline.--A principle, direction, or fundamental grouping of elements advocated as increasing the human effectiveness of a curriculum. See Curricular element, above, Curricular program, and Curriculum, below.

Curricular module.--Similar to a course except that it is not limited to an arbitrary time frame such as a quarter or a semester. Self-contained, although it may relate in some way to other modules (e.g., by increasing depth or breadth), a curricular module probably usually would be shorter than a course and might well be interchangeable sequentially with other modules in a student's curricular program. See Curricular program, Curricular unit, and Curriculum, all below, and Course, page 21 in the Administrative Terms section.

Curricular program.--A specific plan of procedure involving implementation of a curriculum.

Curricular sequence.--The order of curricular events in time.

Curricular unit.--One or more curricular events organized around a single principle, idea, or sub-theme, but less than a course or curricular module, each of which could include several curricular units.

Curriculum.--Definitions vary widely, particularly as to scope. For this purpose, curriculum is defined as the program of planned and organized activities in an educational institution or setting which are designed to bring about intended learnings. (In this sense, many of a school's "extracurricular" activities may be included.) A curriculum should include procedures for incorporating related unplanned learnings as they occur and for modifying even ongoing curricular implementation processes as indicated by evaluation. See Behavior and Learning, pages 28 and 30, respectively, in the Behavior and Learning Terms section.

Guide, to.--Educationally, to superintend and encourage a person's learning, relying on one's prior knowledge in the process.

Implement, to.--To accomplish, to achieve stated objectives, and otherwise to fulfill an intended program through primarily concrete actions. For example, teaching would be one way to implement a curriculum. Learning would be another.

Instruction.--Methodical or formal teaching, particularly to impart knowledge of a skill or sequence.

Instructional objectives.--Goals which the teacher and/or pupil set for the teaching-learning process. See Behavior, page 28, and Evaluation of learning and Objectives, page 30, all in the Behavior

and Learning Terms section.

Instructional strategies.--Techniques or approaches (including "methods") a teacher uses in an attempt to bring about learning (behavioral change) in students of differing abilities, backgrounds, interests, and personalities.

Learning unit.--Written description of a curricular learning experience. A learning unit is a teaching unit oriented toward learning. It should be as complete as possible but should allow for flexibility. It should include a cover sheet, table of contents, an overview to include aims and objectives and descriptions of the subject and of the intended audience, suggested alternate ways of organizing and presenting the unit, where the unit fits into any larger curriculum (including a curricular module or course), a suggested time schedule and fairly specific descriptions of and/or illustrations of preparatory, introductory, primary, other, and culminating activities (including, if possible, lesson plans), references and resources (printed, audio-visual, and other, and where they can be obtained), descriptions and examples of evaluation techniques (including evaluation of methodology and other curricular factors as well as of extent of learning), and anything else considered helpful. A learning unit sometimes is called a resource unit, but the latter often includes more of descriptions of resources than of the learning experiences in which those resources can be used most effectively. A learning unit is much more descriptive than a syllabus, which may, in fact, include learning units as curricular implementation appendices. See also Curriculum, page 32;

Curricular module, page 31; Lesson, below; Lesson plan, below; Course, page 21 in the Administrative Terms section; Objectives, page 30 in the Behavior and Learning Terms section; and Evaluation, page 11 in the General Terms section.

Lesson.--An educational exercise involving one or more learnings and usually conducted in a single time period, such as a one-hour class meeting in a course. See Learning unit, above; Lesson plan, below; and Course, page 21 in the Administrative Terms section.

Lesson plan.--Plan for a single lesson or curricular learning experience. A formal lesson plan should include or provide for the following: Administrative information (e.g., subject, time of lesson, location, description of audience), continuity information (e.g., where it fits in the larger curricular sequence, including brief descriptions of the lessons immediately preceding the following), aims and objectives (stated as specifically as possible), references, resources, and support equipment needed and whether it should be pre-staged, description of the actual presentation or learning situation (e.g., instructional procedures, participations), assignments to be made (if any), provisions for evaluation (both the initial descriptions of evaluative procedures and the actual evaluation of presentation and apparent learning effectiveness to be added after the lesson), and anything else that might increase the lesson's effectiveness. See also Curriculum, page 32; Curricular module, page 31; Curricular sequence, page 31; Learning, above; Course, page 21 in the Administrative Terms section; Objectives, page 30 in the Behavior and Learning Terms section;

and Evaluation, page 11 in the General Terms section.

Media.--Technological means of presenting curriculum and other materials within an educational institution. The plural of medium, the term includes such channels or devices as print, audiotape, videotape, motion pictures, slides, three-dimensional models, still photographs, and records. Sociologically, the term applies usually to the technological means most involved in mass communications, such as radio, television, newspapers, magazines.

Methodology.--A set of techniques, skills, practices, procedures, usually unique to and characterizing a group. (For example, not all mathematicians are engineers; not all physiologists are surgeons.) These techniques, etc., can be taught. A professional school (e.g., of education) has a responsibility to teach its profession's methodology.[20] See Profession, page 15 in the General Terms section.

Module.--See Curricular module, page 31.

Paraprofessional.--A person who has not yet fulfilled educational or other official requirements established by a profession as minimum standards for its members, even though the person may be highly experienced. In education, the term applies largely to teacher aides and other usually part-time persons who assist teachers primarily with their non-teaching duties. This frees the teachers to teach, even though they still retain responsibility for the accomplishment of those

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[20]Frymier, op. cit.

non-teaching duties. Since a paraprofessional, under the supervision of a professional, is involved with professional situations, his actions should be as professional as possible. See Teacher, page 37; Teacher aide, page 37; and, in the General Terms section, Profession, page 15.

Preparation.--The action or process of becoming ready for usefulness or service or, more specifically, for an occasion, test, or duty.

Resource unit.--Written listing, description, and sources of resources and references for a specified subject or related multi-lesson learning situation. See Learning unit, page 33.

Supervision.--The monitoring and leadership involved in ensuring that a process, program, or function is accomplished most effectively. In Education, this would apply particularly to the quality of educational objectives and the curricular and administrative implementation designed to achieve those objectives. Supervision is thus heavily involved with evaluating and improving the quality of teaching and the kinds and extents of student and pupil learnings. Frequently a supervisor must himself be an effective teacher if he is to exemplify and encourage good teaching and effective, worthwhile learning. Supervisors usually are officially appointed to a position with stated responsibilities, even though they may bear any one of a number of titles (e.g., principal, superintendent, curriculum supervisor). Whether or not they are officially designated as supervisors, however, all teachers and others directly concerned with the quality of teaching and learning

have a continuous professional responsibility to supervise educational practices with an eye to improvement.

Syllabus.--The outline and general description of topics to be covered in a course, curricular module, or other self-contained, multi-lesson curricular program. See also Curricular module, page 31; Learning unit, page 33; Lesson, page 34; Lesson plan, page 34; and Course, page 21 in the Administrative section.

Teach, to.--See Teaching, below.

Teacher.--One who teaches. See Teaching, below.

Teacher aide.--A student--usually a college student--who voluntarily (and with authorization) assists an elementary or secondary school teacher with many of his non-teaching duties. See Paraprofessional, page 35, and, in the Administrative Terms section, Student, page 26.

Teaching.--Any manner of encouraging learning (behavioral change) and positive value expressions and actions as a result of the learning. This can involve:

Implementing a curriculum directly or indirectly through interaction with learners.

Training learners in mechanistic skills.

Monitoring pupil and student practice.

Maintaining applied discipline to the extent necessary for learning to take place.

Instructing with regard to curricular subjects.

Supervising independent study.

Guiding learners to comprehend interdisciplinary manifestations and other relationships among various aspects of the academic and real worlds around them, including concepts.

Evaluating pupil and student learnings.

Striving to bring out a learner's latent capabilities in such areas as self-knowledge, sense of values, and acceptable personality characteristics.

As much as possible practicing and/or utilizing anything else necessary to inspire a learner to attain whatever knowledge and personal and social skills he needs to achieve whatever success he wishes that is in the best interest of himself and, as a citizen and human being, of society. In short, a teacher should love each of his pupils and students in the sense of helping him develop optimum cognitive, affective, and psychomotor maturity until ultimately he is able to decide and act realistically and ethically in the exercise of his personal freedom according to the extent of his acceptance of responsibility. In the process, a teacher will work with learners individually and in small and large group situations. To do all this well, a teacher must know and continually evaluate himself and the quality of his teaching. He must also be able to accomplish administrative and other non-teaching duties so that they will support, or at least not hinder, his teaching. To be most effective, a teacher must be truly professional. See Profession, page 15, and Teacher education, Teacher preparation, and Teacher training, pages 18 and 19, all in the General Terms section. See also Supervision, page 36. In the Behavior and

Learning Terms section, see Behavior, page 28; Discipline, applied, page 29; Discipline, self, Learning, and Objectives, page 30; and Self concept, page 31.

Teaching unit.--See Learning unit, page 33.

Tutor, to.--In American Education, to teach a learner, but usually individually and privately. Tutoring often involves concentration on a skill or some aspect of a subject, e.g., improving reading ability or proficiency in mathematics. Concomitant effects of tutoring can be several, e.g.; For teachers or teacher-aspirants, increases in confidence, appreciation of individual differences, patience, and communicative skills. For tutees, improvement in self concept as a result of the individual attention as well as possible educational success experiences (particularly where the latter are lacking in formal school settings).

Institutional Terms

Administration.--The vehicle for carrying out an organizational plan or process. The practical aspect of organization. Ideally, educational administration supports and facilitates curriculum implementation. See Organization, page 40.

Dysfunction.--Something that no longer functions positively, but rather inhibits or holds back forward progress. It functions negatively.

Function.--Special purpose in society. Implies forward progress, or positive direction.

Institution.--A grouping or organization of people established either formally or through general acceptance over a period of time to accomplish an assigned, traditional, or common-interest function. (On occasion, the function itself, or an individual long involved with it, is considered to have become an "institution.") Sociologically, Education is an institution. Educationally, a school or university is an institution. In practice, an institution's goals, as perceived and striven for by its administrators, sometimes run counter to the goals of the individuals it is supposed to serve or benefit, to the latters' detriment. See Institutional impact and Institutionalism, both below.

Institutional impact.--In an educational institution, the combined effect of the efforts of all educational personnel, particularly upon students and their learnings.

Institutionalism.--In an institution, emphasis on organization (as, often, in religion) at the expense of other factors.

Organization.--In Education, the process of arranging schools and learning experiences within them so they will achieve the broad goals set by society for education as effectively and efficiently as possible.

Peer group.--A group of associates comparable with a person in a status system based on such criteria as age grouping, socioeconomic class, school grade level.

Role.--A characteristic pattern of behavior established by an

individual in accordance with the expectations of society.

Socioeconomic class.--General categorization of people based on homogeneity of economic and cultural interest. The values of class consciousness characteristic of each class level act strongly to influence individuals. Reflecting today's economic levels, three socioeconomic classes can be designated: Upper, with an annual income of $20,000 or more. Middle, with an annual income of $5,000 to $20,000. Lower, with an annual income of less than $5,000.

Systems Terms

Analysis.--The separation of the constituent parts of elements of a whole so as to reveal their relation to that whole and to one another.

Cell.--In a matrix, an area of primary relationship involving the two or more matrical factors bearing directly on the cell. Secondary relationships involving elements in proximate cells may also be present.

Constraint. A retarding or limiting factor. For example, a budgetary limitation could be a constraint on improving an aspect of curriculum implementation.

Controllable variable.--A variable controllable by the authority conducting the experiment or directing the system in which the variable is a part. In an educational institution, size of classes could be a controllable variable.

Element.--"One of the constituent parts, principles, or traits of anything."[21]

Evaluation, systems analytical.--Ascertaining the effectiveness of a system by whatever standards have been established for that system. Also, comparing different combinations of results versus costs, or different "mixes" involving controllable variables or other factors. Evaluation must be relevant, repeated, and continuous, and the system must be modified (or maximum efficiency confirmed) as a result if evaluation is to be effective.

External factors.--Those which are outside a system. Also, those which lie within, or result from, society rather than the educational system.

Feedback.--The action, derived from evaluation, that verifies efficiency or indicates improvements needed in a system.

Flow model.--A systems model with its constituent parts arranged in an essentially linear pattern. The model may be horizontal, vertical, circular, or in some other form. The action it portrays flows, roughly or smoothly, from a starting point through other points of major relationship to an ultimate objective. The model may--in fact, for optimum value, should--have a number of alternate subflows, but they all either terminate negatively or culminate in a mutual objective. See Model, page 43, and Matrix model, page 43.

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[21]"Element," Webster's New Collegiate Dictionary, op. cit., definition number 3, p. 265.

Input.--Initial "raw" elements to be processed by a system. In education, the term could include uneducated pupils or different abilities, backgrounds, and personalities. It could also include such elements as teachers and their personalities, physical facilities, etc.

Internal factors.--Those which lie within a system. Also, those which lie within, or result from, the educational system.

Matrix model. A multi-dimensional, essentially static model. Its major relationship points, or cells, rather than being way-stations on a route, as in a flow model, are clustered or grouped closely so that they and the elements in them can be considered in relation to other cells and elements in the matrix. A matrix model usually is geometrically regular. See Model, below, and Flow model, page 42.

Model.--In systems analysis, a pattern or stylized and simplified representation of the parts of a flow system or a matrix, presented so as to show clearly the various relationships involved in a complex situation or problem. See Flow model, page 42, and Matrix model, above.

Operational objectives. The objectives identified for an organization, administration, or a system. For greatest effectiveness, operational objectives must be stated and defined as specifically as possible and so as to require concrete action. (In this, they are similar to behavioral objectives and learning.)

Output.--The products of a system. In education, ideally, educated graduates who have encountered the components of this system,

such as teachers, schools, curriculum, etc.

Process.--A series of actions or operations definitely conducive to an end, such as modifying input to accomplish learning.

System.--An assemblage of elements united by some form of regular interaction or interdependence. An organic or organized whole. Also, a complex of ideas, principles, etc., forming a coherent whole, as the American system. Usually, a system includes input, process, output, and evaluation (and feedback to guide and modify the others).

Uncontrollable variable.--A variable not controllable by the authority conducting the experiment or directing the system in which the variable is a part. Weather could be an uncontrollable variable, e.g., inclement weather when an outdoor lesson requiring clear weather has been scheduled.

Variable.--Any element or grouping which may have different quantitative or qualitative values or exhibit different characteristics under different conditions.

Delimitations of the Study

This study will be concerned only with the undergraduate teacher education program at Kansas State University, particularly since graduate students desiring certification to teach in Kansas must meet the same requirements as undergraduates.

Moreover, this study is concerned with curricular guidelines in the relatively broad sense. Programmatic elements considered herein, such as courses, will be limited as much as possible to those considered

"professional" (i.e., those under the actual or projected control of the College of Education and directly concerned with teacher preparation). Specific elements generally will be cited only as examples; also, since many specific elements, as ideas, occur and recur in experiments, discussions, and others' advocacies, no comprehensive or all-inclusive list of every appearance of them has been included, even in the Bibliography.

Further, in the interests of time and reasonable scope of study (especially since the author and his faculty colleagues intend in coming months and years to be developing specifics from accepted curricular guidelines), this dissertation will be primarily concerned with "non-special" areas in elementary and secondary teacher education. Thus, such specialized educational preparations as those for mental retardation, speech pathology, and other "special education" positions are not included, nor, since, responsibility for it currently is in the College of Home Economics, is preparation of pre-kindergarten teachers. For the same reasons (time and scope), the exclusion applies also to liberal arts, science, adult and occupational, and similar curricular aspects except for a brief historical mention and where they bear directly on curricular guidelines for teacher education. For example, common elements (e.g., involving use of audiovisual equipment) perceived as desirable for courses in methods of teaching English or mathematics would be well within the scope of this dissertation, but specific consideration of what words should be on a spelling list or what kinds of problems seem best to encourage proficiency in algebra normally would not.

Since a description of the historical changes in the evolution of teacher education concepts, objectives, and practices is not the purpose of this dissertation, it, too, has not been included. With rare exceptions, only dissertation abstracts appearing since June 1964 and periodicals published subsequent to 1959 were consulted on the premise that all or most teacher education curricular suggestions of merit presented earlier therein would be reflected through consideration or citation in subsequent, even recent, publications. Perusal of many of the books and yearbooks about teacher education seemed to justify the premise, at least for the last quarter century.

This dissertation makes no attempt to go beyond proposing curricular guidelines most feasible for the professional education part of Kansas State University's teacher education program except to offer limited suggestions as to how they might be organized, applied to, and included in the program. Naturally, the program is neither required nor internally expected to be monolithic. Experimentation is encouraged.

Exceptions to these deliminations may be made, but any such usually would be incidental.

Historical Aspects of Kansas State University's Professional Education Programs

Kansas State University was founded in 1863 at Manhattan, Kansas, as the Kansas State Agricultural College. It was organized as a land-grant institution under the provisions of the Morrill Act, which had been passed by Congress, and signed into law by President

Abraham Lincoln in 1862.[22]

The Morrill Act stipulated that the College's "'leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the state may prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.'"[23] These concerns are an important part of the University's programs even today.

Over the years Kansas State Agricultural College added curricula in engineering, veterinary medicine, history, English, chemistry, home economics, and a number of other areas.

In addition, following resolutions passed by the Kansas Board of Regents, in 1868 it began extension activities. This involved "the extension of university work beyond the premises and to persons in adult life" by faculty members in lectures and "free converse" about the "character and aims of the State Agricultural College" and, at least initially, agricultural subjects.[24] In 1907 these activities were assigned to a Department of Farmers' Institutes and College Extension which became the Division of Extension in 1912.[25] They later grew to include non-agricultural subjects and correspondence courses.[26]

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[22]Julius T. Willard, History of Kansas State College of Agriculture and Applied Science (Manhattan, Kansas: Kansas State College Press, 1940), p. 17.

[23]Ibid. [24]Ibid., pp. 474-475.

[25]Ibid., p. 184. [26]Ibid., p. 480.

No real consideration was given to specific programs for the education of teachers, however, until 1900, when William A. McKeever joined the faculty as assistant professor of English and philosophy. (He was promoted to professor of philosophy the next year.)

> Under this title he gave the regular instruction in logic and psychology, and also offered courses in history of education, philosophy of education, and methods and management. On the basis of graduation from the College with proficiency in certain required subjects, a student who, in addition, elected these so-called professional subjects in education became eligible to receive from the State Board of Education a State teacher's certificate. Previous to this time, graduates of this College had been obliged to take State examinations in the professional subjects.[27]

Professor McKeever's courses were considered to be in the Department of Philosophy.

> A department of education, definitely recognized as such, appeared first as a phase of the work in extension, and Edwin Lee Holton became professor of rural education in April 1910. During the college year 1910-11, he also gave resident lectures on rural education. The catalogue for 1911-1912 carried a section on a department of rural education and sociology, in which the six courses offered responded to "the urgent demand that public education in a democracy shall function in greater social and vocational efficiency."[28]

By the following year, sociology was separate, and all courses in education had been transferred to a new Department of Rural and Vocational Education in the Division of General Science, with three faculty members. In 1913, when Professor McKeever resigned, this became the Department of Education (in the same Division), headed by Dr. Holton.[29]

Soon afterward, psychology courses began to be offered in the

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[27] Ibid., p. 142. [28] Ibid., p. 207. [29] Ibid.

Department of Education (which from 1945 to 1951, in fact, was named the Department of Education and Psychology.)[30] In 1951, however, all psychology courses except educational psychology courses were transferred to a newly established, separate Department of Psychology.[31] Both departments were part of what on July 1, 1942, had become the School of Arts and Sciences.[32] (In 1956, the State Board of Regents authorized Kansas State College to award Bachelor of Arts degrees,[33] although Education baccalaureates were, and continue to be, Bachelor of Science degrees.)

As noted, the 1900 Education faculty of one had doubled by 1911. By 1912 it had grown to three and by 1917 to four. It included eight members in 1925 and eighteen in 1939[34] and has continued to grow to its present total of 81 in 1972[35] (49 full- to .5-time appointments;

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[30]Recollection of Dr. Maurice C. Moggie, Professor of Education, Kansas State University, during May 18, 1970, interview with the author of this dissertation. Dr. Moggie joined the faculty in 1933. The 1945 name change was verified by personal correspondence from Mr. Evan W. Williams, Special Collection Librarian, Farrell Library Kansas State University, June 30, 1970. See footnote 24 in Appendix B of this dissertation. The action changing the name back to the Department of Education is described in the minutes of the (Kansas) State Board of Regents meeting for September 29, 1951.

[31]Minutes of the (Kansas) State Board of Regents meeting for September 29, 1951.

[32]Minutes of the (Kansas) State Board of Regents meeting for March 23, 1942.

[33]Student Catalog 1971-1972 (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, October 1970), KSU Bulletin, quarterly, Vol. 54, No. 4, p. 9.

[34]Willard, op. cit., pp. 207-208, 270, 389.

[35]Kansas State University College of Education listing of Faculty, Graduate Assistants, and Clerical Staff, January 31, 1972 (mimeographed).

32 other,--adjunct faculty, KSU degree program enrollees, and faculty holding joint appointments with other departments in the University.)

Since many of the major policy decisions, actions, and other activities involving the development of professional teacher education programs at Kansas State University have been described and listed chronologically in Appendices A and B, the rest of this section will present briefly only a few historical occurrences bearing directly on the topic of this dissertation.

For example, as of 1972, a student wishing to major in education may select either elementary or secondary level options and from among twenty-two areas in the latter. Four of the secondary majors do not lead to degrees through the College of Education, however, although students in those programs must take certain Education courses. The four are agricultural education (College of Agriculture), home economics education-vocational teaching (College of Home Economics), and music and physical education (both with their own departments in the College of Arts and Sciences).[36] In addition, a student wishing to major in pre-kindergarten education must pursue the curriculum option of early childhood development in the College of Home Economics, with no requirement to take any courses in the College of Education.[37]

There seems to be some indication that the curricular arrangements

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[36]Kansas State University Bulletin 1971-1972, General Catalog Issue (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, July 1971), quarterly, Vol. 55, No. 2, pp. 34-35, 80, 135, 137-138, 141-145, 181, 232.

[37]Ibid., pp. 230, 233.

of the four area majors described above developed partly because of the specialized nature of their programs and the University's early curricular stress on them and partly because they developed into separate areas with strong vested interests. In 1873, for example, a Board of Regents resolution requested the faculty to submit

> . . . three (3) courses of study, each requiring four (4) years for its completion: The first to be especially designed for those who wish to become farmers; the second for those who desire to become mechanics or industrial artizans; and the third chiefly for young ladies, that they may be prepared to earn an honorable self support and to adorn the highest stations of life.[38]

This was an attempt to organize into consistent curricula courses offered since the College opened in 1863 (i.e., in music [1863],[39] agriculture [1868],[40] and other subjects). In 1875, classes were formed in sewing, dress-making, and millinery,[41] the forerunners of the home economics area. The Department of Physical Training was not organized until 1899, and it was for women only, although calisthenics and later other physical education had been required of all students since 1863. (A general Department of Physical Education for men and women was established in 1911.)[42] As a result, by the time the Department of Education came on the scene in the early 1900's, agriculture, home economics, music, and physical education were well established as separate areas, the first two in their own divisions (later colleges) and the latter two as markedly specialized departments

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[38]Willard, op. cit., p. 36. [39]Ibid., p. 19.

[40]Ibid., p. 21. [41]Ibid., pp. 37, 456-457.

[42]Ibid., pp. 464-465.

in the Division of General Science.[43]

For that matter, the development of professional education curricula in the general elementary and secondary areas was an uphill battle, largely because for many decades Kansas governmental agencies, including the Board of Regents, were afraid that unwarranted duplication of programs would result. One of the best illustrations of this was Bulletin No. 40 of the Bureau of Education, the 1923 report of a bureau commission survey "Made at the request of the second State Board of Administration which had inherited a remnant of the old controversy concerning duplication of work at the State educational institutions" of higher learning.[44]

The report acknowledged two points highly germane to some of the implementation considerations mentioned in Chapter IV of this dissertation: ". . . that established situations are not easily altered and that what might be expensive duplications in small schools lose that quality when the schools are, like the University of Kansas and Kansas State College, so large that rooms and teachers for a given subject are fully employed at both."[45]

Nevertheless, the commission drew distinctions among the professional education subjects taught at the University of Kansas, Kansas State Agricultural College, and the state's several normal schools:

> The commission was of the opinion that the chief attention of the normal schools should be given to the preparation of elementary-school teachers in the several phases of their work, in which they had no competitors, and that they should be slow to take on other duties which would draw them away

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[43] Ibid., pp. 182-183, 212-213, 464-465.

[44] Ibid., pp. 297-298. [45] Ibid., p. 298.

from their main purpose. The commission considered the University to be the natural leader in the preparation of high-school teachers, and that in that work the normal schools could do no more than share equally with many other colleges of the State.

In a statement bearing directly upon Kansas State College, the commission expressed the view that all teacher training in agriculture would be better left to that institution excepting preparation for very limited instruction, and that it should be the leader in the training of teachers in home economics for secondary schools. The report continued:

> In addition, the Agricultural College is prepared to train high-school teachers of science, public-school teachers of music, . . . and vocational teachers of agriculture, home economics, and trades and industries.[46]

This separation of curricular directions was reinforced for the graduate area twelve years later by the following action:

> Resolved by the State Board of Regents that after September 1, 1935, graduate training in education at the University of Kansas shall be unlimited; that, at Kansas State College, Manhattan, in its graduate training in education, major emphasis shall be placed upon rural and vocational education; graduate courses of the State Teachers College of Emporia, State Teachers College of Pittsburg, and Fort Hays Kansas State College, Hays, Kansas, shall be limited to subjects taught in the public schools but not to include home economics, agriculture, commerce, physical education, health, and fine arts, and not to extend at all beyond the master of science degree in education at these institutions.[47]

Not until 1949 did the Board of Regents authorize the University of Kansas and Kansas State College to develop a four-year curriculum in elementary education on an equal footing, with the Manhattan institution first offering it in 1952. Three years afterward, Kansas State College's Department of Education began enrolling students in its new curriculum in secondary education. The major advantage

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[46] Ibid., p. 299. [47] Ibid., p. 443.

(no pun intended) was that now all prospective teachers [except transfer students, of course] could "be identified by curriculum for the entire four years and receive guidance appropriate to the teaching objective."[48]

Unfortunately, from the standpoints of both students and the Education faculty, the four-year continuity in advisement regarding students' programs that this afforded was largely lost nine years later when the School of Education in the College of Arts and Sciences became the separate College of Education within Kansas State University. The price for approval by the University's faculty and colleges was for the College of Education to relinquish curricular and administrative jurisdiction over freshmen and sophomores. As a result, any lower classman wishing to major in education must enroll in a pre-education curriculum (e.g., pre-elementary or pre-secondary education in the College of Arts and Sciences) and be assisted with his program by a "pre-education advisor." Since mid-1971, however, that advisor has been a full-time College of Education faculty member who has worked closely and effectively with others of the faculty to strengthen individual students' curricular programs.

Actually, the University administration's intent in 1964 was for all the colleges to give up their lower classmen to a kind of "General College" for general education, with students pursuing their majors as juniors and seniors in the University's several colleges. The fledgling College of Education agreed to this arrangement, but in

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[48]Maurice C. Moggie, "Educating Teachers," The K-Stater, March 1955, reprinted article, p. 3.

practice none of the other colleges has,[49] and this has caused a number of Education students considerable unhappiness about the continuity and quality of their pre-education curricular advisement.[50]

Other recent actions affecting professional education at Kansas State University are much more cheerful, a number of the Education faculty members feel. The forthcoming new College of Education building, the commencing of the new Ph.D. program and the encouragement of innovative graduate and undergraduate teacher education project or program proposals have all been mentioned on pages 5 and 6 of this dissertation. Late in 1969 the College was authorized to departmentalize for administrative and budgetary purposes.[51] The following three areas shortly afterward became departments: Administration and Foundations, Adult and Occupational Education, and Curriculum and Instruction. In April, 1970, the Education faculty voted to establish a powerful steering committee to evaluate proposed projects and programs. The committee also is charged with initiating action where it concludes that existing College of Education projects or programs need improvement or establishment.[52] Many Education faculty members feel that this is the most encouraging recent development to date.

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[49]Moggie, interview with, op. cit.

[50]Expressed several times during the 1969-70 and 1970-71 academic years by students and faculty members to the author of this dissertation.

[51]General Minute of the Kansas State Board of Regents for December 19, 1969.

[52]Minutes of Kansas State University College of Education faculty meetings for March 5, April 16, and April 23, 1970.

Methods and Procedures Used in the Study

The development of the curricular guidelines suggested in this dissertation extended over five general stages. First, an attempt was made to gain a perspective of at least one dimension of change potential and readiness by identifying historical factors affecting teacher preparation at Kansas State University. Second, various pertinent references were consulted to determine what teacher education curricular elements seemed to be most commonly found (in the present programs) and/or most commonly advocated or held desirable. Third, the elements most commonly advocated or held desirable, particularly those already in current programs, were synthesized and consolidated into suggested patterns--curricular guidelines--advocated for a teacher preparation program. Fourth, considerations with regard to the applicability of the proposed guidelines to Kansas State University were examined and discussed from comparison, human, institutional, and other standpoints. And fifth, three possible ways to organize the curricular elements were suggested: A linear context, a two-dimensional matrix, and a multi-dimensional model.

References

The literature and other references searched and consulted included the following: Books about general and specific aspects of teacher education, mostly published during the last sixteen years but including a few appearing prior to 1955. Yearbooks of the American Association of Colleges for Teacher Education for the years 1959-1971 and of the Association for Supervision and Curriculum Development for 1962 and 1967-1971. Conference reports of the National Commission on

Teacher Education and Professional Standards for 1954-1970 (except 1967, the "Year of the Non-Conference"). All issues of certain major education periodicals for the years cited: The Journal of Teacher Education 1954-1971, Phi Delta Kappan 1960-1971, Educational Leadership 1960-1971, Harvard Educational Review 1957-1971, Teachers College Record 1959-1971, and Theory Into Practice 1962-1971. Miscellaneous issues of or articles in a number of other periodicals, e.g., The Review of Educational Research (October 1963, June 1967, four 1970 issues), School and Society, Saturday Review. Dissertation Abstracts June 1964-June 1971. All ERIC index references for teacher education and teacher education curriculum, many of the résumés, and a number of the documents made available by ERIC for 1956 through January 1972. A number of the papers presented at the 1970 convention of the American Educational Research Association. Miscellaneous publications other than periodicals.

The references were grouped into six major categories, the first five of which are listed in the Bibliography. The first encompassed books and yearbooks concerned wholly or partially with aspects of teacher education and cited in this dissertation. The second included cited abstracts of doctoral dissertations appearing since June 1964. The third category cited articles in and issues of other periodicals. Category number four was comprised of a number of writings and presentations selected from among the many papers presented at the 1970 American Education Research Association convention March 2-6 in Minneapolis, Minnesota. In the fifth category, in order to include a number of useful items, were selected other references

consulted or particularly noted and all cited in the text of this dissertation. The sixth category, not presented in the Bibliography because it included no developed treatises, was constructed to cover ideas, views, and certain other material derived from or received through verbal and written interaction with members of Kansas State University's College of Education faculty and undergraduate and graduate students, as well as other individuals not necessarily connected with Kansas State University.

As specified in the Delimitations section, except in rare instances, dissertation abstracts and periodicals appearing earlier than the dates stated were not searched on the not unfounded premise (as the consulted literature indicated) that all or most teacher education curricular suggestions of merit during the prior period would be reflected through consideration or citation in subsequent, even recent, publications.

A general review of the literature and other references will be found in Chapter II.

Selection Standards

Most of the elements or related characteristics that were finally developed into the curricular guidelines discussed in Chapter III were advocated generally or specifically by the educators and others whose writings appear in the literature, even though their reasons for advocacy frequently were related more to their own experience than to empirical research evidence. Inclusion of these elements was based largely on a consensus with regard to their advocacy as indicated cumulatively in the literature.

The author was aware, of course, that certain curricular elements suggested or described by very recent research findings or unusual but seemingly logical practices or advocacies might be worthy of at least consideration even though they were put forth by only one or a small number of writers or were criticized as being inadequately supported by research data. Curricular elements derived from such sources received extra scrutiny but were included if they seemed to be compatible with the positive teacher education characteristics described in this dissertation's "Definitions of Terms Used" section, specifically the terms Profession, page 15; Teacher education, page 18; Teacher preparation, page 19; Teacher training, page 19; and Teaching, page 37.

After identification, each curricular element was classified as to whether it was essentially foundational (basic to a teacher candidate's general knowledge of education, society, and people and including certain preparatory skills), teaching-major oriented, inherent to the application of teaching methodology, or involved with the setting for a learning experience. These four areas, indicated in the literature cited and based also on logical relationships, singly and together established the pattern for a teacher education program's curricular guidelines.

The criteria for selection of the elements and their development into curricular guidelines are developed more fully in Chapter III.

Comparisons and Considerations Pertinent to Kansas State University

The applicability of the guidelines described in Chapter III was considered from several standpoints in Chapter IV. For example, the guidelines' elements were compared with curricular programs and courses

at Kansas State University, as far as the latter were stipulated or could be identified from a study of the course syllabi on file in the College of Education. The comparisons were based primarily on each course's stated objectives, since published (or even nonpublished) evaluation as to a course's effectiveness in terms of learnings internalized simply do not exist. Other factors discussed with regard to the curricular suggestions involved certain human, institutional, and relevance considerations.

Suggestions for Implementing the Curricular Guidelines

Following the comparisons and considerations, three possible ways to organize the curricular elements were suggested in Chapter V. The first is an essentially linear arrangement similar to the present program. The second involves a two-dimensional matrix of curricular elements and curricular experiences (such as courses). The third is a general description of a conceptual multi-dimensional model stressing the inter-relatedness of the curricular elements.

Organization of the Remainder of the Dissertation

The remainder of this dissertation is organized into five chapters. Chapter II presents a review of pertinent literature and other references. Principles, elements, and procedures relevant to the curricular guidelines later developed are identified and described in Chapter III, and the guidelines are considered with regard to Kansas State University's teacher preparation in Chapter IV. In Chapter V, three ways to organize the curricular elements are suggested. Chapter VI includes

suggestions for further study, an overview, and final thoughts with regard to the curricular guidelines for Kansas State University's preparation of elementary and secondary teachers.

Historical and other data with regard to the University's teacher education program are summarized in the appendices.

CHAPTER II

REVIEW OF THE LITERATURE

One problem in reviewing published and unpublished literature relevant to teacher education is that there is so much of it. From philosophical considerations to theoretical postulations, shadowy paradigms to structured models, broad descriptions to defined areas, lists of principles to specifics of behavioral objectives, experience-based opinions to experimentally-obtained data, institutional pressures to individual encouragement, the literature is cumulatively massive and is becoming more so under such stimuli as societal change, the need for valid research information, business-sector competition and requirements, and funded governmental encouragement.

This dissertation, however, attempts only to suggest curricular guidelines for teacher preparation, such guidelines being more specific than general principles but at least one step less specific than behavioral objectives. Because of that orientation, and since the review of the literature has disclosed many repetitions of principles, objectives, and characteristics advocated for teacher education, this chapter presents primarily the highlights of the books and other publications that during the past decade seemed to have had major impact on teacher education thinking and developments; most duplicated advocacies have been omitted in the interest of space. Secondarily, to acknowledge discussions of specific aspects of teacher education (e.g., student

teaching) that can be found in single-topic or limited-consideration articles, papers, dissertation abstracts, and other presentations, samplings of these references also are cited.

Only a small number of sources are reviewed extensively; readers interested in the others are urged to consult them directly, particularly as some are extensive in scope and content (e.g., the several federally sponsored models cited in the Selected Considerations in Elementary Teacher Preparation section in this chapter).

In addition, subsequent chapters include certain specific references not necessarily cited in this chapter.

The references cited in this chapter are grouped under the following headings: Generalized Discussions and Models, Selected Considerations in General Teacher Preparation, Selected Considerations in Elementary Teacher Preparation, Selected Considerations in Secondary Teacher Preparation, Other Factors Influencing Teacher Preparation, Summation of the Literature.

Generalized Discussions and Models

What teacher education and teacher preparation should include and how it should be organized have concerned educators for many years. (However, because historical aspects of teacher education generally have been well presented and discussed elsewhere,[1] they are not included in

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[1]As examples: R. Freeman Butts and Lawrence A. Cremin, A History of Education in American Culture (New York: Holt, Rinehart, and Winston, 1953). Merle Borrowman, editor, Teacher Education in America, A Documentary History (New York: Teachers College Press, 1965). Donald P. Cottrell, editor, Teacher Education for a Free People (Oneonta, New York: The American Association of Colleges for Teacher Education, 1956). Lawrence A. Cremin, The Transformation of the School, Progressivism in American Education, 1876-1957 (New York: Vintage Books, 1961) Carroll Atkinson and Eugene T. Maleska, The Story of Education (Phila-

the scope of this dissertation for the years prior to 1955 except incidentally or as may be necessary for clarification.)

For example, in March 1935, the dean of the School of Education at Syracuse University, in appointing a committee to reorganize the undergraduate teacher preparation program, "listed among the faults in traditional programs everywhere the following major difficulties. (1) Undergraduate education courses are too academic (not functional), [emphasizing the] study of education as a subject [rather than the] development of children and the school as a social institution . . . (2) Education courses lack coordination and unity. Theory does not parallel practice; there is too large a gap between the curriculum and the field. Observation and practice are too brief, . . . and are unrelated to each other. The focus is on the courses taken rather than on the job to be done. Logical organization of subject matter is too exclusively followed."[2] Could the same criticisms be made now, thirty-six years later?

Certainly, except for a few innovations here and there, the structure of most programs has altered little. Clara McMahon concluded in a 1963 study that most basic teacher preparation program considerations, and attitudes toward them, really had not changed very much since the 1890's. Consensus, for example, she reported, indicated that pro-

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delphia: Chilton Books, 1962). James Bryant Conant, The Education of American Teachers (New York: McGraw-Hill Book Company, Inc., 1963), particularly pages 1-14.

[2]Curriculum Committee of The School of Education, Syracuse University, A Functional Program of Teacher Education as Developed at Syracuse University (Washington, D. C.: American Council on Education, 1941), p. 75.

grams include three major areas: general education, specialized education, and professional education, even though specific elements and their organization within these areas might vary considerably.[3]

Some General Considerations

One problem that plagued the teacher preparation area for years (and apparently still does at many institutions) was a widespread mutual hostility between professors of education and those in arts and sciences. Conant has described this from first-hand experience.[4] In 1955, Paul Woodring had attributed much of the academician's hostility to perceived differences in beliefs with regard to a "classic thesis in education," based on five developed premises and providing a basis for formal education, and a premise-by-premise rejection, or "antithesis."[5]

By then, though, the situation had become complicated by accelerating societal change. Arthur Bestor, for example, in 1957 declared:

> Because every kind of work has now come to include an intellectual component, universal education has become a necessity. The purpose of the school has not changed. Intellectual training is still its purpose and justification. The change that has occurred is the increased need of society for precisely this kind of training. The school now takes in virtually the whole population because today virtually the whole population has practical need for the intellectual

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[3]Clara McMahon, "Proposals for Preparation: Past and Present," The Journal of Teacher Education, XIV (May, 1963), p. 69.

[4]James Bryant Conant, The Education of American Teachers (New York: McGraw-Hill Book Company, Inc., 1963), pp. 1-13.

[5]Paul Woodring, "Basic Agreements in Teacher Education," The Journal of Teacher Education, VI (June 1955), pp. 93-99.

training that the school is peculiarly fitted to provide.[6]

Academic concerns were not being minimized by the leading educators of the day. Florence Stratemeyer acknowledged that in a societal situation of flux, intellectual curiosity and reasoned judgement were essential. She also stressed, however, that teachers had a responsibility to help others "to develop and use their powers for personal and social good."[7]

And William Van Til pointed out that "teacher education scholars and academic scholars have many common problems . . ." (e.g., quality and quantity in teaching, scholarship, salaries, facilities, improvement of society, research).[8] "Teacher educators might take a cue from human relations education [and begin] working together for common purposes, finding common ground, communicating, communicating, communicating," he said, adding dryly, "Given enough time, an academic scholar and a professional education scholar might come to understand the common elements in one's emphasis on intellectual training and the other's emphasis on the method of intelligence. Those who are proud of teaching subject matter and those who are proud of teaching people might come to see that people have to do the learning of significant subject matter. [Both groups] might even come to see that in the making

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[6]Arthur Bestor, "The Education Really Needed for a Changing World," Harvard Educational Review, XXVII (Winter, 1957), p. 8.

[7]Florence E. Stratemeyer, "Issues and Problems in Teacher Education," ed. Donald P. Cottrell, Teacher Education for a Free People (Oneonta, New York: The American Association of Colleges for Teacher Education, 1955), p. 57.

[8]William Van Til, The Making of a Modern Educator (Indianapolis, Indiana: The Bobbs-Merrill Company, Inc., 1961), p. 117.

of a good teacher it is necessary to keep more than one thing in mind at the same time!"[9]

Teacher education curriculum concerns have changed over the past several years, according to two recent studies. In 1964 Sister M. Bernardin Deutsch, O.S.F., focusing on concerns of the National Commission on Teacher Education and Professional Standards (NCTEPS) since its founding by the National Education Association in 1946, reported:

> In its early years, the NCTEPS advanced a curriculum heavily weighted with professional courses. In the 1950's the recognition of the need for academic preparation of the teacher grew slowly; by 1955 it was stated explicitly. By 1958 the NCTEPS formally invited the academic world to discuss openly the preparation of teachers. Although emphasis on academic preparation has grown from 1958 to the present, the professional aspects of preparation have not been neglected. Rather, much thought has been given to strengthening and enriching professional courses.[10]

And two years later John Hough found that over the years concern over recruitment, selection, and retention of students had increased, and "the curriculum tended to include methods, full-time off-campus student teaching, psychological foundations, and some work in philosophical, historical, and sociological foundations."[11] Hough observed that his historical study of two (of his five) issues--the recruitment,

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[9]Ibid., pp. 117-118.

[10]Sister M. Bernardin Deutsch, O.S.F., "A Developmental Study of the Philosophy of Teacher Preparation According to the National Commission on Teacher Education and Professional Standards," Dissertation Abstracts, 25:3420, December, 1964. (The Catholic University of America, 1964).

[11]John McManus Hough, Jr., "A Study of the Evolution of Five Current Issues in Teacher Education in the United States," Dissertation Abstracts, 27:2323-A, February, 1967. (The University of North Carolina at Chapel Hill, 1966).

selection, and retention of prospective teachers, and their curriculum--"left much to be desired since research had not yet determined what makes an effective teacher." Research is "critically needed" in this area, he declared.[12]

Apparently Hough felt that researches reported in such publications as the AACTE's 1960 Yearbook,[13] the 1960 edition of the Encyclopedia of Educational Research,[14] and Nathaniel Gage's 1963 Handbook of Research on Teaching[15] supported his conclusions.

John Gardner in 1960 had made a general observation about what makes an effective teacher, stating for the President's Commission on National Goals that:

> The professional student should be educated chiefly in the fundamental fields of knowledge, in habits of mind, methods of analyses, and modes of attack upon the problem. Above all he should learn to pursue on his own the lifelong process of re-education.[16]

The need for a role description for teachers was postulated three years later by Angelo Boy and Gerald Pine: "The beginning point in the evolvement of a role description is the teacher's attitude toward the individual, which is the cornerstone of his philosophy of

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[12]Ibid.

[13]American Association of Colleges for Teacher Education, Recent Research and Developments and Their Implications for Teacher Education, Thirteenth Yearbook of the Association (Washington, D. C.: American Association of Colleges for Teacher Education, 1960).

[14]Chester W. Harris, editor, Encyclopedia of Educational Research (3d edition; New York: Macmillan Co., 1960).

[15]N. L. Gage, editor, Handbook of Research on Teaching (Chicago: Rand McNally & Co., 1963).

[16]John W. Gardner, "National Goals in Education," Goals for Americans, The Report of the President's Commission on National Goals; Programs for Action in the Sixties (Englewood Cliffs, New Jersey: A Spectrum Book, Prentice-Hall, Inc., 1960), p. 93.

life," they wrote. "If he feels that his earthly tenure should be meaningful, he brings substance into his existence by having a commitment to enriching the lives of those with whom he comes in contact. . . . From this concern there develops a philosophy of education focused upon creating a learning environment conducive to the implementation of the teacher's humanistic attitude. As the teacher ponders ways and means of meeting the basic needs of his students, he begins to view himself as the catalyst for change; he develops a professional identity, an idea of what he should and should not be."[17] His role becomes clearer, until he can describe its significance concretely for himself and his students.[18]

Reinforcing this is Arthur Comb's view of "the effective teacher as one who has learned to use himself effectively in carrying out his own and society's purposes. . . . Confusion of purpose makes it almost impossible for other people [including students] to deal with the teacher and is an important cause of teacher failure."[19]

One way to make these purposes operational can be derived from a sequence suggested by Robert Strom and Charles Galloway, who defined the process of actualizing an intention as follows:

A belief is expressed in the worth of a teaching intent.

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[17]Angelo V. Boy and Gerald J. Pine, "Needed for Teachers: A Role Description," The Clearing House, September 1963, pp. 7-12, reprinted in James C. Stone and Frederick W. Schneider, Readings in the Foundations of Education, Commitment to Teaching, Volume II (New York: Thomas Y. Crowell Company, 1965), p. 126.

[18]Ibid.

[19]Arthur W. Combs, The Professional Education of Teachers, A Perceptual View of Teacher Preparation (Boston: Allyn and Bacon, Inc., 1965), pp. 81-83.

> A condition is identified under which the intent can occur. A commitment is made to test the feasibility of the condition.[20]

How to develop teachers capable of accomplishing positive purposes effectively is a major goal of any teacher preparation program.

Teacher Education Program Considerations

The NEA's National Commission on Teacher Education and Professional Standards (NCTEPS) has been mentioned as one organization interested in improving teacher preparation. Another is the American Association of Colleges for Colleges (AACTE), which was formed in 1948[21] and which in 1956 published Teacher Education for a Free People.[22] This excellent book includes an historical review, observations about professional aspects of teaching, and what might or should be included in a teacher education program. Professional laboratory sequences are advocated, for example,[23] as are summer experiences with children.[24] It recommends "a considerable degree of common experience"[25] for elementary and secondary teacher candidates, so that they can "see the educational program as a continuum."[26] And it suggests four guides for the selection of curricular experiences related to learning situations teachers probably will face: Organize professional education experiences

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[20]Robert D. Strom and Charles Galloway, "Becoming a Better Teacher," The Journal of Teacher Education, XVIII (Fall 1967), p. 289.

[21]Donald P. Cottrell, ed., Teacher Education for a Free People (Oneonta, New York: The American Association of Colleges for Teacher Education, 1956), p. 45.

[22]Cottrell, ed., Teacher Education for a Free People, op. cit.

[23]Ibid., pp. 183-230. [24]Ibid., pp. 237-240. [25]Ibid., p. 182.

[26]Ibid., p. 181.

with regard to performance responsibilities rather than subject-matter. Integrate academic disciplinary and other areas as necessary to deal with situations. Ensure that the starting point for solving a problem is the way a student faces it. Help the student generalize professional education situations to build basic educational principles for use in a variety of situations.[27]

These tenets are not at all incompatible with those postulated by Harry Broudy in 1959 with regard to the content of professional teacher preparation:

> For a field of study to justify an autonomous existence it must have a set of special problems that direct and focus its inquiries. [As, he said, education does.]
>
> For a field of study to be professionalized it must use and organize facts and principles taken from diverse disciplines, e.g., chemistry, physics, and psychology, around the demands of its own problems.
>
> Finally, if a field of study is to be professional, it has to utilize practice in order to illuminate theory and to use theory as a guide to practice.[28]

Broudy included in his discussion a two-dimensional "Design for Professional Training of Educational Workers." The "Problem Areas to Be Studied" listed down the left included "Educational Policy," "Curriculum and Program," "Teaching and Learning," and "Educational Specialty." The first three would be considered common to the program required of all professional workers; the last would be "differentiated for elementary

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[27] Ibid., pp. 150-155.

[28] Harry S. Broudy, "The NCATE Statement on the Teacher Education Curriculum," They Said This--Abstracts of Recent Addresses, The Journal of Teacher Education, X (March, 1959), p. 111. Except for the bracketed sentence, all three quoted paragraphs are italicized in the cited source. The article was originally presented as an address before a meeting of the Ohio Valley Philosophy of Education Society November 7, 1958.

teaching, supervision, administration, secondary, and college teaching, etc." Across the top were the "Dimensions in Which Problems are Studied:" "Historical," "Sociological," "Psychological," "Philosophical (Logical and Axiological)," "Special Knowledge," and "Technical." Each cell in the matrix could include hours for stipulated degrees, "depending on whether courses are organized vertically or horizontally," according to the table's notes.[29]

How could considerations such as these be manifested in a teacher education curriculum? A consensus of participants at the 1959 NCTEPS Kansas Conference suggested the following divisions of a four-year teacher-education curriculum:

> General education 50%
> Professional education--elementary 20%
> Professional education--secondary 16 2/3%
> Specialization--elementary 30%
> Specialization--secondary 33 1/3%
> Length of college program . . . . . .
>
> Under present conditions of supply and demand, two years of preprofessional general education, plus two years of advanced academic work leading to a bachelors degree and preliminary certification.
>
> Projected for as soon as practicable, two years of pre-professional general education, plus three years of advanced academic and professional work leading to a bachelor's degree and provisional certification.[30]

Professional education was to include, apparently in sequence, an orientation, sociological and psychological foundations, "exploratory teaching and other first-hand school and community experiences well

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[29] Ibid., p. 110.

[30] National Commission on Teacher Education and Professional Standards, The Education of Teachers, Curriculum Programs, Official Report of the Kansas Conference (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1959), pp. 13-14.

integrated into other courses; a brief introduction into methods and materials . . .," ongoing and post student teaching each with seminars, historical and philosophical foundations, "advanced study of psychological foundations and their implications for methodology."[31] These were common elements for elementary and secondary teacher candidates. Differentiated areas (e.g., elementary reading) were also suggested.[32]

The AACTE generally agreed. Its 1960 Yearbook said that professional education should include in a four-year program study of youth and child development, of the development of the American school system, and of teaching methods, along with an organized program of work with children, such as student teaching; further, students should be selected on the bases of academic ability and success in other characteristics best suited to teaching.[33] In 1961, its Yearbook included calls to up standards, to strengthen liberal education as well as scholarship in prospective teachers' teaching fields, and to relate "the pedagogical aspects of preservice teacher education more closely to supervised laboratory work and with students."[34]

In 1960, Robert Bush had seen two major trends emerging in teacher education. One was ". . . a revived, active concern with the subject matter that a teacher is to teach."[35] The second was increased

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[31]Ibid., p. 14. [32]Ibid.

[33]Wendell W. Wright, "The Prologue," Thirteenth AACTE Yearbook, 1960, op. cit., pp. 3-4.

[34]Lindley J. Stiles, "Revolution--In Instruction," Unity in Diversity, Fourteenth AACTE Yearbook (Washington, D. C.: American Association of Colleges for Teacher Education, 1961), p. 11.

[35]Robert N. Bush, "The Professional Content of Teacher Education

implementation of "the notion that an effective program of teacher education is impossible without continuous provision for [field] practice throughout the program of professional education."[36]

Meanwhile, NCTEPS had sponsored national conferences in 1958, 1959, and 1960 and three regional conferences in 1960. A report summarizing the six was published in 1961; in it, G. K. Hodenfield and T. M. Stinnett identified the fairly general agreement which by the 1959 Conference in Kansas had evolved with regard to the following points:

1. All schools and departments in a university or college must share in the responsibility for teacher education.

2. There must be early identification of prospective teachers, selective admission-recruitment standards, and effective guidance policies--this means weeding out the incompetent as well as attracting the most able.

3. A fifth year in college for teachers is becoming a "must," although that fifth year might follow actual teaching experience.

4. A substantial part of the total program must be devoted to general education, including the humanities, social science, and mathematics.

5. All teachers, elementary- and secondary-school, need a substantial amount of academic specialization in one particular field.

6. Elementary-school teachers need more courses in methods than do those preparing for high-school posts.[37]

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for the Sixties," Teacher Education Direction for the Sixties, Tenth Biennial School for Executives, 1960 (Washington, D. C.: The American Association of Colleges for Teacher Education, 1961), p. 13.

[36] Ibid., p. 14.

[37] G. K. Hodenfield and T. M. Stinnett, The Education of Teachers, Conflict and Consensus (Englewood Cliffs, New Jersey: Spectrum Book, Prentice-Hall, Inc., 1961), p. 43.

For professional education, Hodenfield and Stinnett found that the conference participants generally agreed on the following pattern:[38]

Courses	Semester Hours	
	Elementary	Secondary
Orientation to the Profession	1	1
Psychological Foundations	6	6
Sociological Foundations	3	3
Method, Material, Curriculum	10	3
Observation and Student Teaching	8	8
	28	21

New Horizons for Teacher Preparation

In 1961, a landmark book was published: New Horizons For The Teaching Profession.[39] In it, a NCTEPS task force presented recommendations, rationales, and action proposals "toward more complete professionalization of teaching."[40] These were derived from a synthesis of the most widely accepted contemporary thought. For example, a general observation was that a teacher education curriculum should have three aspects: General Education, Specialized Education, and Professional Education.[41] And what should be included? Here is a sampling:

General education.--General education experiences should be a part of each undergraduate college year (and beyond, as in continuing education).[42] Further, the report suggested that elementary teacher

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[38] Ibid., p. 47.

[39] Lindsey, Margaret, ed., New Horizons For The Teaching Profession (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1961).

[40] Ibid., pp. x-xi. [41] Ibid., p. 237. [42] Ibid., p. 42.

candidates' specialization "should be a composite of study of one field in depth, as discipline and as specialized content, and more intensive study of the various aspects of general education,"[43] with the latter stressing ways to make them meaningful to and for children. The secondary teacher candidate "should specialize in a broad teaching field" but in such a way that "the characteristics of depth must be consciously striven for in terms of deliberate analysis of the interrelationships of the subjects."[44]

Professional education.--"Professional education . . . deals with a study of learners, learning, the school or other educational institution, and the meaning or purposes of education."[45] Basic educational principles governing the nature of the learner and the learning process include ". . . the significance of purpose, individual differences, the transfer of learning through similarity and generalization, response in terms of perception . . ."[46]

Among the objectives for teacher candidates to be included in professional education are to understand the rationale of educational programs and how to effect change in curricula,[47] to know findings and techniques of educational research and to experiment to discover or validate knowledge,[48] to become a responsible member of the teaching profession,[49] and to continue "preparation for intelligent participation in community life as a spokesman for education as well as a

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[43] Ibid., p. 48. [44] Ibid. [45] Ibid., pp. 50-51.
[46] Ibid., p. 53. [47] Ibid., p. 55. [48] Ibid., pp. 58-59.
[49] Ibid., p. 59.

private citizen."[50]

In addition, teacher candidates should learn of the continuing efforts to maintain accreditation standards for teacher education programs.[51]

One "useful way of strengthening cooperative efforts [in relating general education and professional education experiences] is team-taught courses offered jointly by the school or department of education and the appropriate department in the arts and sciences, for example, educational sociology, philosophy of education, and educational psychology."[52]

But to be really effective, teacher education programs must have continuing direct experience.[53] Also, they must stress individualism. The task force suggested several ways to encourage this: Set up a program requiring each student to have--and take--responsibility for his own education. "Different students will gain needed competence through different kinds and arrangements of experiences." In the major fields of knowledge, make studios, clinics, and laboratories available for independent and small-group student and staff use. Allow varied student participations in learning, e.g., taking a course, auditing a course, enrolling in a course more than once but concentrating on [the student's] different interests each time. Set up team-guided integrating seminars for substantive learning or group counseling. Replace grades with directly descriptive records. Establish and allow equivalency examinations for areas other than those (e.g., student

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[50] Ibid. [51] Ibid., p. 127. [52] Ibid., p. 36.

[53] Ibid., pp. 66-72.

teaching) requiring direct experiences. Encourage early direct experiences. Use written, oral, and practical comprehensive examinations more. Utilize probationary experiences during internship and first full year of teaching experience until proficiency is satisfactorily demonstrated.[54]

And, with all this, the report advocated continuing openmindedness with regard to experimentation and innovation in teacher education.[55]

Selection of teacher candidates.--Minimum criteria for the selection of teachers and teacher candidates should include: "keen intellectual ability"; orientation to others so that teaching will be satisfying; "character, attitudes, and action worthy of emulation by pupils . . . ;" good health and stamina; self discipline and motivation for success and continued learning as scholar, teacher, and person; being or probably capable of being broadly educated and knowing his teaching field comprehensively; ability to respond to and guide pupils in learning.[56]

Other selection criteria should include each students' emotional maturity, communication skills, computational skills, moral and ethical fitness, academic aptitude or intelligence, academic achievement, ability to work with others, and willingness to take an active role in our democratic society.[57]

The report offered several excellent suggestions with regard to

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[54]Ibid., pp. 76-85. [55]Ibid., pp. 104-105.

[56]Ibid., pp. 171-172. [57]Ibid., pp. 186-192.

institutional and professional recruitment, admission, retention, and evaluation procedures.[58] For example, it pointed out that a college can collect two types of information about people: actuarial (e.g., comparison of findings with regard to teachers' classroom behavior and attitude inventory scores) and clinical (e.g., academic achievement records, a description of individuals' personality traits).[59] A well-developed selection program should use both and make both kinds of information readily available to members of the selection body who need to know them.[60]

Other recommendations.--The report also included a number of other recommendations, e.g.: with regard to continuing and higher education, preparation of special service personnel, graduate education, licensure, and education organizations.

A Mention of Two Summaries

Two revealing, if brief, reviews with citations of literature involving teacher education appeared in issues of the Review of Educational Research for October 1963 and June 1967.

In the first, covering five years, H. E. Reynard observed that

> . . . publications by both professional educators and laymen highlighted the current intense interest in the preparation of teachers. Unfortunately, indications of bold experimentation either in curriculum offerings or in methods used in teacher education could not be found. Evidence of research in teacher education, as reported in the literature between January 1958 and March 1963, is abundant in relation to field experience, measures of teachers' attitudes, and programs designed primarily for liberal arts college graduates. Little

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[58] Ibid., pp. 193-198. [59] Ibid., p. 181. [60] Ibid., pp. 184-185.

evidence of experimentation with the total program of teacher education was found for this period.[61]

Reynard also noted that, for the period surveyed, "Professional laboratory experience seems to be the least challenged in education."[62] In all, Reynard cited 38 books, articles, and other publications and 12 "additional references," for a total of 50.[63]

Four years later, in reviewing the literature appearing between 1963 and 1967, George Denemark and James McDonald commented that "The intense interest in teacher education on the part of both professionals and laymen noted by Reynard (1963) was, if anything, heightened."[64] For their period, Denemark and McDonald cited 90 articles, books, and other references, and listed 11 "additional references," for a total of 101 from various sources.[65]

More Generalized Considerations

The idea that a teacher education program should be organized around three major areas recurs in the literature again and again, although variations do appear on occasion. For example, the report of a 1960 conference sponsored by The Fund for the Advancement of Education described the three "categories" as general and liberal education,

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[61]Reynard, Harold E., "Pre-Service and In-Service Education of Teachers," Review of Educational Research, 23 (October 1963), p. 369.

[62]Ibid., p. 375. [63]Ibid., pp. 369-380.

[64]Denemark, George W., and McDonald, James B., "Pre-Service and In-Service Education of Teachers," Review of Educational Research, 37 (June 1967), p. 233.

[65]Ibid., pp. 233-247.

specialized education, and professional education.[66] But when the report became a book, Teacher Education: A Reappraisal, the conference participants were described as having "agreed upon five interrelated parts as essential to the process of teacher preparation: (a) a liberal education, (b) specialized knowledge of the subject to be taught, (c) professional knowledge, including understanding of the role of the school and contributions of the behavioral sciences, (d) practice teaching under adequate supervision, and (e) unifying theory."[67]

Three years later it was Hollis Caswell who identified and projected the three program groupings in an article, "Looking Twenty-five Years Ahead."[68] To achieve a well-educated teacher, a program, he felt, "must provide (a) vital and meaningful general education; (b) professional preparation, involving both systematic study and guided laboratory experience; and (c) subject matter specialization directly related to the teaching to be undertaken."[69]

However a teacher education program is organized, two motivationally-related factors that must be present are a commitment to excellence and an acknowledgement that excellence can be manifested

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[66]Elmer R. Smith, ed., A Re-Appraisal of the Professional Aspects of Teacher Education (Palo Alto, California: The Fund for the Advancement of Education, Center for Advanced Study in the Behavioral Sciences, 1960), p. 195.

[67]Elmer R. Smith, ed., Teacher Education: A Reappraisal (New York: Harper and Row, 1962), quoted in Denemark and McDonald, op. cit., pp. 235, 246.

[68]Hollis L. Caswell, "Looking Twenty-five Years Ahead," In "A Symposium on Teacher Education," The Journal of Teacher Education, XIV (March, 1963), p. 12.

[69]Ibid.

in many ways and diverse forms. John Gardner discussed these in his 1961 book, Excellence: Can We Be Equal and Excellent Too, although in a context related more to society in general than to teacher education in particular. For example, he pointed out that

> In the intellectual field alone there are many kinds of excellence. There is the kind of intellectual activity that leads to a new theory and the kind that leads to a new machine. There is the mind that finds its most effective expression in teaching and the mind that is most at home in research. There is the mind that works best in quantitative terms, and the mind that luxuriates in poetic imagery.[70]

Obviously, finding and preparing teachers capable of recognizing and developing these talents and interests in individuals requires that high standards must be established by any truly professional teacher education program. Margaret Lindsey, in the opening address to the 1961 NCTEPS Pennsylvania Conference, contended that "An educator who meets standards of excellence in his profession demonstrates by his behavior . . ."[71] seven qualities. The seven, which she discussed at some length, were:

> 1. He is aware of the significance of his work. [He] recognizes that education is a powerful force and that it may be used for good or for evil. . . . He cares about each individual with whom he comes into contact, and he cares about people in the world with whom his contact is only vicarious. . . .

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[70]John W. Gardner, Excellence: Can We Be Equal and Excellent Too? (New York, N. Y.: Harper Colophon Books, Harper & Row, 1961), pp. 127-128.

[71]Margaret Lindsey, "New Horizons for the Teaching Profession," New Horizons: The Becoming Journey, Official Report of the Pennsylvania Conference (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1962), p. 43. The Pennsylvania Conference was the 16th annual NCTEPS conference and was held at The Pennsylvania State University, University Park, Pennsylvania, June 20-23, 1961.

2. He is an informed person, continuing to learn. . . . He reveals in his person the excitement and enthusiasm of a scholar engaged in discovery. . . .

3. [He] makes decisions deliberately and tests them in action. . . . He not only knows why he does what he does, but he continually examines the effectiveness of his decisions and consequent actions. . . .

4. He communicates effectively.

5. [He] maintains mental and physical health at a high level. He is able to confront and to deal constructively with personal and professional problems . . .

6. He assumes full responsibility as a citizen. He not only exercises his privileges as a citizen, but he assumes leadership responsibility in his community. . . .

7. [He] assumes full responsibility as a member of his profession. He actively participates with his colleagues in developing and enforcing standards fundamental to continuous improvement of the social service rendered by his profession. . . .[72]

Those are standards for individuals. To develop and encourage them, what should an institution be guided by? In 1962, Ellsworth Statler proposed and discussed nine principles for teacher education:[73]

1. If a competent teacher is to be prepared in four years for teaching in the elementary or secondary school, a basic requirement is an economical employment of the preparee's time.[74]

2. Selection of candidates for teacher education should be made early in the program in order to provide an economical use of time.[75]

3. Teacher education must have integrated guidance services.[76] [That is,] the guidance program must be university- or campus-wide oriented.[77]

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[72] Ibid., pp. 43-45.

[73] Ellsworth S. Statler, "Some Principles for Teacher Education," The Journal of Teacher Education, XIII (March 1962), pp. 12-18. The nine principles were italicized.

[74] Ibid., p. 12. [75] Ibid., p. 13. [76] Ibid. [77] Ibid.

4. Selective retention of candidates for teaching must be a continuous process.[78] [Corollary:] Each member of the instructional staff in the college of education should have the time to sit down and talk with each student in his courses during a semester's experience[79] [and be prepared to participate in the selective retention responsibility].

5. General as well as professional education course work should be developmentally experienced in the teacher education program in light of the short span of four year's preparation.[80]

6. Specialization of secondary school teachers should be based on a well-ordered comprehensive survey of a discipline and an equally comprehensive understanding of how to present the material in the teaching function. It should also provide essential concentration.[81]

7. The special subject matter departments must develop courses which give adequate technical knowledge and skill to those who prepare to teach in elementary and secondary schools.[82] [Also, elementary teacher candidates should be allowed some specialization along the lines of their abilities and interests.[83]]

8. The education of elementary and secondary school teachers is of necessity the responsibility of the university-wide staff; it requires cooperative effort.[84] Corollary principle: The teacher education program should be watched over by the faculty of a college of education.[85]

9. Adequate teacher education must include adequate laboratory experiences.[86]

Note that principles five through eight place much of the responsibility for effective teacher education within a college or departments other than that of education. Yet, as mentioned previously in this dissertation, it seems that over the years far more competition and criticism than cooperation has been received from the subject-matter departments, which, except for certain introductory survey courses, too often are oriented toward narrow curricular foci.

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[78] Ibid., p. 14. [79] Ibid. [80] Ibid. [81] Ibid., p. 15.
[82] Ibid., p. 16. [83] Ibid. [84] Ibid.
[85] Ibid., pp. 16-17. [86] Ibid., p. 18.

Thus, as Earl McGrath and Charles Russell have pointed out,

> It may significantly be observed that many of the critics of the preparation of teachers for the elementary and secondary schools do not concern themselves with the broad liberal education of these teachers for the more inclusive responsibilities of teaching and of life outside the school. They complain principally about the prospective teacher's lack of advanced specialized knowledge in his own field. Many of those who seek a reduction in courses in education would fill the resultant curricular gap principally with more [such] specialized knowledge . . . , not with the broad liberal studies essential for intelligent living in an increasingly complex world in which extensive understanding may be the price of survival. . . . The criticisms of teacher education would have a truer ring if they were not so muffled by the self-interest of subject-matter specialists in the liberal arts colleges and their related graduate departments, and by the vocational preoccupations of the members of the other professions.[87]

The value of a broad education for teachers has also been appreciated by Robert Bush: "Men in all occupations need to be liberally educated, but for the teacher it is absolutely necessary if he is to teach properly. . . . The reform needed in liberal education . . . is a matter of quality rather than quantity. . . . The rounding out of the liberal education of a teacher is the most compelling reason for extending the length of the college program for elementary and secondary teachers beyond the traditional four years."[88]

Actually, in a truly integrated program of preparation, four years might be sufficient (a point harking back to Statler's principle

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[87]Earl J. McGrath and Charles H. Russell, Are School Teachers Illiberally Educated? (New York, N. Y.: The Institute of Higher Education, Teachers College, Columbia University, 1961), p. 23.

[88]Robert N. Bush, "The Formative Years," The Real World of the Beginning Teacher (Washington, D. C., National Commission on Teacher Education and Professional Standards, 1966), pp. 4, 5. The report of the nineteenth national TEPS conference, June 22-25, 1965.

that a basic requirement would be "an economical employment of the preparee's time"[89]). The key would be to encourage not only knowledge of specialized material but also, and more importantly, comprehension of the concept of totality and what comprises it. A 1963 NCTEPS Position Paper stressed this well:

> The educated man who is prepared to teach understands the interrelations among general education, specialization, and professional education. To foster this understanding, various aspects of teacher education need to be coordinated. Thoughtful advising, an interdisciplinary approach to knowledge, instruction in new teaching methods, and imaginative planning beyond the classroom can produce an educated man with an understanding of these interrelations.[90]

Two years later, Florence Stratemeyer identified several of these same considerations in presenting a perspective of three "central areas" of decision-making of which teachers and teacher aspirants should be aware: "teaching-scholarship," "the quality of direct experience," and "the inter-relationships of college teaching and research."[91] She discussed in the first area five characteristics teachers should be capable of:

> "Understanding the power of knowledge to open doors . . . [with the] emphasis on the use of knowledge."[92]

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[89]Statler, op. cit., p. 12.

[90]National Commission on Teacher Education and Professional Standards, A Position Paper (Washington, D. C.: NCTEPS, National Education Association, 1963), p. 11. Quoted in John A. Green, Fields of Teaching and Educational Services (New York, N. Y.: Harper & Row, 1966), p. 24.

[91]Florence B. Stratemeyer, "Perspective on Action in Teacher Education," Action for Improvement of Teacher Education, Eighteenth AACTE Yearbook (Washington, D. C.: American Association of Colleges for Teacher Education, 1965), p. 23.

[92]Ibid., p. 25.

". . . Having insight into significant relationships among ideas, phenomena, and events. . . . Rather than continue certain movements toward increased specialization, it might be well to explore new emphases on the basic integrations of life. Building on insights gained in the changing secondary school, one such emphasis might be experimental testing of a problem-raising, coordinating seminar to parallel work in the separate disciplines. The seminar would be the unifying agent in clarifying relationships among the various disciplines through its focus on problems and situations that have their roots in the structure of human affairs."[93]

"Differentiating between intensive and extensive study, between awareness as contrasted with understanding-in-depth of situations of human importance."[94]

"Inter-relating of thinking, feeling, and behaving."[95] In teaching, this would include the giving of "attention to tolerance for uncertainty and for intelligent risk-taking."[96]

"Having insight into helping others--individual and group--develop competence and genuine interest in learning."[97]

Education? Or Miseducation?

If curriculum and critique can be considered criteria, 1963 was a landmark year for teacher education. As mentioned earlier,[98] both

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[93] Ibid., pp. 26-27. [94] Ibid., p. 27. [95] Ibid., p. 28.

[96] Ibid., p. 30. [97] Ibid., p. 31.

[98] See pages 2 and 3 of this dissertation.

the Conant[99] and Koerner[100] books were published that year. An ASCD pamphlet, Criteria for Curriculum Decisions in Teacher Education,[101] also appeared, and NCTEPS held a conference in Columbus, Ohio, that appraised and reported on a number of continuing and innovative teacher education practices.[102]

Conant's book, of course, was packed with discussions and suggestions about improving teacher education. These ranged from an historical and contemporary survey of teacher education programs to an identification of "four components of a teacher's intellectual and emotional equipment."[103] (The four were a democratic social component [to develop "social responsibility" in children],[104] a component whereby ". . . a teacher must know something about the processes by which social behavior emerges in groups of children,"[105] a component involving "a knowledge of the growth of children,"[106] and a component

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[99]James Bryant Conant, The Education of American Teachers (New York: McGraw-Hill Book Company, 1963).

[100]James D. Koerner, The Miseducation of American Teachers (Boston: Houghton Mifflin Company, 1963).

[101]George W. Denemark, editor, Criteria for Curriculum Decisions in Teacher Education (Washington, D. C.: Association for Supervision and Curriculum Development, National Education Association, 1963).

[102]National Commission on Teacher Education and Professional Standards, Changes in Teacher Education: An Appraisal, Official Report of the NCTEPS Columbus Conference (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1964).

[103]Conant, The Education of American Teachers, op. cit., p. 117.

[104]Ibid., pp. 113-114, 115, 117. [105]Ibid., p. 115.

[106]Ibid., p. 117.

through which a teacher comes to know ". . . the principles of teaching . . ."[107])

Reaction to Conant's theses evidenced both support and misunderstanding, so much of the latter, in fact, that Lindley Stiles was impelled to comment in the May 1964 Teachers College Record that "One misses from many of the reviews a penetration beyond the recommendations made. Lacking is a search for the basic assumptions which underlie the proposals for action."[108]

Stiles observed that following the book's publication Dr. Conant and members of his staff had tried to identify those assumptions; subsequently, Stiles, citing M. L. Borrowman, gave brief summaries of seven.[109] Three are particularly interesting:

> (1) Beyond highly abstract generalizations, no statement can be made which describes teacher education in the nation, within a given state, or sometimes even on a specific campus.
>
> (4) Beyond student teaching or the clinical experience, which everyone grants is important, there is no national consensus concerning teacher education, nor is there sufficient evidence to warrant one.
>
> (5) The major challenge facing those concerned with teacher education is working out the political processes by which the present array of groups seeking to influence it can express their legitimate interests.[110]

With regard to education, "political processes" must be considered

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[107] Ibid.

[108] Lindley J. Stiles, "Dr. Conant and his critics," Teachers College Record, 65 (May 1964), p. 716.

[109] Ibid., p. 716, citing M. L. Borrowman, "Conant's Recommendations Concerning Teacher Education," Address to the Association of State Universities and Land-Grant College, Chicago, Ill., November 12, 1963.

[110] Ibid.

broadly, of course. The major complication, then and even now, is, as Koerner pointed out, that "All major forces at work in teacher education today are moving toward ever greater bureaucratization, greater rigidity, greater formal and prescribed preparation."[111]

Koerner was only qualifiedly hopeful of improvement, but he offered thirteen recommendations toward that end. Here is a sampling of those related to teacher preparation: "The regular four-year undergraduate program should remain the standard preparation for new teachers," but its wastes and weaknesses should be pruned out.[112] "Grade point averages for admission to, and retention in, the teacher education program should be substantially raised."[113] "If methods courses are to continue to be taught by the kinds of people who now teach them, these people at the very least should be required to do two things: 1) do a full semester of public school teaching every three or four years, and 2) regularly demonstrate with public school classes the teaching principles and procedures they now only discuss in the sanctuary of the college course; methods courses might then be a bit less vacuous and vague."[114]

Criteria for Curriculum Decisions in Teacher Education was the title of a pamphlet George Denemark edited for the ASCD to assist

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[111]Koerner, The Miseducation of American Teachers, op. cit., p. 261.

[112]Ibid., pp. 267-268.

[113]Ibid., p. 270.

[114]Ibid., p. 276. (See also the Koerner quotation on page 2 of this dissertation.)

educators responsible for teacher education programs.[115] It presented seven "value assumptions implicit in the criteria"[116] (which reviewer Earl Anderson later felt provided "a good setting for the criteria statements"[117]):

> (1) "Commitment to a rational method of curriculum planning"; (2) "Belief that structure and flexibility are mutually interrelated elements in a teacher education program"; (3) "Commitment to a conception of education as a process aimed at the fuller realization of the potential of each person"; (4) "Recognition that teaching is an extremely important and complex process demanding exacting standards of performance from teachers at every level"; (5) "A view of teaching which recognizes distinctive differences in procedure and technique at different age levels and in different subject fields, yet which emphasizes common qualities and the relevance of a common set of criteria aimed at improving instruction"; (6) "Commitment to the importance of general education and of content field specialization as well as of professional education in the preparation of teachers"; and (7) "Recognition of the importance of a systematic link between pre-service and in-service teacher education. . . ."[118]

Although by now it is nine years old, the 1963 NCTEPS report, Changes in Teacher Education: An Appraisal,[119] can still be helpful to educators looking for teacher preparation ideas. It is packed with case studies and other descriptions of innovative programs and practices ranging from television uses, child-oriented summer camp experiences, and a look at proficiency examinations in teacher certification to

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[115]George W. Denemark, editor, Criteria for Curricular Decisions in Teacher Education, op. cit.

[116]Ibid., pp. 4-6, quoted by Earl W. Anderson, "TIP On Books," Theory Into Practice, III (February 1964), p. 41.

[117]Ibid. (Anderson, p. 41)

[118]Denemark, quoted by Anderson, loc. cit.

[119]NCTEPS, Changes in Teacher Education: An Appraisal, op. cit. (See footnote no. 102, page 88 of this chapter.)

preparation for urban education, research-oriented courses in teacher education, and the feasibility of intern programs.

An Interim Look

Even successful innovative programs usually are accepted by other institutions slowly. What were most of the other programs like about that same time? In 1963, Van Cleve Morris wrote, apparently somewhat idealistically:

> In summary, we may say that most teacher-education programs around the country provide the student with, first, a thorough grounding in the foundational areas and, then, instruction in the technical "know-how" of the educational profession. As a third and final stage in his training, the student is customarily given a direct, laboratory experience in practice teaching, where he can apply his understandings of both the foundational areas and the "know-how" areas. Once he has successfully completed this final, "direct-experience" phase, he is considered ready to begin his teaching career, usually with the mutual understanding that he has much yet to learn and much more professional knowledge and skill to develop in the course of his career.[120]

Two years later, Walter Beggs described about the same sequence and compiled a table comparing teacher education course experiences in four kinds of institutions, the single-purpose teachers college, the four-year liberal arts college, the multipurpose university, and a graduate school of education.[121] He also observed that "there is no indication at present that any major changes will be made in this general format, but emphasis within the pattern seems to be shifting rather markedly." As examples, he cited colleges' additions of subject

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[120]Van Cleve Morris, "Education as a Field of Study," Becoming An Educator (Boston: Houghton Mifflin Company, 1963), p. 12.

[121]Walter K. Beggs, The Education of Teachers (New York: The Center for Applied Research in Education, Inc., 1965), pp. 35-40, 42.

courses to a student's program (". . . on the easy assumption that including more academic work produces a better teacher"), the scheduling of educational psychology and methods courses and student teaching to be concurrent, and "placing the student in training in a school as an apprentice" with concurrent experience-synthesizing seminars.[122]

Unusual Programs: A Sampling

Naturally, not all teacher preparation programs were--or are--alike. Here and there differences do exist, and sometimes they involve almost experimental practices.

In 1964, for example, Fred Wilhelms described a five-year, exploratory core-curriculum-type of continuous teacher education at San Francisco State College beginning with which he was associated. "In the secondary program," he recalled, "much time was devoted to 'sensitivity groups' of about twelve or fifteen, whose purposes were somewhat akin to group therapy. Once started, these sensitivity groups were the one program feature the students never permitted to be dropped."[123] He continued:

> On campus we substituted one continuing, problem-centered seminar for the usual sequence of separate courses. . . . We arranged that both the teaching of the seminar and the supervision of field experience would be done by a team of three professors (from psychology, the social foundations, and curriculum and instruction) who would, so far as possible, remain with the group for the entire three or four semesters. A few specialists, such as the audio-visual instructor, were

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[122]Ibid., pp. 42-43.

[123]Fred T. Wilhelms, "Exploring New Paths in Teacher Education," Theory Into Practice, III (February 1964), p. 18. In TIP, the quotation was in parentheses.

brought in when needed.[124]

Groups initially included about 55 elementary and 55 secondary candidates, he said. He added that this was a normal load, about 17 to 1; later, it was somewhat lessened.[125]

Chicago was the locale of a somewhat more structured experience. Elizabeth Howard in 1965 reported a very good response by University of Chicago students forced "to assume the role of teacher even before they have had opportunities to learn at the verbal level about teaching." This "student-aide program [included] a period of three or four weeks of morning work in a public school classroom at the start of a student's introduction to professional course work in education."[126] Each student was assigned to a public school teacher, who knew of the student's lack of professional education background. Most students were given the opportunity to teach a little during their experience.[127]

A modification of the usual order of professional experiences described in 1965 was North Texas State University's "reverse block plan, in which student-teaching experience precedes the professional course sequence." A 1964 study indicated that it was "slightly superior to the regular block, both at the time of graduation and at the conclusion of one year of teaching."[128]

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[124]Ibid., pp. 17-18. [125]Ibid., pp. 18-19

[126]Elizabeth Z. Howard, "To Feel Like a Teacher," The Journal of Teacher Education, XVI (December 1965), p. 453.

[127]Ibid., p. 454.

[128]Richard E. Lawrence and Joost Yff, editors, "Of Special Significance." Review of John F. Curry, "An Evaluation of the Reverse Block Plan of Teacher Education at North Texas State University," (Denton, Texas: North Texas State University, 1964 [unpublished].) in

Another alternative was the "Study-Teach Program for the Preparation of Career Teachers" at George Peabody College for Teachers described by David Turney and Lewis Stoneking in 1965. "Students in the program earned college credit during the first year of teaching as a consequence of their attendance in a continuing seminar made available to them by the College and the school system in which they taught."[129] A provision for summer independent study also was a feature.[130]

Somewhat similar in 1966 was a New Mexico State University work-study cooperative program in which "the general education and teaching are met in the study phases of the program. The professional education requirements are experimental and are integrated with work phases while the student is assigned in cooperating public schools." The first two semesters are usually nonteaching, the third and fourth involve participatory and teaching tasks. Work-phase students received $1.65 per hour in 1966, equal to about $5,400 in the four years. "Coop students maintain a log of all duties performed."[131]

In Chicago, the University of Illinois at Chicago Circle (UICC) has established a Cooperative Program in Urban Teacher Education (CPUTE),

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The Journal of Teacher Education, XVI (September 1965), pp. 348, 349.

[129]David Turney and Lewis W. Stoneking, "A Professional Sequence for the Development of Career Teachers," The Journal of Teacher Education, XVI (September 1965), p. 281.

[130]Ibid., p. 283.

[131]Jack O. L. Saunders and Donald C. Roush, "Design and Rationale for an Experienced Beginner in Teaching," The Journal of Teacher Education, XVII (Summer 1966), pp. 193, 194.

according to Harriet Talmadge and George Monroe.[132] Options available for teacher candidates include "(1) extended time for exploration and style development, (2) graduated teaching experiences, (3) feedback to grow on, (4) self-selection of career roles, and (5) reality-sensitivity development. . . . A combination of academic work and concurrent practice is offered on a continuous basis over two or three school years."[133] A typical week is divided into ten half-day segments, utilized as follows: Five for seminar-type, staff-team-taught education courses. Two for seminar activities on campus. Two for serving (and learning) as teacher aides in public schools. One for independent study (e.g., library research, child case studies, committee meetings, and community studies").[134] In their senior year, teacher candidates may select one of two options: (a) More teacher aide service followed by a full term of student teaching, or (b) an internship as a group advisor to several (usually five) candidates working as teacher aides; such an intern is considered a "facilitating peer" and is trained in interaction analysis although he neither grades nor judges the candidates in his group.[135]

A regular seminar in the UICC program includes a teacher candidate, his group advisor, his cooperating teacher, a university professor, and a clinical professor "who conducts [such meetings] for the group advisors." The program also involves extensive use of videotape recordings. In the area of sensitivity development, "Group activities are planned which maximize personal interaction." The program's

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[132]Harriet Talmadge and George E. Monroe, "A New Perspective on Student Teaching," The Clearing House, Vol. 44 (February 1970), pp. 330-333.

[133]Ibid., p. 330. [134]Ibid., p. 331. [135]Ibid.

coordinators feel that it allows for early indications and realizations with regard to a teacher candidate's suitability for the interest in education, in various roles including teaching on, ultimately, other positions.[136]

Not far from UICC, another kind of emphasis has taken form. As described in an annotation of a 1968 article by N. L. Arnez, this is the "cultural approach curriculum developed at Northeastern Illinois State College to enable teachers to put their fears and prejudices in balance with realities of human differences and similarities. Arnez argued that the concentration of the cultural patterns of selected minority groups is based on the belief that all races have a contribution to make to society for all have the potential for learning and none is superior to any other."[137]

The New University of Massachusetts Program

Meanwhile, at the University of Massachusetts' School of Education Dwight Allen had arrived and initiated "a freewheeling transitional year, tearing apart all course, degree, and certification requirements . . ." to see whether they should be reordered or ". . . supplanted with wholly new assumptions . . .," according to Wallace Roberts.[138] The rationale for the reexamination was oriented to the problem of

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[136]Ibid., pp. 331, 332.

[137]"Program Proposals," Annotated Bibliography On Professional Education of Teachers (Washington, D. C.: The Association for Student Teaching, 1969), p. 43. The quotation is from the annotation for N. L. Arnez, "Unique Teacher Education Program," Improving College and University Teaching, Vol. 16 (Spring 1968), pp. 150-152.

[138]Wallace Roberts, "Clean Slate at UMass" ("Voices in the Classroom"), Saturday Review, Vol. 52 (January 18, 1969), p. 63.

increasing individual humanization in the face of our increasing cultural complexities:

> "We see ourselves espousing not any one exclusive approach to education," a graduate student said, "but nurturing a dialogue of various philosophies and techniques, so long as each can justify its own position and activity. We see ourselves striving to institutionalize change--not for its own sake, but for the sake of freshness and perspective. We see the singleness of purpose in today's teacher-training institution diverging into pluralism, alternative entry and exit points, fluctuating roles and responsibilities, levels of involvement and activity and personal fulfillment that far exceed the current norm."[139]

By September 1970, the 75-member School of Education faculty had established eleven learning centers, each including provisions for students desiring a nonteaching course of study. "Students may enroll in courses in any center with the advice of a student counselor. Although education majors will take specific courses leading to teacher certification, they will also have a variety of other courses from which to choose," stated the University's 1970-71 catalog.[140] "Students are encouraged to exercise initiative in directing their own educational program, provided that they cover the necessary courses for credentialing, if this is their intent. Under this focus of learning centers and student-directed learning, it is expected that new programs will constantly be evolving in areas which have a high degree of social and educational relevance."[141] Indeed, curricular offerings might even "include week-end retreats, a movie and seminar series, or a weekend

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[139] Ibid.

[140] "School of Education," 1970-71 Undergraduate Courses and Faculty, University of Massachusetts Bulletin, Vol. 62, No. 2 (March 1970), p. 86.

[141] Ibid., p. 87.

living experience in a nearby ghetto area."[142]

The eleven centers are the:

(1) Center for Aesthetics in Education.

(2) Center for Counsellor Education.

(3) Center for Educational Research.

(4) Center for Humanistic Education.

(5) Center for International Education.

(6) Center for Leadership in Educational Administration.

(7) Center for the Study of Educational Innovations.

(8) Center for Educational Media and Technology.

(9) Center for Foundations of Education.

(10) Center for Urban Education.

(11) Center for Teacher Education.[143]

In addition, the School "offers several special programs and courses that respond to new interests and needs." These currently include: Contemporary University, Early Childhood Education, Higher Education, Instructional Applications of Computers, Junior Year Off-Campus, M.A.T. (Community Colleges) Degree Program, Program in Education and Public Policy, Research and Training in Compensatory Education, Special Programs in Teacher Education, Student-Centered Degree, Systems Applications in Education, Undergraduate B.A. in Special Education, and Vocational/Technical Education. Some of these "may eventually become major Centers in the School."[144]

Each of the eleven centers is described in the catalog. The

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[142] Ibid. [143] Ibid., pp. 87-88. [144] Ibid., p. 89.

Center for Aesthetics in Education, for example, offers interdisciplinary introductory courses and practica "in three basic areas: 1) problem solving through a variety of cognitive and affective experiences; 2) reading and discussion of theories and philosophies of aesthetics in education; and 3) the use of artistic media to illustrate basic concepts in the sciences and humanities."[145]

Here are the descriptions of two other centers of particular interest to this dissertation:

> 4. Center for Humanistic Education
>
> Humanistic Education is a new curriculum area with its own teaching methodology. We feel that it is both necessary and possible to develop such a program of instruction to promote and deal directly with the concerns, needs and personal reactions of the student. Thus, the student's repertoire of behaviors for negotiating with himself, with others and with social institutions constitutes the content of a program in Humanistic Education. Humanistic Education will give almost total attention to the learner, for he is--in fact--the subject matter of the program. His concerns about his own identity, his sense of affiliation, and his concern for his own personal power will structure the type of curriculum he will experience.[146]

> 11. Center for Teacher Education
>
> This Center represents a fresh approach to teacher training based on the premise that an early introduction of potential teachers to students through such devices as strength training, micro-teaching and direct classroom participation, will focus the student on his particular interests and identified needs.
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> The purpose of the Center for Teacher Education is: 1) To provide training for prospective teachers in kindergarten through grade twelve. 2) To design, implement, and evaluate programs and program components for the preparation of teachers. 3) To conduct research experiments in new training procedures, methods, and curricula. 4) To design programs for graduate students who aspire to be teacher educators in general and specific curriculum areas.
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> It is becoming increasingly evident to many educators that the similarities in the preparation of elementary and

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[145] Ibid., p. 87. [146] Ibid.

> secondary teachers outweigh the differences. While some of the specific subject matter areas may be different, the teaching strategies and the approaches for learning these subjects are often very similar. We believe that a total teacher education program based on a K-12 approach offers advantages not found in the traditional elementary and secondary programs.[147]

The Most Recent General Studies

"Education won't be changed by throwing books at it." So remarked an innovative-action-minded educator in the late 1960's.[148] Yet thoughtful books, presenting observation- and/or research-based material leading to reasoned conclusions and provocative proposals can help to bring about change. The truths, syntheses, or perspectives they identify may well inspire educators (and sometimes other persons) to seek constructive change, although most often the extent of such books' influence is almost impossible to measure.

Certainly three of the key factors in the change-producing effectiveness of disseminated information and ideas are cumulation, credibility, and comprehension: cumulation of information about and support for whatever is being described, credibility with regard to the sources of the information and support, and, eventually, comprehension of the meaning and the implications of the information and support.

All these factors take time, so it may be that many of the ideas in the books and other general studies of the 1950's and early 1960's are only now beginning to be translated into operational application throughout our educational "establishment." Perhaps, too, the

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[147] Ibid., p. 88.

[148] Wallace Roberts, "Clean Slate at UMass," loc. cit.

accelerating pace of today's world will speed the process, just as it may facilitate a faster acceptance and implementation of many of the ideas and proposals that have appeared in the last eight years.

For example, in 1963 The Journal of Teacher Education published "A Symposium on Teacher Education"[149] in which several authors presented thoughtful discussions. One was Florence Stratemeyer, who extrapolated perceived trends and described them as they might become by 1988. Among the several developments she hoped and felt would be reasonable to expect with regard to teacher education and higher education generally was

> An educational program in which agreed-upon goals may be achieved in widely different ways . . .
> . . . for some students through course work, for others through non-course activities.
> . . . through differentiation in course participation--taking a course in full, auditing a course, taking a part of a course.
> . . . opportunity to repeat a course (without penalty) as suggested by increased insight and maturity.[150]

Another future look appeared in 1968, in William Van Til's pamphlet, The Year 2000: Teacher Education.[151] Van Til cited a number of postulated "system breaks," or sudden changes brought about by "powerful social forces, unpredictable or only partially predictable in advance."[152]

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[149]"A Symposium on Teacher Education," The Journal of Teacher Education, XIV (March 1963), pp. 9-50.

[150]Florence Stratemeyer, "Looking Twenty-five Years Ahead" (in "A Symposium on Teacher Education"), The Journal of Teacher Education, XIV (March 1963), p. 46.

[151]William Van Til, The Year 2000: Teacher Education (Terre Haute, Indiana: Indiana State University, 1968).

[152]Ibid., p. 9. Van Til credits the term "system breaks" to Kenneth E. Boulding, "Expecting the Unexpected: The Uncertain Future of Knowledge and Technology," Prospective Changes in Society by 1980,

These might include war, famine, or technological, biological, or international developments, he said, which would diminish or negate the accuracy of long-range extrapolations with regard to American society and its educational institutions. Nevertheless, he projected logical semi-probable possibilities concerning aspects of teacher education. There may be ". . . new job titles in an increasingly specialized educational profession,"[153] he stated, citing Henry M. Brickell:

> "The present role of teacher will gradually evolve into a cluster of roles encompassing such discrete functions as team leader, formulator of detailed objectives, instructional sequence planner, script writer, presenter of information, evaluator of pupil responses, and designer of supplementary pupil experiences. . . ."[154]

Characteristics of future programs to prepare teachers for these roles might well include the following,according to Van Til:

> Increased use of machines and fewer lectures. ("Books will still be read in 2000 but, additionally, students individually and in groups will utilize film and television collections, computer-aided instruction, simulation, models, and various information and concept-oriented laboratories."[155])
>
> "A minimum of two intensive years beyond the [four]

Edgar L. Morphet and Charles O. Ryan, editors (Denver: Designing Education for the Future, July 1966), p. 203.

[153] Ibid. (Van Til), p. 26.

[154] Ibid., footnote no. 72. p. 26, quoting Henry M. Brickell, "Local Organization and Administration of Education," Implications for Education of Prospective Changes in Society, Edgar L. Morphet and Charles O. Ryan, editors (Denver: Designing Education for the Future, January 1967), p. 227.

[155] Van Til, The Year 2000 . . ., op. cit., p. 30.

general liberal education years may be devoted to study and practice of professional education as the minimum preparation for teaching. . . . A substantial portion of the . . . program may take place within public school settings. [For slum schools,] . . . rental of empty store fronts and other obsolescent space will probably provide headquarters for teacher educators and teachers-to-be at the scene of the action."[156]

"In such public school settings, students in training may experience evolutionary sequences beginning with observation, going on to participation, including student teaching, and culminating in internship. Each student, from his entrance into the two-year program, may have one continuing advisor throughout the entire program."[157]

"Instruction in the foundations areas and in theory and practice may be timed to coincide with observation and participation exercises."[158]

Also, "More functional use of summer vacation periods [e.g., for subsidized travel, paid working with youth, and/or research and development apprenticeship] by future teachers is a likely social development by 2000."[159]

Teacher education reality in 2000 will depend, of course, on the actual developments that precede it. A recent attempt to begin to influence those developments was the overview of eight regional conferences sponsored by the National Commission on Teacher Education and

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[156] Ibid., p. 31. [157] Ibid. [158] Ibid. [159] Ibid., p. 32.

Professional Standards in 1965-55. As summarized in Remaking the World of the Career Teacher, "The basic idea of the . . . Conferences was that bold changes are needed in the pattern and concept of career development for teachers."[160]

The changes advocated or explored were numerous, usually solidly based, and covered a broad area--from improving written educational communication by increasing uses of brevity and direct sentences in the active voice,[161] to applying "the concept of individual differences" to the preparation and assignment of teachers as well as pupils,[162] to arranging for selected school-district-paid career teachers (in cooperation with college faculty members) each to work with ten "neophyte" elementary teachers for the first two years after the latter receive their bachelors degree. (A "third year of support would come entirely from [the] college personnel.")[163]

The last-named proposal was based on four assumptions which have considerable validity for any teacher preparation program:

> 1. A person tends to change his perceptions or his value orientations when he is personally involved with ideas, personally involved in the program, personally involved with his chosen profession, and for the prospective teacher, personally involved with children. He needs to be personally identified

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[160] Remaking the World of the Career Teacher (Washington, D. C.: National Commission on Teacher Preparation and Professional Standards, National Education Association, 1966), p. vii.

[161] Thomas E. Woods, in Remaking the World of the Career Teacher, op. cit., p. 75.

[162] George W. Denemark, in Remaking the World of the Career Teacher, op. cit., p. 89.

[163] Imogene Forte and Gilbert Shearron, "A Proposal for a Supervised Initial Teaching Experience," Remaking the World of the Career Teacher, op. cit., p. 141.

with a group that is both psychologically (or emotionally) supportive of him as a person and intellectually (or rationally) challenging to his ideas or viewpoints.

2. Learning is most meaningful when it is organized around problems and experiences which are perceived by the learner to have meaning. A good portion of an educational experience should provide learning experiences organized around perceived problems and concerns covering a wide spectrum in areas such as humanities, social sciences, natural and physical sciences, etc.

3. Methods of teaching are best learned in conjunction with actual personal experiences.

4. Before and after students are committed to the teacher education program, there should be enough flexibility so that the individual needs and interests of students can be cared for.[164]

Actually, some of the most relevant advocacies pertinent to teacher education generally that appeared in recent years were developed to improve the selection and preparation of teachers for urban ("inner-city," or "ghetto") education or who were to work with "culturally disadvantaged" children. Perhaps this is because the numbers of the latter are growing and spreading under the pervasive impact of our increasingly complex society. Dr. I. N. Berlin observed this as long as eight years ago, remarking:

I have, of course, encountered some teachers who have been trained to work with the children of our highly mobile, dissatisfied, and often educationally disinterested population. I've been very interested to find the best of these teachers have had special work in teaching emotionally disturbed, retarded, or handicapped children, which has seemed to prepare them more adequately for the "normal" classroom of today.[165]

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[164] Ibid., pp. 140-141.

[165] I. N. Berlin, "Unrealities in Teacher Education," Saturday Review (December 19, 1964), p. 56.

Two major studies oriented generally toward that problem even though concerned primarily with education for the "culturally disadvantaged" were Teacher Education In A Social Context, which appeared in 1966,[166] and Teachers for the Real World, published in February 1969.[167]

Both should be helpful to the colleges to which Larry Cuban referred three years ago when he concluded that teacher education programs do not include sufficient stress on urban education.[168] For example, Klopf and Bowman, the authors of Teacher Education In A Social Context, included early in their report a good brief historical review how teacher preparation for helping "disadvantaged" children learn has evolved since 1805,[169] and defined "disadvantaged" as "environmentally disadvantaged--that is to say, economically, socially, and/or educationally handicapped."[170]

Among the more generally applicable recommendations Klopf and Bowman presented were:

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[166]Gordon J. Klopf and Garda W. Bowman, Teacher Education In A Social Context (New York: Published for the Bank Street College of Education by the Mental Health Materials Center, Inc., 1966).

[167]B. Othanel Smith, Saul B. Cohen, and Arthur Pearl, for the Task Force of the NDEA National Institute for Advanced Study in Teaching Disadvantaged Youth, Teachers for the Real World (Washington, D. C.: The American Association of Colleges for Teacher Education, 1969).

[168]Larry Cuban, "Teacher and Community," Harvard Educational Review, 39 (Spring 1969), pp. 253-272.

[169]Klopf and Bowman, op. cit., pp. 12-56.

[170]Ibid., p. 5.

(1) Teacher educators should expect the school personnel they prepare "to view the learning process of the child in the complete social context of life."[171]

(2) Program goals should "be expressed in clear, realistic, behavioral terms, not in global abstractions."[172]

(3) There should "be flexibility in plan, structure, and administration of programs," and that they be pervaded with experimentation and innovation.[173]

(4) Programs should "be differentiated to meet various levels and styles of needed training."[174]

(5) The "instructional process [should] provide opportunity for experiential learnings."[175]

(6) Extensive and detailed evaluation should "be included as an integral part of every program."[176]

(7) "Facilities and equipment [should] be planned for optimum use."[177]

(8) Teachers should be prepared "for the all-important new function of orchestrating adults (auxiliary personnel) in the classroom to meet the learning needs of pupils as diagnosed by the teachers."[178]

(9) The ratio of staff to students should be increased "in order to provide more small-group work in year-round programs."[179]

(10) The staff [and faculty of the teacher education

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[171] Ibid., p. 262. [172] Ibid. [173] Ibid., p. 263.
[174] Ibid., p. 265. [175] Ibid., p. 267. [176] Ibid., pp. 268, 274.
[177] Ibid., p. 268. [178] Ibid., p. 269. [179] Ibid., p. 274.

> program] should "be interdisciplinary, including anthropologists, sociologists, psychologists, and those trained in community experiences, group development, medicine and research."[180]

Perhaps one of the most significant points made by Klopf and Bowman (citing William Kvaraceus, particularly) is that college classroom experiences seem to have little real impact on most students' attitudes, personalities, and behavior, except to intensify them: "'that is, the intellectual becomes more intellectual, the nonconformist becomes more deviant, the conservative more entrenched in conservatism. The school serves to reinforce what is already present.'[181] If this is true," they observe, "the standard approach to classroom instruction cannot achieve desired change in attitude because the standard approach tends to reinforce the student's self-concept. Kvaraceus concludes:

> "Therefore we would propose a new approach. We would suggest that the utilization of the idea of deliberate effort to change the self-concept of students (in educational courses) will appreciably affect their total education as well as their personal experience."[182]

To be sure, Klopf and Bowman raised this point as important in preparing teachers of disadvantaged children. But remember Dr. Berlin's comment (page 106); obviously, the point also has implications for programs to prepare teachers to work with our increasingly diverse "normal" student

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[180] Ibid.

[181] Ibid., p. 43. The description they quote is from William C. Kvaraceus, et al., Negro Self-Concept: Implications for School and Citizenship (New York: McGraw-Hill Book Company, 1965), p. 36.

[182] Ibid., pp. 43-44. Ibid. for the Kvaraceus quotation, too.

population.

How to effect such a change? Klopf and Bowman cite Bloom, Davis, and Hess as suggesting "that a major change in the teacher's self-concept means a shift from his conception of himself as the operative agent in a status-giving and selective system to that of the operative agent in a system which develops each individual to his highest potential."[183] By implication, Klopf and Bowman agree with Bloom, Davis, and Hess "that in order to accomplish this change, teacher education programs will have to shift their emphases" (e.g., by stressing sophisticated problem-solving rather than information learning, or by encouraging learning of concepts and methods of inquiry, and how to learn rather than subject matter detail).[184]

Not only a shift in program emphases but a major reform in teacher preparation--and how it might be achieved--was the theme of Teachers for the Real World. Packed with blunt statements and concise arguments, the book goes well beyond its "teaching-the-disadvantaged" focus to suggest specific, often innovative, steps to make preservice preparation practical as well as [traditionally] theoretical. Even a program's attitude was included: "Only if teachers are prepared as professionals are they apt to act like dedicated professionals."[185]

"Research and practical experience indicate that the program for the beginning teacher will consist of three basic interrelated parts:

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[183] Ibid. (Klopf and Bowman), p. 44. They are citing Benjamin S. Bloom, Allison Davis, and Robert D. Hess, Compensatory Education for Cultural Deprivation (New York: Holt, Rinehart and Winston, Inc., 1965), p. 2.

[184] Ibid.

[185] Smith, et al., Teachers for the Real World, op. cit., p. 24.

a theoretical component, a training component, and a teaching-field component," acknowledged the book.[186] But in most current programs these are not really adequate, the book implied or stated, declaring flatly that "The absence of a training component in teacher education is perhaps its biggest defect."[187] After all, it pointed out:

> Teaching is a complex activity, although to the uninformed it appears so simple that anyone can do it. Its complexity lies in its different types of techniques: material, social, intellectual, and emotional. Few, if any, other occupations involve all of these. The teacher handles material such as books, projectors, and other instructional products; these require skill in thing-techniques. The teacher also relates to a large number of people: pupils, colleagues, laymen, in highly significant ways and often at crucial points in their lives. To handle these relationships skillfully one must be a master of techniques of social interaction and of empathizing. The teacher is involved in the manipulation of ideas as they relate to the growth of the pupil. He can be successful at this only if he is, in fact, skilled in linguistic, logical, and psychological techniques.
>
> To acquire skill in these techniques taxes the capacity of the most talented individual. Very few people pick up more than a small repertory of them; the average person must work for years to acquire a few of these techniques. . . . Almost all teachers are now prepared in programs that provide little or no training in teaching skills.[188]

The book's authors made a point of stressing that the key part of any truly effective teacher preparation program was or should be training, even though that word--or even concept--is unpopular with many educators. Just three years before, for example, Maxine Green had written:

> When we train people (as when we train animals) we do not explain or justify what we are teaching. We impose, as it were, certain modes of behavior; we demand that certain tasks be performed in certain ways. Thomas F. Green writes (in "The Teaching Concept," Studies in Philosophy and Education, Winter

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[186] Ibid., pp. 41-42. [187] Ibid., p. 70. [188] Ibid., p. 69.

> 1964-5) that "training resembles teaching insofar as it is aimed at actions which display intelligence." He goes on to say that the kind of intelligence aimed at is limited, and that what training excludes "is the process of asking questions, weighing evidence and, in short, demanding and receiving a justification of rules, principles or claims of fact."
>
> Teaching, on the other hand, involves explanations, reasons, and arguments; and "education" (at least as we have learned to use the term in America) refers to a process that enlists the cognitive and critical energies of the individual.[189]

Not at all so, declared the authors of Teachers for the Real World: "A trained individual has relaxed control which frees him from preoccupation with immediate acts so he can scan the new situation and respond to it constructively. Training and resourcefulness are complementary, not antithetical, elements of behavior."[190]

What should a training component include? The book's authors suggest the following basic process elements:

> --establishment of the practice situation
> --specification of the behavior
> --performance of the specified behavior
> --feedback of information about the behavior
> --modification of the performance in the light of the feedback.
> --performance-feedback-correction-practice schedule continued until desirable skillfulness is achieved[191]

The program's goal, the authors state, is to develop ten "minimal abilities," with the theoretical component to achieve student understanding of those abilities and the training component the skills involved. The ten are the ability to:

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[189](Maxine Green), "For the Record: An Open Letter to Robert S. MacNamara, Secretary of Defense," The Record, 68 (November 1966), pp. 151-152. Teachers College, Columbia University.

[190]Smith, et al., Teachers for the Real World, op. cit., pp. 79-80.

[191]Ibid., p. 71.

1. perform stimulant operations (question, structure, probe)
2. manipulate the different kinds of knowledge
3. perform reinforcement operations
4. negotiate interpersonal relations
5. diagnose student needs and learning difficulties
6. communicate and empathize with students, parents, and others
7. perform in and with small groups
8. utilize technological equipment
9. evaluate student achievement
10. judge appropriateness of instructional materials[192]

The book gives a number of examples to illustrate how the various program goals might be achieved. It also identifies the most general categories of situations (in and out of classrooms) that teachers face,[193] discusses desirable program characteristics,[194] suggests ways of shaping affective aspects of teacher behavior,[195] and points out that most of the instructional guides and sets of "protocol materials" needed for all this simply do not exist and will have to be developed.[196]

Interestingly, a 1967 study reporting interviews with education faculty and students at 20 institutions indicated such forthcoming changes in teacher education programs as:

> (1) Factual information from the professional disciplines will be in preprogrammed forms to be mastered by students "through privately planned activity," with conceptual understandings to be developed in seminars.
>
> (2) Use of videotapes will increase, including for student

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[192] Ibid. [193] Ibid., e.g., pp. 52, 59-62.

[194] Ibid., e.g., pp. 64-65.

[195] Ibid., e.g., pp. 81-93.

[196] Ibid., e.g., pp. 71, 77-78, 92-93.

involvement in live or simulated clinical teaching situations.

(3) "Student teaching will be subdivided into smaller units, . . . each . . . a study of teaching, followed by a practice in teaching. The study will introduce principles and hypotheses to be tested in actual classroom situations and the practice will generate inductions from observations to be checked against the doctrines of scholars in the field of education."[197]

As mentioned, program goals were a stated concern in Teachers for the Real World. They also were the concern of an earlier proposal for the Northwest Regional Educational Laboratory's ComField model program, which included several assumptions about teacher education, namely: 1. "A viable teacher education program must center around predefined performance objectives (behavioral objectives) that lead to the competencies teachers need in order to function effectively in their emerging roles." 2. Reliable instructional systems must be developed to bring about competencies "assessed at three levels of mastery: a. Knowledge, as measured by identification, recognition, recall, and so forth. b. Understanding, as measured by extrapolation, generalization, abstraction, and so forth. c. Skill in application, as measured by performance under simulated or real-life conditions." 3. The program must be adaptive or responsive to individual learner differences

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[197]Edward Dominic Hancko, "A Study of the Application of the Methodologies and Findings from Current Descriptive Research on Teaching in the Professional Education Programs of Selected Institutions," Dissertation Abstracts, 28:2581-A, January 1968. (Columbia University, 1967).

and interests and permit entrance, advancement, and departure on the basis of criterion performance measures. 4. The program should through live experiences with children, participation of school personnel in specifying competencies, and pre- and in-service provisions, be involved with the larger educational community. 5. The program also must help students to understand themselves, to plan and assess much of their own learning and progress, and to be able to create truly individualized learning situations for individual or groups of children.[198]

The ComField proposal is one of several sponsored by the U. S. Office of Education (See the Selected Considerations in Elementary Teacher Preparation section later in this chapter) that recently were castigated by Charles Silberman for using "the grating jargon of systems analysis ('performance criteria,' 'cost effectiveness,' 'instructional modules,' and the like) to mask an absence of serious thought or substantive change."[199] ". . . One is reminded," he said in Crisis In The Classroom, "of the warning John Dewey delivered in the disillusionment of old age: 'The real danger is in perpetuating the past under forms that claim to be new but are only disguises of the old.'"[200]

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[198]William Ward, "Institutional Responses to the Bureau of Research Request for Proposals" (the NWREL ComField proposal), "Development and Dissemination of Model Programs as a Strategy for Change," Teacher Education Issues and Innovations, Twenty-first Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968), pp. 142-143. ComField stands for A Competency Based, Personalized and Field-Centered Model of an Elementary Teacher Education Program.

[199]Charles E. Silberman, Crisis In The Classroom (New York: Random House, Inc., 1970), p. 471.

[200]Ibid., quoting John Dewey, Introduction to The Use of Resources in Education by Elsie Ripley Clapp [New York: Harper & Row, 1952] (reprinted in Martin Dworkin, ed., Dewey on Education [New York: Teachers College Press, Classics in Education No. 3, 1959]).

Something Different: The North Dakota Program

"If necessary changes are to come about," declared Charles Silberman in 1970, "they will require the kind of cooperative effort that the University of North Dakota has developed with the elementary schools of that state."[201] Silberman, again in Crisis In The Classroom, was referring to student teaching and supervision. But his contention can be applied to much of teacher education.

Actually, the North Dakota program grew out of the state's desire to improve its entire educational structure.[202] State officials and educationists acknowledged a number of problems in quantity, organization, and quality; a 1967 study, for example, determined that 59 percent of its elementary teachers had no college degree.[203] To resolve this latter situation particularly, the University agreed to initiate a New School for Behavioral Studies in Education as a federally supported (more than $450,000 for the first 1½ years) entity separate from the existing College of Education and College of Arts and Sciences. The New School's faculty initially was to include at least three "professors of humanities: in psychology, physiology, economics, sociology, cultural anthropology, education systems analysis, and so forth," and "a team of five people with full-time responsibility for analysis and evaluation" of pupil-pupil and pupil-teacher interactions

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[201]Silberman, op. cit., p. 453.

[202]Ronald E. Barnes, "The North Dakota Project," Teacher Education Issues and Innovations, Twenty-first Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968), pp. 164-165.

[203]Henry S. Resnick, "Promise Of Change In North Dakota," Saturday Review (April 17, 1971), p. 67.

and the university's relationships within itself and with the communities with which it was to cooperate.[204]

The latter still is considered as important as anything else, Charles Silberman indicated in 1970: "As the New School's statement of purpose declares, 'The New School has as its major task the preparation of a new kind of elementary teacher. It strives to educate students to acquire the qualities of mind and behavior which will assist them in nurturing the creative tendencies in the young, and in introducing a more individualized mode of instruction into the schools of North Dakota.'" (These are "two of the qualities most strikingly absent in most American public schools," Silberman observed caustically.)[205]

Key aspects of the program are:

1. ". . . cooperating school districts send their 'less-than-degree teachers' to the New School for as much undergraduate work as they need to earn a B. A. degree. The New School in turn sends its master's degree candidates to these school districts to take over the vacant classrooms; the year-long teaching internship comprises the bulk of their degree. The internship is preceded and followed by summer sessions at the New School, and the interns are closely supervised [ratio: 15 to 1[206]] by 'clinical professors' assigned to each region. . ." and by members of the college's administrative staff.[207]

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[204]Barnes, op. cit., p. 165.

[205]Silberman, op. cit., pp. 473-474.

[206]Barnes, op. cit., p. 166.

[207]Silberman, op. cit., pp. 474-475.

2. "The premise of the New School's program is that if children are to initiate their own learning--to learn, in currently fashionable parlance, how to learn--the process must start with the people who teach them." To this end, students and teacher-students are encouraged, sometimes required, to work with classroom interest centers (on the British model), to be informal, and to experience the very kinds of activities--creative and otherwise--that elementary pupils are usually asked to do.[208]

3. Undergraduates usually enter the New School as juniors. "They are required to register for four areas of study, but this is often a mere formality; the basic structural element of the curriculum is the relationship of the individual adviser, and although most students take courses offered by the New School's thirty-odd staff members, each is free to devise his or her own program. Some spend a great deal of their time in schools throughout the state; others read intensively."[209]

4. The New School has no grades, only "credit received," "credit deferred," or "credit withdrawn," conferred by the student's advisor as appropriate.[210]

Both Silberman, in Crisis in the Classroom,[211] and Henry Resnick in the April 17, 1971, Saturday Review[212] have described aspects of the

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[208]Resnick, op. cit., pp. 68-69. [209]Ibid., p. 68.

[210]Ibid., p. 69. [211]Silberman, op. cit., pp. 284-297, 473-482.

[212]Resnick, op. cit., pp. 67-69, 79-80.

program that have won both praise and criticism: the implementation of innovation, the reduction of classroom curricular structure, the stress on individualized learning, for example. Resnick also remarked that the New School so far had managed to avoid a major political controversy,[213] which moved one of his readers to write that unfortunately one was brewing after all.[214]

Perhaps the two major criticisms were caveats for any innovative teacher education program, however. One was by Silberman, who pointed out that "In good measure, the program displays the weakness that Dewey warned against in his 1904 paper on the relation of theory to practice;[215] New School graduates are superior teachers, but they are not 'students of teaching.' They have not acquired the grounding in theory or the intellectual disciplines they need in order to set their own goals or understand the reasons behind the teaching methods they use so competently."[216] [In short, what they need could be construed to be something like the "theoretical component" described in Teachers

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[213] Ibid., p. 80.

[214] Edith S. Kjos, "Problems in North Dakota" (letter), Saturday Review (May 22, 1971), p. 72.

[215] Silberman, op. cit., p. 479. The quotation referred to was by John Dewey, "The Relation of Theory to Practice in Education," National Society for the Scientific Study of Education, The Relation of Theory to Practice in the Education of Teachers, Third Yearbook, Part I (Bloomington, Ill.: Public School Publishing Co., 1904), pp. 9-30. Reprinted in M. L. Borrowman, Teacher Education in America: A Documentary History (New York: Teachers College Press, Classics in Education No. 24, 1965), pp. 140-171. Silberman further discusses his point on page 472 of his book.

[216] Silberman, op. cit., p. 479.

For The Real World,[217] even though Silberman felt that book "falls far short" of the radical reform he thought it presumed to describe.[218]

Of course, one of Silberman's main emphases throughout his book was that the key to resolving the "crisis" in American classrooms was to turn their structure from formal to informal, that is, encourage students to learn about culture, society, the disciplines, etc., and develop skills in all these areas according to their own interests. Obviously, then, teachers should be trained to develop and encourage these informal learning environments, he felt, and teacher education programs should be oriented to that goal.

This is precisely what the new North Dakota program has not succeeded in achieving, however, Resnick apparently believes. "Very few New School graduates, young or old, support the concept of individualized learning when it interferes with the traditional basics," he reported. "While all New School teachers apparently try to encourage varying degrees of informality and most allow a period or two of free time during the day, the teacher generally continues to be the one who decides what his or her students will learn. . . . The distinction between true open education and a merely informal, individualized version of traditional education has been largely overlooked, unfortunately, in most of the talk one hears about innovations."[219] In North Dakota, for all the acceptance of the New School's teachings, both students and administrators on occasion have resisted the idea of increasing a student's responsibility

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[217]B. Othanel Smith, et al., Teachers for the Real World, op. cit., pp. 41-42.

[218]Silberman, op. cit., p. 414. [219]Resnick, op. cit., p. 79.

for his own learning.

Individualization: A Perspective

Nevertheless, the New School does seem to be trying to effect the very steps Arthur Combs advocated to achieve "A problem-oriented, personal-growth-oriented program"[220] to help "humanize" teacher education[221] by developing individual responsibility. "Responsibility is the very essence of the professional worker," he declared. "Responsibility, however, is learned from being given responsibility," and thus a professional training program must "encourage the growth of responsibility through independent action on the part of students."[222]

Obviously, in order to understand and implement responsibility wisely and effectively, a student will have to know himself, and in the context of his world. He will have to learn how to keep himself current, as it were, in that context. To this end, a teacher preparation program probably should include elements of the "process education curriculum," which Terry Borton has talked about, to develop "an explicitly acquired ability to consciously change patterns of information processing while maintaining a sense of self. If we cannot accomplish this change, we may remain ourselves, but we will find ourselves irrelevant--unable to influence the world around us and perhaps unable to survive."[223]

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[220]Arthur W. Combs, The Professional Education of Teachers: A Perceptual View of Teacher Preparation (Boston: Allyn and Bacon, 1965), p. 117.

[221]Robert Blume, "Humanizing Teacher Education," Phi Delta Kappan, Vol. LII (March 1971), pp. 411-415.

[222]Combs, The Professional Education of Teachers, loc. cit.

[223]Terry Borton, Reach, Touch, and Teach: Student Concerns and

As part of this, students must also learn to develop an ability to extrapolate, to consider in a variable time context diverse acts and then (in Joseph Schwab's graphic concept)". . . trace the branching pathways of consequences."[224]

These are great goals, as are many that have been advocated over the years, "but the gap between our talk and our action has been so great as to embarrass the most innovative members of our profession," ruefully acknowledged Dwight Allen and Robert Mackin in mid-1970.[225] They predicted improvement, however, through the alternative and experimental programs and approaches, particularly stressing individualization, which constitute the thrust of the new Seven-Year Plan of the National Association of State Universities and Land-Grant Colleges (NASULGC). The plan, they said, is intended to bring about "'fundamental and systematic revisions in major programs of teacher education' through a gradual year-by-year restructuring" from September 1970 through and beyond September 1976,[226] and they called upon teacher education faculty members to become its "prime movers, . . . since they will be the ultimate determinants of its success."[227]

Process Education (New York: McGraw-Hill Book Company, 1970), p. 91.

[224]Joseph J. Schwab, "The Practical: A Language for Curriculum," School Review 78 (November 1969), p. 20.

[225]Dwight Allen and Robert A. Mackin, "Toward '76: A Revolution in Teacher Education," Phi Delta Kappan, LI (May 1970), p. 485.

[226]Ibid., p. 487.

[227]Ibid., p. 488.

A Look At Models

"It is amazing," wrote one student in her final examination in Educational Sociology, "how many variables relate to the amount and potential of our comprehension and learning!"[228] Thoughtful educators have known that for many years, of course, and a number of them have postulated or developed models to try to get a coherent grasp of those variables and their interrelationships.

Naturally, there can be pitfalls. Models which are not accurate in scale or analogy can distort perception, for example, and some "devising models," as Jacobson, Stimart, and Wren have pointed out, cannot really be justified because their premises are questionable and they do not suggest new hypotheses which are true or interesting.[229]

There are models and models. Brief but useful descriptions and discussions of different kinds of models can be found in the writings of May Brodbeck[230] and Marc Belth.[231] A definition of the term as it applies in systems analysis is on page 43 of this dissertation. But

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[228]Janice Hake, in final examination for the author's fall 1969 semester Educational Sociology course, January 14, 1970.

[229]Milton D. Jacobson, Reynold P. Stimart, and George T. Wren, "Models and Educational Research," American Educational Research Journal, Vol VIII (March 1971), pp. 311-320.

[230]May Brodbeck, "Models, Meanings, and Theories," Symposium on Sociological Theory, Llewellyn Gross, ed. (New York: Harper & Row, Publishers, Inc., 1959), pp. 373-383. Reprinted, by permission of the publisher, in Lanore A. Netzer, et al., Interdisciplinary Foundations of Supervision (Boston: Allyn and Bacon, Inc., 1970), pp. 17-27.

[231]Marc Belth, "The Logic of a Discipline of Education," in Harold Full, Controversy in American Education: An Anthology of Crucial Issues (New York: The Macmillan Company, 1967), pp. 364-374, particularly pp. 371-374.

from the standpoint of teacher education or teacher preparation, Gordon Hearn's definition is as good as any: "A model is a symbolic representation of a perceptual phenomenon."[232] Since words are symbols, teacher education models can be described in words as well as represented or suggested schematically.

One major problem seems to be, according to L. O. Andrews, that

> No comprehensive theoretical base exists for teacher education in general, or for the laboratory phases of teacher preparation, as an example of one of the most severely limited areas from this standpoint.
>
> Unfortunately, the demands for new teachers are so great that some kind of teacher education must go on continuously; therefore, it is impossible to wait for the research and the scholarship necessary to develop a comprehensive theoretical base. Frequently it is recognized that the profession knows much more about how to educate teachers than is actually practiced. This fact reinforces the idea that the best minds should develop the best possible rationale for teacher education from the knowledge and experience available. Recent financing of several institutions to develop model programs is a step in this direction; but there is still a danger that these projections will be such elaborate models that most institutions will not be able to implement them. This concern supports the proposition that a comprehensive rationale is needed as a guide rather than just as a model.[233]

Dr. Andrews also cited a need for "new general designs with careful attention to the needs and problems of prospective teachers and how the designs can contribute to satisfying their needs and solving

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[232]Gordon Hearn, "Theory Building," in Lanore A. Netzer, et al., Interdisciplinary Foundations of Supervision (Boston: Allyn and Bacon, Inc., 1970), p. 9. Reprinted and abridged with permission of the publisher from Gordon Hearn, Theory Building in Social Work (Toronto: University of Toronto Press, 1958), pp. 8-18.

[233]L. O. Andrews, "Challenges and Needed Developments in Teacher Education," in Howard E. Bosley, ed., Teacher Education in Transition, Volume II, Emerging Roles and Responsibilities (Baltimore: Multi-State Teacher Education Project, July 1969), p. 164.

their problems."[234]

Designs such as these might help provide ways of vindicating through implementation what theories there are, at least experimentally. For, as John Goodlad has noted, "Unfortunately, there is a monstrous, continuing gap between our most imaginative and creative theorists and researchers, and school practice. We have very few 'intermediate engineers' who can move back and forth in such way that they truly serve to bridge the gap between theoretical conceptualization and practice."[235]

To resolve this, Goodlad suggested both developing models and implementing them:

> . . . There must be a conceptual process through which different stages of simulated models are built: (a) models which reveal the theoretical constructs, (b) models which reveal the transaction roles and relationships, and (c) models which show what happens at the level of implementation. Most educators have worked in theory at one level and in practice at the other, providing a direct translation without building the kinds of "intervening models" which are would be of most use to the practitioner. Researchers must now build the "intervening models" [involving simulation and practice[236]] and "intermediate engineers" must be trained to carry out the field experimentation.[237]

One way of classifying models, then, could be according to whether they are theoretical, transactional, or practical.[238] For teacher

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[234]Ibid., p. 173.

[235]John I. Goodlad, informal communication to a Summer Workshop-Symposium April 22, 1966, quoted in E. Brooks Smith, "Promises and Pitfalls in the Trend Toward Collaboration," Partnership in Teacher Education, E. Brooks Smith, et al., eds. (Washington, D. C.: The American Association of Colleges for Teacher Education, 1967), p. 17.

[236]Ibid., p. 20. [237]Ibid., p. 17.

[238]Interesting discussions about hierarchal and other models involved with concept formation and teaching can be found in (1) Herbert F. LaGrone, "Reconceptualizing Teaching," Partnership in Teacher Education, E. Brooks Smith, et al., eds. (Washington, D. C.: The

education models, contemplation of the literature also suggested a different set of groupings: Traditional (including with modifications or variations), Humanistic, Behavioral/Systemic, and HuBS (a combination of Humanistic and Behavioral/Systemic).

Traditional Models.--Programs of teacher education or teacher preparation in this grouping are essentially linear, involving sequences of courses in general education, in a major, and in professional education, and including a student teaching experience. Perhaps one of the best brief descriptions in the one Larry Cuban summarized from a paper by Lindley Stiles:

> Control: Centered in colleges with cooperation from school system.
> Location: Primarily on campus with students commuting to local schools.
> Approach: Academic, deductive, and didactic--with prospective teachers first learning about teaching vicariously through listening to lectures, reading books, and observing others teach.
> Orientation: Generally to teach pedagogical theory and prepare teachers for work in white, middle-class, suburban schools.
> Sequence: Professional content is treated in formal courses such as history and philosophy of education, educational psychology, methods and teaching--prior to actual clinical experience.
> Clinical Experience:
> a. Responsibility: Artificial--relationship is that of a visiting observer and assisting teacher throughout.
> b. Supervision: From college staff members who may be years out of touch with actual teaching in elementary or secondary schools ...
> c. Instructional Materials: Usually selected by supervising teacher from commercial products.

American Association of Colleges for Teacher Education, 1967), pp. 178-192, and (2) Professional Teacher Education: A Programed Design Developed by the AACTE Teacher Education and Media Project, Part 1, (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968)

d. Methods of Teaching: Modeled after those employed by supervising teacher or prescribed by college supervisor--with patterns often in conflict.[239]

Such a traditional kind of program is really, as Richard Warren has termed it, an "Apprentice Model" of teacher training. In the student teaching phases particularly, "There prevails a master-apprentice relationship, and the immediate social context of the training experience reinforces this relationship. Students perceive and are made aware of the hierarchically subordinate role of the student teacher (their inventiveness in devising socializing tests is a familiar phenomenon)," Warren observed dryly.[240]

Harry S. Broudy discussed the traditional format in 1967, although he did suggest that the term "general" or "interpretive" replace "foundation" in describing pre-professional humanistic and scientific studies of education.[241]

Humanistic Models.--A number of teacher education models set out in recent years have had a primarily humanistic orientation.

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[239]Larry Cuban, "Teacher and Community," Harvard Educational Review, Vol. 39 (Spring 1969), pp. 259-260, summarized from Lindley Stiles, et al., "Cardozo Project in Urban Teaching: Evaluation and Recommendations," February 1967, pp. 13-15. (Mimeographed)

[240]Richard L. Warren, "Implications of Ethnographic Approaches for Teacher Training Programs" (Stanford, California: Stanford Center for Research and Development in Teaching, 1970), p. 3. (Mimeographed.) A revision of a paper presented at the American Educational Research Association meeting, Minneapolis, March 6, 1970, as part of a symposium entitled "Anthropological Approaches in Educational Research."

[241]Harry S. Broudy, "The Role of the Foundational Studies in the Preparation of Teachers," Improving Teacher Education In the United States, Stanley Elam, ed. (Bloomington, Indiana: Phi Delta Kappa, Inc., 1967), pp. 1-22.

Perhaps the prime example is the "self as instrument" program model of Arthur Combs, who drew heavily on aspects of perceptual psychology in postulating a curriculum designed to motivate students to learn--at their own pace--about characteristics of learners. Discussion groups for decisions and learnings have a major role in Dr. Combs' model, as do provisions for personalized counseling for all students and a problems approach in place of traditional courses.[242]

About the same time (1965), Martin Haberman proposed a model for preparing urban teachers to include five courses in the professional sequence: educational foundations, urban studies, observation and analysis of teaching, educational research, and methods and media of teaching.[243]

Dean Corrigan, meanwhile, called for a total program focusing on the personal dimension of teacher education and providing for a one-to-one relationship between each prospective teacher and at least one education advisor. In lieu of a sequence of courses, Corrigan proposed a continuous seminar taught by an instructional team and utilizing teams of students and offering independent study opportunities. The curriculum would also be implemented by simulated materials, sensitivity training, programmed instruction, data processing, and educational television.[244]

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[242]Arthur W. Combs, The Professional Education of Teachers, A Perceptual View of Teacher Education (Boston: Allyn and Bacon, Inc., 1965).

[243]Martin Haberman, "The Professional Sequence for Preparing Urban Teachers," 1965 (ERIC ED 024-644).

[244]Dean Corrigan, "The Personal Dimension in the Education of American Teachers" (paper presented at a conference honoring Florence B. Stratemeyer at French Lick, Indiana, June 10-12, 1965). (ERIC ED 023-639)

In 1968, Teachers College, Columbia University, suggested a design by which small inquiry groups of students would monitor their own progress through a self-administered program. They would be based on a "differential training model" for individualizing instruction. A "contact laboratory" for study, microteaching, and experimentation is part of the plan.[245]

Yet another program model, this one to be implemented in a pilot project between 1968 and 1970, was that of the University of Tennessee. Included are experiences in early decision making, fundational aspects, classroom interaction analysis, and student teaching or interning. Students work in self-instructional self-pacing components.[246]

A "teacher-education model that is firmly rooted in day-to-day human experiences in inner-city schools and communities, enriched by University support" was described by Larry Cuban in 1969. Its major features are the assimilation of much knowledge about characteristics of the urban child and his environment; a re-evaluation of personal attitudes with heightened self-awareness; the location of most activities in inner-city schools, with commuting to the university; and supervision to involve community residents as well as the usual educators.[247]

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[245]"Summary of the Teacher-Innovator: A Program to Prepare Teachers" (New York: Teachers College, Columbia University, October 1968). (ERIC ED 033-054; the complete report is ERIC ED 027-284.)

[246]"Teacher Pilot Program: Courageous Step. Proposal to AACTE for 1969 Distinguished Achievement Award Competition," 1969. (ERIC ED 033-913.)

[247]Larry Cuban, "Teacher and Community," Harvard Educational Review, Vol. 39 (Spring 1969), pp. 258-260.

Richard Warren derived from anthropology a "Participant-Observer" model for teacher preparation. (He also called it a "trainee-field worker" model.) In it, "a trainee . . . moves as far as possible beyond formal observations in the direction of an ethnographic approach, involving observations, in interviews, and interactions in both formal and informal settings."[248] (Ethnology can be applied to model evaluation, too, e.g., by using the CEMREL Evaluation Model.[249])

A considerably different approach was presented in March 1970, when Marvin Brottman described his "Psycho-Social Model of Teacher Education" at the AERA Convention in Minneapolis. "The model is a conceptualization of a social system in which the teacher behavior of a role-incumbent is presented in two dimensions: institutional and individual. The institutional dimension is made up of roles and their expectations. The individual dimension is concerned with personality and needs." The model includes preservice and subsequent inservice considerations and "provides indicators of program success in the forms of satisfaction, effectiveness, and efficiency."[250]

Two curricular models which apply primarily to schools but which suggest effective techniques for teacher preparation programs were set forth in 1969 by Ryland Crary and Leslie Hart.

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[248]Richard L. Warren, op. cit., p. 7. (See footnote 240, above.)

[249]Paul A. Pohland, "Educational Ethnology and Evaluation" (Paper presented at the American Educational Research Association convention symposium: Anthropological Approaches in Educational Research, March 2-6, 1970, Minneapolis, Minnesota), pp. 4-5. CEMREL is an acronym for Central Midwestern Regional Educational Laboratory, Inc.

[250]Marvin A. Brottman, "A Psycho-Social Model of Teacher Education" (Paper presented at the American Educational Research Association convention, March 1970, Minneapolis, Minnesota), pp. 2, 21.

Crary postulated a curriculum model which "is a reconceptualization of the basic institutional function of the school and is related to the uses and conception of intelligence." The learning situation is "built through" the model, which has five phases: "1. Exploration and planning, 2. Inquiry, activity, and research, 3. Presentation, organization, and conceptualization, 4. Appraisal and evaluation, 5. Utilization, reflection, reconceptualization."[251]

Hart's advocacy was not at all incompatible with Crary's. Hart described an "open school" concept whereby each student learns "and progresses as an individual rather than as a member of a fixed class. [This] totally discards administrative grouping, which is what we have in the class-and-grade, or even nongraded structure, and introduces purely educationally-dictated grouping."[252]

Behaviorial/Systemic Models.--No look at these kinds of models would be complete without reference to the two-part 1969 M-STEP report, Teacher Education In Transition.[253, 254] Both volumes describe the federally-supported teacher education improvement programs developed by the seven states most directly involved: Florida, Maryland, Michigan,

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[251]Ryland W. Crary, Humanizing the School: Curriculum Development and Theory (New York: Alfred A. Knopf, 1969), pp. 118-119.

[252]Leslie A. Hart, The Classroom Disaster (New York: Teachers College Press, Columbia University, 1969), p. 305.

[253]Howard E. Bosley, ed., Teacher Education In Transition: Volume One, An Experiment In Change (Baltimore: Multi-State Education Project, May 1969). M-STEP is an acronym for the Multi-State Education Project.

[254]Howard E. Bosley, ed., Teacher Education In Transition: Volume Two, Emerging Roles and Responsibilities (Baltimore: Multi-State Education Project, July 1969).

South Carolina, Utah, Washington, and West Virginia. The models described, particularly in Volume One, An Experiment In Change, range from Washington State's "An Experimental Model for Preparing Teachers to Develop Behavioral Objectives"[255] to Florida State University's model of a pre-service curriculum including "five major and unique features . . .: self-paced experiences rather than courses; criterion-referenced performance evaluation rather than standard grading; sequenced theory-practice contiguity; progressive synthesis experiences; and a computerized management control system with feedback capabilities."[256] The latter model includes recycling provisions and a "Generalized PERT Network of Student Progress Through Training Program." (PERT, of course, is the armed forces-and-industry-developed Program Evaluation and Review Technique by which as many as possible of a project's component, time, relationship, and other variables are extrapolated in an essentially linear pattern to identify potential delays and problems, to correlate diverse input subsystems, and to improve efficiency in completing the project.)[257] Also discussed in M-STEP Volume One are models involving student teaching, teaching-strategy planning, and an

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[255]Bosley, Volume One, op. cit., pp. 154-161.

[256]Ibid., p. 147.

[257]Ibid., p. 152. Two brief but descriptive references which discuss the PERT concept are: Desmond L. Cook, Program Evaluation and Review Technique: Applications in Education (Washington, D. C.: Office of Education, U. S. Department of Health, Education, and Welfare, 1966), paperbound, available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., 20402 [Superintendent of Documents Catalog No. FS 5.212:12024], 45 cents. Also, John Pfeiffer, New Look At Education: Systems Analysis In Our Schools and Colleges (Poughkeepsie, N. Y.: Odyssey Press, 1968).

"Internship in Living."[258] In addition, the volume includes "A Guide to Effective Teaching: A Map of Classroom Conditions Required for Producing Behavioral Change in Students," by Asahel D. Woodruff.[259]

Systems feasibility for education has also been a special interest of Walt LeBaron, who in February 1969 presented "A Systems Approach to the Organization of Teacher Training Experiences."[260] His two-part model sequentially orders major blocks of study according to systems analysis principles and procedures, and encompasses both a 4-year pre-service teacher preparation period and the first several years of inservice teaching experience.

A year later, Joel Burdin described and suggested applications for the process of "futurism" and its relevance to systems-based educational planning. He presented tentative process-model charts of 18 societal trends and discusses the effects of their extrapolated consequences on various aspects of education, including impacts on school personnel preparation.[261]

Probably no single system, idea, model, or program will ever be "the" best for teacher preparation and other educational planning and implementation. That would include systems analysis, and in 1969 Harry J. Hartley described 25 limitations of systems analysis in

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[258]Bosley, Volume One, op. cit., pp. 167, 251, 272.

[259]Ibid., pp. 290-306.

[260]Walt LeBaron, "A Systems Approach to the Organization of Teacher Training Experiences" (Santa Monica, Calif.: System Development Corporation, February 1969). (ERIC ED 035-587.)

[261]Joel L. Burdin, "Futurism: A Needed Process in School Personnel Development" (East Lansing, Mich.: Michigan State University, 1970). (ERIC ED 036-497.)

education.[262] These ranged from "Illusions of Adequacy by Model-Builders" to "Monumental Computer Errors" and "Defects in-Analysis" and included several identifying political, social, and other external complicating hindrances.[263]

A developing major area of teacher preparation particularly suited to systems applications involves what has come to be known as "performance-based" curricula include courses substantially in agreement with the courses [or areas] prescribed in [state] certification regulations," a "performance-based curriculum is a program with specific objectives and specific procedures for determining the extent to which the objectives have been accomplished."[264]

Already several states are moving toward requiring "performance-based certification" which should speed the development and establishment of performance-based curricula at teacher preparation institutions. One of the best recent brief descriptions of such certification is Del Schalock's:

> For several decades the primary basis for teacher certification has been a [requirement] . . . that a student demonstrate that he knows enough in various courses that he can pass them with a grade of "C" or better; that he is able to apply that which he knows at some minimal level as a "student teacher"; and that he is physically, mentally, morally, ethically, and attitudinally acceptable as a member of the teaching profession. . . . Generally speaking the basic assumption underlying such an approach to certification is that knowledge of subject matter, teaching methods, children's learning, and so forth--as measured by course grades--is a

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[262]Harry J. Hartley, "Limitations of Systems Analysis," Phi Delta Kappan, Vol. L (May 1969), pp. 515-519.

[263]Ibid., p. 519.

[264]Bosley, Volume Two, op. cit., p. 35.

> basic predictor of teaching capability. Such knowledge is coupled with a brief testing of the ability to apply what is known in a student teaching situation and a subjective judgement as to the acceptability of a particular student to the teaching profession.
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> [Footnote:] . . . In a strict definitional sense, performance-based certification means only that the criteria for certification be made explicit, and that prospective teachers be held accountable for meeting those criteria. . . . The term ["performance-based"] . . . now generally refers to or includes (a) more stringent criteria for knowing than course grades; (b) the performance of specified teaching or teaching related behaviors, and/or (c) the demonstrated ability of a prospective teacher to bring about desired instructional outcomes, that is, desired outcomes in pupils, or desired non-instructional outcomes, for example, the ability to design and develop a curriculum or the ability to design and carry out a curriculum evaluation study. These three "classes of criteria" for certification can be referred to respectively as knowledge criteria, skill criteria, and competence criteria.[265]

To what immediate administrative changes could this lead with regard to state, teacher preparation institution, and teacher candidate? According to Schalock,

> Two operational patterns generally attend such a position: (a) the release of a teacher education program from a rigid dependency on time, course units, grades, and so forth as a basis for certification; (b) a portfolio describing that which a prospective teacher is able to do and to accomplish, as well as that which he knows, used to replace the traditional college transcript.[266]

Perusal of the literature--particularly publications appearing since 1968--indicates that an increasing number of colleges and universities in the United States are implementing, developing, adopting, or

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[265] H. Del Schalock, "The Focus: Knowledge, Teaching Behavior, or the Products?" Performance-Based Certification of School Personnel, Joel L. Burdin and Margaret T. Reagan, eds. (Washington, D. C.: ERIC Clearinghouse on Teacher Education and the Association of Teacher Educators [joint publication], February 1971), p. 43 (text and footnote).

[266] Ibid., p. 44.

at least considering systems-related teacher preparation models and programs.

At the University of Kentucky, for example, the College of Education faculty since early 1970 has been considering three related models: a linear, flow-type Teacher Education Model; a Flow Schema of Continuous Screening for Teacher Education Program; and a Manager of Learning Experience Model involving Environmental Stimulation, Teaching Skill, and Supportive Skills (ranging from Reinforcement and Knowledge of Academic Material to Relationship of Nonverbal Behavior to Subject Matter).[267] Related to these models are descriptions of academic and instruction "Areas of Concern," a study of "Criteria for Career Success in Teaching," a "Tentative List of Behavioral Objectives for a Teacher Education Program," and tentative strategies for achieving those objectives.[268]

The U. S. Office of Education-supported systems-based ten elementary teacher preparation models and programs have been and will again be cited. (See the Selected Considerations in Elementary Teacher Preparation section later in this chapter, for example.)

Criterion measures are a major feature also of the Tri-U Teaching Competency Model for interns developed by the Tri-University Project in Elementary Education at the University of Washington. This model provides considerable involvement with cooperating elementary schools

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[267]"Progress Report of the Committee on Criteria for Career Success in Teaching," Education Faculty Document #49 (Lexington, Ky.: College of Education, University of Kentucky, April 28, 1970), pp. 3, 4, 5. (Mimeographed.)

[268]Ibid., Appendices A-D.

and includes student experience in three major phases: Pre-Instruction, Instruction (Teaching-Learning Process), and Post-Instruction [essentially involving evaluations].[269]

"Project Criterion" is the name of the systems-structured competency-based teacher education model/program of the College of St. Scholastica, Duluth, Minnesota. This program involves local schools, too, and has three major aspects, involving student experience with (1) behaviorally-stated performance objectives, (2) individual instruction, and (3) "SimuLabs." The individual phase requires the completion of "Instructional Project" (IP) minipaks color-coded by level of difficulty. Each IP has six parts: content classification, purpose, criterion performance description, evaluative criteria (usually questions to measure competency), "Taxonomy Category" (knowledge, comprehension, application, or invention), and list of resources. The SimuLab experiences involve working with children at various levels (e.g., tutorial) throughout the four undergraduate years.[270]

A good, generalized description of aspects of a systems-approach model is Syracuse University's slide and cassette package entitled "Competency-Based Teacher Education: An Overview." According to this presentation, students are assessed in relation to knowledge criteria (. . . "to gauge the student's cognitive understandings"), performance criteria (". . . to assess his teaching behaviors"), and product criteria

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[269]Ambrose A. Clegg, Jr., and Anna S. Ochoa, "What Does Today's Teacher Need To Know and To Do?" Educational Leadership, Vol.27 (March 1970), pp. 568-572.

[270]"Project Criterion" (Duluth, Minn: College of St. Scholastica), cassette-slide package, undated but probably late 1970. Viewed by the author March 11, 1971.

(". . . to assess his teaching effectiveness [by measuring] the growth of pupils he has taught . . ."). Further, "In a traditional program, time is held constant while achievement varies. . . . In a competency-based program, [mastery] achievement is held constant and time varies. That is, . . . the student achieves [the specified] competencies at his own rate of progress." Keystone of a competency-based program "is the instructional module, . . . a set of learning activities intended to facilitate the student's achievement of an objective or set of objectives," and involving a pre-test, the instructional activities, and a post-test. Prime aspects are involvement with an interdisciplinary, field-centered curriculum emphasizing individualized experiences, small group work, seminars, and counseling.[271]

The behavioral/systems-based "commitment to competency" is gaining such popularity that Robert J. Nash recently criticized it as "the new fetishism in teacher education."[272] Among other negative aspects of such programs, he declared, ". . . we are hawking the notion that what constitutes learning in any acceptable educational situation is only that which is observable, demonstrable, and objectively defined." The competency model "effectively insures that teachers never ask meaningful, disturbing questions about education, school, and the social order," he stated. ". . . The teacher education model [should] balance its

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[271]"Competency-Based Teacher Education: An Overview" (Syracuse, N. Y.: Center for the Study of Teaching, School of Education, Syracuse University), cassette-slide package, undated but probably late 1970. Viewed by the author March 2, 1971.

[272]Robert J. Nash, "Commitment to Competency: The New Fetishism In Teacher Education," Phi Delta Kappan, Vol. LII (December 1970), pp. 240-243.

commitment to performative training with a sense of reformist zeal," Nash proposed.[273]

Nash may be too harsh too soon, even assuming that a majority of teacher educators agree that "reformist zeal" is necessary, which is [perhaps unfortunately] doubtful. Certainly the kind of program outlined in the Syracuse presentation cited above would seem to allow provisions for the kinds of orientations and curricular experiences Nash feels a teacher education program should include. Indeed, in a general way, this is largely the point of James Cooper's subsequent criticism of Nash's article.[274]

In any event, performance/competency-based teacher education models and programs seem here to stay for a while, and in fact the American Association of Colleges for Teacher Education expects to publish both a working, annotated bibliography and ". . . its first official statement of tentative conclusions on the state of the art . . ." soon after mid-1971.[275]

HuBS Models.--HuBS is a quasi-acronym for identified models which seem to blend Humanistic and Behavioral/Systemic approaches to teacher preparation.

One example would be the model program outlined in Teachers For

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[273] Ibid., pp. 241, 242.

[274] James M. Cooper, "What is Competency-Based?" ("Backtalk"), Phi Delta Kappan, Vol. LII (February 1971), p. 390.

[275] Karl Massanari, "AACTE explores performance-based teacher education," AACTE Bulletin, Vol. XXIV (March 1971), p. 3n.

The Real World and cited earlier in this chapter.[276]

Another would be Bruce Joyce's proposal[277] for increasing use of a "center of inquiry" approach and creating teacher education programs in three stages: (1) Identify "the areas of reality, control over which will enable the teacher to be creative and function effectively, renewing himself and participating in the re-creation of educational forms and processes." (2) ". . . Develop curricular systems to achieve that control," and (3) ". . . integrate those systems into a curricular program."[278] The five general areas of reality to which Joyce referred were: (a) Shaping the School (e.g., know systems of thinking, including the ability to analyze and construct curricular systems, social systems, and technical systems involved in the education of many children. Use didactic thinking and learning about systems thinking, then laboratory experiences to achieve this, he said). (b) Instructing. (c) Creating Interpersonal Climates. (d) Knowledge and Knowing (i.e., the characteristics of knowledge, how it is created and structured, etc.). (e) The Self.[279]

Certainly a third blend-example, while not a diagrammatic model, would be Richard Miller's aggregate of suggestions for "Teacher Education

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[276]B. O. Smith, et al., Teachers for the Real World, op. cit. (See footnote no. 167 in this chapter.)

[277]Bruce R. Joyce, "Method and Methods in Teacher Education: Geist, Substance, and Form, "The Journal of Teacher Education, Vol. XX (Winter 1969), pp. 509-520. "Geist" is a German word that means (approximately) "spirit."

[278]Ibid., p. 516.

[279]Ibid., pp. 516-518.

and Preparation for the 21st Century."[280] Miller advocated consideration of the use of systems analysis and identified 16 suggestions to attain objectives. Most of the 16 "are in operation in the nation, but nowhere can one find a comprehensive model featuring more than a few of them."[281] Briefly, they include the following points:

The freshman and sophomore years should include broad, nonprofessional education, except that the first professional exposure should be a stimulating one semester course in the sophomore year.

Undergraduate study should include a semester or summer abroad, with immersion in another culture and with ability to speak its language.

"Preservice programs should have a strong inquiry bias," and should include study of innovations and the process of change.

"Competence in research methodology and design should be expected of all students at both undergraduate and graduate levels."

Programs should include features of continuous student progress (e.g., flexible scheduling, nongraded classes), team teaching, and truly independent study. Also, student-planned courses should be included.

"The professional semester should extend for two semesters,

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[280]Richard I. Miller, "Teacher Education and Preparation for the 21st Century," School and Society, Vol. 98 (Summer 1970), pp. 278-281. Based on an address given November 8, 1967.

[281]Ibid., p. 278.

alternately during the fourth and fifth years."

"Volunteer community teaching by preservice students should be encouraged and facilitated," and some credit should be granted for it.

". . . Colleges of education should have departments of communication, educational change, educational technology, and research development."

"Teacher education should be an all-university function."[282]

Herbert Heger's proposed Ecological Systems Approach (ESA)[283] for certain aspects of the teacher education curriculum could be considered yet another blend example. Heger has pointed out that "Although productive citizens still need an understanding of acts, concepts, and the structure of knowledge, the new demands of society require mastery of the concepts of (1) interdependence, (2) interaction, (3) dynamics, (4) balance, and (5) resource allocation as they relate to the systems concept."[284] The ESA would develop "systemic problem-solving skills through the use of simulation techniques with real and hypothetical systems; field experiences would be emphasized where appropriate," according to Heger.[285]

Other Conceptual Models.--A number of well-presented and well discussed conceptual models in (although not of) teacher education were

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[282] Ibid., pp. 278-280.

[283] Herbert K. Heger, "An Ecological Systems Approach to Teacher Education," The Journal of Teacher Education, Vol. XX (Summer 1969), pp. 158-159.

[284] Ibid., p. 158. [285] Ibid., p. 159.

gathered and made public in 1967 by John R. Verduin.[286] They were developed or cited during the 1965-66 academic year study at the State University of New York, Geneseo, New York, to analyze and consider theoretical foundations of teacher education. So many concepts, paradigms, organizational systems, and models have been packed into this book that even a sampling is difficult. Depending upon his research direction, anyone working to improve teacher preparation will find that the 13 presentations by different authors (coupled with Verduin's opening observations and conclusions) fit the descriptions of their titles:

> "The Logical Aspects of Teaching," B. Othanel Smith.
> "Teaching Strategies for Cognitive Growth," Hilda Taba.
> "Paradigms and Theories of Teaching," N. L. Gage.
> "Interaction Analysis," Ned Flanders.
> "The Language of the Classroom," Arno Bellack.
> "The Classroom Group and the School as a Unique Social System," J. W. Getzels.
> "The Uses of Knowledge," Harry Broudy.
> "Logical Structure of Teaching," Albert Hickey.
> "Structure of the Intellect," James Gallagher.
> "Inquiry Training," J. Richard Suchman.
> "Concept Formation and Learning Unit Design," Asahel Woodruff.
> "Educational Goals," David Krathwohl.
> "Theories of Instruction," Elizabeth Steiner Maccia.

Other conceptual models of teacher education or involving variables and other factors either present or which ought to be considered in teacher preparation can take forms other than those exemplified by the narrowly systemic or generally humanistic models earlier cited. And well they can and might. For a broad search through the literature indicates that not only is there a "dearth of findings" with regard to

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[286]John R. Verduin, Jr., Conceptual Models in Teacher Education, An Approach To Teaching and Learning (Washington, D. C.: The American Association of Colleges for Teacher Education, 1967).

describing, preparing for, and evaluating effective teaching, as Ibrahim Saadeh has agreed,[287] there are few tested and proven models of teacher preparation programs able to predict accurately, and effect consistently, high learning and teaching competence in students.

Saadeh, after reviewing and discussing the various aspects of research with regard to teacher effectiveness, concluded essentially that most research focused on single or small numbers of variables and factored out or ignored the majority of possible other variables that might be influential in the situations under study. Also, the literature seemed to indicate pretty broadly that depending on the context and the individuals involved, many ways of teaching and learning can be effective. Thus, he realized, ". . . one can see that taking one variable in a more than one variable situation, and assuming a priori that is the only variable contributing to the variance of the behavior of that situation, is inadequate."[288]

> "It assumes 'all else is equal,' and in settings where this is never true, and where interactions between variables are often the critical determinants of results, the importance of examining simultaneously a large number of aspects of behavior is being more and more widely accepted."[289]

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[287] Ibrahim Q. Saadeh, "Teacher Effectiveness or Classroom Efficiency: A New Direction in the Evaluation of Teaching," The Journal of Teacher Education, Vol. XXI (Spring 1970), pp. 73-74.

[288] Ibid., p. 80.

[289] Ibid., quoting R. S. Soar, Multivariate Statistical Procedures in Predicting Teacher-Pupil Classroom Behavior. U. S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Project No. 1170 (Columbia: University of North [sic] Carolina, 1962), p. 5. [Note: The University of South Carolina is located in Columbia, S. C. The University of North Carolina is located in Chapel Hill, N. C.]

Following these acknowledgements, Saadeh postulated and described a model "for Classroom Efficiency Appraisal"[290] designed to be compatible with a system analysis approach.

One recent attempt to come to grips with the problem of considering a universe of variables and their interrelationships is the Purdue D-O-S-E (Diagnosis-Objectives-Strategy-Evaluation) model of a teacher education program.[291] Acknowledged as "basically a theoretical construct,"[292] the model includes tri-dimensional subsystems "whose parameters are defined by three [expandable and modifiable] continua, for example, the 'Physical,' 'Social,' and 'Cognitive-Affective' continua of Diagnosis. . ."[293] Computer applications could "generate interrelationships within and among the various components. The hierarchichal characteristics of the continua make it possible both to construct simple order combinations of D-O-S-E elements and to generate complex interactions by employing many elements simultaneously."[294] The Diagnosis component and the three continua are illustrated by a multi-cell three-dimensional figure.[295]

The use of such a figure to illustrate conceptualized contextual relationships and complex influences and relationships is not new, of course. Guilford, Merrifield, and Cox used one to show Products, Contents,

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[290]Saadeh, op. cit., pp. 83-88.

[291]Gerald M. Knowles, "A Strategy for Teacher Education," Educational Leadership, Vol. 27 (March 1970), pp. 564-567.

[292]Ibid., p. 565. [293]Ibid., p. 566.

[294]Ibid., p. 567. [295]Ibid., p. 566.

and Operations cells' relationships in a Structure of Intellect.[296] George Beauchamp utilized one for a model for curriculum design; it related "content organization" cells to those involving "behavioral objectives" (concepts, skills, values) and "rules for use and evaluation."[297] Kelly Duncan and Jack Frymier postulated a three-dimensional figure to show a relationship context for "forces" affecting curriculum: source of influence, nature of influence, and degree of influence.[298] And there are other usages.

Terry Cornell incorporated three such models in his recent paper on "An Organizational Structure of Variables Affecting Teacher Education Programs."[299] One showed relationship among institution, instruction, and behavior (cognitive, affective, psychomotor) variables, the second presented a perspective for student, content, and cognitive behavior, and the third for elementary student, science area, and

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[296]J. P. Guilford, P. R. Merrifield, and Anna B. Cox, Creative Thinking in Children at the Junior High Level. U. S. Office of Education Cooperative Research Project No. 737. (Los Angeles: University of Southern California, September 1961), reproduced in James Gallagher, "Structure of the Intellect," Conceptual Models in Teacher Education, An Approach To Teaching and Learning, by John R. Verduin, Jr. (Washington, D. C.: The American Association of Colleges for Teacher Education, 1967), p. 86.

[297]George A. Beauchamp, Curriculum Theory, 2d ed. (Wilmette, Ill.: The Kagg Press, 1968), p. 103.

[298]James K. Duncan and Jack R. Frymier, "Explorations in the systematic study of curriculum," Theory Into Practice, Vol. VI (October 1967), p. 199.

[299]Terry D. Cornell, "An Organizational Structure of Variables Affecting Educational Programs" (Tucson, Ariz.: EPIC Evaluation Center, undated). (Paper presented at the American Educational Research Association convention in Minneapolis, Minnesota, March 2-6, 1970.)

knowledge (of specifics, of ways and means of dealing with specifics, and of universals and abstractions in a field).[300] Cornell acknowledged that models two and three could be organized according to areas and levels set forth in Bloom's Taxonomy.[301]

Models provide a broad perspective. Yet teacher preparation also involves many specifics, so a selection of these will be mentioned next.

Selected Considerations In General Teacher Preparation

A point particularly pertinent for preparers of pedagogues was made by Francis Chase in an April 1964 Cornell University address. "There is an immediate need," he said, "for careful redistribution of the functions of instruction so that some functions may be performed by one set of specialists and others by those with different sets of aptitudes and different kinds of training. Technological advances have made it unnecessary for the teacher to be the only or the main source of information. Awareness and understanding, their uses and limitations, are far more essential to effective teaching than skill in lecturing. Although we know too little about how the teacher may aid learning with problematic situations or diversified incentives, we know enough to devise situations in which teacher trainees can become aware of and acquire some skill in the diverse approaches to motivation and learning. The teacher's role is growing more and more complex, and will eventually involve the management of a diverse array of stimuli for learning. It

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[300] Ibid., pp. 3, 11, and 13.

[301] Ibid., pp. 10, 12, citing Benjamin S. Bloom, et al., Taxonomy of Educational Objectives, Handbook I: Cognitive Domain (New York: David McKay Company, Inc., 1956).

also requires special sensitivity and skill in helping learners set goals and assess progress in goal achievement."[302]

A number of the technological and other developments to which Chase referred were described in two paperbacks published in 1964: Revolution In Teaching: New Theory, Technology, and Curricula,[303] and Programs, Teachers, and Machines.[304] Both were edited by Alfred de Grazia and David Sohn and included articles by a number of educators and others.

Involving the University

"Innovation in Teacher Education" was the theme and the advocacy of an educators' conference at Northwestern University in November 1964. According to its report, the conference noted two major problems in education:

> 1) Too little energy has been invested in identifying and exploring the aims of education and of teacher education.
> 2) This has resulted in a great deal of piecemeal, disconnected, and uncoordinated educational planning.[305]

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[302]Francis S. Chase, "Teacher Education Re-examined," Third Annual School of Education Lecture delivered at Cornell University, Ithaca, New York, April 3, 1964. (Mimeographed copy, pp. 8-9. A copy is available at the Center for Extended Services and Studies, College of Education, Kansas State University.)

[303]Alfred de Grazia and David A. Sohn, editors, Revolution In Teaching: New Theory, Technology, and Curricula (Bantam Matrix Edition; New York: Bantam Books, 1964).

[304]Alfred de Grazia and David A. Sohn, editors, Programs, Teachers, and Machines (Bantam Matrix Edition; New York: Bantam Books, 1964).

[305]Eliezer Krumbein, "Conference Digest," Innovation in Teacher Education, Report of a Conference at Northwestern University November 16-17, 1964 (Evanston, Illinois: Northwestern University Press, 1965), p. 37. (Also ERIC ED 011-876)

The conference's ten conclusions were drawn by James Conant. Besides acknowledging a need for closer involvement of cooperating schools and state departments of education, the participants concluded:

> 1) A university-wide or "all-university" approach to the preparation of teachers, under the leadership of schools of education and principal officers of the university, offers promise as a way of improving teacher education in this decade.
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> 6) Preparation in the art of teaching requires laboratory experiences [which must be articulated so as to] constitute a cohesive experience which would be instrumental to a continual improvement in a candidate's teaching.
>
> 7) . . .Such articulation might best take place through the person of a "professor of the art of teaching" or "clinical professor" [who] would be a teaching member of a staff of a cooperating school and . . . also be a member of the education faculty in the university, . . . responsible for . . . supervision of practice teaching and the special methods course . . .
>
> 8) The school of education should increasingly strengthen its position of leadership in the development of innovations in education [as widely as possible, including outside both the school (of education) and the university].[306]

Realistically, the "all-university" approach in a multipurpose university setting would rely for effectiveness more on interdepartmental cooperation than on directed integration, since arts-and-sciences orientations and those of professional educators often diverge. This would be important not only to the teacher education program itself, of course, but also to those in it, since (as Paul Masoner pointed out) "What an institution is like inevitably has an effect upon the students who are a part of it."[307]

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[306]James Bryant Conant, "Conclusions of the Conference," Innovation in Teacher Education, Report of a Conference at Northwestern University November 16-17, 1964 (Evanston, Illinois: Northwestern University Press, 1965), pp. 57-60. (Also, ERIC ED 011-876.)

[307]Paul H. Masoner, A Design for Teacher Education, Horace Mann Lecture, 1963 (Pittsburgh, Pa.: University of Pittsburgh Press, 1963), p. 31.

Moreover, divergence has its points. Harry Broudy, for example, has noted that courses presenting the history and philosophy of general educational problems ". . . cannot give detailed attention to the specialties. . . . Whereas the general history and philosophy of education work has to be given by philosophers and historians of education, the humanistic aspects of a specialty should be given by the specialist who teaches the specialty and is part of the student's specialized study."[308]

Selection of Teacher Candidates

Screening and selection of teacher candidates would seem to be one of the most important areas of teacher education. Yet the cumulative conclusion indicated by a perusal of the literature is that this is one of the areas of least consistency in quality. Administrative considerations prevail: too often, entrance requirements are a grade average equal to little better than a "C," passing of a few prerequisite courses, passing of a physical examination, and not much else. Rarely, if ever, are these basic stipulations augmented by such logical experiences as a mental health examination, a demonstration that the candidate indeed comprehends and can articulate the concepts and structural characteristics of his major area of academic interest, or a presentation of evidence that he has solidly considered and established his reasons for wishing to enter education and that those reasons are compatible with educationally professional ideals.

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[308]Harry S. Broudy, "The Role of the Foundational Studies in the Preparation of Teachers," Improving Teacher Education in the United States, Stanley Elam, editor (Bloomington, Indiana: Phi Delta Kappa, Inc., 1967), p. 19n.

Paul Woodring was quite blunt about the knowledge requirement: "I would suggest that we give each candidate for teaching an eighth grade achievement test and eliminate all those who know less than the students they will teach."[309] And beyond that, said Woodring:

> If the teacher is to play his role as mediator of the culture it seems clear that he must understand that culture and be an active participant in it. To make sure of this I would require that all candidates for teaching, sometime before entering the professional program--perhaps at the end of the sophomore year of college--be given a comprehensive test of general culture to test his understanding of all the major areas of knowledge--the arts, the humanities, the sciences, and the social sciences. These should not be the examinations required of specialized scholars but new tests related to the goals of liberal education with an emphasis on broad understanding and insight rather than detail.[310]

Much of the inadequacy in screening and selection no doubt derives from long-standing confusion and disagreement with regard to what characteristics a "good" teacher should have, as Saadeh,[311] for one, has indicated.

From the lack of professionally-oriented entrance criteria one could almost assume that educators expect that only paragons, or near-paragons, will apply: a person such as the Reverend J. Barry Jones described in the abstract of his 1967 Ph.D. dissertation:

> . . . The candidate-teacher should be a dedicated, enthusiastic, artistic, truth-seeking, youth-loving, adventure-desiring, self-developing personality; a personality which sees the need of becoming the well-rounded, broad, educated and perpetually self-educating, experienced, traveled, exciting personality which the ideal teacher-personality

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[309] Paul Woodring, "The Challenge for Excellence" (Symposium--"Basic Rationale for the Education of Teachers--Three Views"), Strength Through Reappraisal, Sixteenth Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1963), p. 28.

[310] Ibid. [311] Saadeh, op. cit.

would seem to be, according to the tenor of this dissertation.[312] Would that even a moderate number of all teacher candidates had all those qualities, for certainly:

> The schools need variety in the talent and function of their teachers rather than sameness and standardization. They need teachers who are capable of grasping the value of new ideas and are able to move in new directions when the evidence warrants.[313]

Educators would be the first to admit that evidence of intelligence should be a prime requisite. Robert Bush has pointed out, for example:

> Terman's Genetic Studies in Genius suggest the positive correlation between high intelligence and superiority in other important dimensions of human personality. Furthermore, since teaching in school is a complex activity, which has as its central aim the intellectual development of pupils, it follows that effective teaching requires persons of high intellectual capacity.[314]

Indeed, former U. S. Commissioner of Education Sterling McMurrin has asked, "Is there any justification for admitting persons of less than first-rate ability and promise to the teaching profession?

"By first-rate ability and promise," he continued, "I mean not only the possession of those intellectual skills essential to high

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[312] J. Barry Jones, Rev., "Developing the Acceptable Teacher Personality," Dissertation Abstracts, 28:3056-A, February 1968 (St. Louis University).

[313] Committee for Economic Development, Innovation in Education: New Directions for the American School (New York: Committee for Economic Development, July 1968), p. 14. Quoted in George E. Dickson and Samuel L. Creighton, "Who Is This Person We Call Teacher?" Educational Leadership, Vol. 26 (February 1969), p. 457.

[314] Robert N. Bush, "A Schema for Teacher Education," Chapter VIII in A Re-Appraisal of the Professional Aspects of Teacher Education, Elmer R. Smith, ed. (Palo Alto, California: Center for Advanced Study in the Behavioral Sciences, 1960), p. 195. Report of a Conference Sponsored by the Fund for the Advancement of Education. The reference is to Lewis M. Terman, Genetic Studies of Genius (Stanford, California: Stanford University Press, 1925).

learning, but also those capacities for achieving broad perspectives and profound insight and for the cultivation of general wisdom as well as the acquisition of knowledge. . . .It is a strange thing that it has been common to assume that university students of scarcely more than average academic ability should be admitted to the teaching profession."[315]

But wouldn't requiring high standards tend to drive students away? Not at all, according to Mr. McMurrin: ". . . unless I have been misinformed, those institutions that have raised their academic admission and retention standards have found that this did not harm their drawing power--quite the opposite. We may just as well face the fact that most students of high intellectual ability want an education that is commensurate with their capacities."[316]

Naturally, admittance should be no guarantee of retention. "The teacher's leadership role calls for a high order of scholarship" directed toward action, Florence Stratemeyer has said, adding, "Clearly, not all who may wish to teach can develop the qualities needed."[317]

Certainly this is what the West Virginia University faculty found

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[315]Sterling M. McMurrin, "Some Basic Issues in Teacher Education," Professional Imperatives: Expertness and Self-Determination, Official Report of the Seventeenth National TEPS Conference, Fort Collins, Colo., June 26-29, 1962 (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1962), pp. 4, 5.

[316]Ibid., p. 5.

[317]Florence E. Stratemeyer, "Issues and Problems in Teacher Education," Teacher Education for a Free People, Donald P. Cottrell, ed. (Oneonta, New York: The American Association of Colleges for Teacher Education, 1956), p. 57.

when they field tested their new flow-chart and checkpoint-monitored performance curriculum in undergraduate teacher education. Of 259 students in the beginning sequence during the spring semester 1968-69, 38, or 14.9 percent, withdrew during the semester. Two possible reasons were suggested: "First, students were required to learn new behaviors rather than attending class three days per week. In the beginning students had difficulty in learning the behaviors expected of them. Secondly, many students were unable to assume the responsibility for their own learning. These students demonstrated little or no progress and, consequently, were so far behind they elected to withdraw from the course."[318]

In a sense, in the West Virginia program, the decision as to whether a student should be retained was made by the student himself. But from an institutional standpoint, who might best make selection and retention decisions? William Edson has suggested: "To avoid capricious action, to make decisions more likely to be representative of faculty thinking, and to share a responsibility that is properly a faculty responsibility, selection should be in the hands of a committee rather than an individual."[319]

Something of what a selection committee might look for, as actual, or potential for, "desired teacher characteristics" was recently suggested by three educators working with the inner-city-teacher

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[318]Rogers McAvoy and Alvin R. Carter, "A Performance Curriculum in Teacher Education" (paper presented at the American Educational Research Association convention, March 2-6, 1970, in Minneapolis), pp. 7, 8.

[319]William H. Edson, "Selecting Students for the College of Education at the University of Minnesota," The Journal of Teacher Education, Vol. XIV (March 1963), p. 53.

preparation Cleveland Project, with which The Ohio State University is involved. Characteristics listed which usually were not apparent or so succinctly stated as traditional program concerns included a "native language" competency ["a) correctness and effectiveness of expression, b) interpretation of literary material"], diagnosis skills (awareness, inductive reasoning, empathy), prescription skills (creativity, judgment), treatment skills ("engineering" and "management"), motivation and conscientiousness, and the point that "context must be considered an integral part of the variables."[320] They might have added: integrity.[321]

But even the best students can have problems. One way to help them would be to keep continuous, current diagnostic--as well as academic--records. The University of Florida College of Education faculty did this as far back as 1954, stressing remedial work and counseling, not just advising, when necessary.[322]

In fact, Martin Haberman has suggested "that teacher education will be better served by seeking to learn more ways of developing elements within individuals rather than trying to reconstruct identical situational elements between preservice and in-service experiences."[323]

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[320]Jack M. Ott, Barbara S. Thomson, and Howard O. Merriman, "Prescription for Pedagogy: A Teacher Education Program," The Journal of Teacher Education, Vol. XXI (Fall 1970), pp. 352-356.

[321]Robert N. Bush, "A Schema for Teacher Education," loc. cit.

[322]Robert O. Stripling and Thomas R. Horton, "Selective Admission to Teacher Education," The Journal of Teacher Education, Vol. V (March 1954), p. 76.

[323]Martin Haberman, "The Concept of Transfer and the Preparation of Teachers" (paper presented at a conference honoring Florence B. Stratemeyer at French Lick, Indiana, June 10-12, 1965). (ERIC ED 023-635).

In other words, a student's beliefs and personality characteristics will influence his actions--perhaps even predictably--in any given situation, and their cumulative effect in succeeding situations where he sees no need to change will reinforce the strength of his beliefs and characteristics. Robert Weiss saw this in considering whether a student should have even a brief teaching experience before studying intermediary theory and research:

> One real advantage [of such a sequence] is that prior to successful teaching, students often have so many fears about such teaching tasks as classroom discipline that to involve them in the broader liberal, social, and psychological aspects before they have some classroom security is to waste learning time. . . .But experience, per se, no more guarantees increased maturity and the ability to cope with large questions than does the aging process. In this writer's experience as a teacher, the personality of the student, especially in respect to emotional and intellectual security, open versus closed mindedness, and flexibility versus rigidity, is as crucial to their [sic] readiness to explore the societal and theoretical of education as is their age or amount of teaching experience.[324]

Obviously, the more of the positive aspects a student has internalized before he enters a teacher preparation program, the more the program can help to reinforce and increase his characteristics and the less the time and the fewer the resources that will be required merely to bring him to the point of such internalization.

And whether a teacher shortage exists (as has been reported[325]) or not (as M. M. Chambers claims[326]), there will always be a need for

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[324]Robert M. Weiss, The Conant Controversy in Teacher Education (New York: Random House, Inc., 1969), pp. 58-59.

[325]See, for example, "Now: Too Many Schoolteachers," U. S. News and World Report, Vol. LXIX (July 6, 1970), pp. 22-23.

[326]M. M. Chambers, "No Teacher Surplus," Phi Delta Kappan, LII (October 1970), pp. 118-119.

intelligent, humane persons of high character and integrity to be teachers.

Teacher educators have tried to include these factors in their selection criteria. As example, William Hicks and Frank Blackington in 1965 generalized admission requirements for 23 college and university teacher education programs; most often included, they found, were: student's personal qualities, physical fitness, emotional stability, and social maturity; student's high school record, innate intelligence (by testing), minimum grade point average, and (although usually only by grades) his subject-matter knowledge; recommendation of the student's advisor; approvals by a teacher education admissions committee, by the college counseling center, and/or the office of the dean of students on moral and personal characteristics.[327]

Although such generalizations can be compiled, the literature indicates few, if any, specific minimum requirements colleges must include in their criteria for admission to teacher education. Even NCATE's new Standards, mandatory for all NCATE-accredited institutions commencing fall semester of 1971, for regular programs sets only the standard:

> The institution applies specific criteria for admission to teacher education programs; these criteria require the use of both objective and subjective data.[328]

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[327]William Vernon Hicks and Frank H. Blackington, III, Introduction to Education: An Orientation to Teaching (Columbus, Ohio: Charles E. Merrill Books, Inc., 1965), pp. 158-165.

[328]National Council for Accreditation of Teacher Education, Standards for the Accreditation of Teacher Education (Washington, D. C.: National Council for Accreditation of Teacher Education, 1970), p. 9. In the original text, this standard is in italics.

Of course, as NCATE acknowledges,

> No single criterion can as yet predict success or failure. This applies to scores on objective tests as well as to more subjective criteria. Nevertheless, scores on standardized tests are useful in predicting the probability of success in the program of studies prescribed for teacher education. Test scores also provide a basis on which institutions can determine how students entering their programs compare with external indicators of probable success.[329]

In any event, the literature indicates that screening procedures should be developed and utilized for both admission to and retention in teacher education programs. "Give teaching its due. Screen candidates for it," Lester Vander Werf has said, for example.[330] L. Morris McClure was also supportive:

> Screening in teacher education is usually interpreted loosely as encompassing all procedures used to select and retain those students who show promise of becoming acceptable teachers, and to eliminate those who do not have this capacity. . . . [To make it effective], First the elements of behavior that [current] research will show to be significant must become the heart of the preservice program. Second, students must start "teaching" children early in their four-year sequence so that the new observational procedures [involving videotape, etc.] may be used for selection screening and diagnostic purposes. . . .Screening then becomes a matter of continuous evaluation of <u>performance</u>.[331]

Furthermore, as Harold Delp has declared, "There is need for more adequate screening to eliminate from the privilege of teaching those persons who are emotionally or socially unfit."[332] To support his

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[329]<u>Ibid.</u>

[330]Lester S. Vander Werf, "Education for Teaching," <u>The Journal of Teacher Education</u>, V (December 1954), p. 289.

[331]L. Morris McClure, "Screening for Teacher Education," <u>Educational Leadership</u>, Vol. 25 (November 1967), pp. 144, 147, 148.

[332]Harold A. Delp, "Mental Health of Teachers: Still a Problem," <u>The Journal of Teacher Education</u>, Vol. XIV (June 1963), p. 147. (Also ERIC ED 013-133.)

statement, Delp cited several studies of teachers' mental health--or lack of it--including one by M. E. Townsend which showed "that the chances seem to be about 7 to 1 that in 12 years of public school education a child will have at least two maladjusted teachers."[333]

These are dismaying figures. Townsend wrote in 1933 and Delp in 1963; if the situation is as bad in these, the early 1970's, then teacher educators should make every effort to locate and/or develop and use effective instruments and procedures to screen for mental health as well as for such factors as academic competence.

Naturally, such screening evaluations should also take into consideration such studies as the University of Minnesota's 1963 identification of ways to discover personality and experience factors distinguishing successful teacher education students from dropouts. One conclusion of that study was that research projects involving teacher education can appropriately begin by studying students.[334]

And that's the clue to a truly individualized preparation program for every student. Besides acknowledging societal goals and institutional facilities and resources, a curricular program must determine each student's characteristics, needs, and desires before the most comprehensive sequence of cognitive, affective, and other learning experiences specifically tailored or relevant to him can be recommended. Essential

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[333]Ibid., p. 142, citing M. E. Townsend, "Mental Hygiene and Teacher Recruiting," Mental Hygiene, Vol. 17 (1933), p. 600. (Townsend's article is on pp. 598-604.)

[334]Roger E. Wilk and Walter W. Cook, et al., "A Study of Factors Operative in the Selective Retention of Students in Teacher Education, Part I" (Minneapolis, Minnesota: College of Education, University of Minnesota, 1963), p. 155. (ERIC ED 002-803.)

to this would be "a competent diagnostic system" of the kind recently described by Scott Thomson,[335] involving the establishment of a diagnostic center and diagnostic teams. Each team would include a group of professionals who would get to know well every student assigned to it; "Gathering facts about a student's objectives, skills, maturity, interests, work habits, attitudes, psychological needs, and family expectations, the diagnostic team would begin to form an image of their client. . . .The approach would be comprehensive and would include both objective and subjective diagnoses."[336] Study of the student's resultant profile should indicate which "instructional modes" for a given experience probably would be best for him, Thomson said, and the student would discuss thoroughly with the team the diagnostic findings to ensure that he understood and accepted them.[337] Naturally, the "modes must be highly adaptive. They must provide the framework most conducive to the success of each student. They must provide not only for the intellectually 'bright and dull' but for a variety of attitudes, values, psychological patterns, and life styles," Thomson declared.[338]

Early "Professional" Experiences and Retention

All too often, in many "traditional" teacher education programs (such as the current one at Kansas State University), a student will arrive at his senior year with little or no live interaction with pupils; student teaching will be the first time he will have had to face the

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[335]Scott D. Thomson, "Beyond Modular Scheduling," Phi Delta Kappan, Vol. LII (April 1971), pp. 484-487.

[336]Ibid., p. 486. [337]Ibid., p. 487. [338]Ibid.

real consequences of his teaching actions. A number of these students (perhaps more than we care to acknowledge or try to discover) are not even sure they wish to make teaching their career. How can descriptive career knowledge be made available in an experiential way earlier than student teaching?

Certainly teacher aide experiences during semesters before student teaching, such as those instituted in 1968 at Kansas State University,[339] can be helpful. But essentially they are brief external experiences, with direct usefulness to a student heightened only to the extent that they are directly and concurrently related to an appropriate education course in which the student is enrolled (e.g., educational psychology).

Educators have grappled with the early experience problem for years. Freshman orientation courses have been one suggestion. Russell Kropp and James McClellan as far back as 1954 were writing that for such a course, "small, informal classes, no prescribed 'content,' and technical assistance in the use of test instruments are all requisites . . ."[340] As a matter of fact, the author helped to teach such an introductory course at The Ohio State University in 1968-69; while there was a generally prescribed "content," at least with regard to topics for informational intake and discussion, a real and almost always successful effort was made to have no more than 20 students in

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[339]Letter from Dr. Wayne W. Laughery to Kansas State University College of Education faculty members dated November 4, 1968 (mimeographed).

[340]Russell P. Kropp and James E. McClellan, "A Debate--Screening at the Freshman Level," The Journal of Teacher Education, Vol. V (June 1954), p. 105.

any section even though all sections (often nearly 200 students together) were merged at least once weekly for lectures, films, etc. This introductory course was heavily oriented to educational/societal issues, was presented frankly on a survey basis, and included reports and discussions of required observational experiences in both elementary and secondary schools. The author recalls several students who made definite-out or at-least-tentative-in career decisions on the basis of their course experiences. [This did not, of course, include a number of students who had already made career decisions but who merely wished to learn more about education in our society. Indeed, only approximately 50 percent of the course's summer quarter 1969 enrollment were freshmen in this freshman-level ("Education 108") course; the other half was an aggregate of sophomores, juniors, seniors, and graduate students, with student majors or declared interests running from education (naturally!) to nursing, liberal arts, art, and the ministry.][341]

One problem inherent in any initial or early experience opportunity or requirement is that not all students enter teacher education programs at the same time. At a 1967 Phi Delta Kappa symposium, Robert Bush illustrated three program designs. The first plan showed the point of entry to teacher preparation at the start of the junior year, while the second showed it at the completion of the undergraduate program. In the third design, the Stanford University program, teaching behavior was classified into two large categories, professional skills

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[341]Recollection of the author.

and technical skills.[342]

That same year R. U. Lane described

> a multitrack approach to teacher education programs as a means of accommodating the varying degrees of commitment that most students have toward the teaching profession. Since most candidates do not have teaching experience until late in their preparation period, many of them cannot transfer to another program if they realize that teaching is not the profession to which they wish to dedicate themselves. The program proposed by L. O. Andrews of [The] Ohio State University introduces teaching experience early in the junior year. Students who display deep commitment may be encouraged to enter a five-year program for master teachers while others may take a four-year program. Such a plan would permit students who are disenchanted with teaching as a career to enter another degree program.[343]

The suggested initial education program experience for teacher candidates just cited might, according to Professor Andrews, be a one- or two-hour "Introduction to Teaching" course emphasizing preparation to explore the teacher's role through direct experience in the school, viewing recorded instructional activities, "some micro-teaching, some self-teaching of class-members, some attention by each student to the subject area in which he would be assigned to work, and some visitation of his assignment for the second course."[344]

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[342]Robert N. Bush, "The Science and Art of Educating Teachers," Improving Teacher Education In the United States, Stanley Elam, ed. (Bloomington, Indiana: Phi Delta Kappa, Incorporated, 1967), pp. 41-44.

[343]"Program Proposals," Annotated Bibliography on Professional Education of Teachers (Washington, D. C.: The Association for Student Teaching, 1969), p. 44 (whence the quotation is from), annotating R. U. Lane, "Teacher Education," Illinois School Journal, Vol. 47 (Fall 1967), pp. 195-196.

[344]L. O. Andrews, "A Curriculum to Produce Career Teachers for the 1980's," Theory Into Practice, Vol. VI (December 1967), pp. 239-240. Except for the micro-teaching, the assignment for the "second course" (which did not exist in 1967 at The Ohio State University), and the increase of credits to three, this well describes aspects of the

A "Pre-Internship Experience (P.I.E.) involving the assignment of students in pairs to a certified teacher would be the second course; the students in these three-person teams would be in the schools for as long as student teachers are now and "would be guided to prepare very thoroughly for a limited amount of exploratory teaching with individuals, small groups and full classes."[345] This second course would be taken midway through the junior year and could be used as a base for later experiences and as an aid to the student's and the college's decision as to whether he should remain in the teacher education program.

Subsequent experiences for those staying might include depth-studies in education, clinical experiences with children "largely on a one to one, one to two, or one to three basis," an internship, and a two-year residency to earn a master's degree and a "Professional Teacher's certificate."[346]

Transition: Teaching and Teacher Considerations

"In the recruitment of candidates for the teaching profession," Richard Hause once observed, "recruiters are often at a loss for words when the prospects say, 'Why does anyone want to teach?'" He suggested an eight-part answer:

Education 108 course mentioned on page 162 of this dissertation. Interestingly, although Dr. Andrews was a member of The Ohio State University College of Education faculty in the 1967-1969 period, the cited course Education 108 was not a responsibility of his area (Teacher Education) but rather of the Faculty of Curriculum and Foundations.

[345] Ibid., p. 240. [346] Ibid., pp. 240-242.

(1) Time for self-improvement.

(2) Excitement, and opportunities "to excite students for positive, meaningful learning."

(3) Active participation in student and faculty activities.

(4) Creativity "for the sake of relevance to student learning."

(5) Humor. "The classroom is a greenhouse for humor!"

(6) Involvement in schools, students, communities, the nation.

(7) New Ideas for teaching and learning.

(8) Good friends--students, teachers, others--with whom a teacher has interacted during his career.[347]

Dr. Hause pointed out that the first letters of each of the above form the word TEACHING, and that the items are the components of that career.[348] (Perhaps not so incidentally, in May 1971, Dr. Hause received one of the two $1,000 Kansas State University annual awards for Outstanding Undergraduate Teaching.[349])

Six years before Hause's piece appeared, James Jarrett had also expressed concern with recruitment.[350] Jarrett, however, advocated the establishment of honors courses to attract gifted students into

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[347]Richard G. Hause, "TEACHING: Eight Parts of a Good Life," The Clearing House, Vol. 44 (November 1969), pp. 185-187.

[348]Ibid., p. 187.

[349]"Outstanding Teachers Named," Kansas State Collegian, May 6, 1971, p. 2.

[350]James L. Jarrett, "Honors Programs" ("Honors Programs in Teacher Education"), Strength Through Reappraisal, Sixteenth Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1963), pp. 150-153.

education, to stimulate them, to help them become teachers of gifted students, and to develop true educational leaders. After all, he said,

> The word [John Dewey] brought year after year, book after book, was that real education is growth in the sense of a gain in intelligence, improvement in ability to handle problems, and a deepening of sensitivity to issues and wants. Honors courses tend to be advanturous in ideas, strongly conducive to growth in Dewey's sense, and that sort of growth is infectious.[351]

The question could be raised: Cannot--should not--the qualities attributed by Jarrett to honors courses be incorporated into non-honors courses as well? Certainly their goals are similar, and for teacher candidates, especially, the kind of growth described by Dewey (according to Jarrett) would be highly compatible with the characteristics of teacher quality advocated by Sidney Hook a quarter of a century ago. Hook, referring to the context of a democratic society, suggested six criteria a "good" teacher should have:

> (a) Intellectual competence in subject mastery, analysis, a sense of relevant connection even cross-disciplinary where logical or necessary, and including a "willingness to countenance, if not to encourage, rational opposition and spirited critical dissent by students. . . .Intellectual independence is such a rare virtue that the good teacher positively welcomes it despite the occasional excess of youthful dogmatism and exuberance."
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> (b) ". . .A quality of patience towards beginners which accepts as natural the first groping steps toward understanding by the uninitiated."

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[351] Ibid., p. 152.

(c) The ". . .ability to plan a lesson, without mechanically imposing it on the class, . . . where basic materials have to be acquired, and to guide the development of discussion to a cumulative result [whenever seminars are used]. . . . What the teacher must aim at is to make each class hour an integrated experience with an aesthetic, if possible, a dramatic unity of its own." In other words, beyond preparation, to the extent that a teacher can draw out and relate students' contributions pertinently and with a certain spontaneity, dullness can be avoided. "The pall of dullness which hangs over the memories of school days in the minds of many unfortunately envelops the whole question of education."

(d) Knowledge of differences in characteristics of human beings. The teacher's standard for the class or group, if any, is not enough; he should determine one for each individual and diversify his teaching accordingly.

(e) Sympathy, defined as ". . . a positive attitude of imaginative concern with the personal needs of others." Understanding is not complete without sympathy.

(f) Vision--the long view of life, work, society, human characteristics, and so forth. Vision supports purpose and places failures and disappointments in perspectives.[352]

A long view of teacher preparation, both retrospectively through

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[352]Raymond E. Callahan, An Introduction to Education in American Society (2d ed.; New York: Alfred A. Knopf, Inc., 1961), pp. 457-465, reprinting excerpts from Sidney Hook, Education for Modern Man (New York: The Dial Press, 1946), pp. 173-4, 180-9, 192-3.

the literature and ahead to possibility, suggests that program curricular elements generally fall into four areas: Foundation, Concentration, Application, and Situation. Since in fact appropriate elements will be so grouped in Chapter III of this dissertation, literary support or discussion of many of those elements have been similarly grouped in the next four subsections of this section, beginning with the Foundation Area.

Foundation Considerations

The world in which we live is complex. Cultural characteristics often are compartmented. But increasingly they are interinfluential, interdependent, and interrelated as well, so that to survive, to grow, a person must be aware of these factors as they affect his society and the integration of his personality.

Consideration or development of a generalist perspective requires a generalist teacher, or at least one who can be a generalist when appropriate. "Whether he deals with a single class for most of a day or teaches a single subject to a succession of classes, a teacher cares a lot about the complete education of complete persons," Alice Miel has said, adding that "The generalist teacher was never more needed."[353]

To be a generalist, a teacher must be able to relate and integrate, to ". . . keep knowledge in wholes."[354] Yet the academic curricula encountered by students on their way to teacher education, including

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[353]Alice Miel, "The Teacher As Generalist," Educational Leadership, Vol. 24 (December 1966), p. 222.

[354]Earl C. Kelley, Education for What Is Real (New York: Harper and Brothers, 1947), p. 92.

teacher preparation, so often has been fragmented, so that students may have considerable skill in examining certain disciplinary trees and even societal offshoots but little comprehension of the educational forest and its ecological relationships.

With few exceptions, what they need (according to Howell and Shimahara) as they enter the teacher preparation sequence

> is an orientation encompassing the totality of education and grasping its overall structures, processes, and functions, and furthermore, a posture of attitudes and action to force recognition of the social problems with which education must cope. The more specialization becomes differentiated, the more important becomes an orientation for the understanding of the over-all and common problems of education. What is urgently needed is an orientation framework which creates a bridge among different specializations and various divisions of education--a framework of attitudes that cognitively compels a sense of responsibility to education as a whole and a sense of meaningful involvement in the process of education.[355]

In teacher preparation, foundational studies and experiences are intended to provide that orientation. Basically, "They are built upon the contributions of major disciplines that study man as well as man's diverse attempts to educate himself. The foundations of education are interdisciplinary studies that preserve identity and autonomy in the same way and context as do political science, economics, sociology."[356]

Philip Perdew, in suggesting a number of pertinent issues and topics, also emphasized the need for "an analytical and integrative approach to the fundational questions which are relevant to the making of educational decisions . . . involving data and methodology from a

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[355]Thomas Howell and Nobuo Shimahara, "Educational Foundations: Contributions at Undergraduate Level," The Record, Vol. 71 (December 1969), p. 213. (The Record is published by Teachers College, Columbia University.)

[356]Ibid., p. 215.

variety of disciplines."[357]

The orientation is not intended to supplant prior disciplinary experiences, of course. In fact, as Harry Broudy has made clear, colleges of education should insist that a student have had "the basic courses in history, philosophy, psychology, and the social sciences" as prerequisites to the foundational education courses.[358]

To the traditional discipline-derived basic content of educational foundations courses, the late Kimball Wiles added a particularly human dimension. Instead of such courses as philosophy of education, social foundations of education, and psychological foundations of education, he said, "much more basic to a teacher in preparation is an understanding of communication, human relations, group development, intergroup interaction, leadership, community power structure, and personality dynamics. Foundations of education should be those understandings which enable a teacher to perform more effectively in the classroom and faculty," he declared.[359]

One might question the value of a foundations sequence at all. Less than three years ago James Shields, referring to foundations courses as including those oriented toward philosophy, history, and sociology as they pertain to education, acknowledged claims of critics

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[357]Philip W. Perdew, "What Are the Foundational Questions?" The Record, Vol. 71 (December 1969), p. 224.

[358]Harry S. Broudy, "Criteria for the Professional Preparation of Teachers," The Journal of Teacher Education, Vol. XVI (December 1965), p. 411.

[359]Kimball Wiles, "The Teacher Education We Need," The Journal of Teacher Education, Vol. XVII (Summer 1966), pp. 266-267. Reprint of an address presented at a meeting of the The Southern Regional Conference, Richmond, Virginia, December 2-3, 1965.

"that there is very little evidence that foundations courses of any type make a significant contribution to the professional development of teachers. Unfortunately, these critics can rest their case on a solid base of research studies of teacher-training programs in which foundations courses have received poorer ratings than methods courses or student teaching."[360] Thus, he said, "if these courses are to be the true foundations of teacher education, they must be more relevant, more analytical, and more integrative. Basically, they must give greater attention to our metropolitan society, make better use of the analytical tools developed by modern science, and utilize the research findings of the humanities and the social sciences relevant to education."[361]

Shields elaborated on that idea a year later, citing Freeman Butts' summary of goals for foundations courses: "POLICY ORIENTATION WITH EDUCATIONAL RESPONSIBILITY,"[362] and calling the resultant acronym--POWER--"most appropriate" for foundations courses.[363] "According to Butts, students are to acquire policy-oriented knowledge and a sense of their responsibility for the disciplined use of that knowledge.[364] . . .To achieve this," said Shields, "foundations courses . . . must

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[360]James J. Shields, Jr., "Social Foundations of Education: The Problem of Relevance," The Record, Vol. 70 (October 1968), p. 77.

[361]Ibid., p. 87.

[362]R. Freeman Butts, in an unpublished paper addressed to the faculty, staff, and students at Teachers College, Columbia University, December 13, 1968, p. 10. Cited in James J. Shields, Jr., "Foundations of Education: Relevance Defined," The Record, Vol. 71 (December 1969), p. 191.

[363]James J. Shields, Jr., "Foundations of Education: Relevance Defined," The Record. Vol. 71 (December 1969), p. 191.

[364]Ibid., p. 187.

focus upon the analysis of the general conceptions of human beings and human behavior implied in existing educational practices."[365]

Of course, as Harry Broudy has pointed out:

> Foundational knowledge, and indeed, all general education, is used interpretively as precise but large-scale cognitive maps on which problems are plotted but not solved. For the solving of problems, i.e., for the applicative use of knowledge, theory has to be supplemented by technology, and only the specialist (who has both) uses knowledge applicatively.[366]

Not incompatibly, Shields saw foundations professors increasingly "gearing their courses to the formation of professionals who will assume roles as political activists and social reformers in those social settings outside the classroom where educational policy and practice is influenced."[367] "Responsible use [of policy-oriented knowledge]," he felt, "could be most appropriately defined for now at least as raising the sensibilities of a wide range of the population to the realities of our American educational system in terms of a more humanized vision of man's place in the universe than the one that has emerged in our highly industrialized, militarized, and centralized worlds."[368]

The nature of education.--No teacher can effectively implement or spread the word about education unless he has a pretty fair idea of what it is all about. He should know that everyone needs to learn or

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[365] Ibid., p. 194.

[366] Harry S. Broudy, "Criteria for the Professional Preparation of Teachers," The Journal of Teacher Education, Vol. XVI (December 1965), p. 411.

[367] Shields, "Foundations of Education: Relevance Defined," op. cit., p. 198.

[368] Ibid.

develop certain ways and means of first surviving, then maturing, in the life of any society, and that schools are a society's formal institutions to help him learn how to fit into, cope with, and grow in that society. He should learn, as economics professor Procter Thomson has said so succinctly and well (if idealistically), that

> . . .The means of life which the schools promote are the possession of information, the ability to reason, and the understanding of values. Though facts, analysis, and values also belong to the curriculum of experience, they are imparted more explicitly and skillfully by the schools than by the untutored hand of time or chance. Education, indeed, is directed experience, but directed to the increase of freedom by fostering the ability of the student to resolve the problems which confront him.[369]

One complication, increasingly urgent and increasingly pervasive, is that for the student to learn primarily how to cope with problems immediately confronting him is no longer sufficient. It seems to be widely acknowledged, though not necessarily widely realized, that we are or ought to be educating children who will apply their skills to their lives sometime in the future, after they have left school. Yet few of us seem really to comprehend the already encroaching press of the future which these students (and we, too!) shortly and intermediately will have to face fully. Some of the incredible dimensions of this future--technological, demographic, and other dimensions potentially dehumanizing in their exponentially increasing quantity and complexity--and their direct and subtle impacts on individuals were coolly yet graphically described in 1970 by Alvin Toffler in two articles, "Future

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[369]Procter Thomson, "On the Education of Teachers," The Educational Record, Vol. XLII (April 1961), p. 147.

Shock"[370] and "Coping With Future Shock,"[371] and a book, Future Shock.[372] In all, Toffler implicitly supported educational trends toward teaching students skills and procedures rather than primarily facts per se; few if any persons can really know which facts will be of the greatest value in future situations. As one newsman reported early in 1971, "Education must create a habit of anticipation among students or it will guarantee 'future shock' for millions of persons, Alvin Toffler . . . said . . ."[373]

A few educators are getting the picture. Neil Postman and Charles Weingartner maintained in 1969

> that change--constant, accelerating, ubiquitous--is the most striking characteristic of the world we live in and that our educational system has not recognized this fact. [They maintained], further, that the abilities and attitudes required to deal adequately with change are those of the highest priority and that it is not beyond our ingenuity to design school environments which can help young people to master concepts necessary to survival in a rapidly changing world.[374]

And even before that, Harold Shane, in an October 1967 Phi Delta Kappan article entitled "Future Shock and the Curriculum," had asked, "What, then, has recently happened in education and to education

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[370]Alvin Toffler, "Future Shock," Playboy, Vol. 17 (February 1970), pp. 94-98, 202-204, 206, 208.

[371]Alvin Toffler, "Coping With Future Shock," Playboy, Vol. 17 (March 1970), pp. 88-90, 96, 174-175.

[372]Alvin Toffler, Future Shock (New York: Random House, 1970).

[373]Monroe Dodd, "Should Educate for Future, Alvin Toffler, Author, Says," The Kansas City Times, Monday, April 26, 1971, p. 10.

[374]Neil Postman and Charles Weingartner, Teaching as a Subversive Activity (New York: Delacorte Press, 1969), pp. xiii-xiv. See also pp. 14-15 for a discussion of future shock in relation to "reality."

to bring on the 'dizzying disorientation' caused by a premature collision with the future? Since around 1950 many educators have found themselves confronting new educational directions to which their past learning and experience simply do not transfer."[375]

Shane suggested several ways educators could begin to meet the challenges, among them stressing "individuality rather than individualization"[376] in education, deliberately purchasing top-flight, imaginative brains and people skilled in change analysis,[377] "basing curriculum coordination and change on the analysis of culture,"[378] and reversing the traditional emphasis on the upper levels of education.[379]

The exigencies heightened by the increasing rates, quantities, and complexities of change require a "new" education, declared Postman and Weingartner. This new education would have

> as its purpose the development of a new kind of person, one who--as a result of internalizing a different series of concepts--is an actively inquiring, flexible, creative, innovative, tolerant, liberal personality who can face uncertainty and ambiguity without disorientation, who can formulate viable new meanings to meet changes in the environment which threaten individual and mutual survival.[380]

For teacher educators, the problem of implementing such development is extended, since two to four years will elapse before their pre-service students--teacher candidates--complete their programs and in turn go out to try to help their pupils learn how to cope with the

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[375]Harold G. Shane, "Future Shock and the Curriculum," Phi Delta Kappan, Vol. XLIX (October 1967), p. 67.

[376]Ibid., pp. 68-69. [377]Ibid., p. 70. [378]Ibid., p. 69.

[379]Ibid.

[380]Postman and Weingartner, op. cit., p. 218.

future. Fortunately, new or rediscovered perspectives, techniques, and ideas are appearing all the time. One of the more promising seems to be the concept of "process education" described by Terry Borton.[381, 382] As he explains it:

> The power of isolating basic processes suggests that, when a student learns processes defined by the teacher, he should also become conscious of his own logical and psychological operations. Consciousness gives the student the power over his own mind, for with it he not only knows what he is doing--he knows that he knows. Such self-awareness is the foundation of an "educated mind." It helps a student examine the modes of behavior learned implicitly from parents and friends, or explicitly from process teachers, determining for himself what processes are to form the daily data of his life. In a process education, the student himself is clearly the most important content, and his consciousness the most important teacher.
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> Process education is [not the same as the education most people have had, says Borton,] for we grew up in a system that forced us to learn what it taught, but rarely helped us to learn what was happening in ourselves.[383]

Obviously, this has tremendous implications for teacher preparation curricula, both because process education will involve learning new techniques and procedures--perhaps new methods--and because its characteristics might well be applied to teacher candidates' own learnings.

Certainly, if process education can help a student to improve his self-knowledge to the point where his confidence is increased so that he can focus more on situations, conditions, and problems outside of himself, it will complement nicely what Richard Dean has observed and

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[381]Terry Borton, "What's Left When School's Forgotten?" Saturday Review, Vol. LIII (April 18, 1970), pp. 69-71, 79-80.

[382]Terry Borton, Reach, Touch, and Teach: Student Concerns and Process Education (New York: McGraw-Hill Book Company, 1970).

[383]Borton, "What's Left When School's Forgotten?" op. cit., p. 80.

concluded:

> Presently, schools of education do a fairly good job of transmitting numerous skills to teachers, but it isn't possible, given the rapid rate of social and technological change, for teachers to learn enough specific skills to see them though the many unforeseen changes they are certain to meet before they retire. Consequently, no teacher today is adequately prepared until he or she has developed the ability to respond rapidly and imaginatively to changing circumstances.
>
> The problem, then, for schools of education is to develop programs which expose all teachers to experiences requiring them to invent new solutions to practical educational problems, problems which we, as educators, may not have anticipated.
>
> In short, teacher education for the seventies must focus on creativity.[384]

To do this may well mean changing institutional thinking, perhaps drastically. Edgar Dale has pointed out that "The basic reforms proposed for schools and colleges demand that we restructure our concept of the excellent school or college. For too long we have thought of these institutions as something you finish, get over with. Emphasis is on training rather than education, remembering rather than thinking. . . .A key role of the teacher is not chiefly to present information or to get predictable answers to predictable questions, but rather to introduce students to the life of the mind, to teach them how to live with the ambiguity that all creativity requires."[385]

Aims of, and influences on, Education.--Beyond the nature of education, teacher candidates should be aware of direct and indirect

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[384]Richard Davis Dean, "A Cooperative Education Program," Realignments for Teacher Education, Yearbook 1970 (Washington, D. C.: American Association of Colleges for Teacher Education, 1970), pp. 55-56.

[385]Edgar Dale, "Education As Conceptualizing," The News Letter, Vol. XXXVI (March 1971), p. 4.

aims and influences concerning education, and their own responsibilities and/or opportunities in connection. Traditionally, education has had two primary roles or aim-functions: (1) Preserve the culture, and (2) "Select" the individual for his societal role or function. Of late a third role has been increasingly identified: (3) Initiate or facilitate change.

With regard to the first, as Lucy Ackerknecht has observed, "The longevity of a particular culture pattern depends on large measure upon the early indoctrination of the children by myth and symbols into a set of rigid and almost unchangeable values. Such indoctrination is prized in the specific instance because it insures continuity. It is also considered by many to be good for the children regardless of the particular set of beliefs and habits thus inculcated."[386]

Naturally, when pluralistic groupings, ideologies, influences, and developments appear, values become diverse, too, which creates stresses and strains within the culture (as she notes[387]) and which in turn affects the established educational system (as is happening in the United States today).

> Education promises to move a young person from the world of powerlessness to the world of "power." . . .The paradox of modern education is that much that the adult world "demands" is absolutely necessary to a child if he is to occupy the ecological niche occupied by a modern person who knows enough not to be all day a victim. A teacher must possess extraordinary knowledge and humanity if he is to distinguish what the school demands of children simply to symbolize its capacity for authority over them from what it legitimately "demands"

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[386]Lucy K. Ackerknecht, "Life-Meanings" of Future Teachers (A Value Study), (New York: Philosophical Library, Inc., 1964), p. 20.

[387]Ibid., e.g., p. 21.

> or "woos out of them" to equip them for a niche in a technological society. To know the distinction from moment to moment in the classroom may be to awaken in the child the sense that the real stuff is worth knowing.[388]

A teacher candidate can be helped to learn this if he will "recognize that excellence is related to ability and opportunity to the individual [according to Paul Masoner] and is not a fixed standard for all. Since the scope of human knowledge is so great that no individual can encompass even a minor part of it, the teacher [must recognize also] . . . that his major responsibility is to teach the pupil important learnings and develop in him the excitement, interest, and skills that will make learning a lifelong process to be entered into and continued with vigor and enthusiasm."[389]

In other words, change is very much with us, like it or not, and we can react blindly to its manifestations and effects or we can try, as Toffler has suggested, to control what seems to be the "level of change . . . vital to health . . .; [we need] to manage it rather than let it control us."[390] This is right in line with education role three.

An exemplar prerequisite to developing any such control capability might well be Arthur Comb's advocacy that "Education should be aimed at 'freeing the individual rather than controlling him.'" This means that education should help "'students to explore and discover a set of

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[388]Paul A. Olson, editor, The Craft of Teaching and the Schooling of Teachers (Denver: The U. S. Office of Education Tri-University Project in Elementary Education, September 18-20, 1967), p. xiii, First National Conference report.

[389]Paul H. Masoner, A Design for Teacher Education (Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1963), pp. 13-14.

[390]Toffler, "Coping With Future Shock," op. cit., p. 90.

beliefs,'" Combs explained. "'A great deal of what we do in teacher education is to teach students to get the facts, and that puts the emphasis in the wrong place. We're going to have to be much more concerned with teaching people how to be sensitive, how to see.'"[391]

To achieve a balance among these advocated concerns--and thus to encourage integration of personality--teacher educators might well incorporate in their programs the five curricular aims Jerome Bruner has suggested schools establish to develop or encourage character traits:

1. Establish a student's confidence in his own capacities and his ability to develop them further.

2. Develop his confidence in the solvability of problems by the use of mind.

3. Encourage "self-propulsion;" i.e., lead the student to operate on his own.

4. Teach economy in the use of mind; i.e., ". . . create in the learner a drive to look for relevance and structure."

5. Develop intellectual honesty, ". . . an eager willingness to use the apparatus of a discipline for correcting one's own solutions, one's ideas, one's notions."[392]

Concern for the individual in its curricular interactions is only one part of a teacher preparation program's orientation, however; it

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391 [Jack L. Kennedy], "Education Should Free Individual, Prof Says," The Wichita Eagle and Beacon, Sunday, May 10, 1970, p. 2G.

392 Jerome S. Bruner, "Character Education and Curriculum," Learning About Learning: A Conference Report, Jerome S. Bruner, ed. (Washington, D. C.: Bureau of Research, Office of Education, U. S. Department of Health, Education, and Welfare, 1966), pp. 118-120. Cooperative Research Monograph No. 15.

must also be responsive to societally-expressed concerns. In Kansas, for example, teacher educators would do well to be aware of the content and conclusions of the 1970 Project SEEK (State Educational Evaluation of Kansas) Report.[393] Much of the report covers current conditions in Kansas schools, but among the ten needs education news writer Jack Kennedy reported as "determined as most essential for Kansas education"[394] were six directly relevant to teacher preparation:

> "1. Development of positive student self-image. . . ."
>
> "3. Place new and increased emphasis on the importance of the elementary school. . . ."
>
> "5. Teacher training in student motivation. . . ."
>
> "8. Provide a more positive, wholesome attitude toward quality education. . . ."
>
> "9. More effective student evaluation and assessment of achievement. . . ."
>
> "10. More meaningful student involvement in learning situations. . . ."[395]

Although the report did not specifically define "quality education" (need 8),[396] Kennedy quoted Dr. J. Stanley Laughlin of Kansas State

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[393]The Project SEEK Staff, Report of Project SEEK [State Educational Evaluation of Kansas], (Topeka, Kansas: Title III, ESEA, Director, Kansas State Department of Education, April 20, 1970.)

[394]Jack L. Kennedy, "World of Education: Achievement Need Shows in Study," The Wichita [Kansas] Eagle and Beacon, Sunday, May 31, 1970, p. 4B.

[395]The Project SEEK Staff, Report of Project SEEK, op. cit., Vol. IV., Summary, Conclusions, and Needs Recommendations, pp. 21-27, and Addendum to Project SEEK: Ten Most Critical Needs, pp. 4-6.

[396]Ibid., cf. Vol. IV, p. 27, and Addendum, p. 5.

Teachers College, Emporia, as explaining, "'Kansas seems to be doing a good job of educating a mass of people in the three R's, but once we leave these areas it doesn't appear we are doing as well.'"[397]

The report listed 33 other "needs" besides its top ten. Those particularly pertinent to preservice teacher preparation included:

> 13. Dissemination of information concerning educational accountability.
> 17. Greater use of teaching techniques other than use of the textbook.
> 18. Greater utilization of behavioral objectives.
> 19. Encourage flexible classroom instructional techniques and more flexible curricula [sic] programs.
> 27. Improvement of teacher image as held by students.
> 30. Create awareness among all personnel that certain innovations in education merit consideration and trial.
> 32. Expand teacher's role to include that of a diagnostician of learner needs.
> 41. Greater student involvement in decision-making.
> 43. Analyze concept of "significant other" who influences students.[398]

Actually, needs 17 and 19 were similar to 5 (motivation):

> An encompassing need is to motivate students in the learning situation. Teachers need training in the use of the unexpected to motivate student interest. Teachers also need assistance in developing a wider and more flexible repertoire of teaching skills.[399]

The key need, placed number one by the Project SEEK task force, was the "Development of positive student self-image." This referred to kindergarten through 12th grade students, but certainly it can apply to teacher candidates as well:

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[397] Kennedy, "World of Education: . . .," op. cit.

[398] The Project SEEK Staff, Report of Project SEEK, Addendum, op. cit., pp. 7-8.

[399] Ibid., p. 5.

> Many of the students need assistance in developing positive self-images; that is, help in seeing themselves as important individuals rather than as persons about whom no one cares. The counselor may be able to work with those students who have negative self-images, but this must be a concerted effort. The "critical intervention teacher" may be the person to best help the student.[400]

The idea that developing a student's positive self-image should be part of a teacher's responsibility, at a time when stress on content is still too often considered a teacher's major orientation, is a heartening step. It is truly a "statement of value" which teacher preparation programs--particularly in Kansas--hopefully will emphasize even more strongly than they have so far.

A teacher's responsibilities naturally are intermingled with a school's curricular objectives, and both--in identification and implementation--are given purpose by their underlying philosophy.[401] Indeed, as William C. Bagley came to realize, "educational prescriptions are statements of value and . . . demand philosophic analysis and defense."[402] Thus teacher candidates should have some involvement with philosophy, particularly educational philosophy.

What might a course, module, or other learning encounter with educational philosophy encompass? Richard Morshead has contended that "involvement with theory--even abstract theory--should be an intrinsic

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[400] Ibid., p. 1.

[401] In this context, see the definition of "Philosophy" on pages 14-15.

[402] Erwin Virgil Johanningmeier, "A Study of William Chandler Bagley's Educational Doctrines and His Program for Teacher Preparation, 1895-1918," Dissertation Abstracts, 28: 4885-A - 4886-A, June 1968. (University of Illinois, 1967).

part of every teacher's practice."[403] This would mean, said Morshead, that teachers would need to acquire comprehension of inductive and deductive reasoning and to develop "competence in various linguistic techniques that would permit them, when facing theoretical issues, to undertake structural, contextual, explicative, and semantic analyses."[404]

> And then, too, they would need to become familiar with an entire range of theoretical problems that must be resolved if responsible educational thought is to continue directing the development of our schools. Included among these problems would be questions concerning 1) the proper use of educational slogans and metaphors; 2) the meaning of various concepts such as "mastery" and "indoctrination"; 3) the logical relation between notions like teaching and learning or skill and knowledge; 4) the adequacy of various theories drawn from the social and behavioral sciences; and 5) the role of doctrines in guiding classroom management.[405]

Carleton Washburne has described the 3-credit Philosophical Issues in Contemporary Education course at Brooklyn College in 1951: "In this, students identify, clarify, and assess conflicting social, moral, and intellectual values underlying some of the most important educational policies and practices. It includes the study of freedom and authority in educational theory and practice, the study of the learner as a knower, and the study of the conflicting theories, origin, and nature of methods of assessment, and choice of life values."[406]

This means that a teacher should learn some sort of philosophical

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[403]Richard W. Morshead, "Philosophy of Education in Teacher Certification," The Educational Forum, Vol. XXXII (May 1968), p. 465.

[404]Ibid., p. 466. [405]Ibid.

[406]Carleton Washburne, "Developing a New Program of Teacher Education," Teacher Education: The Decade Ahead (Washington, D. C.: National Commission on Teacher Education and Professional Standards, 1955), p. 66.

perspectives, the traditional ones found in the liberal arts disciplines, say, or the four major educational philosophical groupings identified by M. R. Charles (subject-centered, child-centered, a problem-solving philosophy of experimental adaptation, and modified subject-centered and child-centered.)[407]

Charles saw the development of a sense of purpose as an important objective of teacher education for individual teacher candidates, while Silberman made it the "central task of teacher education."[408]

Further, each teacher candidate must "internalize" his philosophy, that is, develop the "inner growth that occurs as the individual becomes aware of and then adopts attitudes, principles, codes, and sanctions which become inherent in forming value judgements and in guiding his conduct."[409]

Such internalization should help the teacher candidate to begin to appreciate a number of the descriptive characteristics of a teacher's responsibilities, motivation, and role, particularly the last. As Angelo Boy and Gerald Pine have observed:

> The beginning point in the evolvement of a role description is the teacher's attitude toward the individual, which is the cornerstone of his philosophy of life. If he feels that his earthly tenure should be meaningful, he brings substance into

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[407]M. R. Charles, A Preface to Education (New York: The Macmillan Company, 1966), pp. 255-298.

[408]Charles E. Silberman, Crisis In the Classroom (New York: Random House, Inc., 1970), p. 472.

[409]David R. Krathwohl, "Stating Objectives Appropriately for Curriculum, and for Instructional Materials Development" ("With the Researchers," David G. Ryans, Research Editor), The Journal of Teacher Education, Vol. XVI, March 1965), p. 88.

> his existence by having a commitment to enriching the lives of those with whom he comes in contact. Within the context of the classroom, he has a genuine concern for those whose lives he is attempting to enrich.
>
> From this concern there develops a philosophy of education focused upon creating a learning environment conducive to the implementation of the teacher's humanistic attitude.
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> As the teacher ponders ways and means of meeting the basic needs of his students, he begins to view himself as the catalyst for change; he develops a professional identity, an idea of what he should and should not be. [The final step is to manifest that identity in a concrete role description.][410]

Thus, the teacher candidate must understand that implementation of his educational philosophy should involve "professional" considerations. If Education aspires to be a "profession," its practitioners naturally must embody the philosophically-based rationale and responsibilities of a profession. As Robert Howsam has put it, "Education is too serious a social responsibility and too complex a task to long be left without at least the trappings of professional status."[411]

Myron Lieberman, Jack Frymier, and others have written and spoken at some length about what a "profession" is, or ought to be.[412] From

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[410]Angelo V. Boy and Gerald J. Pine, "Needed for Teachers: A Role Description," Readings in the Foundations of Education, Commitment to Teaching, Vol. II, James C. Stone and Frederick W. Schneider, eds. (New York: Thomas Y. Crowell Company, 1965), p. 126.

[411]Robert B. Howsam, "Problems, Procedures, and Priorities in Designing Education for the Future," Cooperative Planning for Education in 1980, Edgar L. Morphet and David L. Jesser, eds. (Denver, Colorado: Designing Education for the Future: An Eight-State Project, January 1968), p. 103.

[412]See, for example: Myron Lieberman, Education as a Profession (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1956) and The Future of Public Education (Chicago, University of Chicago Press, 1960). T. M. Stinnett, "Accreditation and the Professionalization of Teaching," Journal of Teacher Education, Vol. III (March 1952), pp. 30-39. Louise L. Tyler, "Is Teaching a Profession," The Educational Forum, Vol. 28 (May 1964), pp. 413-421. Professor Jack R. Frymier, lectures, op. cit. (see footnote 17, pp. 15-16 of this dissertation).

their statements, particularly Frymier's, the essential characteristics of a profession have been distilled into the description on page 15 of this dissertation. In implementing them, educators "profess" (as Hicks and Blackington have observed[413]) to differ "from the larger society in at least two basic ways:

"1. That social function is the primary reference point for guiding their activity (work).

"2. They possess, at this point in time, a specialized knowledge and means of verifying claims to knowledge that enable them to perform this function with an economy unique to that individual or group."[414]

(In relating Education and "learned profession," Hicks and Blackington stated that "The term 'learned person,' as opposed to 'craftsman,' means at least that the former has theoretical knowledge of fairly comprehensive scope."[415])

Hicks and Blackington also associated the idea of integrity with that of profession[416] and pointed out that anyone holding that ethical goals are both good and achievable is assuming "that self-interest is not the only or even the most important motivating force for human behavior."[417] Thus, when a person realizes his identity "in giving rather than taking [, he] . . . finds himself by losing himself. . . . The self one finds as a result of losing himself is not the self of egocentric individualism [but rather] the ethical self. Only in this

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[413]William Vernon Hicks and Frank H. Blackington, III, Introduction to Education (Columbus, Ohio: Charles E. Merrill Books, Inc., 1965), pp. 363-401.

[414]Ibid., p. 368. [415]Ibid., p. 371n. [416]Ibid., p. 369.

[417]Ibid., p. 370.

process does the egocentric person transcend his bounds and take upon himself one of the absolutely crucial characteristics of a professional."[418]

One obvious manifestation of this is that every teacher candidate --and teacher--should demonstrate a willingness to do more than is minimally expected or implicitly or explicitly required (as, for example, by contract or "job specification"), when such additional effort probably will not be directly recompensed but is warranted by a time-important opportunity, as perceived by the professional if not always by the client, to meet a client need, to aid a client to become maturely self-perceptive in any of the domains (e.g., cognitive, affective, psychomotor), or to achieve a higher quality and/or effectiveness in the professional's goals and purposes.

Moreover, if the teacher candidate is to become a professional, he must accept the obligation every professional has to enforce the ethics and high competence-standards of his profession, particularly where clients' (students') interests should take priority over colleagues' or administrators' or others' non-client-oriented interests. This can be difficult to accept and internalize, and the author has seen classes of teacher candidates polarize on this issue during discussion. As Ryland Crary has noted:

> It is not easy to assert our professional responsibility as our first premise because there is a kind of defensiveness that equates a tough-minded or even critical self-appraisal with disloyalty to the group.
>
> Teachers, like other professionals, reside among a complex of loyalties. [But] . . . the teacher owes first

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[418] Ibid., pp. 370-371.

> obligation to his students. That obligation is professional competence.[419]

Organization of educational systems.--Professional competence involves knowing about educational systems and settings, formal and informal, and different ways teachers and others can organize and cooperate to implement curriculum and encourage learning sometimes despite adverse conditions.

This requires a tight, well organized, knowledgeable teacher preparation program which among other functions helps its students understand that knowing school realities and practicalities as well as theories is prerequisite to developing ways to resolve value questions in situations they will face. Too often, Kelly Duncan declared a decade ago, "we are giving them slogans and loose generalizations" rather than real preparation with regard to "freedom and restriction in American education, . . . critical thinking and the accumulation of knowledge, . . . guidance and discipline, . . . democracy in the undemocratic setting of the school."[420]

Breadth of exposure should be encouraged, too. Mark Neville's advocacy for teachers applies to teacher candidates as well in its implications for preparation experiences:

> Teachers from private institutions should visit public schools . . ., not to see how the other half lives, but to learn something and to win a new perspective on their jobs.

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[419]Ryland W. Crary, Humanizing the School: Curriculum Development and Theory (New York: Alfred A. Knopf, 1969), p. 431.

[420]James Kelly Duncan, "A Right Way to Teach?" The Journal of Teacher Education, Vol. XII (September 1961), p. 313.

> For the same reason, public school teachers could profitably visit independent schools for a trading of experiences.[421]

A good, if brief, discussion of organizational questions that should concern teachers and teacher candidates, particularly if differentiated staffing begins to become widespread, is David Merrill's 1968 Journal of Teacher Education article.[422]

Administration of education systems.--Familiarization with educational administration means understanding realities with regard to the teacher's positions as both person acted upon and person acting.

With regard to the first, for example, many a teacher has been taught to think of himself as a professional, even though he too often finds he is not really considered one. As Robert Ribble has put it, such a person "cannot understand the 'authorities' who state the rules for being a good teacher in professional terms but who, in practice, define the teacher as a compliant technician. [One effect of this is that] the professional teacher resists curriculum innovations introduced through the administrative view,"[423] to say nothing of other problems which can arise when a teacher allows professional objectivity to give way to negative emotions such as resentment.

As for understanding and acceptance of administrative respon-

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[421]Mark A. Neville, "We can all be right," Teachers College Record, Vol. 62 (March 1961), p. 446.

[422]M. David Merrill, "Teachers: Technologists or Technicians?" The Journal of Teacher Education, Vol. XIX (Fall 1968), pp. 325-330.

[423]Robert B. Ribble, "The Effect of Planned Change On The Classroom," Theory Into Practice, Vol. V (February 1966), p. 44.

sibilities, Raymond Harrison has pointed out that ". . . there is often very little attention given to the administrative tasks of teachers at the pre-service education level. . . ." Obviously, if a teacher candidate does not learn these tasks then, he will have to pick them up as he begins his first teaching responsibility, "often at a time when he is beset by many other demands."[424] Familiarity with administrative tasks, then, should be included in the teacher preparation program.

Library and research proficiency.--This has two dimensions: institutional and individual.

The institutional dimension involves the maintenance of a quality-stocked library and the design and support of a viable educational research program, of course, but it also includes the professional responsibility of dissemination of research findings, conclusions, and postulations in a manner readily useful to interested recipients. In a passage as applicable to teacher and teacher-candidate recipients as to anyone else, the American Association of Colleges for Teacher Education has advocated, for example, that ". . . in any effort to bridge the gap between producer and user of new ways of educating teachers, the user should be approached as a learner. It is necessary to plan and program the presentation of research results to teacher educators in the same manner that they are expected to plan and present their

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[424]Raymond H. Harrison, Supervisory Leadership in Education (New York: American Book Company, 1968), p. 83.

material to their students."[425]

Learner-oriented dissemination can do much to assist and complement --perhaps even motivate educators in--the individual dimension. As M. Vere DeVault has perceived:

> Changes in [teacher] practice . . . will come about only when the professional practitioner, the teacher, understands the need for change and the research giving direction to the change, and when he understands his instructional role in implementing change. . . .
>
> It is the classroom teacher who holds the key [to utilizing research findings to effect change], although there are too few teachers in today's schools who are prepared to turn it. This is because we have failed in our meager attempts to bring pre-service and in-service teachers in contact with effective research experience.[426]

Certainly, then, teacher candidates should become familiar with research,[427] research techniques (which concomitantly connotes developing skill in utilizing the library), research pitfalls,[428] and actual and

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[425]The American Association of Colleges for Teacher Education, Professional Teacher Education: A Programmed Design Developed by the AACTE Teacher Education and Media [TEAM] Project, Part 2 (Washington, D. C.: The Association, 1968), p. 93. It should be noted that both parts--one and two--of the AACTE 1968 report on workshops in teacher education, particularly the Part 1 presentation of proposed preservice professional education content models and content and the Part 2 descriptions of interaction analysis, nonverbal communication, simulation, structural and learning analysis, and media analysis, are excellent.

[426]M. Vere DeVault, "Research and the Classroom Teacher," The Record, Vol. 67 (December 1965), pp. 211-212. Teachers College, Columbia University, New York, New York. (This was originally a paper presented at the Phi Delta Kappa Research Conference at Northwestern University, Evanston, Illinois, April 28, 1964)

[427]Starting, perhaps, with N. L. Gage, ed., Handbook of Research on Teaching (Chicago: Rand McNally & Company, 1963).

[428]For example, Desmond L. Cook, "The Hawthorne Effect in Educational Research," Phi Delta Kappan, Vol. XLIV (December 1962), pp. 116-122.

potential research applications. Such familiarity might even interest a number of students in making educational research their career, as Nathaniel Gage suggested (in 1964):

> We need to find a way to tap our resources of bright undergraduates who might be attracted, not merely to research in the behavioral sciences, but to research in the behavioral sciences as they apply to education. At present these young people go into psychology and sociology and find careers in many social contexts and institutions other than education. We have not been getting an adequate supply of educational research workers through these avenues. The school of education that first invents an arrangement for enticing young people directly from their undergraduate work into graduate training as educational research workers will become for educational research what Johns Hopkins was for medical research, what Teachers College was for school administration, what Cambridge under Rutherford was for physics. Other universities would then follow its lead.[429]

But whether a teacher candidate chooses educational research as a career or not, his ". . . preservice education should aim beyond competent knowledge and method toward a habit of original initiative. The preparing teacher should be taking a modest part in projects of educational research and development."[430] Howard Nostrand has urged. Theodore Sizer advocated this, too:

> I think all prospective teachers, undergraduate and graduate, should brush up against those who are carrying out inquiry--research, if you want to call it that, but let's call it inquiry. I wouldn't separate research from teacher training

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[429]Nathaniel Gage, "Psychological Theory and Empirical Research for Teacher Education," Freedom With Responsibility. Seventeenth Yearbook. (Washington, D. C.: The American Association of Colleges for Teacher Education, 1964), p. 104.

[430]Howard Lee Nostrand, General Session Address at Portland, Oregon, The Development of the Career Teacher: Professional Responsibility for Continuing Education (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1964), pp. 65-66. Report of the 1963-64 Regional TEPS Conferences.

> because it is research that tends to stab myths. I think prospective teachers should witness the stabbing of myths as part of their training. The university should promote the kind of basic inquiry into the structure of subjects, the manipulation of different kinds of children, the nature of learning, and other fields that illuminate the enterprise.[431]

Characteristics of self.--Involvement in research may be one way a teacher candidate can learn about himself. But regardless of method, gaining knowledge of self is an absolute *must*. The effective teacher, Arthur Combs has said, may be defined "as a unique human being who has learned to use his self effectively and efficiently for carrying out his own and society's purposes."[432]

And Ernest Melby: "The growth of the teacher as an individual human being is the central problem of teacher education. Our failure here is responsible for the failure of our schools to develop excitement in learning on the part of their pupils. [Yet] . . . it gets little attention in teacher education."[433]

One vital aspect of developing positive self-awareness is mental health. But "In the past, teacher education has directed too much

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[431]Part of discussion presented in "Teacher Education and the University," Changing Dimensions in Teacher Education. Twentieth Yearbook. (Washington, D. C.: The American Association of Colleges for Teacher Education, 1967), p. 77. At the time, Dr. Sizer was Dean, Faculty of Education, Harvard University.

[432]Arthur W. Combs, "The Personal Approach to Good Teaching," Educational Leadership, Vol. 21 (March 1964), p. 373. In the article, the quotation is italicized.

[433]Ernest O. Melby, "Teacher Education for a Changing Society," Freedom With Responsibility in Teacher Education. Seventeenth Yearbook. (Washington, D. C.: The American Association of Colleges for Teacher Education, 1964), p. 75. Melby also advocated (p. 74) that teachers be prepared for community leadership and that teacher preparation draw more on the human sciences, especially anthropology.

emphasis to subject matter and method and not enough to the principles of mental health for both pupils and teachers," Harold Delp has noted.[434] ". . . Perhaps the emphasis should be less on the three R's and more on the three I's--initiative, ingenuity, and imagination (8)--if we are to develop children with more realistic attitudes."[435]

Mental health received major consideration in MCREL's 1969 Curriculum Guidelines for Inner-City Teacher Education,[436] as it had in Adelphi College's ANTEP (Adelphi New Teacher Education Program)[437] eight years before:

> ANTEP tries to give a student a sense of being wanted. He must be loved if he is to come into that acceptance of self that gives him the power to love others. As he grows in love, he grows in sympathy. He learns to see with the eyes of others, to hear with their ears, and, above all, to feel with their hearts.[438]

After all, as Frances Wickes has observed, ". . . the greatest safeguard which a teacher can have is a well-balanced emotional life of his own. . . .We cannot give from poverty, but only from wealth."[439]

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[434]Harold A. Delp, "Mental Health of Teachers: Still a Problem," The Journal of Teacher Education, Vol. XIV (June 1963), p. 147. (ERIC ED 013-133.)

[435]Ibid. The (8) was a citation of Mr. Delp's article, "The 3 I's, Not the 3 R's: A Philosophy for Teachers of Mentally Retarded," Training School Bulletin, Vol. 55 (May 1958), pp. 11-14.

[436]Grant Clothier, ed., Curriculum Guidelines for Inner-City Teacher Education (Kansas City, Missouri: Mid-Continent Regional Education Lab, Inc., October 1969). (ERIC ED 034-720.)

[437]Agnes Snyder, "The 'Why' of a Teacher Education Program," Educational Leadership, Vol. 19 (December 1961), pp. 181-186.

[438]Ibid., p. 186.

[439]Frances G. Wickes, The Inner World of Childhood. A Signet Book. (New York: The New American Library, Inc., 1968), p. 253.

Further, said Dr. Wickes, "Since so much of the real education of young people comes from relationships it would be well if we could have teachers with more experience of life even if it meant less intellectual attainment. A plea might be put in here for summer living instead of summer school."[440]

In any event, few teacher candidates can develop deep self insight on their own. Dean Corrigan has declared that a teacher education program must include "some system of close student-adviser relationship, some opportunity within the program to provide for at least one person who can get close to every one of the students to know where they stand in what they know, how they approach learning, and how they feel about what they know."[441] Advising should be continuous and much more extensive and intensive than merely suggesting which course to take.

The aspect of continuity can be particularly important. The average student will encounter thirty or more different instructors--and perhaps as many different teaching styles--during his four collegiate undergraduate years. In many ways this is healthy, but it can also be bewildering. A warm, knowledgeable, caring advisor can earn the student's trust and, by his very continuous presence, help with the student's striving for educational self-integration. Such an

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[440] Ibid., p. 255.

[441] Dean C. Corrigan, "What Teacher Education Could and Should Be Doing in the Next 20 Years," Action for Americans, Proceedings of the 14th Biennial School for Executives of the AACTE (Washington, D. C.: The American Association of Colleges for Teacher Education, 1969). p. 122.

advisor can help his students begin to comprehend that they must subject themselves, in Edgar Dale's phrase, "to the discipline of self-examination."[442]

He can help them understand that they must begin with themselves if they are to resolve one of their stated biggest worries: How can they maintain classroom discipline when they begin teaching. "It is usually hard for them to learn that discipline is not found in their disciplining of students but in their disciplining of themselves," as James Russell has pointed out.[443]

Verna Gruhlke learned this thoroughly during her 30-year teaching career.[444] Further, she wrote after she retired, she had absolutely no doubt

> . . .that control through love and mutual respect is superior to any other form of discipline, and teachers and parents who operate on this theory do a better job of training and character building than those who employ any other method.
>
> To control through love, an adult must be a student of love and human nature. He must respect himself to the point that should he be attacked, his dignity will not suffer; he will know that he has earned respect and love but will not worry whether or not he is getting his fair share of it in return. . . .His biggest concern will be with the children in his care, and in seeing that they get their fair share of respect.[445]

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[442]Edgar Dale, "A Matter of Self-Discipline," The News Letter, Vol. XXXIV (October 1968), p. 1.

[443]James E. Russell, Change and Challenge in American Education (Boston: Houghton Mifflin Company, 1965), p. 94.

[444]Verna King Gruhlke, To Hell With The Kids! (Milwaukee: The Bruce Publishing Company, 1968), p. 173. The book's title refers to the attitudes and actions of many of the "Professional Educators" (her term) Mrs. Gruhlke encountered during her career.

[445]Ibid., pp. 175-176.

And Mrs. Gruhlke added a bitter-sweet dimension with her observation that ". . . discipline is never easy and the friendship of many children which accrues from strict, fair discipline is not always easy to handle either."[446]

A teacher preparation program should therefore include experiences designed to encourage and develop a student's self-discipline. But besides skill with self, skill with others also has been identified as a desirable quality for teachers. Included, for example, in ideas respondents of one survey mentioned as far back as 1957, was the "suggestion of the need for teacher candidates to develop competence in the processes and skills of group dynamics, sociodrama, and interpersonal skills."[447]

Such skills are even more important today. Note Dr. Gordon Sabine, writing early in 1971: "As families atomize and home influences deteriorate, the caring teacher . . . may become the most influential adult in a student's life."[448] Thus, in the late Kimball Wiles' words, a teacher should be "a representative of maturity."[449]

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[446] Ibid., p. 172.

[447] Ellis Ford Hartford, "A Look At Teacher Education," Journal of Teacher Education, Vol. VIII (March 1957), p. 78.

[448] Gordon A. Sabine, How Students Rate Their Schools and Teachers (Washington, D. C.: National Association of Secondary School Principals, 1971), p. 2. This provocative paperback, available for $2.00 from NASSP, is packed with positive and negative quotations from secondary school students across the country.

[449] Kimball Wiles, "The Teacher as a Representative of Maturity (in Working With Youth)," Educational Leadership, Vol. 19 (December 1961), p. 149.

And M. A. Packer has stated: "If we ever hope to see children become mature persons, they must meet with mature persons in their educational experiences."[450]

"Human relations and the humanization of the school must have top priority" in the 1970's, a National Education Association seminar declared last year.[451] Kansas' Project SEEK task force concurred:

> Education in human relations is needed to encourage teachers and administrators to become attuned to seeing and interacting with students as individuals. Programs should be built more on student needs rather than community or staff needs.[452]

There is a lateral dimension, too, as B. J. Chandler has pointed out: "The human relationships that prevail between the teacher and the other members of the staff are significant to the success of the total educational enterprise and, to some extent, to the happiness and effectiveness of the teacher himself."[453]

One of the bases for effective human relations learning experiences must be an awareness of the value of love in developing a person's sense of security. Clarence Lack is one educator who, citing

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[450]Myrton A. Packer, "Why Teachers Fail," The Journal of Teacher Education, Vol. XIX (Fall 1968), p. 337.

[451]"Seminar recommends: Schools for the 70's must stress humanization," NEA Reporter, January 23, 1970, p. 4.

[452]The Project SEEK Staff, Report of Project SEEK [State Educational Evaluation of Kansas]. Vol. IV, Summary, Conclusions, and Needs Recommendations (Topeka, Kansas: Title III, ESEA, Director, Kansas State Department of Education, April 20, 1970), p. 22.

[453]B. J. Chandler, Education and the Teacher (New York: Dodd, Mead & Company, 1961), p. 287.

Maslow, Montagu, Fromm, and others, has discussed this concept and its curricular applicability.[454]

After all, as Ryland Crary has observed, "It remains a fact . . . that the fear of students is a professional incapacity; it is a corollary to fear of humanity. The person who is incapacitated by this fear is ill-equipped to walk around in the world, let alone to assume responsible social roles."[455]

How can a teacher candidate be aided to identify and, if possible, learn to cope with and reduce such fears and increase his positive characteristics? Richard Will has suggested that "If one of the most important tasks in teacher education is to help prospective teachers develop responsibility for their own personal growth and the qualities that emerge from and lead to meaningful encounters with others, experiences in this area must be provided."[456]

Of course, as William Banaka has warned, for greatest effectiveness, such experiences should be voluntary. ". . . To require a person to attend a personal growth session against his will is potentially damaging."[457]

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[454]Clarence A. Lack, "Love as a Basis for Organizing Curriculum," Educational Leadership, Vol. 26 (April 1969), pp. 693-701.

[455]Ryland W. Crary, Humanizing the School: Curriculum Development and Theory (New York: Alfred A. Knopf, 1969), p. 431.

[456]Richard Y. Will, "The Education of the Teacher as a Person," The Journal of Teacher Education, Vol. XVIII (Winter 1967), p. 474.

[457]William H. Banaka, "Human Relations Training: The Cutting Edge of the Motivation to Learn," February 1970. (Paper presented at the American Educational Research Association annual convention in Minneapolis, Minnesota, March 2-6, 1970), p. 11.

"There are no packaged programs, no teacher's manuals, and no texts on teaching love as a unit," Jack Frymier has said, adding, "We are our best resource."[458] We are, indeed, yet certainly curricular materials can be gathered or developed, even if only as guidelines for the affective phases of a teacher preparation program. The information and suggestions in the December 1970 issue of Educational Leadership with regard to sensitivity training and education would be one example.[459]

Descriptions of appropriate skill development techniques would be others. Interpersonal relations skills, for instance, have been discussed by William Lynch: ". . . What seems to be needed is carefully guided experience, starting with simple situations and working up to the more complicated situations, with ample opportunities for trial and correction in practice. The fact that values so permeate perception further suggest that more attention to the study of values is needed in teacher education."[460] Learning techniques to improve communications in human interaction would be another aspect; Macauley and Wolfe recently suggested "the open-ended sentence," reaction to postulated critical incidents, comparing perceptions of values as appropriate exercises.[461]

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[458]Jack R. Frymier, "Teaching the Young to Love," Theory Into Practice, Vol. VIII (April 1969), p. 43.

[459]Educational Leadership, Vol. 28 (December 1970).

[460]William W. Lynch, Jr., "Interpersonal Perception: A Neglected Aspect of Teaching," Theory Into Practice, Vol. II (April 1963), p. 94.

[461]Howard K. Macauley and Richard O. Wolfe, "The Dynamics of

Other experientially-oriented program possibilities could include:

> --[Ensuring adequate preparation of students] in the following competencies: 1. using diagnostic and remedial procedures. 2. collecting and using significant counseling data, as well as working with guidance specialists. 3. using adequate procedures for evaluating the achievement of children. 4. using principles of child development and mental hygiene in guiding individuals and groups. 5. helping children to understand and appreciate their cultural heritage. 6. participating effectively in the activities of the school. 7. working with parents.[462]

> --Considering establishing an interdisciplinary program in human relations for teachers. E. D. Davis has described The Southern Methodist University program,[463] begun in 1952, as one such: "Short presentations by staff members are made daily, and much use is made of consultants."[464]

> --Utilizing laboratory training in human relations skills, as described by Norman Bowers and Robert Soar.[465]

> --Identifying human relations learnings in larger off-

Interaction; 'Who's got the closed mind?'" Phi Delta Kappan, Vol. LII (April 1971), pp. 488-489.

[462]Ira Lee Hinckley, "An Evaluation of the Teacher Education Program at Illinois Teachers College Chicago-North," Dissertation Abstracts, 28:1327-A, October 1967. (University of Utah, 1967).

[463]E. Dale Davis, "We Need More Education in Human Relations," The Journal of Teacher Education, Vol. XIII (December 1962), pp. 433-436.

[464]Ibid., p. 434.

[465]Norman B. Bowers and Robert S. Soar, "Studies of Human Relations in the Teaching-Learning Process," Report No. CRP 469, 1961, p. 150. (ERIC ED 002-880).

campus programs. For example, Madeline Levine has told[466] how in one university's early experience laboratory program, freshmen wishing to be teachers were assigned to local schools, where each assisted in the main office for half a day each week for several weeks. On balance, the students' contact with the schools' personnel and procedures was beneficial, although several areas where students needed and received help were identified; these included "the importance of punctuality, the need for developing a sense of propriety in behavior and appearance, the necessity for not divulging confidential records, and the emphasis on an objective and sincere interest in place of sentimentality in connection with the children."[467]

--Including affectively-oriented experiences such as those utilized and recently described by Marcia Buchanan[468] and involving relaxation and exercises in eye contact and tactile contact. This involves knowing self, of course, and a method to help achieve that has been described by Don Dinkmeyer;[469] it involves small interactive "C-groups,"

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[466]Madeline S. Levine, "Extending Laboratory Experiences: Part II," The Journal of Teacher Education, Vol. XII (March 1961), pp. 29-35.

[467]Ibid., p. 33.

[468]M. Marcia Buchanan, "Preparing Teachers to be Persons," Phi Delta Kappan, Vol. LII (June 1971), pp. 614-617.

[469]Don Dinkmeyer, "The C-Group: Focus on Self As Instrument," Phi Delta Kappan, Vol. LII (June 1971) pp. 617-619.

"C" standing for Collaboration, Consultation, Clarification, Confidentiality, Confrontation, Communication, Concern, and Commitment. Affective skill development would also involve such exercises in improving one's listening capability as those suggested by T. H. Wright in the June 1971 Phi Delta Kappan[470] (where the other two articles appear, also).

Characteristics of learners.--Obviously, teacher candidates hoping to help learners learn should learn characteristics of learners. Traditionally, this has been a major concern of the area of educational psychology.

In fact, as Dale Harris has observed, "It is sometimes said that every teacher must be a child psychologist. In a sense this is very true. Teachers need to understand psychological concepts sufficiently well to draw the inferences and the probabilistic decisions appropriate to their teaching situations. . . .To make such relationships requires hard intellectual effort."[471]

Perusal of recent literature indicates that the entire field of educational psychology is increasingly being severely criticized. In 1969, for example, John Herbert and David Ausubel edited a collection of papers written by American, British, and Canadian educational

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[470]Theodore H. Wright, "Learning to Listen: A Teacher's or a Student's Problem?" Phi Delta Kappan, Vol. LII (June 1971), pp. 625-628.

[471]Dale B. Harris, "Child Development," Recent Research and Development and Their Implications for Teacher Education. Thirteenth Yearbook. (Washington, D. C.: American Association of Colleges for Teacher Education, 1960), pp. 30-31.

psychology professors with the underlying assumption that "teachers are receiving an entirely inadequate preparation in psychology" and that drastic changes are needed in current educational psychology programs.[472]

And the following year David Aspy summarized the present educational psychology situation as involving three factors:

> first, many leaders in the field want to shift the emphasis toward theoretical concerns; second, undergraduate students want answers about specific problems; third, experienced teachers feel that they did not get what they wanted from educational psychology and yet believe that somewhere in the content of the course lie some things that are very relevant to their teaching. It is as if college teachers are walking a middle ground that satisfies neither the teachers nor those arguing for greater concern with theoretical issues.[473]

Aspy advocated more research as to the impact of educational psychology on the field of education, particularly involving live "classroom practice" situations.[474]

In any event, by 1970, acknowledgement of the situation was widespread enough so that several provocative papers were presented at that year's American Educational Research Association convention as part of the symposium entitled "The Crisis of Content in Educational Psychology Courses." Robert Grinder, for example, advanced the view that "Individualized instruction is the most effective model that instruc-

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[472] John Herbert and David P. Ausubel, editors, Psychology in Teacher Preparation. Monograph Series No. 5 (Toronto: Ontario Institute for Studies in Education, 1969). (ERIC ED 034-740.)

[473] David N. Aspy, "Educational Psychology: Challenged or Challenging?" The Journal of Teacher Education, Vol. XXI (Spring 1970), p. 11.

[474] Ibid.

tors can utilize to increase the relevance of educational psychology." He conceded, however, that it "is still in the future" and described a modular approach in use at the University of Wisconsin's School of Education as a transition "somewhere between the standard semester course and ideal individualized instruction."[475]

In other presentations, Joe Byers called for a decision as to "which constituency do we really want (and need) to serve:" students seeking professional development or students seeking an introduction to a scholarly discipline,[476] Albert Yee surveyed educational psychology as seen through its textbooks,[477] Michal Clark suggested ways CAI (computer assisted instruction) could be of help in the field,[478] and John Feldhusen described student attitudes toward educational psychology courses.[479]

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[475]Robert E. Grinder, "Flexibility and Sequence: Educational Psychology and the Training of Teachers," unpublished paper (on which was based a paper presented at the symposium "The Crisis of Content in Educational Psychology Courses," American Educational Research Association convention, Minneapolis, Minnesota, March 1970), pp. 1, 2.

[476]Joe L. Byers, "A Professor's View," summarized in Abstracts/Two: 1970 Annual Meeting SYMPOSIA, William F. Pilder, editor (Washington, D. C.: American Educational Research Association, 1970), p. 28. The summary was confirmed in personal correspondence dated May 4, 1970, from Dr. Byers to the author, since, as Dr. Byers wrote, ". . . I simply made a series of informal remarks. . ." because time for papers was limited.

[477]Albert H. Yee, "Educational Psychology As Seen Through Its Textbooks" (paper read at the American Educational Research Association convention, March 1970, Minneapolis, Minnesota.)

[478]Michal C. Clark, "The Crisis of Content in Educational Psychology Courses: CAN CAI HELP?" (paper read at the American Educational Research Association convention, March 1970, Minneapolis, Minnesota.)

[479]John F. Feldhusen, "Student Views of the Ideal Educational

Considerations of specific learner characteristics are beyond the scope of this dissertation, of course, yet two such--fear and curiosity--seemed so rarely provocatively discussed in the general literature that a brief special mention seemed warranted.

John Holt, for example, in How Children Fail,[480] felt that many school failures of children were due to their almost inordinate fear in certain situations. This might be especially true for a younger elementary pupil who, afraid of the perceived power of the teacher's position, will not ask for clarification of new material he doesn't understand but instead will feel stupid in the face of explanations the teacher feels are clear. A teacher alert to this problem can attune his sensitivity more readily to try to solve it.

Teacher candidates should be made aware, too, of the effects learning environment structure and methodology can have on children. Philip Jackson has cited a study by J. W. Grimes and W. Allinsmith involving

> third-grade in two kinds of school: "structured" (characterized by a phonics approach to reading and an "authoritarian and cold atmosphere") and "unstructured" (characterized by a whole-word approach to reading and a "democratic and permissive" atmosphere). A rating of compulsivity and an anxiety measure were obtained for each child. All comparisons used groups that were equated for social class and intelligence. Using achievement-test performance as a criterion, the investigators found a significant and striking interaction between anxiety and teaching methods. Highly anxious children did more poorly in the unstructured schools than in the structured ones.

Psychology Course" (paper read at the American Educational Research Association convention, March 1970, Minneapolis, Minnesota.)

[480]John Holt, How Children Fail (New York: Dell Publishing Company, Inc., 1964), 223 pages.

> Indeed, in the structured schools, anxiety was completely unrelated to achievement. Compulsivity had little effect in the unstructured setting, but seemed to enhance performance in the structured school. Children who were both highly anxious and highly compulsive did exceptionally well in the structured settings.[481]

A child also can be considered from the perspective of the extent of his curiosity, defined, according to Paul Torrance (citing W. H. and Ethel Maw), with regard to how he:

1. Reacts positively to new, strange, incongruous, or mysterious elements in his environment by moving toward them, by exploring them, or manipulating them;
2. Exhibits a need or desire to know about himself and his environment;
3. Scans his surroundings seeking new experiences, and
4. Persists in examining and exploring stimuli in order to know more about them.[482]

Teachers have been surprised when they have done this, Torrance reported:

> When asked to nominate the five most and five least curious pupils in a class, teachers complained that they had to put some of their "best" pupils in the low category. One teacher said, "I feel real bad about putting come of my best students in the low group. They are the best I have in arithmetic and spelling especially. They are not curious, though. They never ask any questions and learn only what I tell them to."[483]

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[481]Philip W. Jackson, "The Successful Student," Teachers College Record, Vol. 66 (April 1965), pp. 642-643, citing J. W. Grimes and W. Allinsmith, "Compulsivity, Anxiety, and School Achievement," Merrill-Palmer Quarterly, Vol. 7 (1961), pp. 247-269.

[482]E. Paul Torrance, "The Creative Personality and the Ideal Pupil," Teachers College Record, Vol. 65 (December 1963), p. 223. Torrance referred to W. H. Maw and Ethel W. Maw, "Establishing Criterion Groups for Evaluating Measures of Curiosity," Journal of Experimental Education, Vol. 24 (1961), pp. 229-305.

[483]Torrance, "The Creative Personality and the Ideal Pupil," loc. cit.

Process of teaching and learning.--What is teaching? What is learning? Obviously, since a teacher candidate is going to be directly concerned with these areas, he should have a pretty fair grasp of what they include. A teacher preparation program will provide frequent involvement with aspects of both, but first those responsible for the program should ensure that teacher candidates understand that educators cannot always agree among themselves on how to define the terms, and therefore how to consider the concepts. Context has to be important.

Two brief semi-contrasts of the many available in the literature:

"Teaching is the arrangement of contingencies of reinforcement under which students learn. [B. F.] Skinner uses that familiar theme from operant conditioning to unite the chapters of [his] book" entitled The Technology of Teaching.[484] So wrote M. C. Wittrock in a perceptive and extensive 1968 essay review of the book.[485] (Wittrock called Skinner's book "excellent," but did observe that "His analysis of teaching omits many of the salient variables, especially the mediating process of learners and does not do justice to the complexities of teaching. His analyses of teaching are not unsound, but rather are narrow."[486] Nevertheless, he praises the way Skinner ". . . has us design ways to help each learner toward mastery."[487])

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[484]B. F. Skinner, The Technology of Teaching (New York: Appleton-Century-Crofts, 1968), 271 pages.

[485]M. C. Wittrock, "Teaching as Operant Conditioning (An Essay Review)," The Educational Forum, Vol. XXXIV (November 1969), pp. 131-136.

[486]Ibid., p. 132. [487]Ibid., p. 133.

But consider another point of view. "Teaching," according to Mauritz Johnson, "is the process by which one person interacts with another with the intention of influencing his learning." Further, "There can be teaching where there is no learning" and "There can be learning without teaching."[488]

Now, Skinner's work is with learning involving overt or covert changes in behavior. (Interestingly, Wells Hively, discussing Skinner's analysis of behavior more than a decade ago, observed that "Skinner's analysis is occasionally called a learning theory, but it is not primarily concerned with learning. . . . It is a functional analysis aimed at discovering relationships between dependent variables in the behavior of organisms and independent variables in their environment. A fundamental relationship in this analysis is that between frequency of response and reinforcement."[489])

In the sense that learning can be defined as a "change in behavior," "behavior" would mean "previous condition." Learning can thus be distinguished from creativity, for which learning is a prerequisite. In this sense, while learning may not, perhaps usually does not, require self-initiative (self-motivation), creativity usually does, even if only to express a response to a sudden realization developing from conscious or subconscious reasoning. Or, put this

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[488]Mauritz Johnson, Jr., "Definitions and Models In Curriculum Theory," Educational Theory, Vol. 17 (April 1967), p. 137. (The definition is a part of Figure 2. A Schema for Curriculum.)

[489]Wells Hively, "Implications for the Classroom of B. F. Skinner's Analysis of Behavior," Harvard Educational Review, Vol. XXIX (Winter 1959), p. 38.

another way (as Thomas Green has):

> We speak of responding in connection with behavior. We speak of responsibility in connection with action. Behavior is related to action and habit: it is reiterative, duplicated again and again. Action is originative. It is for that reason forever dangerous, like love and forgiveness, unpredictable, breaking to pieces the limits of the familiar and creating, in effect, a new beginning.[490]

Subsequently, Green explained that he'd had ". . . a difference in emphasis . . . in mind by marking a contrast between acting and behaving."[491]

Can learning be defined only as behavioral change? Again, Mauritz Johnson: "Learning is the process by which an individual invests cultural content with meaning, thereby becoming capable of acting differently toward that item, or another item, of cultural content. Corollary. Learning does not necessarily change behavior, but it changes the potential for behavior. . . . Learning can be detected only by contriving [or identifying] a situation in which a change in behavior can be manifested. . . . Learning is independent of any demonstration of its occurrence." [Johnson defined "cultural content" as "disciplinary and non-disciplinary." Disciplinary content "is derived from systematic inquiry conducted within a framework of assumptions and procedures accepted by scholars competent to conduct such inquiry. Non-disciplinary content is derived empirically from

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[490]Thomas F. Green, "Teaching, Acting, and Behaving," Harvard Educational Review, Vol. 34 (Fall 1964), p. 523.

[491]Thomas F. Green, "Discussion: 'Teaching, Acting, and Behaving'," Harvard Educational Review, Vol. 35 (Spring 1965), p. 203. Mr. Green (the author of "Teaching, Acting, and Behaving," op. cit.), was joined in this discussion by Jonas F. Soltis, R. S. Peters, and James E. McClellan.

experience other than deliberate inquiry."[492]

Total K-12 awareness.--Since the fall of 1969, the author has taught a number of sections in Educational Sociology, in which, at Kansas State University, elementary and secondary teacher candidates are mixed. Whenever the question has been raised as to whether the two groups should be separated, the overwhelming response has been to keep them together. Intraclass interaction is encouraged, and the consensus among the students seems to be that each group learns usefully from the problems, conditions, opinions, and other concerns with which the other group is involved. Also, the K-12 awareness concept reinforces students' comprehension and appreciation of the aspects of preparedness and continuity in education, the author has been told many times in different ways by students (and by faculty colleagues as well, for that matter).

Familiarity with nonteaching human skills.--These would include experience in first aid, as suggested by several of the author's students during the spring of 1970 and subsequently, and how teachers can use counseling techniques effectively, as has been demonstrated in several of the author's course sections since the fall of 1970.

Familiarity with parent-teacher relationship characteristics and other public relations techniques, values, and skills also should be a part of every teacher candidate's program.

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[492]Mauritz Johnson, Jr., "Definitions and Models In Curriculum Theory," loc. cit.

Besides personal advantages, there are good institutional reasons for such inclusions. Scott Norton has pointed out[493] that much of the public sees educators as aloof, even arrogant, and considers school policies often to be either closed-door or open-door but closed-minded. Further, "Teacher preparation programs generally are devoid of planned instruction in the area of public relations. Even the more obviously necessary skills in parent-teacher communication, community involvement, and home-school cooperative measures are by-passed in training programs or are reduced to incidental considerations."[494] One way to begin to resolve this, he says, is to acknowledge that "efforts to improve student teaching experiences must include meaningful activities in the area of school-community relationships" and, in teacher preparation, respond accordingly.[495]

As an example of even small ways teachers could practice techniques derived from public-relations-oriented ideas, Richard Swerdlin has suggested that teachers try sending notes home for praise and credit, "for tasks well done," as well as for the traditional reason: to report poor achievement or misdeeds. "Over a period of time this practice [praising accomplishment] can be instrumental in putting school-home relationships on a more positive and rewarding footing," Swerdlin pointed out.[496]

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[493]W. Scott Norton, "School-Community Relations--New Issues, New Needs," The Clearing House, Vol. 44 (May 1970), pp. 538-540.

[494]Ibid., p. 539. [495]Ibid.

[496]Richard Swerdlin, "School-Home Relations," Educational Leadership, Vol. 24 (October 1966), p. 12. (Letter to the Editor.)

Proficiency in use of general resources.--The more a teacher is aware of the availability and usefulness of resources, the richer he can make his students' learning experiences.

This certainly includes new media, particularly audiovisual media, as Herbert Schueler and Gerald Lesser have observed:

> As to possible contributions to teacher education of these new media--radio and television, sound, film, and video recording, and auto-instructional programs--at the outset, it is obvious that the teacher must know about them and their use (present and potential) in the schools, and recognize their best time and place applications. Inescapably the new media as a subject of instruction must be a part of any modern teacher education program.[497]

Concentration Considerations

For most college students, demonstrating accepted proficiency (e.g., by earning "grades") in learnings stipulated for a "major" or academic or other concentration leading to a degree usually is sufficient scholarly orientation for their needs or desires. Would-be teachers, however, have the extended responsibility of comprehending such learnings well enough to be able, by utilizing developed methodological skills, to help other persons attain at least some of those learnings. Thus the teacher preparation phase of a teacher candidate's curricular program might well involve not only academic specifics but also substantive generalizations, methodological generalizations, interdisciplinary considerations, development of various skills, and the application of attained knowledge and skills.

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[497]Herbert Schueler and Gerald S. Lesser, Teacher Education and the New Media (Washington, D. C.: The American Association of Colleges for Teacher Education, 1967), p. 27.

Substantive generalizations.--What value might there be in going beyond curricular specifics to generalizations?

> If you give a man a fish,
> he will have a single meal.
> If you teach him how to fish,
> he will eat all his life.
> Kuan-tzu[498]

Because of the nature of the American educational system, academic knowledge has been divided into "disciplines" and other subject, or "content," groupings which elementary and secondary teachers are expected to "teach" and students and pupils are expected to learn. For years, learnings in these groupings primarily encompassed single-meal "facts" and details and only rarely "how-to-fish" representative ideas and concepts.

("Representative idea" is used here as defined by Philip Phenix:

> . . . an idea that represents the discipline in which it occurs. . . . Representative ideas exist because disciplines have form, pattern or structure. A representative concept represents the pattern of the discipline. It characterizes the structure of that field of inquiry. It is an idea that enables one to distinguish one discipline from another. The assertion that disciplines have form means that their various components fit together according to some scheme of coordination. They cohere in some systematic fashion. A discipline is not merely a collection of various and sundry ideas. It has a characteristic logic that provides a standard for judging whether or not any given item belongs to the discipline, and if it does, how it fits together with other components of the field. Representative ideas are the organizing principles of the discipline. They exhibit its distinctive logic.[499])

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[498]Quoted, without citation of source, by J. J. Servan-Schreiber, in The American Challenge (New York: Avon Books, 1969), p. vii.

[499]Philip H. Phenix, Realms of Meaning, A Philosophy of the Curriculum for General Education (New York: McGraw-Hill Book Company, 1964), pp. 322-323.

The past decade has seen in several disciplines (e.g., mathematics, physics) a move away from curricular stress on facts and details in favor of increasing consideration of representative ideas and concepts. Indeed, considering the almost exponential proliferation of specifics in various subject areas these days, such a development almost had to occur, given the constraints of societally acceptable time available for "basic" K through 12 formal education. This has, of course, had its effect on teacher education. As Morris Cogan has observed (emphasis his),

> If the teacher cannot truly "know" his major in the sense of the encyclopedic mastery of data, details, doctrines, principles and laws, then it is clear that he must know, first the processes by which one comes to know in a discipline, and second, which knowledge promises him the greatest "mileage" in using what he knows and in learning what he does not yet know. To have command of the processes by which one comes to know means to command the tools and modes of analysis, the conceptual schemes by which one's discipline organizes itself, and the evidence and the logic on which conceptional frames are erected.
>
> Both the teacher-scientist and the teacher-humanist need to know that the revolution in scientific knowing is paralleled by a revolution in esthetic or associative knowing.[500]

L. O. Andrews is another who has pointed out clearly that teacher educators, including instructors in arts and sciences and other areas, must go beyond stressing obscurely related detail and narrow perspectives.

> No longer is it adequate to teach college students to soak up facts as a blotter, for two most significant reasons. First, no one can ever hope to learn all that it would be

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[500]Morris L. Cogan, "The Academic Major in the Education of Teachers," Chapter IV, Improving Teacher Education In the United States, Stanley Elam, editor (Bloomington, Indiana: Phi Delta Kappa, Incorporated, 1967), p. 109.

> desirable to know, and, secondly, there is always the problem of how one keeps up on new knowledge as it becomes available. . . . Professors now must shift their emphasis from demanding memorization of content to teaching the structure of the discipline, the key concepts, the major issues, the vocabulary, the organization of the field including how to find what one wants to know and how to use it when it is found, and finally--and perhaps most important--how to keep up to date in a given field.[501]

Unfortunately, too often there is a large gap between the ideal and the reality. The literature does not indicate widespread solutions to the "unsolved problems" identified by George Denemark nine years ago:

> Elementary and secondary teachers are fundamentally teachers of general education. As such, their own general education should be rich and substantial. Yet many are experiencing in college only a hodge-podge of introductory courses in a wide range of disciplines, courses aimed more at developing familiarity with nomenclature and classification systems, with the manipulation of apparatus, than focused upon communicating a broad framework of understanding, a sub-structure of concepts and principles, and a familiarity with the methods of inquiry unique to the discipline. New emphasis is needed upon general education as a critically important dimension of the preparation of every teacher, for it is in such a program that the professional education of our teachers truly begins.[502]

Perhaps procedures should be established whereby, as Robert Paulsen suggests, "Practicing teacher educators, using the literature and resources now available, would formulate some systematic concept of their enterprise, and they would identify the questions for which they need answers from the scholars and specialists" in other disciplines.

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[501]L. O. Andrews, "Challenges and Needed Developments in Teacher Education," Teacher Education in Transition, Volume II, Emerging Roles and Responsibilities, Howard E. Bosley, editor (Baltimore: Multi-State Teacher Education Project, July 1969), p. 171.

[502]George W. Denemark, "Unsolved Problems" ("A Symposium on Teacher Education"), The Journal of Teacher Education, Vol. XIV (March 1963), p. 22.

The latter would "be asked to supply information relevant to the operational program of the practitioner and to help with its application through insights in educational practice." The involvement of specialists in nonacademic fields such as industry also should be sought.[503]

For specific examples of what might be disciplinarily involved, we can consider John Goodlad's 1960 remarks about the teaching of secondary school mathematics:

> It is apparent that this field--like other teaching fields--must be rigorously examined in order to determine its contributions to and demands upon teaching. What are its methods, its basic assumptions about truth and knowledge? What elements constitute its character and hold it together as a field of human inquiry? In what way do these elements--concepts of time, number, quantity, and space, for example--discipline and limit the kinds and order of learning opportunities to be provided? How does the very nature of the field give direction to practical classroom operations, such as grouping pupils for most effective instruction, using films and tape recorders, employing teaching machines appropriately, and so on?[504]

By a decade later, some of these questions had been rephrased (by others than Goodlad) into general guidelines. For example, in one guidelines and standards book published in 1971 for teacher education programs in science and mathematics,[505] program planners were told to

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[503]F. Robert Paulsen, "Tactics for Institutional Change in Teacher Education," Teacher Education, Issues & Innovations, Twenty-first Yearbook-1968 Annual Meeting (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968), p. 207.

[504]John I. Goodlad, "The Professional Curriculum of Teachers," The Journal of Teacher Education, Vol. XI (December 1960), p. 456.

[505]American Association for the Advancement of Science, Guidelines and Standards for the Education of Secondary School Teachers of Science and Mathematics (Washington, D. C.: The Association, no date). AAAS Miscellaneous Publication 71-9 [1971]. Recommendations of the

be certain to consider such concerns as those expressed in the book's Guidelines II and XI:

> GUIDELINE II
> Teacher education programs should provide teachers with the knowledge and experience to illustrate the cultural significance of science, to relate science and mathematics through technology to social conditions, and to apply the analytical methods of science in multidisciplinary approaches to studying and solving societal problems.[506]
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> * * *
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> GUIDELINE XI
> Teacher education programs should develop the ability of the future teacher to select, adapt, evaluate and use strategies and materials for the teaching of science or mathematics so that the teaching-learning situations for which he is responsible will be consistent with general knowledge about teaching and learning and will be appropriate both to the special needs of the learners and to the special characteristics of the science disciplines or the interdisciplinary problem.[507]

Methodological generalizations.--Programmatic development of knowledge and skills should involve intrauniversity contributions, particularly in discipline-related areas. And in fact, as Sidney Dorros noted in 1968, "There is a strong movement away from exclusive program planning by 'education professors' alone to cooperative planning involving representatives of the faculty members of academic subjects fields."[508]

Project on the Education of Secondary School Teachers of Science and Mathematics sponsored by the AAAS Convention on Science Education, and the National Association of State Directors of Teacher Education and Certification and supported by the National Science Foundation.

[506] Ibid., p. 7. [507] Ibid., p. 36.

[508] Sidney Dorros, Teaching as a Profession (Columbus, Ohio: Charles E. Merrill Publishing Company, 1968), p. 33.

Such cooperative planning connotes mutual understanding with regard to fundamental structure of content, such as has been described by David Willis.[509] This "mutual understanding would give a firmer base for communication about the interrelationships between the method of a discipline and the instructional process, about the respective contributions academician and educationist can make to the student teacher's learning to teach, about curriculum development in elementary, secondary, and higher education."[510]

A real ideal, of course, would be a teacher education curriculum in which, as John Renner has suggested, prospective teachers would be taught courses in their disciplines as they in turn would be expected to teach them.[511]

But even the kind of experimental programs suggested by Carson McGuire in 1967 would provide intrauniversity opportunities. The most apropos of the three he described was to build within the area of behavioral science foundations of education "a sequence with a required basis of up to 18 hours of the behavioral sciences (psychology, anthropology, sociology, and linguistics) as well as logic and some principles of philosophy."[512] This would be worked out with the

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[509]David E. Willis, "Learning and Teaching in Methods Courses, Part II: The Need for Structure in Teacher Education," The Journal of Teacher Education, Vol. XIX (Summer 1968), pp. 165-175.

[510]Ibid., p. 174.

[511]John W. Renner, "Lockstep Teaching," Clearing House, Vol. 40 (November 1965), p. 162.

[512]Carson McGuire, "Potential Developments in Teacher Education," Working paper addressed to the College of Education Faculty, The University of Texas, Austin, May 17, 1967, p. 1. (ERIC ED 013-990).

existing departments in other colleges in the university, he wrote. For example, the History Department would be asked to offer for prospective teachers broad-concept courses emphasizing pattern recognition rather than the chronological ordering of facts.[513]

Interdisciplinary considerations.--Of course, the outer limits of disciplines often are not clear-cut; they can and do overlap one another, John Goodlad has been one educator to observe.[514] This underscores the value of interdisciplinary educational experiences, particularly since a teacher candidate unable to comprehend such relationships will be hard put to teach them.

This has its effects in the implementation--or lack of it--in K-12 programs. There is some indication that the latter is generally the situation in Kansas; in its 1970 study of the state's elementary and secondary school students, the Project SEEK task force "found that the students did not see an interrelation between subject matter areas."[515]

Of course, as Arthur King and John Brownell have warned, "Never assume that curricula or studies organized on sweeping themes, broad fields, surveys, symposia, and syntheses of many fields produce a

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[513] Ibid.

[514] John I. Goodlad, "The Professional Curriculum of Teachers," The Journal of Teacher Education, Vol. XI (December 1960), p. 455.

[515] The Project SEEK Staff. Report of Project SEEK [State Educational Evaluation of Kansas], Vol. IV, Summary, Conclusions and Needs Recommendations (Topeka, Kansas: Title III, ESEA, Director, Kansas State Department of Education, April 20, 1970), p. 15.

unity in the minds of students. Synthesis is personal."[516] One conclusion that can be drawn from this is that a teacher preparation program must first ascertain the extent to which a teacher candidate has a comprehensive understanding of English, the social studies, science, and mathematics, the fields which "represent the core of any sound intellectual education at all grade levels and, collectively, provide the bases for further learning in all other areas."[517] Then the program can probe to find the student's knowledge and capability with regard to interdisciplinary concepts and other broad aspects.

Development of skills.--Besides knowledge itself, teacher candidates must develop personal, interpersonal, even impersonal skills in implementing educational procedures and in helping learners learn. A number of these skills have been described above. (For example: Knowing how to effect change in curricula, as described in New Horizons for the Teaching Profession.[518] Ryland Crary also has discussed different methods for individuals.[519])

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[516]Arthur A. King, Jr., and John H. Brownell, The Curriculum and the Disciplines of Knowledge: A Theory of Curriculum Practice (New York: John Wiley and Sons, 1966), p. 144.

[517]Frank L. Steeves, The Subjects in the Curriculum, Selected Readings (New York: The Odyssey Press, Inc., 1968), p. vi.

[518]Margaret Lindsay, editor, New Horizons for the Teaching Profession (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1961), cf. p. 55.

[519]Ryland W. Crary, Humanizing the School: Curriculum Development and Theory (New York: Alfred A. Knopf, Inc., 1969), pp. 145-155.

A selection of other examples would include developing the "individual's personal organization of knowledge" in the sense discussed by Broudy, Smith, and Burnett,[520] developing curriculum-oriented skill with games and simulations,[521] and developing skills in planning and evaluation.[522]

Application of knowledge and skills.--Knowledge related skill development must include applicatory aspects to be practical. Utilizing a content context, for example, Earl Kelley has pointed out that "Subject matter is the medium through which the adult mind of the teacher and the immature mind of the learner find communion. It is the vehicle for growth. Knowledge is not power in itself, but knowledge which enables the individual to function more effectively adds to his power. The particulars of subject matter must be those for which the learner can find functional use in his own concrete world."[523]

As an example, this apparently was the kind of intent inherent in Cornell University's introductory course in the social sciences. Michael MacCoby described it in the summer of 1967 and stated, "Our aim

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[520]Harry S. Broudy, B. Othanel Smith, and Joe R. Burnett, Democracy and Excellence in American Secondary Education, A Study in Curriculum Theory (Chicago: Rand McNally & Company, 1964), pp. 111-118.

[521]See, for example, Elliot Carlson, "Games in the Classroom," Saturday Review, Vol. L (April 15, 1967), pp. 62-64, 82-83.

[522]See, for example, Sam Adams and John L. Garrett, Jr., To Be A Teacher: An Introduction To Education (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969), pp. 142-160, 202-216.

[523]Earl C. Kelley, Education for What Is Real (New York: Harper and Brothers, 1947), p. 101.

was to demonstrate that science, like art, can sensitize the observer to perceive reality more profoundly than he ordinarily does, with the difference that the scientist must produce systematic interpretations which stand the test of generalized criteria."[524]

Application Considerations

For a teacher candidate, achieving foundation- and concentration-oriented knowledge and skills is only part of the program; he must also learn how to apply them in formal, semi-formal, and even informal educational situations. This will involve a number of concerns, ranging from objectives, planning, and motivation to methodology, evaluation, and other considerations.

Definition of the problem.--Reaching some sort of mutual agreement as to what application characteristics should include has to involve students as well as faculty and other educators. John Goodlad, for example, who in 1965 provided one of the best descriptions of problems and practices in "professional laboratory experiences" for prospective teachers,[525] observed that any introductory education course that does not meet students' primary expectations has a major hurdle to overcome. Enrollees in such a course often "expect that it will have something rather immediate or obvious to do with teaching.

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[524]Michael MacCoby, "The Cornell Introductory Course in the Social Sciences," Harvard Educational Review, Vol. 37 (Summer 1967), p. 427.

[525]John I. Goodlad, "An Analysis of Professional Laboratory Experiences in the Education of Teachers," The Journal of Teacher Education, Vol. XVI (September 1965), pp. 263-270.

Frequently it does not." Thus, he said, "it would appear that some careful and deliberate interweaving of theory and practice must occur at the outset, . . ."[526] but how best to do this he admitted was not yet established.[527]

Another factor, identified by Maxine Green early in 1970:

> Most teachers-to-be, no matter what their predilections and styles, are going to face a significant decline in the authority associated with their roles. This means that they will be exposed to a new sense of fallibility as they work with children who are largely resistant to imposed adult codes. No longer considered moral exemplars, no longer considered sages, they will have to be present to their individual students as fallible persons, each one developing --as each student is developing--his own ethical code. In such situations, they are obligated not to announce what is good and right but to communicate a sense of what it is to live by principle, to make decisions of principle, to define adequate reasons for what they choose to do. This seems to us to be still another argument for including in teacher education programs more stress on deliberative thinking where values and ethics are concerned.[528]

Program considerations include specifics, too, and certainly the book of readings entitled TEACHING: Vantage Points for Study, edited by Ronald Hyman,[529] should be read by anyone involved in teacher preparation curriculum activities.

Identification of objectives.--Naturally, any program should have

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[526]Ibid., p. 265.

[527]See, however, the "Early 'Professional' Experiences and Retention" section on pages 160-164 of this dissertation.

[528](Maxine Green), "For The Record--Teacher Education and Commitment: The Tolling Bell," The Record, Vol. 71 (February 1970), p. 474. Teachers College, Columbia University.

[529]Ronald T. Hyman, editor, TEACHING: Vantage Points for Study (Philadelphia: J. B. Lippincott Company, 1968).

a direction; that is, objectives should be established for it. These may be generalized or may be performance objectives as specific as the kinds of "specific noninstructional objectives" and "minimum-level" and "desired-level" behavioral objectives described by H. H. McAshan.[530] Most programs will have room for all types of levels of objectives.

Where possible, all input involving program rationale--including objectives--should be in writing. In fact, thoughtful written exercises should be required of all students in the program to help strengthen their educational character. For, as Galen Saylor has observed, "In writing, one is forced to formulate a clear philosophy of education, an intelligent and rational point of view toward educational problems, issues, innovations, and developments. He must broaden and deepen his knowledge and comprehension of his fields of specialization as he organizes and systematizes his beliefs, insights, and understandings."[531]

Principles underlying and involved with methodology selection also should be considered when formulating program objectives. One noteworthy list is that of Ralph Pounds, who suggested ten principles useful as guidelines:

1. Experiential learning [rather than memorization].

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[530]H. H. McAshan, Writing Behavioral Objectives, A New Approach (New York: Harper & Row, 1970).

[531]J. Galen Saylor, "Professional Writing," Theory Into Practice, Vol. VIII (December 1969), p. 317. The theme of that TIP issue was "Moments That Made A Difference."

2. Student participation in selecting learning experiences.
3. Integrated learning.
4. Individualism in methods for each student.
5. Emphasis upon intrinsic motivation [that is, motivation out of the inner worth of the ongoing activity].
6. Continuous evaluation by group and by self.
7. Emphasis upon the ability to work cooperatively with others.
8. Teaching as guidance towards creativity.
9. Emphasis on the cultivation of problem-solving abilities.
10. Emphasis upon the refinement of our cultural heritage.[532]

In any event, anyone establishing objectives for a teacher preparation program would do well to heed Benjamin Bloom's contention that "Most students (perhaps over 90 percent) can master what we have to teach them, and it is the task of instruction to find the means which will enable our students to master the subject under consideration."[533]

Planning.--The value of planning, and thus in learning and knowing how to plan, is covered at some length in most contemporary methods books. Whether an educator is tactically developing learning experiences on the classroom level or strategically moving from general to specific considerations in large teaching systems, planning is essential.

(The general-to-specific sequence, incidentally, was advocated

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[532]Ralph L. Pounds, "Educational Values and Classroom Methods," Theory Into Practice, Vol. V (April 1966), p. 65. In the article, these items were italicized and followed by a brief elaboration. The theme of that TIP issue was "Methodology, Its Impact on Learning."

[533]Benjamin S. Bloom, "Learning for Mastery," Evaluation Comment, Vol. 1 (May 1968), p. 1. Published by the Center for the Study of Evaluation of Instructional Programs, College of Education, University of California at Los Angeles.

by Theodore Manolakes not only for large teaching systems [e.g., a phonics approach in readings] but also for teacher preparation in the diagnostic decision-making aspect of teacher behavior and the interactive aspect of teaching.[534])

Certainly planning can help a competent teacher achieve the kind of "considerable success in selecting important and strategic things to be learned," and in teaching his students how to study, that L. D. Haskew has written about.[535]

Selection of learning resources.--Resources come in many forms: written, technological, human. Edward D'Angelo recently suggested a rather unusual but logical human resource:

> Many philosophers teaching in our colleges and universities can spend part of their time training teachers in the principles of critical thinking. . . . Philosophers of education who are acquainted with the literature on teaching critical thinking and its application in the curriculum can show teachers how critical thinking abilities can be fostered in language arts, reading, social studies, science and mathematics.[536]

Motivation.--Here is one of the key areas of education, one that, judging by the expressed direct and indirect concern evident in the

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[534]Theodore Manolakes, "Laboratory Experiences and Professionally Focused Teacher Education Programs: A Descriptive Point of View," (paper presented at the conference honoring Florence B. Stratemeyer at French Lick, Indiana, June 10-12, 1965). (ERIC ED 024-628).

[535]L. D. Haskew, "The Goal of Personnel Policies," Personnel Policies for Schools of the Future (Washington, D. C.: National Commission on Teacher Education and Professional Standards, 1957), p. 72. The Washington Conference Report.

[536]Edward D'Angelo, "Philosophers as Critical Thinking Consultants," School and Society, Vol. 98 (March 1970), p. 166.

literature, admits of no ready and few generalizable answers. Learning situations from self-study to classroom management procedures are involved, as are teaching aspects.

Judson Shaplin, for example, in a long essay a decade ago,[537] identified three types of behavior "which seem crucial to the teaching process." They are practice in ". . . 1) the behavioral aspect of teaching and learning; 2) . . . establishing the pre-conditions of teaching; 3). . . the organization of instruction." By pre-conditions he meant "the essentials of classroom management": personal characteristics, communication skills, interaction skills, and the assessments of baselines of learning in students. (The latter, he explained, involves estimating accurately the learning capacities and readiness stages of their students and then teaching from that point.)[538] Of course, Shaplin acknowledged, "It is almost axiomatic in teaching that the more important the objectives, the more difficult it is to measure the achievement of them. . . . Often the behavior we seek can only be tested in other contexts than the classroom, after long time delays, and is beyond the capacity of the teacher to know."[539]

Later, Philip Jackson observed:

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[537]Judson T. Shaplin, "Practice in Teaching," Harvard Educational Review, Vol. XXXI (Winter 1961), pp. 33-59. Subsequently, Donald W. Oliver and James P. Shaver, in "A Critique of 'Practice in Teaching'," Harvard Educational Review, Vol. XXXI (Fall 1961), pp. 436-448, severely criticized a number of Shaplin's contentions, although not the ones herein cited.

[538]Shaplin, op. cit., pp. 38-42.

[539]Ibid., p. 48.

> The major conditions of success in the classroom can be classified under three broad headings: motivation, ability, and teaching. When all three conditions are optimally satisfied--as when we have a student who wants to learn, who has the requisite abilities, and who is being taught by a sensitive and well-prepared teacher--it is almost axiomatic that successful learning will occur.
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> Although the ideal learning situation is easy to describe, much remains to be known about how to achieve it in real life.[540]

Two factors that might well be utilized by an effective teacher have been mentioned by Samuel Keys. One is humor, "a basic link between the teacher and the student as person." The other is classroom management utilizing"sufficient routine to establish security while avoiding rigidity."[541]

Another factor identified widely in the literature is communications, both verbal and nonverbal. Several systems have been developed to identify and analyze both kinds.

Among the more noted systems analyzing primarily verbal communications are those developed by Ned Flanders, Elizabeth Hunter, and Edmund Amidon,[542] and Bruce Joyce.[543] (In 1970, Patricia Murphy

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[540]Philip W. Jackson, "The Successful Student," Teachers College Record, Vol. 66 (April 1965), p. 635.

[541]Talk by Samuel R. Keys, Dean, College of Education, Kansas State University, to the local Phi Delta Kappa chapter, Kansas State University Union building, November 11, 1969.

[542]See, for example: Edmund J. Amidon and Ned A. Flanders, The Role of the Teacher in the Classroom: A Manual for Understanding and Improving Teachers' Classroom Behavior (Minneapolis: Paul S. Amidon & Associates, 1963). Edmund J. Amidon and Elizabeth Hunter, Improving Teaching: The Analysis of Classroom Verbal Interaction (New York: Holt, Rinehart & Winston, 1966). Edmund J. Amidon and Elizabeth Hunter, "Direct Experience in Teacher Education: Innovation and Experimentation," Journal of Teacher Education, Vol. 17 (Fall 1966), pp. 282-289.

[543]See, for example: Bruce R. Joyce and Berj Harootunian, The

presented an AERA paper citing verbal-oriented analysis systems and discussing how a "teacher's conceptual system . . . appears to be a useful variable for predicting teaching styles."[544])

One of the better systems for analyzing teacher nonverbal communication was developed in the early and mid 1960's by Charles Galloway on the premise that

> . . . It might be stated that teachers are unaware of the consequences of the nonverbal messages they transmit in classroom teaching, not to mention the out-of-classroom interactions. Perhaps a failure to interpret or to be aware of the many "affective" implications of nonverbal language constantly remains a grave handicap and a profound difficulty for truly understanding the impact of one's communication with pupils.[545]

In 1967, Galloway presented and described a model of teacher nonverbal communication at an AACTE Workshop in Teacher Education.[546]

Not long thereafter, systems to analyze verbal and nonverbal communication together began to appear. One was Herbert K. Heger's MiniTIA (Miniaturized Teaching Interaction Analysis) system, which utilizes checksheets and videotapes.[547] And three pertinent papers

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Structure of Teaching (Chicago: Science Research Associates, Inc., 1967), 228-246.

[544]Patricia D. Murphy, "Conceptual Systems and Teaching Styles" (paper presented at the American Educational Research Association annual convention, March 2-6, 1970, Minneapolis, Minnesota), p. 2.

[545]Charles M. Galloway, "Teacher Nonverbal Communication," Educational Leadership, Vol. 24 (October 1966), p. 63.

[546]Charles Galloway, "A Model of Teacher Nonverbal Communication," Professional Teacher Education II, A Programed Design Developed by the AACTE Teacher Education and Media Project (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968), pp. 44-54.

[547]Herbert K. Heger, "Analyzing Verbal and Nonverbal Communications," 1968, 12 pages. (ERIC ED 025-483).

were presented at the 1970 AERA annual convention: "A Study of Communication Events and Teacher Behavior: Verbal and Nonverbal," by Russell French,[548] "The Minicourse As A Tool For Training Teachers in Interaction Analysis," by Philip Langer and G. Edward Allen,[549] and "Analysis of the Interaction of Student Characteristics With Method In Micro-Teaching," by Katherine Chavers, A. P. Van Mondfrans, and J. F. Feldhusen.[550]

But perhaps one of the best viewpoints with regard to desired teaching behavior for motivation was the one a ten-year-old correspondent named Betsy sent to Marguerite Carter: "I think teachers should teach with smiles."[551]

To teach warmly that way means, of course, that a teacher should know, exemplify, and practice mental health with full awareness of con-

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[548]Russell L. French, "A Study of Communication Events and Teacher Behavior: Verbal and Nonverbal" (paper presented at the American Educational Research Association annual convention, Minneapolis, Minnesota, March 2-6, 1970).

[549]Philip Langer and G. Edward Allen, "The Minicourse As A Tool For Training Teachers In Interaction Analysis" (paper presented at the American Educational Research Association annual convention, Minneapolis, Minnesota, March 2-6, 1970). Subsequently published by the Far West Laboratory for Educational Research and Development, Berkeley, California, 1970.

[550]Katherine Chavers, Adrian P. Van Mondfrans, and John F. Feldhusen, "Analysis of the Interaction of Student Characteristics With Method in Micro-teaching" (paper presented at the American Educational Research Association annual convention, Minneapolis, Minnesota, March 2-6, 1970).

[551]Marguerite Cartwright, "I Hate My Teacher!" Journal of Teacher Education, Vol. VII (September 1956), p. 237. Letter from ten-year-old "Betsy" to Miss Cartwright.

textual realities. That is, a teacher must be mentally healthy before he can consistently go beyond subject matter to help children attain mental health, too. This has its obvious implications for teacher education programs, although few seem to have come to grips with mental health development as a general (i.e., not a specialized) curricular aspect, as I. N. Berlin and J. L. Johnson and A. A. Seagull have indicated.

Berlin, in fact, as cited previously, in his perceptive and pointed article entitled "Unrealities In Teacher Education" observed that teachers who have received training in working with "emotionally disturbed, retarded, or handicapped children . . . seemed to [be prepared] more adequately for the 'normal' classroom of today."[552]

Johnson and Seagull were also perceptive; in their often practical article, they criticized several all-too-frequent teacher education procedures (e.g., an overemphasis on passive-reaction lectures) as encouraging in teacher candidates attitudes and practices partly or completely different from the objectives stated for those procedures. Further, they said, "Mental health procedures must be taught in the schools, just as reading and writing are. And the teachers who teach these skills [e.g., practice them concurrently as they teach] must have an educational background in which these 'skills' are valued and taught."[553]

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[552]I. N. Berlin, "Unrealities In Teacher Education," The Saturday Review, Vol. XLVII (December 19, 1964), p. 56. The previous, and more extensive, citation is on page 106 of this dissertation.

[553]John L. Johnson and Arthur A. Seagull, "'. . . But do as I

How might teacher candidates be taught to recognize and manage social and emotional problems in the classroom? Late in 1968, G. L. Gropper and three associates described a Pennsylvania program[554] designed to train teachers to use "an array of learning-based techniques, in managing these problems."[555] Utilizing programmed materials and techniques, individual assignments, and group discussions, the program identifies 13 behavior problem areas (e.g., attention to classroom activities, reaction to tension, degree of independence, integrity), utilizes a 56-cell matrix table summarizing criteria for classifying problem behavior, and provides a summary of appropriate classroom management techniques for behavior problems of omission and commission.

Other recent positive developments in the area of motivation are the appearances of the Center for the Study of Motivation and Human Abilities Motivation Quarterly (Vol. 1, No. 1 came out in the fall of 1970)[556] and the Theory Into Practice issue on "Motivation: The Desire To Learn."[557] Both publications contain much worthy of con-

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preach': Form and Function in the Affective Training of Teachers," Phi Delta Kappan, Vol. L (November 1968), p. 166. (Emphasis theirs.)

[554]G. L. Gropper, G. C. Kress, R. Hughes, J. Pekich, "Training Teachers To Recognize and Manage Social and Emotional Problems in the Classroom" ("With the Researchers," Karl Openshaw, Research Editor), The Journal of Teacher Education, Vol. XIX (Winter 1968), pp. 477-485.

[555]Ibid., p. 478.

[556]Motivation Quarterly, published monthly by the Center for the Study of Motivation and Human Abilities at The Ohio State University, Columbus, Ohio.

[557]"Motivation: The Desire To Learn" (Issue theme), Theory Into Practice, Vol. IX (February 1970).

sideration by teacher preparation program curriculum builders.

Group involvement of students in learning.--Books describing methods of teaching generally or as oriented to various subject areas are many, and they seem to be proliferating. One example of one of the broader discussions is Ronald Hyman's Ways of Teaching, in which methods of discussion, recitation and lecture, questioning and role-playing are considered, along with such concurrent activities as observing and evaluating.[558]

Individualization of learning.--In 1968, Alexander Frazier suggested[559] that educators had succeeded in developing tools and procedures for the individualization of instruction leading "to the achievement of mastery in the lesser learnings."[560] Therefore it was time, he said, to redevelop curriculum to individualize instruction "that leads to the development or growth of power in the larger learnings":[561] physical being, sensibility, love, invention, and endurance.

Encouragement of larger (and lesser) learning achievement seemed to be among the objectives of a highly flexible secondary level program established in 1965 in Hughson, California, and involving LAPs, or

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[558]Ronald T. Hyman, Ways of Teaching (Philadelphia: J. B. Lippincott Company, 1970).

[559]Alexander Frazier, "Individualized Instruction," Educational Leadership, Vol. 25 (April 1968), pp. 616-624.

[560]Ibid., p. 624. [561]Ibid.

Learning Activity Packages.[562] "Instead of textbooks, teachers have broken down the curriculum into smaller 'bite sized' packages. There are about 90 LAPs for any given subject area from freshman to senior levels."[563] Individual initiative is the key, with each student proceeding at his own pace. (Further, the program has sought and utilized the volunteer help of more than 65 parents, resulting in a high degree of community interest and involvement in the program, according to Hughson Union High School District Robert Reeder.[564])

Evaluation.--"Educators seem to agree that evaluation is important," Richard Schwartz acknowledged dryly in a 1970 article,[565] although "There is some disagreement on specific issues in evaluation."[566] But "especially when the goal of measurement is viewed as obtaining as much information as possible by using a discriminating measurement instrument which forces variability among students,"[567] educational measurement is overemphasized, Schwartz opined. The overemphasis "(a) creates a conflict between measurement and instruction. (b) encourages gathering information for its own sake. (c) may be detrimental to the learning process."[568] Certainly Schwartz'

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[562]"Hughson: Small School Where Big Things Are Happening," Pi Reports, Program Bulletin No. 1 (June 1968), pp. 1-4. Published by the PI Supplementary Education Center, 33 East Magnolia Street, Stockton, California 95207.

[563]Ibid., p. 1. [564]Ibid.

[565]Richard K. Schwartz, "Is Educational Measurement Overemphasized?" News and Views, Vol. XI (March 1970), pp. 4-6. Published by the School of Education, University of Colorado, Boulder.

[566]Ibid., p. 6. [567]Ibid., p. 5. [568]Ibid., p. 6.

warning should be considered in reviewing and/or developing a teacher preparation curriculum.

Diagnosis of learning difficulties.--As with most of these categories, this can be considered from at least two aspects. One involves programmatic provision for such diagnosis, as through the type of clinical experiences referred to in the recently adopted NCATE standards for the accreditation of teacher education.[569] A second involves helping teacher candidates understand how their own behavior can affect their own diagnosis capabilities with regard to their pupils. Using question-answer teaching techniques usually generates more student teacher interaction--and hence diagnosis opportunities--than reliance on lectures, for example, and at least one recent study[570] confirmed that "teachers who know most about teaching principles and practices tend to teach by question-and-answer rather than by the lecture method."[571]

Another study referred to rewards and punishments more than diagnosis,[572] noting that its findings were consistent with previous

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[569]National Council for Accreditation of Teacher Education, Standards for the Accreditation of Teacher Education (Washington, D. C.: The Council, 1970), p. 6 (Item 1.3.3 c).

[570]Donald M. Medley and Russell A. Hill, "Cognitive Factors In Teaching Style" (paper presented at the American Educational Research Association annual convention, Minneapolis, Minnesota, March 4, 1970).

[571]Ibid., p. 9.

[572]Berj Harootunian and Joseph R. Koon, Jr., "The Reinforcement Behaviors of Teachers-In-Training" (paper presented at the American Educational Research Association annual convention, Minneapolis, Minnesota, March 2-6, 1970).

studies "that have found anxiety arousal to interfere with or reduce variability in task performance."[573] This study's findings indicated

> that low anxious teachers tend both to reward more and to punish more. The differential reinforcement of low anxious teachers is particularly noteworthy when the student is perceived to be competent. High anxious teachers tend to be just the opposite. They reward competent students less, but they also tend to punish less across all conditions. The net effect of high anxiety arousal in a teacher would seem to be reflected in a narrower range of reinforcing behaviors. In other words, teachers who are in situations or conditions in which they fear failure tend not to use rewards and punishments as "effectively" as they might.[574]

Such findings would seem to reinforce the idea that one of the most difficult tasks a teacher preparation program can assume is to help teacher candidates internalize and implement practically the value of learner-centered rather than teacher-centered activities to help resolve students' learning difficulties.

Improvement of learning-related (teaching) procedures.--Again, a number of references touching on this area have been cited before. Consider, however, that this area follows logically the activities of evaluation and diagnosis of learning difficulties and therefore provides opportunities for creative approaches.

Now, creativity, by its very essence, usually involves a reordering of concepts, etc., into a new synthesis or relationship for perspective. Building behavioral objectives for single-concept learning, then (e.g., as a programmed learning), would seem to be merely foundational for the educational encouragement of creatively combina-

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[573] Ibid., p. 11. [574] Ibid., pp. 10-11.

tional considerations of those concepts. A few educators, psychologists, and others have attempted to resolve this situation (see, for example, the "creative feedback" technique suggested by Robert Crutchfield and Martin V. Covington[575]), but this is one area that should be included, in a clarified and comprehensible way, in a teacher preparation program.

Other considerations.--Increasingly, although as yet slowly, teachers are beginning to utilize the advantages of team teaching even though the idea does not seem to be consistently encouraged or practiced in teacher preparation programs to any great extent.

> The colleges and universities which prepare teachers have not yet caught this vision of the future role of teachers. With few exceptions they have continued to prepare teachers for the self-contained classrooms of the past. Preparation is offered for specialists and administrators but rarely for team leaders, or team members.[576]

So wrote Paul Woodring in 1957. Unfortunately, his comment seems just as valid in 1972.

Perhaps one reason is the criticism that teaming is not for everybody. Yet, as Philip Lambert, citing R. D. Gilberts, has stated, "Absolute personality compatibility is not essential to team teaching. Partial failures in terms of personality conflicts are seldom reported, and there are many teams that are operating successfully today without

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[575]Robert S. Crutchfield and Martin V. Covington, "Programed Instruction and Creativity," Theory Into Practice, Vol. V (October 1966), p. 182.

[576]Paul Woodring, New Directions In Teacher Education (New York: The Fund for the Advancement of Education, 1957), p. 76.

total compatibility."[577] Still, he added, ". . . the strength of the American system of education has been its diversity," and "we must recognize the possibility that some excellent teachers will never work with any efficiency within the team structure."[578]

A number of other essentially favorable references appear in the literature.[579] But it is quite possible that there is a subtle resistance to the concept because it is so different from the traditional classroom situation, and because many educators simply do not understand it fully, much less extend its possibilities to related ideas, such as differentiated staffing. In a passage fraught with implications for curricula, screening, and other aspects of teacher preparation programs, Thomas Howell and Nobuo Shimahara in 1969 wrote:

> . . . Team teaching is an attempt to change the professional structure of teaching. (Most people have erroneously perceived it to be a different method of teaching.) New demands in elementary education might be better met if teachers were organized with para-professional personnel into a team of professional workers, similar to a medical team. Every experienced teacher in it would perform a different function and enact a different educational role. The teachers would not be chosen because they could interchange roles, they would be chosen because each could complement the other.[580]

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[577]Philip Lambert, "Team teaching for today's world," Teachers College Record, Vol. 64 (March 1963), p. 484. Lambert cited R. D. Gilberts, "The Interpersonal Characteristics of Teaching Teams," Unpublished Ph.D. dissertation, University of Wisconsin, 1961.

[578]Lambert, op. cit., p. 484.

[579]See, for example: M. Delbert Lobb, Practical Aspects of Team Teaching (Palo Alto, California: Fearon Publishers, Inc., 1964), 60 pages. Marlin L. Languis, Lorren L. Stull, and James E. Kerber, "Teaming: Innovation In Teacher Education," Educational Leadership, Vol. 26 (May 1969), pp. 806-810.

[580]Thomas Howell and Nobuo Shimahara, "Educational Foundations:

For a teacher candidate to learn how to function and cooperate effectively within a team context, he should demonstrate proficiency in human relations (an interesting juxtaposition!). Yet here, too, one study[581] reported and a subsequent one[582] confirmed findings "concerning the lack of pre-service education in human relations. From what the respondents say, it is clear that the methods used by college professors and the content of many courses contribute little to the preparation of graduates for teaching and diversity of people found in the public schools."[583] One of the most disturbing findings was that

> A considerable number of professors [of education] did not perceive omissions in the programs of teacher preparation. This presents a problem, for unless weakness is perceived, change is unlikely to occur.[584]

Methods of encouraging greater acceptance and inclusion of human relations skill development in teacher preparation programs vary, but practical experience involving other persons seems to be one ingredient necessary for effectiveness. Carl Rogers has supported encounter groups, for example,[585] noting that, "Generally speaking, the aim of

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Contributions at Undergraduate Level," The Record, Vol. 71 (December 1969), p. 212. Published by Teachers College, Columbia University.

[581]North Central Association of Colleges and Secondary Schools, Teacher Education for Human Relations in the Classroom, (Chicago, Illinois: The Association, January 1962), 26 pages. NCA Publication No. D-12.

[582]North Central Association of Colleges and Secondary Schools, Human Relations In The Classroom (Chicago, Illinois: The Association, undated [but probably 1964]), 21 pages. NCA Publication No. D-13.

[583]Ibid., p. 20.

[584]North Central Association of Colleges and Secondary Schools, Teacher Education for Human Relations in the Classroom, op. cit., p. 11.

[585]Carl R. Rogers, "A Plan for Self-Directed Change In An

these intensive group experiences is to improve the learnings and abilities of the participants in such areas as leadership and interpersonal communication. Another aim is to bring about change in the organizational climates and structures in which the members work."[586]

Situation Considerations

A curriculum needs one or more kinds of situational settings to be implemented flexibly and effectively, and a teacher preparation curriculum is no exception. Direct communication situations, laboratories, clinical arrangements, practicums--these and more can be utilized for educational interactions.

A situation itself can be a teaching device for teacher candidates. A logical place to call attention to this educational aspect would be a methods course. Yet unfortunately, as John Zahorik has noted, too often teachers of methods courses concern themselves primarily with curriculum matters, such as goals, generalizations, materials. These are important for preparation, granted, but, he pointed out, "The teaching in these courses is largely missing: they are largely devoid of matters dealing with teacher behavior in the interactive classroom situation where teachers confront learners in an effort to effect learner behavioral change."[587] Such concerns as types

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Educational System," Educational Leadership, Vol. 24 (May 1967), pp. 717-731. See also Cereta E. Perry, "Helping The Prospective Teacher Become," Educational Leadership, Vol. 24 (December 1966), pp. 261-263.

[586]Ibid., p. 718.

[587]John A. Zahorik, "The Trouble With Methods Courses," The Journal of Teacher Education, Vol. XIX (Summer 1968), p. 198.

of questions, extensions of learners' ideas, kinds of praise, how to make transition, and the timing and pattern for interactions ought also to be included, he said, declaring that a first order of business for methods teachers should then be to become familiar with and keep abreast of "the current research on all of the various aspects and dimensions of teaching . . .,"[588] applying that which is pertinent.

Thus, as David Willis put it:[589]

> 1. The situations a student experiences in a methods course should be sufficiently similar to those he would face in an actual classroom that he can transfer what he is learning to his future teaching.
> 2. He should be discovering and abstracting significant concepts and formulating theoretical relations to guide him in his teaching.
> 3. He should be able to [incorporate] whatever knowledge, concepts, skills, and attitudes he may have learned from any previous study of the aspects of teaching and learning.
> 4. The methods professor should show in his behavior that he is aware of the difference between what he and his students can afford to invest in the interpretation of generalities about teaching and learning as opposed to their investment in concrete examples. He should utilize in his own teaching the same fundamentals that he wants his students to apply in theirs.[590]

One of the best succinct sets of general principles for selecting learning experiences to achieve (as he phrased it) "stimulating situations" is the group of five developed by Ralph Tyler 22 years ago:

> . . . for a given objective to be attained, a student must have experiences that give him the opportunity to practice

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[588] Ibid., p. 718.

[589] David E. Willis, "Learning and Teaching in Methods Courses, Part I: Current Practices," The Journal of Teacher Education, Vol. XIX (Spring 1968), pp. 39-46.

[590] Ibid., p. 40.

> the kind of behavior implied by the objective . . .
> . . . learning experiences must be such that the student obtains satisfaction from carrying on the kind of behavior implied by the objectives . . .
> . . . the reactions desired in the experience are within the range of possibility for the students involved . . .
> . . . there are many particular experiences that can be used to attain the same educational objectives . . .
> . . . the same learning experience will usually bring about several outcomes . . .[591]

To achieve established objectives most effectively, then, teachers should be prepared to utilize flexibility in at least five kinds of teaching/learning situations: structured, laboratory, clinical, semi-structured, and practicum. Naturally, where necessary or desirable, these situations themselves also should demonstrate flexibility, for example, through the ". . . experimentation in inter-departmental courses and 'team approaches' to learning" noted by Robert Brackenbury back in 1959.[592]

Structured situations.--Flexibility is not always easy to achieve in structured situations such as lectures or formalized classes convened to consider a specified topic. One program which apparently was somewhat successful in the late 1960's was the teacher education graduate program described by Myron Jacobson.[593] Particularly stressed

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[591]Ralph W. Tyler, Basic Principles of Curriculum and Instruction (Chicago: Syllabus Division, The University of Chicago Press, 1950), pp. 44-45.

[592]Robert Brackenbury, Recorder, "Round-Table VI Discussion," Teacher Education for the Future (Washington, D. C.: American Association of Colleges for Teacher Education, Twelfth Yearbook, 1959), p. 164. Report of the 1959 AACTE annual meeting, Chicago, Illinois.

[593]Myron S. Jacobson, "A Study of the Integrated Graduate Program in Teacher Education at New York University With Proposals for Its Improvement," Dissertation Abstracts, 28: 4511-A - 4512-A, May 1968. (New York University, 1967).

were "Small, interdisciplinary seminars composed of students from both elementary and secondary school levels," "A series of lectures by the program staff in which each instructor shares with all the students his interest in an educational problem or body of knowledge," "Level of service seminars concerned with methods and materials . . .," and grades: "Grades are de-emphasized and given only at the end of the year. A letter of evaluation substitutes for grades at the end of the first semester."[594]

"At least one of the tasks teacher education should assume is that of helping the teacher to develop a receptive attitude to instructional innovations of all kinds," Rabinowitz and Mitzel have observed.[595] For structured situations, an example of innovative usages (in a sense, any practice will be "innovative" to a student who has not encountered it before) might be the use of motion picture films or videotapes in lieu of live observations of actual elementary or secondary classroom interactions. William Painter has reported that the use of such films in one research experiment involving seminars saved much student time, allowed for a larger viewing group than could be accommodated in a classroom, and through the common observation made possible an increase in intelligent student discussion.[596]

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[594] Ibid., p. 4512-A.

[595] William Rabinowitz and Harold E. Mitzel, "Programing in education and teacher preparation," Teachers College Record, Vol. 64 (November 1962), p. 136.

[596] William I. Painter, "Production and Use of Classrooms on Films vs. Traditional Observations in Teacher Education, Final Report," (Akron, Ohio: Akron University, June 30, 1961), p. 15. (ERIC ED 003-497.)

Open-ended films of classroom situations specifically structured to inspire teacher candidate discussion also can be effective, David Gliessman and others have noted.[597] These "stimulus films," they said, ". . . provide a way of confronting the undergraduate student with realistic classroom teaching problems under conditions in which his analysis and problem solving can be effectively guided."[598] Several such "Critical Moments In Teaching" films have been produced[599] and the author has utilized a number of them effectively in his Kansas State University classes.

"Critical moments" films can be thought of as one innovation involving structured situations. Minicourses would be another:

> Basically, the minicourse is a limited set of specific teacher behaviors that translate a particular principle of instruction into practice. The characteristics of a minicourse include clear purpose (to develop proficiency in a specific instructional function), relevant content (functions selected from or tested in actual practice), and behavioral evaluation (demonstrated performance of functions).[600]

So wrote Martin Haberman in an often caustic article entitled

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[597]David Gliessman, and others, "A Medium for Problem Solving in Teacher Education," The Journal of Teacher Education, Vol. XIX (Spring 1968), pp. 71-77.

[598]Ibid., p. 74. In the article, this quotation is in italics.

[599]"Critical Moments In Teaching" film series (New York: HRW, 383 Madison Avenue, 10017). By 1970, HRW had produced 11 such films and had six more almost ready for distribution. Several of these 8- to 12-minute, color films can be obtained for short terms from the Bureau of Visual Instruction, 6 Bailey Hall, University of Kansas, Lawrence, Kansas 66044.

[600]Martin Haberman, "Minicourses: The Prevention and Treatment of Curricular Rigor Mortis in Programs of Teacher Education," The Journal of Teacher Education, Vol. XIX (Winter 1968), p. 439.

"Minicourses: The Prevention and Treatment of Curricular Rigor Mortis in Programs of Teacher Education."[601] Haberman gave 20 examples of minicourses, e.g., "2. Listening, remembering, using pupils' ideas [and] 3. . . . affect;" "9. Demonstrating varied instructional strategies related to the nature of content (generalizations, facts, process of inquiry, appreciations);" "16. Using critical data about pupils to increase motivation and learning."[602] He also cited both pros (e.g., individualization in completion time and sequence) and cons (e.g., overrapid preparation, and fragmentation)[603] and stressed that:

> Undergirding the entire approach is the concept of instructional parallelism, i.e., whatever contact or process the student needs to learn is to be demonstrated by the university staff in the process of his teacher education.[604]

Walter Borg,[605, 606, 607] Kevin R. Morse, and O. L. Davis[608] are

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[601] Ibid., pp. 438-441.

[602] Ibid., p. 440. [603] Ibid., pp. 440-441. [604] Ibid., p. 439.

[605] Walter R. Borg, "The Minicourse: Rationale and Uses in the Inservice Education of Teachers" (Berkeley, California: Far West Laboratory for Educational Research and Development, February 1968), 28 pages. (ERIC ED 024-647.)

[606] _____ and others, "The Effects of Videotape Feedback of Microteaching in a Teacher Training Model" (Berkeley, California: Far West Laboratory for Educational Research and Development, 1968), 21 pages. (ERIC ED 024-650.)

[607] _____, "The Minicourse Instructional Model" (paper presented at the American Educational Research Association annual convention, March 1970, Minneapolis, Minnesota), 6 pages. (Also ERIC ED 037-388.)

[608] Kevin R. Morse and O. L. Davis, Jr., "The Effectiveness of Teaching Laboratory Instruction on the Questioning Behaviors of Beginning Teacher Candidates" (Austin, Texas: University of Texas Research and Development Center for Teacher Education, February 1970), 16 pages. (ERIC ED 037-384.)

among educators who have developed and/or reported material with regard to minicourses and some of their intended behavioral concerns.

Laboratory situations.--Just as structured situations involve direct communication activities (e.g., lectures, movies) and planned interactions (e.g., debates, discussions) laboratory situations involve primarily artificial experiential activities permitting replication and repetition as needed by individual teacher candidates. Such activities include observations and demonstrations followed by appropriate practice, simulation and microteaching in which the teacher candidate plays a role or practices, and presentation of contextual and individual problems followed by individual and group attempts to identify or suggest appropriate solutions.

The primary value of a laboratory situation seems to be that it can provide an opportunity for a teacher candidate to gain experience, guided experience which he must have in order to comprehend how abstract premises can be implemented practically and effectively with regard to diverse situations or personality characteristics. Gordon Allport saw this a decade ago when, in a passage as relevant for teacher educators as for the pupil educators who apparently were his primary audience, he wrote:

> The best general rule, one that John Dewey saw clearly, is to strive ceaselessly to integrate routine matters of fact into the growing experience system of the child [or student] himself.
>
> One . . . common mistake that [we] teachers make . . . is to present to students [material] with our own carefully thought out conclusions when they themselves lack the raw experience from which these conclusions are fashioned.
>
> This particular error is inherent, for example, in the lecture system. . . . Much of the intellectual apathy we

> complain about is due to our fault of presenting conclusions in lieu of first-hand experience. To us, our well-chiseled conclusion, summing up a long intellectual struggle with a problem of knowledge or of value, seems like a beautiful sonnet. To the student, it may be gibberish.[609]

Thus, "The greater degree to which the learning situation capitalizes on experienced behavior, the more learning," as Billy Goetz and Warren Bennis have noted in what they called "The Principle of the Laboratory Approach."[610] Such capitalization is closely related to motivation, of course, particularly since different individuals do perceive things differently. With regard to this complicating factor, Pauline Sears and Ernest Hilgard observed several years ago[611] that:

> The problems of motivation are so intertwined with problems of personality that an adequate account of motivation in relation to learning cannot rest solely on the findings of the learning laboratory. A classroom is a social situation, with a power structure including peer relationships, and adult-child relationships; hence the most favorable motivational conditions need to take all of these factors into account, recognizing that the teacher is both model and enforcer and, in ways not fully understood, a releaser of intrinsic motives.[612]

Whatever knowledge of personality development a teacher candidate

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[609]Gordon W. Allport, "Values and our youth," Teachers College Record, Vol. 63 (December 1961), p. 218.

[610]Billy E. Goetz and Warren G. Bennis, "What We Know About Learning And Training" The Personnel Administration, Journal of the Society For Personnel Administration (March-April 1962), pp. 20-29, Reprinted in Otis Lipstren and James I. Doi, Guidelines For The Aspiring Professor (Chicago, Illinois: South-Western Publishing Company, Monograph C-11, September 1963), pp. 77-85. The quotation is from page 79.

[611]Pauline S. Sears and Ernest R. Hilgard, "The Teacher's Role in the Motivation of the Learner," Theories of Learning and Instruction, Sixty-third Yearbook (Chicago, Illinois: The National Society for the Study of Education, 1964), pp. 182-209.

[612]Ibid., p. 209.

can bring with him to his professional education preparatory experiences, therefore, will be useful.[613] Such knowledge can be refined and extended where those experiences can be live. For example, Sidney Drumheller and John Paris in 1966 reported a program set up by the College of Brockport, State University of New York, whereby methods students, "in groups of ten, prepared and taught a unit of instruction to elementary school children in twelve sessions"[614] for three hours per week. Each session had two 25-minute phases, the first for the classroom instruction, the second for group evaluation.[615]

But where live experiences are not feasible, experience can be gained through such techniques as simulation. Indeed, Goetz and Bennis have described "The Principle of Simulation" as "The greater the degree to which the learning situation provides a replica of the processes of the real world, the more effective the learning. This principle bears a close resemblance to one of the basic tenets of personality testing, i.e., the best test is one in which the test situation matches the prospective job."[616]

The literature with regard to simulation and simulation-oriented

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[613]Carl D. Tatum, for example, described a "Seminar on Human Development and Education" which reached conclusions reinforcing the contribution which study in the field of child development makes to teachers. The seminar was at the University of Kentucky, Lexington, August 16-18, 1964. (ERIC ED 003-434.)

[614]Sidney J. Drumheller and John Paris, "An Effective Approach for Incorporating Teaching Experiences in Methods Courses," The Journal of Teacher Education, Vol. XVII (Fall 1966), p. 295.

[615]Ibid., p. 291.

[616]Goetz and Bennis, loc. cit. (See footnote No. 610, above.)

gaming is growing every year. In a 1970 "state-of-the-art" overview, Donald Cruickshank and Frank Broadbent, quoting Meredith Crawford, described simulation as "a representation of several variables in the same arrangement as they occur in a particular natural or artificial system." Cruickshank and Broadbent also noted that considerable research will be necessary to validate the educational effectiveness of simulation. A bibliography of 130 references on simulation appearing between 1953 and 1969 (most of them since 1965) was also included.[617]

A brief examination of the value of simulation and games in various educational settings other than teacher preparation programs was presented in 1966 by Peter Rossi and Bruce Biddle.[618]

Cruickshank has been quite active in the area of simulation and has stayed abreast of its concerns. In 1969 he advanced several reasons for the increasing use and development of simulation techniques and devices:[619] (1) A premise [among educators] that simulation is as effective as live experience. (2) If so, then simulation is less

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[617]Donald R. Cruickshank and Frank W. Broadbent, Simulation in Preparing School Personnel (Washington, D. C.: ERIC Clearinghouse on Teacher Education, February 1970), 37 pages. (ERIC ED 036-470; The bibliography only may also be found in ERIC 036-465.) The quotation, which in this reference appears on page 1, is from Meredith P. Crawford, Simulation in Training and Education (Alexandria, Virginia: Human Resources Research Office, 1967), p. 2.

[618]Peter H. Rossi and Bruce J. Biddle, editors, The New Media and Education (Chicago, Illinois: Aldine Publishing Company, 1966), pp. 85-123.

[619]Donald R. Cruickshank, "The Use of Simulation in Teacher Education: A Developing Phenomenon," The Journal of Teacher Education, Vol. XX (Spring 1969), pp. 23-26.

costly than live experience. (3) It permits "the intentional wedding of educational theory and classroom practice."[620] (4) ". . . the overwhelming excitement and involvement it creates in participants."[621]

Earlier (1966), Cruickshank had cited several other advantages to using simulation in teacher preparation, including that "Participants encounter teaching problems and engage in problem-solving activities which may reduce the intensity or number of problems they will face as first-year teachers."[622] Cruickshank has also made available "A Review of Research on Utilization of Simulation in Teacher Education" (1970).[623]

Cruickshank has at least twice described succinctly the Teaching Problems Laboratory,[624, 625] in which teacher candidates take the role of Pat Taylor, a fifth grade teacher at simulated Longacre Elementary School. Each candidate practices solving critical teaching problems which are presented via film, role play, and written incidents. Sub-

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[620] Ibid., p. 25. [621] Ibid.

[622] _____, "Simulation--New Direction in Teacher Preparation," Phi Delta Kappan, Vol. XLVIII (September 1966), p. 24.

[623] _____, "ABSTRACT: A Review of Research on Utilization of Simulation in Teacher Education" (paper presented at the American Educational Research Association annual convention, March 2-6, 1970, Minneapolis, Minnesota), 7 pages.

[624] _____, "The Longacre School: A Simulated Laboratory for the Study of Teaching," Professional Teacher Education II: A Programed Design Developed by the AACTE Teacher Education and Media Project (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968), pp. 55-67.

[625] _____, "Simulation," Theory Into Practice, Vol. VII (December 1968), pp. 190-193. The theme of this particular issue was "A Workshop in the Analysis of Teaching."

stantial background information is provided. This simulation seems to be more flexible than the film-based sixth grade classroom simulator developed by Bert Kersh and others at Oregon College of Education a decade ago.[626]

Some educators feel that vicarious experiences can be just as valuable as live experiences, and several studies seem to bear this out. W. R. Fulton and O. J. Rupiper, for instance, reported in 1960 that in teaching professional education concepts, students' viewing of specially prepared audio-visual materials was as effective as their direct observation of live classroom and school-community situations.[627] Two years later William Rogers described a five-semester study to see if the use of television for observation improved learning of teacher candidates who were assessed after completing both the "Elementary School Curriculum and Observation" course and a semester of student teaching. He found no measurable differences in use or non-use of television, even in use or saving of time.[628]

In 1963, however, D. P. Wedberg and J. D. Finn reported results

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[626]Bert Y. Kersh, Classroom Simulation: A New Dimension in Teacher Education, Final Report of NDEA Research Project 886 (Monmouth, Oregon: Oregon State System of Higher Education, June 30, 1963). (ERIC ED 003-613.) See also Bert Y. Kersh, "The Classroom Simulator," Journal of Teacher Education, Vol. XIII (March 1962), pp. 109-110.

[627]W. R. Fulton and O. J. Rupiper, "Selected Vicarious Experiences vs. Direct Observational Experiences of Pre-Service Teachers in the Foundation Areas of Professional Preparation at the University of Oklahoma" (Norman, Oklahoma: The University of Oklahoma, 1960). (ERIC ED 003-553.)

[628]William R. Rogers, "Television Utilization in the Observation Program for Teacher Education" (San Jose, California: San Jose State College, 1962). (ERIC ED 003-550.)

of a study designed to compare the effectiveness of simulated and actual observations of public school classrooms with regard to 151 college students randomly assigned to three groups. One group observed live elementary and secondary classrooms for a minimum of 30 hours. A second group observed 10 hours of on-campus programed observation experiences (sound motion pictures, sound filmstrips, slide and tape presentations, and tape recordings). A third group observed a minimum of 10 hours of the live situations and 10 hours of the programed experiences. The third, or combination, method proved the most effective, according to Wedberg and Finn.[629]

Of course, live students are not always available, particularly during the summer. "Stanford [University] gets over the difficulty of the schools being closed by hiring groups of youngsters to make up classes with which the future teachers practise," British observer D. R. Chesterman noted in 1966.

> These paid classes make a somewhat artificial situation, and even though, I understood from questioning, some children are paid to play up and be difficult, the situation cannot be a realistic one. Even so, the scheme offers an opportunity of increasing the experience of future teachers with an economical use of resources.[630]

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[629]Desmond P. Wedberg and James P. Finn, "A Comparative Investigation of the Instructional and Administrative Efficiency of Various Observational Techniques in the Introductory Course in Education" (Los Angeles, California: University of California at Los Angeles, 1963.) (ERIC ED 003-592.)

[630]D. R. Chesterman, Observations on Teacher Training in Some American Universities (New York: Ford Foundation, and London, England: Delegacy of Goldsmiths' College, University of London [joint publishers], January 1967), p. 14. At the time of publication, Dr. Chesterman was Warden of Goldsmiths' College.

Certainly, live students of some kind--elementary, secondary, or peers in college--enhance the realism of reactions in the semi-simulative situations involved in microteaching. In these situations, students working with small groups (usually from three to eight persons) under the supervision and guidance of an instructor practice specific teaching skills, such as questioning, nonverbal communication, explaining. Critiques follow performances. Videotaping can be used most effectively in these sessions.[631]

One of the best current overviews of microteaching appeared in 1970; it is Microteaching: History and Present Status, by J. M. Cooper and Dwight Allen. It includes a description of 15 specific teaching skills and an annotated bibliography.[632] Edmund Amidon's 1969 paper, "Interaction Analysis and Microteaching Skill Development in Teaching," with its description of the SKIT model (SKill development In Teaching), also is helpful.[633]

The technique of microteaching is apparently widely used, according to the results of B. E. Ward's 1968-69 comprehensive survey.[634]

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[631]See, for example, Judith M. Bloom, "Videotape and the Vitalization of Teaching," The Journal of Teacher Education, Vol. XX (Fall 1969), pp. 311-315.

[632]James M. Cooper and Dwight W. Allen, Microteaching: History and Present Status (Washington, D. C.: ERIC Clearinghouse on Teacher Education, February 1970), 37 pages.

[633]Edmund Amidon, "Interaction Analysis and Microteaching Skill Development in Teaching" (paper presented to the American Psychological Association, Washington, D. C., in 1969), 26 pages. (ERIC ED 036-469.)

[634]Blaine E. Ward, "A survey of microteaching in NCATE-accredited secondary education programs." Research and Development Memorandum No. 70. (Palo Alto, California: Stanford Center for Research and

Of 442 NCATE-accredited institutions polled, "176, or 40 percent, indicated that they used microteaching." In Ward's opinion, incidentally, "based on experience and on this study, an optimum program of microteaching should involve all education students in at least 20 initial teaching encounters and 20 reteaching encounters during their program in professional education."[635]

In the sense that the development of specific skills is desired, both microteaching and simulation are closed-ended. The related device of games, even though there may be clear cutoff points where "winners" can be established, is relatively open-ended. Moreover, as Cruickshank and Broadbent have noted,

> Although no agreed-upon distinction exists to separate simulations from games, the latter usually are characterized by interpersonal or team competition. A second possible distinction is that simulations usually give greater attention to lifelike representation of the physical characteristics of the system.[636]

John Macdonald is one educator who considers games a useful form of "recondite" approach to simulation. ". . . Direct visual presentation, and the implied discussion and analysis, should be supplemented by the use of simulation techniques," he has stated, adding that ". . . with computer assistance, educational games can become as

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Development in Teaching, 1970). Cited in "Microteaching Widely Used in Teacher Education Programs," Teaching, No. 2 (April 1971), pp. 4-5. Teaching is a publication of the Center, which is part of the School of Education, Stanford University.

[635] Ibid., p. 4 (of Teaching, No. 2, April 1971).

[636] Cruickshank and Broadbent, Simulation In Preparing School Personnel, op. cit., p. 2. (See footnote No. 617, above.)

manageable as war and business games."[637]

A major value of even non-computerized games at any level is that they can stimulate affective learnings. Terry Borton has recognized this:

> Games and [dramatic] improvisation allow a simulation of the self. While they are real and produce real emotions, their tightly defined limits provide a way to try out new behavior without taking the full consequences which might occur if the same action were performed in ordinary relationships.[638]

In a more general sense, James Macdonald has applied the gaming concept to teaching. In an essay[639] reprinted in TEACHING: Vantage Points for Study,[640] Macdonald postulated that "Teaching . . . can be considered a special kind of communication game or games, structured by our culture and learned by us. Each game has structure in the sense of [Timothy] Leary's six characteristics: roles, rules, goals, rituals, language, and values."[641]

The six characteristics apply to games other than teaching, of

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[637]John Macdonald, "Teacher Education: Analysis and Recommendations," The Teacher and His Staff: Differentiating Teaching Roles (Washington, D. C.: National Commission on Teacher Education and Professional Practices, 1969), p. 14. Report of the 1968 Regional TEPS Conferences.

[638]Terry Borton, "Reach, Touch, and Teach," Saturday Review, Vol. LII (January 18, 1969), p. 69.

[639]James B. Macdonald, "Gamesmanship in the Classroom," The Bulletin of the National Association of Secondary School Principals, Vol. 50 (December 1966), pp. 51-68.

[640]Ronald T. Hyman, editor, TEACHING: Vantage Points for Study (Philadelphia: J. B. Lippincott Company, 1968). Macdonald's article (See footnote no. 639, above) is reprinted on pages 308-314.

[641]Ibid., p. 309.

course, as do several of the aspects of gaming discussed by Ronald Hyman, Philip Phenix, B. Othanel Smith, Arno Bellack, and Joel Davitz in essays included with Macdonald's in section five, "Games," of TEACHING: Vantage Points for Study.[642]

Clinical situations.--Most structured and laboratory situations are designed to involve groups of people. Most clinical situations, on the other hand, would be primarily oriented for individuals. That is, the purpose of basic clinical experiences would be to develop the teacher candidate's proficiency in identifying individual students' learning capabilities and needs, diagnosing "typical" problems, and, by himself or with specialists, helping those students become motivated and successful in learning.

Or, as L. O. Andrews has written:

> When the time comes that a major fraction of the best and most useful knowledge from related disciplines has been made available to teacher education students, it may become much more obvious that the best way to study and apply that knowledge is in closely supervised clinical experiences with learners who are classified within normal limits by the usual measures. I believe that the greatest opportunity for teacher education to become demonstrably effective lies in the use of this type of direct clinical experience.[643]

And what might the functions of such a situation be? According to H. C. Southworth:

A clinical environment is needed in teacher education

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[642]Ibid., pp. 295-328.

[643]L. O. Andrews, "Looking Twenty-five Years Ahead," In "A Symposium on Teacher Education," The Journal of Teacher Education, Vol. XIV (March 1963), p. 15. The entire symposium is on pages 9-50.

> which would have three important functions: (1) a service function for the children and youth in the schools; (2) a teaching function for education students preparing to enter teaching or experienced teachers in residence for retraining; and (3) a research function involving directed observations, recorded data about selected human behavior or controlled development of materials, and deliberate evaluation procedures to serve teacher education and the supporting school district. . . .Such clinical settings would accommodate all the preservice roles including observer, tutor, assistant teacher, student teacher, and intern teacher.[644]

"It is important that the teacher be afforded the opportunity to become more expert in the learning process for the learner's sake," Gerald Osborne has declared in a paper advocating sensitivity training for teachers.[645] Clinical situations might well include such experiences, which Lorene Stringer also reports as useful for educators.[646]

Clinical situations would need "clinical professors" and "clinical teachers," both as yet in short supply. Samuel Brownell and others, reporting to the Connecticut Commission for Higher Education in 1966, included a recommendation that clinical teachers be trained at state-financed workshops, and that the state provide additional college and university personnel to instruct them.[647] Could such a program be

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[644]Horton C. Southworth, "Teacher Education for the Middle School: A Framework," Theory Into Practice, Vol. VII (June 1968), p. 125.

[645]Gerald E. Osborne, "Sensitivity Training for Teachers: A Vehicle" (paper presented at the American Educational Research Association annual convention, March 2-6, 1970, Minneapolis, Minnesota), p. 6.

[646]Lorene A. Stringer, "The Educators Speak: II--Sensitivity Training: An Alternative to the T-Group Method," The Record, Vol. 71 (May 1970), pp. 633-640. Teachers College, Columbia University.

[647]Academy for Educational Development, Inc., Teacher Education--An Urgent Matter (New York: The Academy, October 31, 1966). A Report to the Commission for Higher Education, State of Connecticut. (ERIC ED 011-521.) Samuel Brownell was Academy Vice Chairman at the time.

established and maintained in Kansas? Perhaps, although funding certainly would be a formidable problem.

A more substantial alternative to workshops would be the school-and-college "Cooperative Clinical Teaching Center" or an "Education Profession Development Institute" advocated by E. Brooks Smith.[648] Such a center would focus both on staff development (including teacher preparation and curricular and instructional innovation) and operational research.[649]

Early indications are that the Multi-Institution Teacher Education Centers (MITEC) established in Kansas in the fall of 1971 and in which Kansas State University is participating eventually might incorporate several of the institutional responsibilities Smith advocated.[650]

Eventually the MITEC programs might also include the kinds of varied and individually prescribed experiences mentioned at the 1970 AERA convention by David Young.[651] Young acknowledged that although the teacher education "center concept embodies many readily acceptable ideas, the final measure of effectiveness is the difference in performance and attitudes of the student teachers in center and non-

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[648]E. Brooks Smith, "Needed: A New Order in Student Teaching That Brings Joint Accountability for Professional Development" (No location given. October 28, 1968). (ERIC ED 023-624.)

[649]Ibid., p. 7. An outline for the possible structure of such a center appears on pages 14-17.

[650]Harlan J. Trennepohl, "MITEC Report to [Kansas State University College of Education] Steering Committee," September 15, 1971.

[651]David B. Young, "Teacher Education Centers Make A Difference" (Paper presented at the American Educational Research Association annual convention, March 1970, Minneapolis, Minnesota), 14 pages.

centers."[652] Young cited one comparative study of elementary student teachers, apparently at the University of Maryland, which derived data from six activities: 1. Verbal interaction, using the Flanders Interaction Analysis and the Aschner-Gallagher classification of thought processes, 2. Ryan's Teacher Characteristics Scale, 3. Attitudes and Self-Perception of Student Teachers, 4. Selected categories in the Medley-Mitzel Observation Scale and Record (OScAR), 5. Self-reported teaching activities, and 6. A pilot secondary mathematics teacher education program. Conclusions included indications that, compared with non-center students, center student teachers have more "experience with selected media, team teaching, and programmed learning, as well as more frequent supervisory conferences;"[653] lecture less and have pupils participate more; "show greater (a) verbal understanding, (b) stimulating, imaginative student behavior, (c) emotional adjustment, and (d) favorable attitude toward democratic pupil practices . . .";[654] "engaged in more evaluative thinking."[655]

Cooperative centers for teacher education could develop a "Professional crescendo," Dorothy Young of The Johns-Hopkins University, in another 1970 AERA paper.[656] This would involve a nine-step program: games, observation, microteaching, simulation, episode teaching, class-

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[652] Ibid., p. 1. [653] Ibid., p. 3.

[654] Ibid. [655] Ibid., p. 4.

[656] Dorothy A. Young, "THE MAT: New Frontier for School-University Partnerships" (Paper presented at the American Educational Research Association annual convention, March 1970, Minneapolis, Minnesota), 9 pages.

room teaching, (paid) internship, provisional teacher (designation), and senior teacher (designation).[657] The program would culminate in a Master of Arts in Teaching (MAT) degree.

Semi-structured situations.--These would include such experiences as tutoring and being a teacher aide. Both can be well appreciated by teacher candidates in that they provide a sense of live educational involvement with other human beings.[658]

Learnings can go beyond the academic, too, as when a tutor discovers that a tutee is not interested in content or skill acquisition so much as just knowing that someone cares about him.[659]

Research indicates that teachers do not always take advantage of materials and equipment available in their schools.[660] A well-supervised teacher aide experience could help a teacher candidate realize the value of utilizing such material and equipment.

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[657] Ibid., p. 2.

[658] See, for example, Gerhard Lang and Irvin Hochman, "Teacher Aide Service As A Means of Enriching a Sophomore Course in Teacher Education," (Teaneck, New Jersey: Fairleigh-Dickinson University, 1964). (ERIC ED 003-443.)

[659] Reported to the author of this dissertation by several students at The Ohio State University and at Kansas State University, 1968-1971.

[660] See, for example, the four-year study reported by G. M. Torkelson, "An Experimental Study of Patterns for Improving the Preparation of Pre-Service Teachers in the Use of Audiovisual Materials and of Effects on Students," (University Park, Pennsylvania: Pennsylvania State University, March 1965). (ERIC ED 003-513.) See also G. E. Oliver, "A Study of Preservice Teacher Education in the Use of Media of Mass Communication for Classroom Instruction" (Athens, Georgia: College of Education, University of Georgia, 1962). (ERIC ED 003-528.)

Practicum situations.--These involve direct and substantial participation in teaching over an extended period of time under supervision of qualified personnel from the college and the teacher candidate's cooperating school. These situations include, but can be more than, student teaching. And they can be woven into a teacher candidate's continuing program. Consider, for example, the program postulated by William Cartwright for "The Teacher in 2065" A.D.:[661]

> The prospective teacher begins his professional preparation in teaching situations. Of course, he observes good teaching in many settings, and he becomes acquainted with the services provided by librarians, counselors, psychometrists, psychologists, nurses, doctors, psychiatrists, social workers, audio-visual experts, supervisors, and administrators. But he also begins to teach at the outset. His first teaching experience is really tutoring--teaching one child. From the beginning, he is part of a teaching team [the members of which are] at various stages of preparation.[662]

A teaching team was advocated also by Norman Boyan,[663] although he saw it including paid interns rather than unpaid student teachers. And then, he said, "The most straightforward way of merging the internship and the instructional team is to associate one intern with a highly competent senior instructor and to assign the team (as a team) responsibility for a designated group of pupils. The senior instructor serves both as team leader and as supervising teacher in the fullest connotation of the title."[664]

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[661]William H. Cartwright, "The Teacher in 2065," Teachers College Record, Vol. 66 (January 1965), pp. 295-304.

[662]Ibid., p. 301.

[663]Norman J. Boyan, "The Intern Team as a Vehicle for Teacher Education," The Journal of Teacher Education, Vol. XVI (March 1965), pp. 17-24.

[664]Ibid., p. 18.

An internship was among the options offered by the University of California at Berkeley from 1966 on, Ronald Hempstead reported in a dissertation. Further, he said:

> An initiatory, exploratory, quasi-student teaching experience is undertaken prior to and in preparation for the development of a highly individualized program of pre-service teacher education. On the basis of this introductory teaching experience, individual teaching aspirants exercise various options regarding the nature, scope and intensity of their subsequent program. Upon completion of three weeks of concentrated observation/participation in a public elementary school, and ten weeks of a variable experience in a particular classroom of that school, students opt various grade levels, subject areas and other specializations. They may also opt out of the sequence, as they are neither committed to nor accepted by the full credential program until the point of option, at the conclusion of the first graduate quarter. Finally, they are also permitted the option of one of the two major subcurricula, the internship and the student teaching programs.[665]

Seminars should be concurrent with student teaching, O. G. Mink has stated, to "help relate theory and practice. An atmosphere of acceptance, warmth, high positive regard, and an attempt to reflect and clarify both ideas and feelings should create a setting in which the emerging professionals can express their concerns and resolve apparent conflict in role performance and expectations."[666]

The University of Rochester (New York) has had a seminar concurrent with the preservice foundations course since 1961, according to Robert Osborn, Dean Corrigan, and Kenneth Fishell.[667] It utilizes

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[665]Ronald Ross Hempstead, "The Option in Teacher Education," Dissertation Abstracts 29: 4350-A, June 1969. (University of California, Berkeley, 1968.)

[666]Oscar G. Mink, "Educating the Professional--Some Issues," The Journal of Teacher Education, Vol. XIX (Summer 1968), p. 208.

[667]Robert L. Osborn, Dean Corrigan, and Kenneth Fishell, "Pro-

a 3-hour weekly seminar taught by a team representing the foundations area. The following semester, the teacher candidate develops and reports on a reading program. Concurrently, "each student becomes involved in instructional situations growing out of the preteaching experience and practice teaching or the intership."[668] The value of such an arrangement had been recognized at the University of Florida back in the years just prior to 1958, J. B. White and J. T. Kelley noted. Teachers, they said, found foundations courses valuable when accompanied by direct experience with church and community agencies and people.[669]

In Indiana University's INstructional Studies In Teacher Education (INSITE) program, in which a masters degree can be earned in four years including summer sessions, students can experience an "acroclinical semester" in which methods instruction and practice teaching are integrated. Also available is a resident teaching experience in a quality midwestern or Hawaiian school system, during which the student receives both college credit and a beginning teacher's full salary as an intern.[670]

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ject I: An Integrated Approach to the Foundations of Education," The Journal of Teacher Education, Vol. XVII (Summer 1966), pp. 172-176.

[668] Ibid., p. 175.

[669] J. B. White and J. T. Kelley, "Florida Study of Teacher Education, An Evaluation of the Preservice Program" (Gainesville, Florida: College of Education, University of Florida, 1958). (ERIC ED 002-784.)

[670] Jane Jaffe, Compiler, "Four Years of INSITE: 'To Strengthen Teacher Education'" (Bloomington, Indiana: School of Education, Indiana University, 1967). (ERIC ED 022-718.)

Such a program seems right in line with Fred Dressel's call for increased support of student teachers' opportunities to learn as they teach flexibly, such support to come from school boards, administrative personnel, and teachers.[671] It also seems compatible with L. O. Andrews' 1965 suggestion that many new patterns for the student teaching or intern experience must be designed and researched.[672] "We could also reduce the insecurity of our beginners if their growth was continued until they have some assured self-confidence in their professional skill and some pride in their profession," Andrews maintained.[673]

(Note: A number of other references specifically concerned with student teaching were identified during the research for this dissertation but neither have been cited in the text nor listed in the Bibliography because of time and space limitations.)

The value of a well-supervised practice teaching experience, such as an internship, has been noted also by David Shawver, although he cautioned against a deterioration "into a system whereby sub-professionals do a professional's work at part pay."[674]

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[671]Fred B. Dressel, "Student Teaching--The Public School's Responsibility," School and Society, Vol. 98 (March 1970), p. 163-164.

[672]L. O. Andrews, "Theory Underlying Proposed State and Federal Support to Promote High-Quality Student Teaching," Action for Improvement of Teacher Education. Eighteenth Yearbook. (Washington, D. C.: The American Association of Colleges for Teacher Education, 1965), pp. 203-215.

[673]Ibid., p. 210.

[674]David Shawver, "Professional Education or Apprenticeship?" The Record, Vol. 70 (November 1968), pp. 127-131. The quotation is from page 131.

The internship experience, in other words, should be continually maintained so that learning for teacher candidates remains a primary purpose. Certainly that has been true for the joint Organization Development program established in the South Brunswick, New Jersey, school system in 1967 after major changes begun four years earlier.[675] This long-range, system-wide OD program has included, reported Robert Chasnoff and others in 1970,[676] an intern program, a two-week summer program for human relations training and preparation for work, "management training for top administrators, OD for the entire staff of a middle school, high school teachers-pupils interpersonal relations training, OD work for a migrant workers program, consultation for innovative teachers' projects."[677]

According to the 1970 report, interns in 1969 apparently received no pay, but they did earn 8 credits for student teaching and 8 credits for course work from Newark State College, Union, New Jersey. "The course work was not evaluated separately from the student teach-

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[675]Charles H. Harrison, "Schools Put A Town On The Map," Saturday Review, Vol. LIII (February 21, 1970), pp. 66, 68.

[676]Robert E. Chasnoff and others, "The Teacher-Intern Program" (Paper presented at a Symposium, "Curriculum Change through Organizational Change: a Human Relations Training Program in a School System," at the American Educational Research Association annual meeting, March 4, 1970, Minneapolis, Minnesota), 62 pages. See also the following other papers prepared for the Symposium: Frederick F. Nadler, Peter Muniz, and Robert E. Chasnoff, "A Three-Year Organizational Development With A Total School Staff," 47 pages. James A. Kimple, "System Changes and Program Innovations," 10 pages. James A. Kimple, "Curriculum Change Through Organizational Change: A Human Relations Training Program In A School System," 6 pages (This was the introduction to the Symposium).

[677]Chasnoff and others, "The Teacher-Intern Program," op. cit., p. 2.

ing. Instead, the program was viewed as sixteen credits of 'learning.' The evaluation was based on the specific objectives that each teacher-intern team created in collaboration with the college supervisor."[678] This full-semester team internship followed a six-week summer training program (two weeks of human relations training and preparation for, and then teaching in, the four-week experimental summer schools) in which Newark State College seniors were treated as staff members in the South Brunswick school system.[679]

One strength of such a program is that it can help ensure that practicum assignments are as compatible as possible with student personalities and academic strengths. Apparently with that problem at least partly in mind, John Chaltas in 1965 proposed several bases for student teaching assignments,"with the hope that they may some day lead to a theoretical model from which consistently positive results may derive."[680] And (always provided the human factor is safeguarded), technology can be utilized effectively. An example for administrators would be the computer program for student teacher placement described by Gary Smith in 1962 as requiring about 20 minutes to place 100 students.[681] Conceivably, 1972 times would be even faster.

What about supervision and evaluation of practicum experiences?

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[678] Ibid., p. 35. [679] Ibid., p. 1.

[680] John G. Chaltas, "Student Teaching: Assignment and Misassignment," The Journal of Teacher Education, Vol. XVI (September 1965), pp. 311-318. The quotation is from page 311.

[681] Gary R. Smith, "A Computer Program for the Placement of Student Teachers," The Journal of Teacher Education, Vol. XIII (December 1962), pp. 431-432.

Technology can be of help here, too,[682] but the effectiveness of personal observations and guidance by supervisors has been acknowledged for more than half a century.[683] Of course, as Kruszynski has pointed out, to be the most effective with student teachers, supervising teachers should be truly committed volunteers.[684]

One of the most promising recent mentions in the extensive literature with regard to such practicum situations as student teaching was the 1970 description by J. A. Monson and A. M. Bebb of a pilot program in which specially-trained supervising teachers successfully assumed major responsibility for guiding and professional growth of their student teachers.[685] As one result (i.e., conclusion),

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[682]See, for example: Herbert Schueler, Milton J. Gold, and Harold E. Mitzel, "Improvement of Student Teaching--The Use of Television for Improving Teacher Training and for Improving Measures of Student Teaching Performance, Phase I" (New York: Hunter College, City University of New York, 1962), 200 pages. (ERIC ED 003-510.) Findings indicated that students strongly supported use of a combination of kinescopes and personal visitations. See also Nathan Stoller and Gerald Lesser, "A Comparison of Methods of Observation in Preservice Teacher Training--The Use of Television for Improving Teacher Training and for Improving Measures of Student Teaching Performance, Phase II" (New York: Hunter College, City University of New York, 1963), 144 pages. (ERIC ED 003-111.) Student teachers' essay examinations supported strongly the premise that kinescopes, closed-circuit television, and direct observations ranked one-two-three in order of effectiveness.

[683]See, for example, U. S., Department of the Interior, Bureau of Education, Practice Teaching for Teachers in Secondary Schools, Bulletin, 1917, No. 29 (Washington, D. C.: Government Printing Office, 1917). For Kansas, student teachers are shown (p. 9) as supervised by "Principal of school who is also assistant professor of education [and by] Representative of the collegiate department."

[684]Eugene Kruszynski, "Some Thoughts on Practice Teaching," The Record, Vol. 70 (November 1968), pp. 133-138.

[685]Jay A. Monson and Aldon M. Bebb, "New Roles for the Supervisor

"College supervisors can make better use of their professional time and training by conducting in-service training sessions for supervising teachers rather than by directly supervising student teachers in classroom situations,"[686] although they would "remain 'invited consultants' and visit upon request by either student teacher or supervising teacher."[687]

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of Student Teaching," Educational Leadership, Vol. 28 (October 1970), pp. 44-47.

[686] Ibid., p. 47. [687] Ibid., pp. 45-46.

A RATIONALE FOR TEACHER EDUCATION

AT KANSAS STATE UNIVERSITY

VOLUME II

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree of Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Warren Ingram Paul, B.A., M.A.

* * * * * *

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Approved by

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Selected Considerations In Elementary Teacher Preparation

Many considerations have relevance to teacher preparation in general. Certain others relate primarily to the preparation of elementary school teachers, although some of these, too, can be generalized. This section includes a selection of those essentially elementary-oriented considerations which have not been mentioned previously in another context.

Traditionally, elementary teachers have been academic generalists in that each has been responsible for helping children achieve basic learnings in such areas as language arts, social studies, mathematics, and biological and physical sciences. As knowledge has increased and grown more complex, however, some educators have concluded that elementary teachers should begin to specialize and that teams of specialists should replace the single teacher classroom arrangements still so prevalent.

For example, a decade ago New York University's School of Education "inaugurated a new fifth-year program to prepare elementary teachers with a specialty in mathematics, science, or language arts-social studies," according to Lou Kleinman.[688] "A number of colleges and universities already require that majors in elementary education undertake a second major or a minor in a subject field," he noted.[689] Of course, he stated, the NYU program's graduates would still "be

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[688]Lou Kleinman, "Elementary Teachers With a Specialty," The Journal of Teacher Education, Vol. XIII (December 1962), p. 414.

[689]Ibid.

prepared and certified to serve as common branches teachers."[690] The NYU Chancellor at that time, George Stoddard, approved.[691]

Even so, as E. Howard observed, "Each teacher must still be a generalist in elementary education--generalist in the sense of concern for diagnosing children's unique learning needs, selecting appropriate material for individual children, and opening up new doors to learning--but serves his specialist function within the total school staff through his availability to all other children and to individual children."[692]

A team approach in which both interns (who were not necessarily specialists) and pupils learned won praise from participants in the Detroit area in 1968.[693]

The literature about practicum experiences heavily favors the

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[690] Ibid.

[691] George A. Stoddard, "Generalists and Specialists in the Elementary School," in Henry Ehlers and Gordon C. Lee, editors, Crucial Issues in Education (New York: Holt, Rinehart and Winston, 1964), pp. 324-329. He declared (p. 326): "I feel that the team approach, together with specialization fed by a strong program in the liberal arts, in the future, will be looked upon as so rational a combination as to make students wonder what the mid-century conflicts in teacher education were all about . . ."

[692] Elizabeth Z. Howard, "A Look at Specialization," Educational Leadership, Vol. 26 (March 1969), p. 550.

[693] Robert Tilman Olberg, "Description and Analysis of the Elementary Student Team Internship Program at Wayne State University," Dissertation Abstracts, 29: 3337-A - 3338-A, April 1969. (Wayne State, 1968.) Interns learned, and (p. 3338-A) "The majority of the interns, teacher-directors, clinical instructors, and administrators who participated in this study believed that the children in intern rooms received an education which was superior to what they would have received with one regular teacher."

contention that they are valuable in teacher preparation. James Macdonald and others did report a study concluding in part that "The significance of the student teaching experience should be seriously questioned."[694] But another study (for example), by Charles Wieder, compared classroom verbal interaction patterns of intern teachers and student teachers and found that the latter used questioning methods more than lectures, a reverse of the findings for the Detroit interns.[695] And a dissertation by Sister Gilmary reported a program in which independent experience with children in a classroom situation significantly reduced the anxieties of candidates entering student teaching. In their subsequent methods course, she said, those students who had had that experience manifested greater competency for the entire semester than those who had not.[696]

The provision for preliminary interaction with children was quite compatible with Frederick Bunt's advocacy of "An early and continuous series of direct experience opportunities . . . for each student."[697]

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[694]James B. Macdonald and others, "A Research-Oriented Elementary Education Student Teaching Program" (Milwaukee: School of Education, University of Wisconsin, 1965), p. 45. (ERIC ED 003-039.)

[695]Charles Franklin Wieder, "A Comparison of the Classroom Verbal Interaction Patterns of Intermediate Grade Student Teachers and Intermediate Grade Intern Teachers," Dissertation Abstracts, 28: 4035-A - 4036-A, April 1968. (Lehigh University, 1967.)

[696]Sister Gilmary (Best), "Transfer Effects of Directed Classroom Experience To An Elementary Methods Class and Student Teaching," (Detroit, Michigan: Marygrove College, 1965). (ERIC ED 003-852.) See also the findings reported by Harootunian and Koon, page 238 and footnotes 572, 573, and 574, above.

[697]Frederick Benjamin Bunt, "A Professional Education Curriculum for the Undergraduate Education of Prospective Elementary School Teachers," Dissertation Abstracts, 26: 208, July 1965. (Columbia

Actually, Bunt's recommendation was one of several he made in 1964 with regard to the undergraduate education of elementary teacher candidates. His major recommendations were:

> (1) Concepts of teaching should serve as bases for selecting content and experience opportunities in the professional education sequence.
> (2) The undergraduate professional education sequence, organized around a concept of teaching, should be developed in three stages following the format of whole-part-whole learning--Stage I (expanding) providing a simple comprehensive overview of the teaching set; Stage II (differentiating) bringing the various parts relating to teaching into focus; Stage III (integrating) unifying functionally the various parts.
> (3) The student of education should develop, under guidance, a concept of teaching concurrently with his first opportunities to participate in teaching tasks . . .[698]

Besides exposure to children, early experiences should involve elementary teacher candidates with planning to achieve the curricular purposes of elementary education. For teachers, as Robert Chasnoff observed in Elementary Curriculum: A Book of Readings,[699] such planning

> . . . means making professional decisions about the experiences that teachers hope pupils will have in school. There are many ways to make these decisions for and sometimes with a group of elementary pupils, because curriculum planning is a creative act and teachers vary in the ways they plan. However, all teachers must make decisions about such questions as:
> I. What objectives does society expect my pupils and me to achieve?
> II. What ways of teaching shall I use in my class-

University, 1964.)

[698] Ibid.

[699] Robert E. Chasnoff, editor, Elementary Curriculum: A Book of Readings (New York: Pitman Publishing Corporation, 1964).

room?
III. What subjects and topics should my children learn?
IV. What means of evaluation shall I employ?
V. What are my views on important issues being debated by members of my profession?[700]

Aspects of all of these questions are discussed in the book's various readings.

Alexander Frazier, in The New Elementary School, considered recent and projected curriculum changes and postulated somewhat different questions: "What relevance does the new content have to established purposes? Or what new purposes does it presume? At what points if any can we relate new content in different fields? Is balance of attention among fields at stake? Or balance among purposes? Into what kind of overall design do we expect content to fit?"[701]

Although curriculum implementation involves methods, a majority of 107 nationally accredited United States universities with enrollments of 5,000 or more and associated schools or colleges of education agreed that there should be a distinction between elementary curriculum courses and methods courses, according to a 1966 study by Donald Bateman.[702] He concluded (in part) that "(1) The content of

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[700]Ibid., pp. v-vi.

[701]Alexander Frazier, editor, The New Elementary School (Washington, D. C.: Association for Supervision and Curriculum Development, and the Department of Elementary School Principals [both of the National Education Association], 1968), pp. 5-6.

[702]Donald Grant Bateman, "An Investigation of the Circumstances and Conditions of the Undergraduate Course In Elementary School Curriculum In Teacher Education Programs In Selected Universities In the United States," Dissertation Abstracts, 27: 3333-A, April 1967. (Northwestern University, 1966.)

curriculum is ill-defined in that all aspects of elementary courses are emphasized in curriculum courses" and "(3) Curriculum courses, whether or not they are required, appear not to influence materially the nature of professional education programs."[703]

Bateman also reported that the majority of the 107 universities agreed ". . . that courses in methods provide the best means of introducing the content of elementary school subjects . . ."[704] At least one university has applied this concept intensively, according to the American Association of Colleges for Teacher Education: The University of New Mexico. According to its 1968 AACTE recognition for Distinguished Achievement citation, UNM's new elementary reacher education program

> . . . combines the teaching of methods courses and actual laboratory experiences into a modular approach which features the intensive study of the content and methodology of a single subject in the university followed by an intensive laboratory experience in that subject in an elementary classroom. In this modular approach the typical one-semester course is compressed into two or three weeks of full morning instruction followed by an immediate two- or three-week full morning laboratory experience. Thus, by scheduling courses consecutively rather than concurrently, time is available for the immediate follow-up laboratory experience. This program has three major characteristics: (a) an approach to instructional theory and classroom practice which combines both in a single module of time; (b) the utilization of satellite public schools for laboratory experiences and the staffing of these schools by resident clinical supervisors who coordinate the university program and teach in-school, in-service seminars; and (c) the utilization of teaching-supervising teams consisting of university faculty, graduate students in education, and public school educators who are participants in a teacher-exchange program between the university and the cooperating public school system. The

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[703] Ibid. [704] Ibid.

program has an honors aspect to it and is jointly financed by the public schools and the university.[705]

"Traditional" Programs

The UNM modular approach is considerably different than the components of more traditional programs, such as, for example, those described by J. J. Hinton and Robert Brenner. Hinton's 1966 study included findings involving baccalaureate elementary programs at 30 colleges; of these, he reported, student teaching "was the only single professional area which was required at all thirty institutions. Students at all institutions received instruction on [sic] how to teach reading, but only sixteen institutions required a course devoted entirely to the teaching of reading. Twenty-seven institutions reported that observational experiences other than those required as a part of methods courses and student teaching were required. . . . Sixteen institutions reported that professional courses or areas were organized into a block program."[706]

Brenner's summary of a survey included data from baccalaureate level elementary education major requirements of 93 programs.[707] All

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[705]American Association of Colleges for Teacher Education, Excellence in Teacher Education: 1968 Distinguished Achievement Awards (Washington, D. C.: The Association, 1968), (6th page).

[706]Jerald Joe Hinton, "A Descriptive Survey of the Minimum Requirements for Receiving the Baccalaureate, Master of Arts, and Doctorate Degrees In Elementary School Education," Dissertation Abstracts, 27: 2278-A, February 1967. (Colorado State College, 1966.)

[707](Robert Brenner), "A Description of Baccalaureate and Masters Degree Programs In Elementary Teacher Education" (Summary of survey materials analyzed by Brenner for his doctoral dissertation at Colorado State College. Enclosed with correspondence from A. J. Mosbo,

93 required "instruction in methods of teaching reading in the elementary school" (as a separate course in 62 institutions, "as a part of a language arts or general methods course" in the other 31). Further, 80 institutions "required observation experiences as part of one or more methods courses" and 45 required other observation experiences. Block organization of professional course requirements was found in 42 of the 93 institutions.[708]

Of the 93, 14 were private institutions, 79 were public. Brenner's analysis listed 27 professional areas or courses as part of the baccalaureate requirement, although not all 27 were required by all 93 institutions. Along with the number of institutions requiring each, the 27 were: Introduction to Education 57, History of Education 25, Philosophy of Education 13, Educational Psychology 66, Child Psychology 68, Tests and Measurements 42, Curriculum 22, Sociological Foundations 17, Reading 62, English 2, Handwriting and Spelling 2, Children's Literature 60, Language Arts 47, Speech for Elementary Teachers 8, Mathematics 63, Social Studies 56, Science 47, Arts and Crafts 69, Music 62, Health and Physical Education 57, Audio-Visual Materials 19, General Methods 44, Block (Methods, etc.) 42, Student Teaching 92, Observation 13, Internship 4, and Elective in Education 1.[709]

Actually, as Judith Klatt and Walt Le Baron have noted,

Chairman, Department of Elementary Education, Colorado State College, Greeley, to Dean J. D. McComas, College of Education, Kansas State University, dated August 22, 1968).

[708] Ibid., p. 8. [709] Ibid., pp. 5-7.

> Twelve hundred colleges and teachers prepare teachers for America's elementary schools, and 800 institutions account for over 90% of the graduates. Despite this huge number of institutions, one finds little diversity in program structure or goals. An undergraduate student pursues a four year program, receives approximately 124 semester credits or the equivalent and, if an appropriate number of courses--including student teaching--have been completed, a provisional teaching certificate is awarded upon graduation. (A graduate without the necessary education courses can be certified by completing them as part of an M. A. program or through special certification programs.)[710]

"Traditional" programs are still very much with us in elementary teacher preparation. But here and there innovative practices or entire programs are appearing. Those at the universities of Massachusetts,[711] New Mexico,[712] and North Dakota,[713] for example, have already been cited. (Interestingly, the North Dakota "interest center" concept has already found its way to certain Wichita elementary classrooms, according to one newspaper report.[714]) Other new programs are being developed, notably the cluster of ten which have been particularly encouraged by the federal government.

Ten Innovative Program Models

Among the most extensive current proposals for the improvement of

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[710]Judith Klatt and Walt Le Baron, A Short Summary of Ten Model Teacher Education Programs (Falls Church, Virginia: System Development Corporation, November 1969), p. 16. (Final Report, Contract No. OEC-0-9-569006-3704(010), U. S. Department of Health, Education and Welfare.)

[711]See pages 97-101 of this dissertation.

[712]See pages 276-277 of this dissertation.

[713]See pages 116-121 of this dissertation.

[714]"Students Learn Fast In 'Interest Centers,'" The Wichita Eagle, Friday, November 27, 1970, p. 1F.

the education of elementary teachers are the ten comprehensive, change-oriented models developed under the sponsorship of the $3,000,000 United States Office of Education Model Teacher Education Project.

Proposals from 80 institutions were submitted for the Project's Phase I. Nine were selected for Phase I funding of program development of designs and specifications. They were Columbia University Teachers College, Florida State University, the University of Georgia, the University of Massachusetts, Michigan State University, the Northwest Regional Educational Laboratory (NWREL), the University of Pittsburgh, Syracuse University, and the University of Toledo. The University of Wisconsin developed its program independently.

All ten institutions received support for Phase II, during which each was to "determine the feasibility of developing, implementing, and operating a model teacher training program based on the specifications produced in Phase I. . . . Phase III will involve the operation of several models as on-going programs of elementary teacher preparation."[715] Phase III implementation proposals were requested in September 1969 by the U. S. Office of Education. Funded implementation was to begin September 1, 1971.[716]

As Le Baron has observed,[717] the models "represent one of the

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[715]Klatt and Le Baron, A Short Summary of Ten Model Teacher Education Programs, op. cit. (See footnote 710, above), p. 7.

[716]Miss Shirley Steele, USOE representative, in address to the American Association of Colleges for Teacher Education Dissemination Project Regional Workshop in Kansas City, Missouri, November 30, 1969.

[717]Walt Le Baron, "Analytical Summaries of the Elementary Teacher Education Models" ("Editorial Comments"), The Journal of Teacher

first concerted efforts to plan positively for teacher education from its beginning through a program of continuing, in-service education." Besides Le Baron (and Klatt and Le Baron), S. C. T. Clarke,[718] Fannie Shaftel,[719] John M. Kean,[720] and Thomas Reddick[721] have written or edited descriptions of one, nine, or all of the ten models. (And William Engbretson described the 71 non-funded program proposals submitted for Phase I.[722]) But aside from the full descriptions of each of the models themselves,[723] probably the best one-volume overview

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Education, Vol. XX (Summer 1969), pp. 131-132, 272. The quotation is from page 132.

[718]S. C. T. Clarke, "The Story of Elementary Teacher Education Models," The Journal of Teacher Education, Vol. XX (Fall 1969), pp. 283-293.

[719]Fannie R. Shaftel, The Stanford Evaluation of Nine Elementary Teacher Training Models (Stanford, California: School of Education, Stanford University, August 25, 1969), 78 pages. (ERIC ED 037-395.)

[720]John M. Kean, editor, Wisconsin Elementary Teacher Education Project, Volumes I-IV (Madison, Wisconsin: School of Education, University of Wisconsin, February 1969), 718 pages. (ERIC ED 036-678.)

[721]Thomas L. Reddick, "Models for Elementary Teacher Preparation" ("Research Notes"), Phi Delta Kappan, Vol. LII (March 1971), pp. 439-440.

[722]William E. Engbretson, Analysis and Evaluation of Plans for Comprehensive Elementary Teacher Education Models, Final Report. (Philadelphia, Pennsylvania: Temple University, 1969), 250 pages. (ERIC ED 027-268.)

[723]The University of Wisconsin's report has been cited in footnote 720, above. The others, alphabetically by institution, are: (1) Florida State University: G. Wesley Sowards, project manager, A Model for the Preparation of Elementary School Teachers, Final Report, Vols. I, II (Washington, D. C.: Government Printing Office, 1969); (2) University of Georgia: Charles E. Johnson and others, Georgia Educational Model Specifications for the Preparation of Elementary Teachers, Final Report (Washington, D. C.: Government Printing Office, 1969); (3) University of Massachusetts: Dwight Allen and James Cooper,

is A Reader's Guide to the Comprehensive Models for Preparing Elementary Teachers, edited by Joel L. Burdin and Kaliopee Lanzilotti.[724]

The ten models are considerably different in their emphases, points of view, and situational adaptations. They also vary in their instructional goals: "Massachusetts and Columbia Teachers College, for example, emphasize human-relations skills, Toledo emphasizes instructional procedures and technology, and Michigan State emphasizes the behavioral sciences."[725] Also, while certain of them (e.g., Wisconsin, Florida State, Georgia) allow for the traditional major-minor sequence outside the school of education, others (e.g., Michigan

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Model Elementary Teacher Education Program, Final Report (Washington, D. C.: Government Printing Office, 1969); (4) Michigan State University: W. Robert Houston, project director, Behavioral Science Teacher Education Program, Final Report, Vols. I, II, III (Washington, D. C.: Government Printing Office, 1969); (5) Northwest Regional Educational Laboratory (NWREL): H. Del Schalock and James R. Hale, A Competency-Based, Field-Centered Systems Approach to Elementary Teacher Education, Final Report, Vols. I, II, III (Washington, D. C.: Government Printing Office, 1969); (6) University of Pittsburgh: Horton C. Southworth, A Model of Teacher Training for the Individualization of Instruction, Final Report (Washington, D. C.: Government Printing Office, 1969); (7) Syracuse University: William Benjamin and others, Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers, Final Report, Vols. I, II (Washington, D. C.: Government Printing Office, 1969); (8) Teachers College, Columbia University: Bruce R. Joyce, The Teacher-Innovator: A Program To Prepare Teachers (Washington, D. C.: Government Printing Office, 1969); (9) University of Toledo (Ohio Consortium): George E. Dickson and others, Educational Specifications for a Comprehensive Elementary Teacher Education Program, Vols. I, II (Washington, D. C.: Government Printing Office, 1969).

[724]Joel L. Burdin and Kaliopee Lanzillotti, editors, A Reader's Guide to the Comprehensive Models for Preparing Elementary Teachers (Washington, D. C.: [Joint publication of the] ERIC Clearinghouse on Teacher Education and the American Association of Colleges for Teacher Education, December 1969).

[725]Klatt and Le Baron, A Short Summary of Ten Model Teacher Education Programs, op. cit., p. 18. (See footnote 710, above.)

State, Massachusetts) provide for integrated experiences, and NWREL's ComField model (see pages 114-115 of this dissertation) is concerned only with the professionally-oriented sequences.

The models are similar in that all lean heavily toward a systems approach utilizing individualized learning and much actual experience with elementary pupils. As Klatt and Le Baron observed, they rely "heavily on the specification of behavioral objectives as a basis for the selection of appropriate knowledge and experiences."[726] For a stated behavioral objective, criterion measures were explicated to specify the kinds of tasks and information acceptable as evidence an objective was mastered. This worked readily enough for most single teaching behaviors but became more difficult as behaviors increased in complexity. Thus, they noted, "Some broad areas of teacher behavior can be analyzed, objectified, and described, so that criterion levels of acceptable performance can be stated. On the other hand," they acknowledged, "the models show that very little research substantiates direct relationships between teacher training activities and role performance."[727]

Many of the educators involved with the models were well aware that the systems approach was and is not popular with everybody. (See, for example, Charles Silberman's criticisms, cited on page 115 of this dissertation.) As a result, in 1969 and 1970, AACTE conducted five USOE-funded Dissemination Project regional workshops across the United States to present, discuss, and explain analytical perspectives with

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[726] Ibid., p. 12. [727] Ibid., pp. 12-13.

regard to the models. According to one information sheet, the workshops were to consider such perspectives as:

1. Performance Objectives (behavioral objectives).
2. Curriculum Design Process (for preparation programs).
3. Personalization (of program experiences, relationships, etc.).
4. Coalitions (agencies combining efforts to achieve common goals).
5. Correctional Provision (continuing assessment of program effectiveness).
6. Implementation (factors affecting decisions).[728]

(In varying degree, all six were considered at the Kansas City workshop the author of this dissertation attended in 1969.)

Carl Lange, in a paper distributed at that workshop,[729] stated that "A key feature . . . of a systems approach to the design of educational programs is the sequencing and integration of specific enabling objectives to achieve efficiently the terminal objectives of the program. . . . Departure from the course concept to training modules probably would be desirable," he allowed.[730] Lange advocated early and continued--and evaluated--practice of performance and emphasis on content required for both teaching the subject and "integrating

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[728]American Association of Colleges for Teacher Education, "Workshops on Comprehensive Elementary Teacher Education Models" (Unpublished information sheets about the workshops, undated, but the one for the Dissemination Project workshop attended by the author of this dissertation in Kansas City, Missouri, November 30-December 2, 1969, was received by the Dean, College of Education, Kansas State University, September 22, 1969), p. 1.

[729]Carl J. Lange, "Designing Preparation Programs for the Future: Utilizing a Systems Approach" (Reprinted from a paper prepared for inclusion in Preparing Educators to Meet Emerging Needs [New York: Citation Press, Scholastic Magazines, Inc., 1969]).

[730]Ibid., p. 13 of the reproduced reprint. (In the book, p. 124.)

instructional techniques and practice in subject matter courses." Along with this,

> . . . concepts from such fields as psychology and sociology should be integrated into the curriculum as they relate to aspects of the teacher's performance. This notion would not preclude study of such fields as liberal arts as part of general education. It does, however, assume that in professional courses the translation of general concepts to teacher performance should not be left to the student but rather should be integrated as appropriate in the job-relevant part of teacher education.[731]

That all the models were intended to bring about such translation was strongly indicated by certain common hypotheses. John DeMand, who also attended the Kansas City workshop, characterized those hypotheses receiving the major emphasis as suggesting the following:

> 1. The teacher is to be viewed as clinician.
> 2. The teacher is a member of clinical teams and functions as a specialist on an instructional team. Support personnel are a necessity.
> 3. All models hypothesized that it is possible to define characteristics at all instructional levels and that these can be subjected to control and organization. For example, the University of Wisconsin attempts to take behavioral objectives and shows how they are related to modules.
> 4. There will be sets of programs or systems that can be personalized for each student. This can be done by a computerized management system.
> 5. Teacher training is a life time process. "Portal schools"[732] should be designated for the preparation of

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[731] Ibid. (The emphasis is Lange's.)

[732] A "portal school" is "a school in a public school district which has responsibilities as a training institution for new teachers as well as responsibilities to the community for the education of its children," according to Norman R. Dodl, "Florida State University, A Guide to A Model for the Preparation of Elementary School Teachers" [See no. (1), footnote 723, above], in Burdin and Lanzillotti, A Reader's Guide to the Comprehensive Models for Preparing Elementary Teachers, op. cit. (See footnote 724, above), p. 15.

education personnel.

6. That we can operate a program through behavioral objectives although it may be that we must accept Input without being able to measure or define Output.[733]

The question of whether an elementary teacher should be a generalist or a specialist arose during a panel-audience discussion on the last day of the workshop. Panelist Bruce R. Joyce admitted that the models showed apparent inconsistencies with regard to the issue. Teaching teams could be one way of resolving the problem, he suggested, citing a trend toward greater specialization.

"Isn't there a case for both?" asked John Thomas from the audience.

"Yes," replied Joyce, "but the tendency is to draw back into specialization when faced with the complexities of all the competencies a teacher should have." The models do allow this, he noted.[734]

(Nevertheless, the panel's stress was on content specialization, despite that kind being overpowering in sheer detail.[735])

The models are too extensive even to summarize here, particularly in view of the excellence of other summaries.[736] But a handful of

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[733]Minutes of Kansas State University College of Education Department of Curriculum and Instruction faculty meeting for December 4, 1969, with attached summary of Dr. John W. DeMand's report to the C&I faculty on the AACTE Dissemination Workshop in Kansas City. Dr. DeMand is a KSU Professor of Education.

[734]Notes taken by the author during the discussion. At the time Dr. John I. Thomas was Associate Professor of Elementary and Secondary Education, New Mexico State University. Dr. Joyce is Professor of Curriculum, Teachers College, Columbia University.

[735]Ibid.

[736]Particularly Burdin and Lanzillotti, editors, A Reader's Guide to the Comprehensive Models for Preparing Elementary Teachers,

generalizable applications can be cited.

For example, one of the assumptions underlying the ComField program is that "a teacher education program must be relevant personally to those going through it, that is, it must accommodate individual differences in learning rates, styles, objectives, etc."[737]

Or consider general education for teacher candidates, as the University of Pittsburgh's model does:

> The rationale that support the liberal arts component . . . run through the literature [and many are also in] the USOE model . . . programs. . . . These rationale seem to fall together into three general themes: the humanizing influence of liberal education, the conceptualizing opportunities provided by the liberal arts, and the possibilities for learning modes of inquiry and processes of learning in the disciplines through the liberal arts.[738]
>
> . . . Since no teacher can gain command of more than a small fraction of existing knowledge, even in one area of the liberal arts, the required knowledge in the arts and sciences should be of the following types to achieve the purposes of general education stated previously:
>
> Familiarity with subareas of knowledge covered by the field, and with the general classification schema for ordering knowledge in the field.
>
> Command of key concepts in the field.
>
> Knowledge of the history and development of this field.
>
> Knowledge of major modes of inquiry employed in gaining and applying knowledge within the field.
>
> Knowledge of interdisciplinary relationships.
>
> Knowledge of relevant materials in the field.[739]

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op. cit. (See footnote 724, above.)

[737]H. Del Schalock, "Northwest Regional Educational Laboratory, A Guide to A Competency-Based, Field-Centered Systems Approach to Elementary Teacher Education" [See no. (5), footnote 723, above] in ibid., p. 55.

[738]Horton C. Southworth, "University of Pittsburgh, A Guide to A Model of Teacher Training for the Individualization of Instruction" [See no. (6), footnote 723, above] in ibid. (Burdin and Lanzillotti), pp. 254, 257.

[739]Ibid., p. 258. Also, in the Pittsburgh model description

Transmittal of knowledge gained in the liberal arts[740] and elsewhere often involves teaching strategies. According to Columbia University Teacher College's "Teacher-Innovator" program coordinator and developer, Bruce Joyce, "A teaching strategy is simply a thoughtful teaching operation in which the teacher does what he does because he believes it will have a positive effect on the learner. At its most sophisticated, a teaching strategy is an elaborated theoretical position that has come into reality as a teacher and learner have interacted. The process of teaching with strategy involves the development of hypothetical positions about the results of various forms of teacher-pupil interaction and the translation of these into teacher behaviors."[741]

The idea of organizing specific teacher-behavior learnings and practice into competency-based modules to encourage individualized development and demonstration of teaching skills finds much favor with the models' proponents. At one writers' conference, Charles Johnson of the University of Georgia was asked, ". . . Can a person test ahead of these lower level performances of experience?"

[See no. (6), footnote 723, above], see pp. 16-19.

[740]Hugo Beck hoped that "every liberal arts graduate has been exposed to the four domains of knowledge: physical science, biological science, social science, and humanistic studies" as well as the methods of inquiry developed in each. Hugo Beck, "Teacher Education: Liberal and Pedagogical," Crucial Issues in Education, Henry Ehlers and Gordon C. Lee, editors (3d ed.; New York: Holt, Rinehart and Winston, 1964), p. 320.

[741]Bruce R. Joyce, "Teachers College, Columbia University, A Guide to The Teacher-Innovator: A Program to Prepare Teachers" [See no. (8), footnote 723, above] in Burdin and Lanzilloti, A Reader's Guide to the Comprehensive Models for Preparing Elementary Teachers, op. cit. (See footnote 724, above), p. 140.

"Yes," replied Johnson, "any time. Everything is on a performance module basis. Everything is preceded by some form of pretest. Now that doesn't mean paper-and-pencil pretests always. It can be a performance scale. In other words, you can chop your way right through until you find you can't perform and need the experience to perform. And that's where you begin."[742]

"Active enrollment of students into one of these innovative programs seems unlikely before 1972," Thomas Reddick wrote in March 1971. "Office of Education officials believe several more years of development and testing will be required before the model programs will be ready for dissemination and adoption." Nevertheless, he acknowledged, "this Model Elementary Teacher Development Program could have a significant impact upon the preparation of elementary school teachers in the not too distant future."[743]

Selected Considerations In Secondary Teacher Preparation

Just as the elementary teacher traditionally has taught in several academic areas, the secondary teacher has specialized in teaching a specific discipline. The secondary teacher thus has a different subject orientation and content level emphasis than his elementary counterpart. Also, since he teaches older children and adolescents, he usually must cope with different personality character-

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[742]Charles E. Johnson, in "Writers' Conference, Second-Day Interaction," in ibid. (Burdin and Lanzillotti), p. 282.

[743]Thomas L. Reddick, "Models for Elementary Teacher Preparation," Phi Delta Kappan, Vol. LII (March 1971), p. 440.

istics as well. Nevertheless, a number of teaching behaviors, such as certain communications and interaction goals, often are basically similar for both.

This section includes a selection of those essentially secondary-oriented considerations which have not been mentioned previously in another context.

Secondary and Elementary Area Comparisons

"Education," Hugo Beck has said, "is the study of the transformation of the individual from a dependent, immature being into one who, by communication with his fellow men, comes to understand the natural forces in his environment and is able to exercise more and more control over that environment."[744]

In the sense that man can grow--positively and/or negatively, emotionally as well as physically, cognitively as well as affectively--Beck's definition stresses the continuity formal education K-12 and beyond should have. But continuity of concern cannot connote concomitantly common characteristics of curriculum if only because growth so often causes changes in interest, perspective, readiness to accept responsibility, and other personality factors, complicating individual differences.

Yet there are similarities in elementary and secondary teaching. John Green, writing in 1966, identified five: certain time commitments (a long work week, "generous vacations," summer and other inservice

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[744]Beck, "Teacher Education: Liberal and Pedagogical," op. cit. (See footnote 740, above), p. 321.

activities); administrative routine; problems in planning, motivating, and evaluating; range of pupil intellectual abilities up to eleventh grade, when dropouts change the picture; and the "wealth of good instructional materials."[745]

Green also cited several contrasts: school organization (secondary on a departmental basis, elementary in self-contained classrooms); teaching task (secondary teacher specializes and tends to focus on subject-centered approaches, elementary teacher works with the several major fields and often uses integrated unit approaches); daily free period for planning (usual for secondary but not for elementary except where specialists come in to teach regularly); teacher-pupil and teacher-parent relationships (elementary often closer than secondary); staff relationships (secondary sometimes fragmented by different academic orientations; elementary closer in educational philosophy and outlook); involvement with extracurricular or cocurricular activities (secondary heavy, elementary little); reporting pupil progress (secondary teachers more formal, e.g., using report cards and grades, while elementary teachers often arrange parent-teacher conferences); teaching preparation emphasis (secondary--depth, elementary--breadth).[746]

Specialization and Interdisciplinary Relevance

Depth has its advantages, but the secondary stress on speciali-

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[745]John A. Green, Fields of Teaching and Educational Services, (New York: Harper & Row, Publishers, 1966), pp. 54-55.

[746]Ibid., pp. 56-57.

zation has its problems, too. As Sister Marijane Werner has noted, "The age of specialists has produced educators well prepared in a particular field but having a limited appreciation of other disciplines and possessing a limited understanding of the overall project."[747]

How can a secondary teacher overcome this? By developing a continuing awareness of psychological, sociological, cultural, and other factors germane to his teaching, Hugo Beck has suggested. "An interdisciplinary approach is needed so that each department does not rediscover the wheel. The lines of communication must be kept open so that when knowledge is discovered in one discipline that has relevance to another the knowledge may be readily shared."[748]

Interdisciplinary awareness is especially important for the secondary teacher because he and his students function in what is essentially a dual-approach curricular environment involving general education and specialized education. As the Professors Alberty have pointed out, in the secondary school, ". . . the role of general education is to provide a program specifically geared to the task of providing educational experiences to meet the common problems and needs of the student, and to develop the values, understandings, and skills needed by all for effective democratic citizenship. . . . The general-education program should provide for individual differences in

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[747]Sister Marijane Werner, O.P., "An Application of Critical Path Analysis to the Design of a Systematically Articulated Curriculum in Science and Mathematics for Secondary Schools," Dissertation Abstracts, 29: 4210-A, June 1969. (Boston College, 1968.)

[748]Beck, "Teacher Education: Liberal and Pedagogical," op. cit. (See footnote 740, above), pp. 321-322.

abilities, needs, and interests up to the point at which specialized activities are best carried on by individuals or groups in a specialized environment."[749]

But beyond academic specialization or synthesis, the teacher has human responsibilities, which interdisciplinary awarenesses can help him meet. They can help him realize the purpose and value in learning in ways he can both internalize and explain to others. "Kids need involvement in school," Kansas psychologist Harold Converse recently reminded. "They need to be shown the reason for learning and high school teachers are most guilty of this error. It's rare to find one who makes a student see the relevance of what he's doing."[750]

Students who can learn to see such relevance are on the way to understanding and influencing their environments. For, after all, as John Stuart Mill observed more than a century ago, "Men are men before they are lawyers or physicians or manufacturers; and if you make them capable and sensible men they will make themselves capable and sensible lawyers and physicians."[751]

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[749]Harold B. Alberty and Elsie J. Alberty, Reorganizing the High-School Curriculum (3d ed.; New York: The Macmillan Company, 1962), p. 235.

[750]Forrest Hintz, "Psychologist Aids In Solving Backward Pupils' Problems," The Wichita Eagle and Beacon, Monday, July 5, 1971, p. 5A. Dr. Converse, psychologist at Prairie View Mental Health Center, has conducted workshops to show elementary teachers (primarily) "how to recognize potential classroom problems--and stop them from developing."

[751]John Stuart Mill, quoted without citation of source by Archibald B. Shaw, "A New Look at Secondary Education: The Random Falls Idea, An Educational Program and Plant for Youth and Community Growth," reprint from The School Executive (March 1956), pp. 3-42. This article describes a total school-community involvement plan in

Aspects of Program

As described in this dissertation's Definitions section (see pages 16-17), "secondary education" usually involves children aged 12 through 17, in the seventh through the twelfth grades. Often it is divided into two levels: junior high school and (senior) high school, with such grade divisions as 7-8/9-12 or 7-9/10-12, respectively.

Despite the wide personality variations manifest between ages 12 and 17, the literature indicates little teacher preparation program specialization with regard to the junior high and senior high areas. This was certainly true for Kansas as of 1965, according to Gerald Schmidt[752] (and is still true for Kansas State University). Schmidt concluded (in part) that "Specific training for junior high school teachers is almost nonexistent in public institutions of higher learning in Kansas" and that he saw only a slight increase in such specific training in the future. He recommended the following subject areas of study for such preparation:

> Junior high school student teaching
> Psychology of learning
> Theory and functions of the junior high school
> Reading instruction
> Child growth and development and/or psychology of adolescence
> Methodology of the subject
> Junior high school curriculum development

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which students utilized their own, their school's, and their community's employment, service, and other resources in learning and growing.

[752]Gerald Lee Schmidt, "Preservice Professional Preparation Of Junior High School Teachers," Dissertation Abstracts, 26: 6485, May 1966. (University of Colorado, 1965.)

Audio-visual instruction
Guidance and counseling
Extra-curricular activities
Observation in a junior high school
Individual differences related to gifted and remedial
Sociological factors related to early adolescents[753]

Beyond the program, of course, a teacher candidate who wishes to teach in junior high school has a leg up on motivation. As Jack Blackburn observed in 1965, "These teachers are not simply 'marking time' until they can be promoted to senior high school teaching. They value the goals of the school. They value the idea of teaching all children whatever their background."[754]

That same year Peter Helfert undertook a broader survey covering general secondary teacher preparation considerations and noted:

> There is general lack of consensus among educators as to specific objectives, content, structure, and teaching strategy appropriate for professional education courses; nevertheless, a review of the literature dealing primarily with research and conference reports disclosed numerous trends and guidelines applicable both to courses in curriculum and instruction and to the program as a whole. Nationwide, requirements in secondary programs vary from 10 to 51 semester hours. The bulk of the programs examined, however, were found to contain a core consistency of a foundations course, one psychology and two methods courses or the reverse, and student teaching. Notwithstanding pressures toward reduction of professional course requirements, a single psychology course and a single course covering both general and specific methods were considered inadequate.[755]

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[753] Ibid.

[754] Jack E. Blackburn, "The Junior High School Teacher We Need," Educational Leadership, Vol. 23 (December 1965), p. 208.

[755] Peter Allard Helfert, "Selection of Content and Instructional Procedures for a General Course In Secondary School Teaching," Dissertation Abstracts, 26: 893, August 1965. (The University of Texas, 1965.)

Fred Hollis would add more to the general program. "Demonstrated proficiency in oral and written communication should be a prerequisite to student teaching." Also, "Greater emphasis should be placed on the administrative responsibilities of teachers, on the use of modern audiovisual equipment, on establishing good human relations, and on knowledge of materials and resources for teaching."[756]

The use of audiovisual equipment, particularly closed circuit television for supplementary observation and "video tapes and tape recorders for immediate play-back to provide short, supervised experience sessions for each student," was also suggested by Marian Stromquist's study.[757] Among other suggestions: "4. Imaginative use of community resources in providing experience with students as individuals and in small groups. . . . 6. Consistent use of the first weeks of September before the usual starting of colleges, and after the opening of public schools as a time for providing additional laboratory experiences."[758]

To all these advocacies add individualized teacher preparation, such as the Brigham Young program described in 1967 and 1969 in M-STEP

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[756]Fred Thomas Hollis, "An Appraisal Of The Pre-Service Education Program In Secondary Education At Pfeiffer College Based On A Follow-Up Of Its Graduates," Dissertation Abstracts, 25: 1028, August 1964. (The Pennsylvania State University, 1963.) These particular recommendations were for Pfeiffer and teacher education in general.

[757]Marian Hughes Stromquist, "A Study Of Pre-Student Teaching Laboratory Experience In Secondary Education Programs Of Selected Colleges And Universities," Dissertation Abstracts, 27: 133-A, July 1966. (University of Kansas, 1965.)

[758]Ibid.

publications.[759] This program utilized behavioral objectives; "Assigned student teachers in teams of two or three; . . . Substituted microteaching for some of the in-class student teaching time; . . . Combined almost all course work (19 hours) into a unified semester of work, eliminating unnecessary course overlap and allowing inclusion of new and vital content;"[760] and revised sequences so teacher candidates could progress at their own rate. The program is divided into twelve units: 1. Orientation, 2. Administrative Aspects of Teaching, 3. Behavioral Objectives (to be developed by the preservice teacher), 4. Instructional Materials and Equipment, 5. Teaching Methods (including required preassessment of pupil readiness, identification and adjustment to pupil reading level, and non-oral teaching, along with the more usual elements of methodology), 6. Human Development (of self and potential pupils), 7. Micro-Teaching, 8. Learning, 9. Curriculum Preparation, 10. Student Management, 11. Student Teaching, and 12. Affective Behaviors.[761]

At the time, this was an experimental program. Karl Farnsworth of Brigham Young surveyed 262 educators and 45 student teachers in

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[759] J. Hugh Baird, W. Dwayne Belt, and Lyal Holder, "The Individualized Teacher Education Program at Brigham Young University," in Teacher Education In Transition, Volume I, An Experiment In Change (Baltimore, Maryland: Multi-State Education Project, May 1969), pp. 201-234. The chapter is a reproduction of Baird, Belt, and Holder, The Individualized Secondary Teacher Education Program at Brigham Young University, M-STEP Monograph No. 2 (Salt Lake City: Utah State Board of Education, 1967).

[760] Ibid., p. 202.

[761] Ibid., pp. 205-229. Brief descriptions of almost all the units are given, mostly in behavioral-objective terms.

1968 with regard to how they perceived six teacher preparation programs ideally and at BYU.[762] Among conclusions: The full-semester-type intern student-teacher program is better than the sequential, course-oriented "Traditional Program," and student teaching should be at least a full semester. "Programs in which the course work is not closely related to and integrated with the field experience do not provide adequate training. . . . Greater cooperation between universities and local school districts is needed to bring about the maximum training for prospective secondary school teachers," particularly ". . . by inviting public school personnel to participate in the planning of . . . programs."[763]

Similar to Brigham Young's program in several eays was the University of Nebraska Teachers College's "Teppie Project" reported in the summer of 1970 by Jim O'Hanlon.[764] For example, this secondary education project was described as being based on specific behavioral and performance objectives and a performance orientation, with a real attempt to use evaluative data to improve the program. Also:

> (3) Theoretical study and practice would be integrated so that the prospective teacher would immediately apply in

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[762]Karl Smith Farnsworth, "An Evaluation Of The Perception Of Selected Reference Groups As It Relates To The Secondary Teacher Education Programs Currently Being Conducted At Brigham Young University," Dissertation Abstracts, 29: 3019-A - 3020-A, March 1969. (Brigham Young University, 1968.)

[763]Ibid.

[764]Jim O'Hanlon, "'Teppie'--An Experiment in Teacher Education," PDK Newsletter (Lincoln, Nebraska: Phi Delta Kappa, University of Nebraska, Summer 1970), pp. 3-4.

either a real or a simulated teaching situation that which he was learning through simulated study.

(4) Greater emphasis would be placed on him as a self-directed learner and on him as a member of a teaching team.

(5) The staff of the program would model those behaviors which prospective teachers were to learn.

In addition, "The project staff worked on a team teaching basis, jointly developing and conducting the instruction which was offered," O'Hanlon noted.[765]

Other Factors Influencing Teacher Preparation

The academic, curricular, and methodological factors which have been cited are not the only ones involved with teacher preparation. Other factors are influential, too. For example: Candidate Quality Considerations. A 'Belief Gap' and Student Concerns. Perspective- and Interdisciplinary-Oriented Experiences. Advisement and Pressure. Evaluation of Program.

A number of these other factors will be mentioned in this section.

Candidate Quality Considerations

Since teachers are expected to be exemplars, considerations of quality with regard to individual teacher candidates are directly involved with the effectiveness of their preparation programs.

Such considerations can range from attempts to establish minimal standards via gross grade point average to seeking or developing in candidates certain skills to exposing candidates to as many as possible of the value awarenesses useful in implementing positive educational

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[765] Ibid., p. 3.

theory into effective practice.

For example, Donald Robinson, discussing James B. Conant's The Education of American Teachers, suggested that

> . . . a very simple device to raise the quality of teacher candidates might be to require for certification a B average in general education courses and a B average in courses in the subjects to be taught. Today most colleges and states permit certification with a C record. It is scarcely reasonable that an average student will make an above-average teacher of the subject. In most courses C represents mediocre work. So we can expect that those C students will be mediocre teachers.[766]

Robinson wrote in 1964. Four years previously, the teacher education program grade point average minimum requirement for the secondary education major, or "teaching field," at Kansas State University had been raised from 2.0 (approximately equal to a C on a scale with a 4.0 top) to 2.5,[767] where it still is in 1972.[768] (The program's overall grade point average minimum requirement is 2.2.[769])

(Kansas State had raised the teaching field minimum after beginning participation[770] in 1960 as one of the 42 institutions in the $29 million Ford Foundation-sponsored Master of Arts in Teaching (MAT)

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[766]Donald W. Robinson, "Education's Flexner Report?" Phi Delta Kappan, Vol. XLV (June 1964), p. 431.

[767]James C. Stone, Breakthrough in Teacher Education (San Francisco: Jossey-Bass, Inc., 1968), p. 100.

[768]Kansas State University Bulletin 1971-1972, General Catalog Issue (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, July 1971), quarterly, Vol. 55, No. 2, p. 182.

[769]Ibid.

[770]Stone, Breakthrough, loc. cit. (see footnote 767, above).

program to improve the preparation of secondary school teachers.[771] By 1965, 39 institutions, including KSU, remained in the program,[772] and by 1967 the Ford Foundation's grants totaled $70 million.[773] A 1963 KSU report had reflected the University's optimism with regard to the program: "As the Cooperative Program in Teacher Education has one main objective, the preparation of superior liberal arts graduates for careers in teaching, the quality of the candidates chosen throughout the ensuing years will remain high."[774] Unfortunately, KSU's participation eventually dwindled away because of unresolved problems.[775]

Grade point average can be one factor in teacher candidate quality. Skills can be another. Very useful for teachers--and therefore teacher candidates--would be the skill of typing, for example;[776]

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[771] Ibid., pp. 14, 15.

[772] Richard W. Saxe, "Evaluating the Breakthrough Programs," The Journal of Teacher Education, Vol. XVI (June 1965), pp. 202-209.

[773] James C. Stone, "Whither Reform in Teacher Education," Educational Leadership, Vol. 25 (November 1967), p. 131. See also James C. Stone, "Breakthrough in Teacher Education," in Improving Teacher Education in the United States, Stanley Elam, editor, (Bloomington, Indiana: Phi Delta Kappa, Incorporated, 1967), pp. 165-190.

[774] Kansas State University, The Kansas State University Cooperative Program in Teacher Education (Manhattan, Kansas: The Kansas State University, 1963), p. 1.

[775] Stone, Breakthrough, op. cit. (see footnote 767, above), pp. 106, 183-184. See also the information for 1960 in Appendix B of this dissertation.

[776] Mrs. Mickey (James C.) Bogart, 7th grade social studies teacher at Manhattan, Kansas, Junior High School, in conversation with the author of this dissertation, December 10, 1971.

teachers often have stencils and mats to prepare (e.g., for study guides, tests, study supplements) but have no secretary available. Another skill, not so simple as it sounds, would be how a teacher talks with a parent. Such an interaction, as Sarason, Davidson, and Blatt have noted, is ". . . often approached on both sides with a mixture of suspicion, mistrust, and resignation. As one teacher put it, 'Teachers and parents talk to each other far more frequently than they talk with each other.'"[777]

Sarason, Davidson, and Blatt also noted a much broader lack, one with implications far beyond the skills mentioned above. Traditional teacher preparation, they suggested, does not really help a teacher fully utilize learning and development principles. As one symptom, they declared, ". . . educational psychology (as the psychology of learning) is viewed as something which has to do with how children learn and not with how teachers learn. The student in the process of becoming a teacher is not made acutely aware of how he is learning, that is, to utilize himself as a source of understanding of the nature of the learning process." The authors hypothesized ". . . that one of the major reasons why so many teachers are dissatisfied with themselves in their work is that their training did not illuminate the nature of their learning process and how this relates to and affects the learning process of their pupils." Thus, their teaching does not express their own learning experiences, nor do they tend ". . . to

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[777]Seymour B. Sarason, Kenneth S. Davidson, and Burton Blatt, The Preparation of Teachers, An Unstudied Problem in Education (New York: John Wiley and Sons, Inc., 1962), pp. 3-5.

perceive the identity between themselves and their pupils."[778]

Nearly a decade later, referring to value formation with remarks as applicable to teacher preparation programs as to secondary or elementary teaching, William Pilder went a step further:

> The fundamental failure of most current teaching as it relates to value formation is that teachers lack the strength to encounter students on their own terms. Students are forced to accept the values embodied in most educational programs implemented by teachers or risk the social handicap of school failure. The experience of the school culture is therefore colored by a kind of violence which demands that values be introjected whether or not an individual relates personally to these cultural commitments.[779]

Pilder advocated encounter relationships as the only way to help ". . . one person experience the value concerns of another, because these concerns begin to become his own. . . . Developing persons who can fulfill this aspect of the teaching function is an absolute necessity for present educational settings."[780]

For teacher preparation programs, the concept of value acceptance and value formation is important particularly from two standpoints: societal and personal.

One of the more succinct acknowledgements of the first is Glenn Snider's:

> Many people view the Education establishment as exceptionally resistant to change. Young people are demanding that our government and other institutions begin to act in

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[778] Ibid., p. 118.

[779] William F. Pilder, "Values as a Process of Encounter," Educational Leadership, Vol. 27 (February 1970), p. 449.

[780] Ibid., p. 450.

> accordance with the moral and political values and human rights which lie at the root of so-called American political democracy. Teacher education institutions may have the greatest responsibility in this regard because of their proximity to the public school, which in turn has major responsibility for preserving the value structure of the society.[781]

Such a societal responsibility for the institution offers a real opportunity for fulfillment through service for the individual willing to commit himself to a useful purpose. Of course, as Harold Taylor has perceptively noted,[782] "society" has circumscribed that purpose pretty narrowly to merely a transmission of certain cultural values through details of academic subjects. Therefore, in the public mind, teacher preparation is of little consequence, he observed, and teacher candidates who are self-motivated and committed to grow in intellect and character are greatly needed.[783]

But do traditional teacher preparation programs encourage such commitment by their own example? Apparently not, according to certain research findings and considered professional opinions. Part of the problem seems to be in such programs' orientation and in a lack of consonance of institutional and student concerns, as will be pointed out in the next section.

A 'Belief Gap' and Teacher Candidates' Concerns

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[781]Glenn R. Snider, "Human Rights: A High Priority In Teacher Education," Phi Delta Kappan, Vol. LIII (November 1971), p. 173.

[782]Harold Taylor, "Educating Teachers, The Need for Radical Reform" Saturday Review, Vol. XLVIII (November 20, 1965), pp. 75-76, 92-93.

[783]Ibid., p. 76.

Teachers work with children. They also work with adults, as B. J. Chandler illustrated in a hub-and-wheel figure in his 1961 book, Education and the Teacher.[784] Thus, from the institutional standpoint of a teacher preparation program it could be postulated that teacher candidates' personal concerns should be primarily oriented toward children (their potential pupils) and secondarily toward adults generally involved with education. Except possibly for unusually mature individuals, however, such a postulation is not necessarily true.

Frances Fuller, for example, reported in 1968[785] a pilot study indicating a possibility "that beginning education majors are not prepared to benefit from education courses as they are now taught. Like other students, they learn what they want to learn but have difficulty learning what does not interest them. Education courses may be answering quite well questions students are not asking."[786]

Citing researched sources and her own studies, Fuller identified three phases with regard to teacher candidates: (1) A pre-teaching phase which "seemed to be a period of non-concern with the specifics of teaching, or at least a period of relatively low involvement in

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[784]B. J. Chandler, Education and the Teacher (New York: Dodd, Mead Company, 1961), p. 288.

[785]Frances F. Fuller, "Concerns of Teachers: A Developmental Conceptualization," American Educational Research Journal, Vol. VI (March 1969), pp. 207-226. The Journal received the article in August 1968 (p. 226).

[786]Ibid., p. 208.

teaching."[787] (2) An early-teaching phase (of student teaching), in which there was great concern with self, both covert (e.g., where do I stand with regard to my acceptance as a professional person by school personnel "in halls, cafeterias, teachers' lounge and principal's office"? and "how much support will be forthcoming from the school principal and supervisors in a great variety of situations"?)[788] and overt (e.g., how adequate am I with regard to class pupil evaluation?).[789] (3) A late-in-student-teaching phase, when student teachers showed less concern about themselves and more about their pupils,[790] e.g., with regard to "problems of pupil learning or methods of adapting subject matter to individual pupils."[791]

In any case, observed Fuller, ". . . no study supports the proposition that beginning teachers are concerned with instructional design, methods of presenting subject matter, assessment of pupil learning, or with tailoring content to individual pupils, the areas often presented before student teaching in education courses."[792]

(Persons interested in reviewing much of the literature about teacher candidate beliefs, attitudes, and concerns would do well to see both the references listed by Dr. Fuller[793] and those surveyed in 1966 by Judy Garrard.[794])

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[787] Ibid., p. 219. [788] Ibid., p. 220. [789] Ibid., pp. 220-221.

[790] Ibid., p. 217. [791] Ibid., p. 215. [792] Ibid., p. 216.

[793] Ibid., pp. 224-226.

[794] Judy Garrard, "Concerns of Student Teachers, A Review of the Literature" (Austin, Texas: Research and Development Center in Teacher Education, College of Education, University of Texas, April 13,

In effect, Dr. Fuller suggested that many a teacher education program's effectiveness is reduced considerably by not coöpting a teacher candidate's primary concern with himself, often resulting in discrepancies and seeming inconsistencies between his preparation (i.e., exposure to the program's curriculum) and his teaching during student teaching and even afterward. The year prior (i.e., in 1967), B. B. Brown and T. R. Vickery noted these kinds of discrepancies and attributed them to "belief gaps" between the educational and philosophic beliefs of public school teachers, between the philosophic beliefs of those teachers and education professors, and between education and academic professors "on both education and philosophic aspects of [John] Dewey's philosophy. In every case, the student (or prospective teacher) is caught in the middle."[795]

Bruce Joyce had reported similar observations in 1963.[769] He cited a study that ". . . suggested that pre-service teachers feel their associates, instructors, and cooperating teachers have differing educational beliefs. Joyce suggested two ways to resolve this "--one way through capitalizing on conflicts [perhaps through Pilder's encounter relationships?[797]], the other by internships in which young teachers can form beliefs and work out methods of teaching before

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1966.) (ERIC ED 011-604.) Miss Garrard appended a list of the journals and articles she checked, but noted (p. 1) that "a thorough review of the literature produced relatively few studies which could be considered empirical."

[795]Bob Burton Brown and Tom Rusk Vickery, "The Belief Gap in Teacher Education," The Journal of Teacher Education, Vol. XVIII (Winter 1967), pp. 417-421. The quotation is from page 421.

[796]Bruce R. Joyce, "The Social Climate of Teacher Education," The Journal of Teacher Education, Vol. XIV (June 1963), pp. 179-183.

[797]Pilder, loc. cit. (see footnote 779, above).

facing the conflict."[798]

The institutional dichotomy between ideals and practices and some of its consequences in schools discouraging methodological variations and innovations have been discussed bluntly by Kaltsounis and Nelson.[799] They pointed out that students who have ignored or not received teaching methods techniques have a real problem when they face pupils and have to act, effectively. "The only thing fresh in the minds of the student teachers that could serve as a model is college teaching, but college teaching is different from teaching in the lower levels. The college teacher is teaching the upper one-third of the population, and his teaching is mostly abstract. Teaching at the elementary and secondary levels is directed to the upper nine-tenths of the population, and for most children, it must be concrete and stimulating."[800]

Moreover, they charged, many education professors--models--"do not practice what we preach; we teach the student to be motivating and stimulating but we ourselves are often dry and unimaginative." Further, many supervising teachers influence the student teacher "to forget what he learned in college, because the professors talk from an ivory tower and do not know or understand the real situation in the

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[798]Joyce, "The Social Climate of Teacher Education," op. cit. (see footnote 796, above), p. 183.

[799]Theodore Kaltsounis and Jack L. Nelson, "The Mythology of Student Teaching," The Journal of Teacher Education, Vol. XIX (Summer 1968), pp. 277-281.

[800]Ibid., p. 280.

classroom."[801]

A decade ago Alden Carr had remarked the same possible reasons for student teachers not using methods they supposedly had learned in their education courses. Other reasons, he suggested, could be that the students never believed in the methods taught but acquiesced so as to pass and be graduated, or that they felt that the procedures "are simply too much work, especially when other ways seem to work well enough." To correct all this, Carr said, teacher preparation programs might acknowledge school situation realities more, encourage education professors to practice the precepts they preach, and encourage each student to develop a sound and strong personal teaching and career philosophy.[802]

Early identification of potential teacher candidates where possible to establish counseling opportunities and develop career commitment might be helpful. How to achieve this is always a problem, but truly student-oriented introductory courses might be a partial answer. Dale Bolton, for example, found that students in such a course identified strongly with the teaching profession.[803]

J. J. Muro and G. M. Denton also endorsed such a course although

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[801] Ibid.

[802] Alden J. Carr, "Classroom Paradox," The Journal of Teacher Education, Vol. XIII (June 1962), pp. 165-168. The quotation is from page 166.

[803] Dale L. Bolton, "Changes In Concepts During An Introductory Course In Education" (Seattle, Washington: University of Washington, 1965) (ERIC ED 003-383.)

not unreservedly.[804] They first described seven major (and six minor) concerns of teacher education students at the University of Maine. The seven were: "1. Role of the Teacher and Self as Teacher; 2. Self Perception, Self Analysis; 3. Perceptions of Others; 4. Adjustment to College Life; 5. Relationship with Parents; 6. Race Relations and Prejudice; 7. Grades and Grading."[805] Two of their conclusions were (1) that introductory courses heavily emphasizing educational goals and professional goals probably are meaningful only as students can "interact with such material on a personal basis," and (2) that "the teaching of facts may not be sufficient to produce effective teachers, in that individuals persist in behaving contrary to the facts. . . . Attitude modification is possible in counseling groups,"[806] however, and in fact, "A planned program of counseling might well be considered as an integral part of teacher education programs."[807]

Don Hamachek would encourage personal awareness through group interaction in a curricular context:

> Self-concept research tells us that how one feels about himself is learned. If it is learned, it is teachable. Too often, those of us in teacher education are dominated by a concern for long-term goals, while the student is fundamentally motivated by short-term goals. Forecasting what a student will need to know six months or two years from now, we operate on the assumption that he, too, perceives such goals as meaningful. It seems logical enough, but unfortunately it doesn't work out too well in

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[804] James J. Muro and Gordon M. Denton, "Expressed Concerns of Teacher Education Students in Counseling Groups," The Journal of Teacher Education, Vol. XIX (Winter 1968), pp. 465-470.

[805] Ibid. In the article, all these theme headings are italicized.

[806] Ibid., p. 469. [807] Ibid., p. 467.

> practice. Hence much of what we may do with our teacher candidates is non-self-related--that is, to the student it doesn't seem connected with his own life, time, and needs. Rather than talk about group processes in the abstract, why can't we first assist students to a deeper understanding of their own roles in groups in which they already participate?[808]

Group interaction that will help a teacher candidate develop self insight and strength enough to accept teaching responsibilities as a separate individual can be useful, since team teaching is still relatively rare. In most situations, as Dan Lortie has noted, "Isolation sets the context for the orientation of beginning teachers; in fact, beginners are more likely to prize independence from others than are their senior colleagues."[809]

Lortie also cited Emil Haller's hypothesis of three stages in the orientation of the beginning teacher; (1) First, and possibly second, year: survival. (2) Second through fifth years: with survival accepted and confidence increased,--limited innovation. (3) Sixth and subsequent years: "crystallization . . . into a more or less stable set of routines and practices" resistant to "system-induced change."[810]

Interestingly, Fuller also recognized that survival is the begin-

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[808]Don Hamachek, "Characteristics of Good Teachers and Implications for Teacher Education," Phi Delta Kappan, Vol. L (February 1969), p. 344.

[809]Dan C. Lortie, "Teacher Socialization: The Robinson Crusoe Model," The Real World of the Beginning Teacher (Washington, D. C.: National Commission on Teacher Education and Professional Standards, 1966), p. 59. Report of the 19th National TEPS Conference, New York, June 22-25, 1965.

[810]Ibid. The hypothesis was based on tentative conclusions from an ongoing research project.

ner's primary concern. But as a teacher gains experience over the years, he generally becomes less self-oriented and more student oriented, the consensus of the studies she cited seemed to indicate. With regard to the teacher preparation program, she implied that keying the curriculum primarily to identified teacher candidate concerns (some of which might be manipulatable) rather than to institutional stipulations would be more realistic and easier than bucking the tide.[811]

Perspective- and Interdisciplinary-Oriented Experiences

A major problem with regard to the sequence of a teacher candidate's educational experiences involves internalizing comprehensive integration of those experiences. It is a continuing problem, as references here and there in the literature indicate.

For example, John Goodlad noted in 1960 that "The student completes a major in mathematics, a required collection of courses in education and student teaching, discovering the inter-relationships where he finds them. This lack of any curricular planning for synthesis leaves far too much to the student."[812]

And in 1971? "'We have tended in our higher education to overemphasize subject-matter knowledge . . . in increasingly minute fields,'" new Kansas State Teachers College (Emporia) liberal arts

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[811]Fuller, "Concerns of Teachers: A Developmental Conceptualization," op. cit. (see footnote 785, above), particularly pp. 220, 221, 223.

[812]John I. Goodlad, "The Professional Curriculum of Teachers," The Journal of Teacher Education, Vol. XI (December 1960), p. 457.

dean Dr. John Peterson was quoted as saying. "'We need to revert to the Renaissance man,' Peterson said, and cease turning out the chemist 'who is good at his bench but is damned near illiterate at everything else.'"[813]

Teachers have an even larger problem: internalizing comprehensive integration of the "interrelationships between disciplines and human affairs."[814] As Florence Stratemeyer has seen,

> In this instance, the teaching act is the human affair which draws upon various disciplines. . . . How to deal with the problem is no less difficult in education than it is in relation to the academic disciplines and human affairs. Perhaps there is also need in the professional sequence for a coordinating education seminar which would be task- or problem-oriented whose purpose would be help the student clarify relationships among various aspects of the professional sequence, between the work in education and the basic disciplines upon which it draws, and between professional education and the teaching fields.[815]

Actually, one seminar probably would not be sufficient, unless possibly it were the type envisaged by Fred Wilhelms, team organized and continuing throughout a teacher candidate's entire preparatory period.[816] Lloyd Trump had in 1962 predicted that "Professional

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[813]Jack L. Kennedy, "Narrow Training Criticized; Innovation Sought at KSTC," The Wichita Eagle and Beacon, Sunday, July 18, 1971, p. 5A.

[814]Florence B. Stratemeyer, "Perspective on Action In Teacher Education," Action for Improvement of Teacher Education, Eighteenth Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1965), p. 35.

[815]Ibid.

[816]Fred T. Wilhelms, "Realignments for Teacher Education," in Teacher Education: Future Directions, Margaret Lindsey, editor (Washington, D. C.: Association of Teacher Educators, 1970), p. 13. The book is the Report of The Fiftieth Anniversary Conference of the

education courses will include seminars in which students meet once a week to discuss the work experience problems and experiences they have in schools. Both content and education instructors will join in these seminars."[817]

Such seminars exist already. For example, Jane Jaffe described Indiana University's INSITE program in 1967 as including a 5-hour Creative Arts Workshop for elementary teachers and three freshman and sophomore year seminars which cut across the typical subject matter lines in the humanities, social sciences, and natural sciences.[818]

A year later Doan Huu Kanh proposed four different-purpose seminars for a Vietnamese elementary teacher preparation program: "(a) the general purpose seminar discussing a great variety of educational topics; (b) the advanced seminar focusing on integration and synthesis of course work throughout the training program; (c) the area seminar exploring common problems of a broad area of interest; and (d) the special seminar limited to problems of a specific teaching field."[819]

ATE, 1970. Dr. Wilhelms' paper actually was the Eleventh Charles W. Hunt Lecture, presented at the 22d Annual Meeting of the American Association of Colleges for Teacher Education, Chicago, Illinois, February 25, 1970, and published in the AACTE 1970 Yearbook, Realignments for Teacher Education.

[817]J. Lloyd Trump, "A Future Setting for Teacher Education," The Journal of Teacher Education, Vol. XIII (March 1962), p. 21.

[818]Jane Jaffe, compiler, "Four Years of INSITE: 'To Strengthen Teacher Education'" (Bloomington, Indiana: School of Education, Indiana University, 1967). (ERIC ED 022-718.)

[819]Doan Huu Kanh, "A Proposed Program for the Preparation of Elementary Teachers in the Republic of Viet-Nam," Dissertation Abstracts, 29: 4350-A -4351-A, June 1969. (University of New Mexico, 1968.)

Field experiences were to be necessary parts of all these programs including the seminars suggested.

Advisement and Pressure

The value of knowledgeable, close, and continuous advising for the individual has already been mentioned.[820] Naturally, the program can benefit, too; for example:

> Flexibility in teacher education programs is desirable and may be attained by an advising system that considers strengths and weaknesses in student background. Such a system depends primarily on the quality and competence of advisers for its success.[821]

One possible indirect benefit of such close advising might be to help the teacher candidate advisee cope with the pressures of his preparation program, including the pressure of time. The heavier consensus weight seems to be that pressure is a negative factor. Robert Blume, for example, in 1969 listed as one of the "principles which have emerged in educational literature over the past two decades, and more extensively on research which Arthur Combs and his associates have conducted at the University of Florida" this: "Pressure on students produces negative behaviors, such as cheating, avoidance, fearfulness, and psychosomatic illness. Students tend to become more

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[820]See, for example, page 196 of this dissertation.

[821]National Commission on Teacher Education and Professional Standards, New Horizons: The Beginning Journey (Washington, D. C.: NCTEPS, National Education Association of the United States, 1962), p. 20. Official Report of The Pennsylvania Conference, the 16th Annual National TEPS Conference, The Pennsylvania State University, University Park, Pennsylvania, June 20-23, 1961. The quotation is from Chapter II, "Summary of Group Discussions."

closed in their interpersonal relationships when they are pressured."[822]

Yet pressure can have a positive function, too, as Robert Dreeben[823] has discerned; a teacher candidate who can learn to cope with pressure early in his college teacher preparation program can improve his confidence and ability to cope with it when he is in a live classroom teaching situation. This point will be discussed more fully in Chapter III, in the section describing the Application area.

Evaluation of Program

"Evaluation," according to part of the definition on page 11 of this dissertation, is the "Appraisal of the effectiveness of all or part of a program or an individual's efforts. Such appraisal can be made continuously, frequently, or at the end of a stage or sequence. Modifications it may suggest should be implemented as soon as possible."

Thus, besides its component elements, of course,

> An integral part of the teacher education program should be a systematic plan for evaluation of the results of the process. An important criterion of a good teacher education program is that the final product be of satisfactory quality and that adequate steps have been taken to safeguard the children and the public by screening out the inadequate. More than casual attention should be given by the evaluators

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[822]Robert Blume, "Humanizing Teacher Education," Phi Delta Kappan, Vol. LII (March 1971), p. 412.

[823]Robert Dreeben, The Nature of Teaching; Schools and the Work of Teachers (Glenview, Illinois: Scott, Foresman and Company, 1970), pp. 116-156. (In this dissertation, see Chapter III pages 395-401.)

to this aspect of the teacher education process.[824]

That's the ideal. What, too often, is the reality? "'We admit anybody to teacher education; that's one problem,'" remarked Donald Cruickshank during a 1970 interview. Further, "'You'd have a hard time finding any evidence of the systematic planning of teacher education curriculum,' he said. Most of the programs are 'tailor made to meet the desires and needs of the professors, rather than the needs of the kids.'"[825]

In any case, evaluation of a program's internal processes only is not enough. As Daryl Pendergraft noted,

> An evaluation of the follow-up or "feed-back" program should also be a significant part . . . A systematic way of ascertaining the opinions of experienced teachers and school service personnel of an institution's teacher education program and making provision for the rating of the teaching effectiveness of recent graduates by supervisory personnel should be considered a significant part of the total teacher education process that is being evaluated.[826]

This complements nicely Paul Woodring's 1957 statement that

> Programs of teacher education may be evaluated at any one of three levels: we can make judgements about the program itself, we can judge the competence of the teachers who graduate from the program, or we can evaluate the learning of the children taught by these teachers. The third alternative is the only one that really gets to the heart of the problem for no program of teacher education is good unless it produces teachers who can contribute to effective

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[824]Daryl Pendergraft, "The Process Versus the Product Issue in the Accreditation of Teacher Education," in Evaluative Criteria for Accrediting Teacher Education (Washington, D. C.: The American Association of Colleges for Teacher Education, 1967), p. 88.

[825]Jack L. Kennedy, "Rethink Teacher Training, Ohio State Expert Urges," The Wichita Eagle and The Beacon, Wichita, Kansas, Saturday, April 4, 1970, p. 6A.

[826]Pendergraft, loc. cit. (see footnote 824, above).

learning in children.[827]

But, as Dr. J. W. Maucker has acknowledged, "To an overwhelming extent we evaluate at the first level only, simply by seeing to what extent a program includes procedures or elements we assume to be valuable. If we want excellence, we had better begin to look more systematically at results."[828]

The standard problem of standards.--The major problem in all this is establishing acceptable contextual standards by which to identify and interpret "results" based on "teacher competence." Paul Woodring noted its importance: "the problem of evaluating teacher competence is, I think, the greatest unsolved problem in teacher education because all validation of requirements, and all accreditation of programs to teacher education, depends upon it."[829]

Yet a particular aspect of the problem for teacher preparation programs, as Alton Harrison wrote in 1968, is that "After more than fifty years of research, very little is known about the relation between teacher personality and teaching effectiveness. There is a

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[827]Paul Woodring, New Directions in Teacher Education (New York: Fund for the Advancement of Education, 1957), p. 62.

[828]J. W. Maucker, "Imperatives for Excellence in Teacher Education--The Third Charles W. Hunt Lecture," Foundations for Excellence, Fifteenth Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1962), p. 6.

[829]Paul Woodring, "The Challenge for Excellence" ("Symposium--'Basic Rationale for theEducation of Teachers--Three Views'"), Strength Through Reappraisal, Sixteenth Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1963), p. 30.

noticeable lack of agreement among researchers in the area of teacher education, and their efforts have produced few reliable generalizations; differentiation of the characteristics of the good teacher from those of the good person have not yet been revealed by research."[830]

Accepting Harrison's observation adds validity to John Mann's 1969 reference to the premise of ethical continuity, particularly as it would apply to a teacher preparation curriculum:

> This premise asserts: that education is concerned with the ethical aspects of its product; that exceedingly little is known (people being as complex as they are) about controlling this aspect of education's product; that the very best the educator can do therefore is to rely on the general tendency for good to produce good, and pay very careful attention to the ethical qualities of the process of education in its continuing present.[831]

Eight years before Mann's reference appeared, John Carroll also had voiced frustration with aspects of educational research having to do with standards: ". . . it is virtually impossible to find sound studies of either what changes can be made to occur in student teachers through professional education or of what effects these changes may bring when these teachers enter service."[832] Carroll finally concluded

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[830]Alton Harrison, Jr., "Teacher Education Objectives--A Lack of Congruence" ("With the Researchers"), The Journal of Teacher Education, Vol. XIX (Fall 1968), p. 357. See also "A Symposium on Current Research on Classroom Behavior of Teachers and Its Implications for Teacher Education," The Journal of Teacher Education, Vol. XIV (September 1963), pp. 235-325.

[831]John S. Mann, "Curriculum Criticism," The Record, Vol. 71 (September 1969), p. 40. Teachers College, Columbia University. See also Israel Scheffler, "Philosophical Models of Teaching," Harvard Educational Review, Vol. 35 (Spring 1965), pp. 131-143.

[832]John B. Carroll, "Neglected Areas in Educational Research," Phi Delta Kappan, Vol. XLII (May 1961), p. 343.

> I would underline the necessity of using pupil change as a criterion of teacher effectiveness, for after reviewing so many studies which have resorted to the regressive maneuver of utilizing only subject ratings of teachers, I am convinced that we might just as well scrap all such ratings.[833]

Seven years later W. James Popham and his associates began an experimental program based on measurements of pupil "progress." "We propose," he wrote, "to circumvent the good-teaching-procedures question and use only pupil growth as a criterion. . . . We recognize that because of fantastic personal variation among teachers extremely different procedures may work, even when 'work' is defined in terms of pupils' achieving precisely the same objectives."[834]

"However," pointed out Ralph Tyler in 1971 with regard to the related topic of accountability,[835] "there is a great deal of research evidence to show that the school learning of children is related to a number of factors in addition to the work of the teacher." He then cited and discussed briefly the influences--direct and indirect--of the school principal, the central administration, the board of education, the public's support of taxation, the public's attitude toward various educational goals, the home environment, and the examples of the child's playmates and reference groups.

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[833] Ibid.

[834] W. James Popham, "The Performance Test: A New Approach to the Assessment of Teacher Proficiency." The Journal of Teacher Education, Vol. XIX (Summer 1968), p. 217.

[835] Ralph W. Tyler, "Accountability in Perspective," in Accountability in Education, Leon M. Lessinger and Ralph W. Tyler, editors (Worthington, Ohio: Charles A. Jones Publishing Company, 1971), pp. 1-6. The quotation and mentioned discussions are from page 5.

Nevertheless, teaching performance is a factor in student learning, and interest in trying to evaluate it continues high.[836] Researchers keep trying to identify and analyze variables and their relationships, utilizing as logical or feasible various situations and tools, such as (for example) the teacher-student interaction systems of Amidon-Hunter-Flanders, Joyce, Galloway, Heger,[837] and Morine-Spaulding-Greenberg.[838]

Researchers and other teacher educators concerned with evaluation of program effectiveness and teaching performance are well aware that objectives--and how well they are achieved--can be closely related to measurement standards.

Objectives.--As Leslie Lewis has noted:[839]

> Any concept of evaluation has implied within it the notion of values. Therefore, one of the determining factors in the establishment of objectives is the conscious awareness of

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[836]See, for example, Robert C. Burkhart, editor, The Assessment Revolution: New Viewpoints for Teacher Evaluation (Albany, New York: Division of Teacher Education and Certification, New York State Education Department; also Buffalo, New York: State University of New York College at Buffalo, 1969), 343 pages. (ERIC ED 036-485.) The proceedings of the New York State Symposium on Evaluation in Education.

[837]See pages 230-231, particularly footnotes 542, 543, 545, 546, and 547, in this dissertation.

[838]Greta Morine, Robert S. Spaulding, and Selma Greenberg, Discovering New Dimensions in the Teaching Process (Scranton, Pennsylvania: International Textbook Company, 1971), 204 pages.

[839]Leslie Lewis, "Evaluation: A Relationship of Knowledge, Skills and Values" (paper presented at the symposium "An Interdisciplinary Look at Evaluation," American Educational Research Association annual convention, March 1970, Minneapolis, Minnesota), 14 pages. The quotation is from pages 2-3.

> one's value orientation. This is reflected in the notion that one of the preconditions for planned activity is that the objectives in and of themselves have value. Values may be defined generally as those aspects of a situation or thing which are considered to be good or bad. . . . In any event, value orientations are relevant to educational evaluation because they are, at least, the partial determinants of objectives of educational programs. Educational activity in schools is organized around the sets of values or around the standards of those who are assuming the responsibility for the operation of the educational institution. The relationship between these standards and the social change expected from educational programs is tremendously important in terms of analyzing objectives and their underlying assumptions as well as in providing a framework for evaluating improvement toward or away from goals.

Value orientations can both influence and provide the rationale for objectives. But objectives themselves can be categorized in two ways: by domain and by intent.

Three "domains" currently are widely accepted by educators, although the author of this dissertation has seen and heard references to two others, still undeveloped. The three involve the areas of cognitive, affective, and psychomotor behavior. They are defined on pages 28 and 29 of this dissertation, although it might be helpful to consider Robert Hammond's definitions also: Cognitive behavior includes the "recall, comprehension, and application of knowledge and the utilization of intellectual skills of analysis, synthesis, and evaluation."[840] Affective behavior "is defined as the interest, attitudes, values, appreciations, and adjustments of the individual."[841]

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[840]Robert L. Hammond, "Evaluation at the Local Level" (Tucson, Arizona: Project EPIC, no date [but probably 1968]), p. 10.

[841]Ibid.

(Interestingly, Elizabeth Koontz once referred to "what we in education call 'being sensitive' and you professors call 'the affective domain.'"[842]) Psychomotor behavior "includes those acts which involve neuro-muscular coordination."[843]

(The two other domains--perhaps "tentative domains" would be a better reference--are the "tacitive" domain ordering a psychically-oriented hierarchy in a preliminary way[844] and a "perceptual" domain based on the knowledge "that different individuals perceive things differently."[845])

The classic descriptions of the three major domains are the cognitive domain taxonomy,[846] the affective domain taxonomy,[847] and the

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[842]Elizabeth D. Koontz, "A Consumer's Hopes and Dreams for Teacher Education," The Tenth Charles W. Hunt Lecture, in Reality and Relevance, Yearbook 1969 (Washington, D. C.: The American Association of Colleges for Teacher Education, 1969), p. 18. Report of the AACTE's 22nd annual meeting.

[843]Hammond, op. cit. (see footnote 840, above), p. 11.

[844]Warren R. Aiken, "TOWARD A DIFFERENT MIND SET, or A New Way To Think About Curriculum" (paper presented to Education 865 Curriculum Theory class, The Ohio State University, Columbus, Ohio, May 1969), 12 pages.

[845]Statement of Robert L. Hammond during Evaluation Functions and Methodology in Education course, The Ohio State University, Columbus, Ohio, May 6, 1969. Dr. Hammond was co-director of The Ohio State University Evaluation Center at the time.

[846]Benjamin S. Bloom, editor, Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I: Cognitive Domain (New York: Longmans, Green and Co., 1956), 207 pages.

[847]David R. Krathwohl, Benjamin S. Bloom, and Bertram B. Masia, Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook II: Affective Domain (New York: David McKay Company, 1964), 196 pages.

psychomotor domain classification.[848]

Objectives can be categorized by intent as well as by domain. That is, regardless of which domain it might fit into, an objective describes a purpose and can also describe the criterion and procedure for the evaluation of whether that purpose--that objective--was achieved. One of the most educationally famous books discussing instructional goals was Robert Mager's 1962 treatise on how to develop clear, meaningful, specific, performance-oriented objectives.[849] These latter are also known as behavioral objectives because they are intended to change a person's "behavior," both overt and, hopefully, covert. Components of a behavioral objective, according to K. A. Bemis and G. B. Schroeder, are

a. a learner (doer)
b. an observable behavior
c. given conditions and a standard (performance criterion).[850]

A brief but excellent review of pertinent literature about benefits and problems in developing behavioral objectives for educational contexts was published in 1970 as part of H. H. McAshan's book on a "new approach" to writing such objectives.[851] McAshan also use-

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[848]Elizabeth J. Simpson, The Classification of Educational Objectives, Psychomotor Domain (Urbana, Illinois: University of Illinois, 1966), 45 pages. (ERIC ED 010-368.)

[849]Robert F. Mager, Preparing Instructional Objectives (Palo Alto, California: Fearon Publishers, Inc., 1962), 60 pages.

[850]Katharine A. Bemis and Glenn B. Schroeder, The Writing and Use of Behaviroal Objectives (Albuquerque, New Mexico: Southwestern Cooperative Educational Laboratory, June 1969), p. iv.

[851]H. H. McAshan, Writing Behavioral Objectives: A New Approach (New York: Harper & Row, Publishers, Inc., 1970), 116 pages. The review is on pages 5-7.

fully categorized "Performance objectives" as "specific noninstructional objectives" (involving any non-learner-oriented goals) or behavioral objectives, with the latter subcategorized as "minimum level" or "desired level" objectives. Examples were included. McAshan's approach somewhat softens the criticism of such educators as Robert Ebel[852] that behavioral objectives have too many limitations to be really feasible for the average classroom teacher.

Bemis and Schroeder[853] also presented examples of behavioral objectives, but in a context that considers interrelationships among the cognitive, affective, and psychomotor domains.

Three other references offer useful information or points worth consideration from the standpoint of program objectives and evaluation. One is W. J. Popham's description of the Instructional Objectives Exchange established in 1968 by the UCLA Center for the Study of Evaluation.[854] A second is the system described in 1965 by Louise Tyler and Laura Okumu for analyzing courses in teacher education,[855] even though it covers only cognitive aspects. (It is based on the cognitive domain taxonomy; the other two classifications are not really

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[852]Robert L. Ebel, "Behavioral Objectives: A Close Look," Phi Delta Kappan, Vol. LII (November 1970), pp. 171-173.

[853]Bemis and Schroeder, op. cit. (see footnote 850, above).

[854]W. James Popham, "The Instructional Objectives Exchange: New Support for Criterion-Referenced Instruction," Phi Delta Kappan, Vol. LII (November 1970), pp. 174-175.

[855]Louise L. Tyler and Laura J. Okumu, "A Beginning Step: A System for Analyzing Courses in Teacher Education," The Journal of Teacher Education, Vol. XVI (December 1965), pp. 438-444.

considered.) The third useful reference is D. K. Wheeler's book on Curriculum Process,[856] particularly his seven "approximations" criteria for selection of learning experiences: "the principles of validity, comprehensiveness, variety, suitability, pattern (with its associated concepts of balance, continuity, cumulation, repetition and multiple learnings), relevance and pupil participation."

Breadth notes.--"Simply stated," Daniel Stufflebeam told the AERA in a 1970 paper,[857] "evaluation is the process of providing information for decision-making."[858] There can be four classes of decisions: "Planning decisions pertain to the selection of objectives. Structuring decisions are those involved in designing projects to achieve stated objectives. Those required for operationalizing and executing a project design are referred to as implementing decisions, and recycling decisions refer especially to the judgement of and reaction to project results."[859] Four kinds of decisions means four kinds of evaluation, Stufflebeam pointed out.

> Context evaluation serves planning decisions by identifying unmet needs, unused opportunities, and underlying problems which prevent the meeting of needs or the use of opportunities; input evaluation serves structuring decisions by projecting

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[856] D. K. Wheeler, Curriculum Process (London, England: University of London Press Ltd, 1967), pp. 147-177. The quotation is from page 147.

[857] Daniel L. Stufflebeam, "The Use of Experimental Design in Educational Evaluation" (paper read at the American Educational Research Association national convention, March 1970, Minneapolis, Minnesota), 13 pages.

[858] Ibid., p. 2. [859] Ibid.

> and analyzing alternative procedural designs; process evaluation serves implementing decisions by monitoring project operations, and product evaluation serves recycling decisions by determining the degree to which objectives have been achieved and by determining the cause of the obtained results.[860]

Each of these kinds of evaluation is important. But context and input considerations are particularly so, for they often can ease implementation and acceptance problems by helping to identify the possibility/probability of such problems in time for preventive action. "Educators repeatedly find themselves backpedaling to rationalize a decision already made, rather than anticipating the nature of the demand and inquiry prior to making decisions," observed D. D. Gooler and A. D. Grotelueschen in discussing curriculum development accountability.[861] Context and input evaluation can enhance the scope of such anticipation.

Robert Stake proposed the use of matrices to aid comprehension of the various factors involved in evaluating an educational program.[862] After establishing the place of rationale, he considered a "description matrix" of intents and observations and a "judgement matrix" of standards and judgements from the standpoints of antecedents, transactions, and outcomes. Then, after showing how data can

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[860] Ibid.

[861] Dennis D. Gooler and Arden D. Grotelueschen, "Curriculum Development Accountability," Educational Leadership, Vol. 29 (November 1971), p. 167.

[862] Robert E. Stake, "The Countenance of Educational Evaluation," The Record, Vol. 68 (April 1967), pp. 523-540. Teachers College, Columbia University.

be processed by using logical and emprical contingencies and congruences between them, Stake discussed judgements based on absolute comparisons and/or relative comparisons of programs.

Implementing feedback.--Monitoring and analyzing the processes, relationships, and variables in an educational program and identifying necessary or desirable improvements are essential to evaluation. But implementing those improvements--too often that's something else again. Even merely acknowledging the value of such improvements could be construed by people in the program as criticism of their actions or as threatening to their self concept or special interests. The extent of self-motivation to change in such situations is rather obvious. "In other words," as Jack Frymier has pointed out,

> feedback is imperative if the system is to operate at the highest possible level of effectiveness; yet, at the same time, it is probably not possible to assume that those who plan or those who implement can also accomplish the evaluation role. The power of evaluation rests in part upon the nature of the feedback information which is generated by the process, but in part upon the fact that the evaluation group has an authority of its . . . [own, so that when it] . . . makes its decision known, the rest of the system will have to pay attention to the feedback.[863]

The form or mechanics of enforcing effective utilization of evaluation-generated data and indicated actions of course would depend on the characteristics of whatever program or system is being evaluated. Thus, evaluators should try to be aware of innovative as well as traditional techniques which can be used. Dwight Allen, for

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[863]Jack R. Frymier, "Curriculum Assessment--Problems and Possibilities," Educational Leadership, Vol. 24 (November 1966), p. 128.

instance, has discussed a "Comprehensive Achievement Monitoring (CAM)" evaluation model which "can provide a motivation to change" by identifying in detail how well students have achieved specific behavioral objectives.[864]

Matrices, including two-dimensional grids, can be useful in seeing readily the relationships among a quantity of variables within a delimited context. The 2,205-cell "Media for Learning Strategy" matrix in The Teacher's Handbook[865] is a good example.

Systems concepts for identifying variables and flows in a comprehensive overview, such as the one described in 1970 by R. F. Mager and Peter Pipe,[866] can be helpful, too. Mager and Pipe, incidentally, included a beautifully laconic suggestion[867] to motivate the making of evaluation-derived change: "Does performance as desired matter to the performer?" No? "Arrange consequence."

Summation of the Literature

As has been noted, the literature about teacher education is extensive. It covers a spectrum of criticism, praise, and proposals.

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[864]Dwight W. Allen, "Stimulating Change in Instructional Systems Through New Evaluation Techniques" (paper presented at the American Educational Research Association annual meeting, March 1970, Minneapolis, Minnesota), 4 pages. The quoted phrase is from page 4.

[865]Dwight W. Allen and Eli Seifman, editors, The Teacher's Handbook (Glenview, Illinois: Scott, Foresman and Company, 1971), pp. 232-233.

[866]Robert F. Mager and Peter Pipe, Analyzing Performance Problems, or 'You Really Oughta Wanna' (Belmont, California: Fearon Publishers, 1970), 111 pages.

[867]Ibid., pp. 77, 70 (in that order).

It is an education in itself.

Although only a sampling of the ideas, information, and professional conclusions has been included in this chapter, several aspects can be identified.

For example, problems. In no particular order, and by no means comprising a complete list, these include:

--An insatiable demand for more and better research.

--A lack of adequate recruiting and screening.

--A need for more adequate counseling and individual program advisement.

--Still, too often, the existence of the liberal arts-education dichotomy.

--A need to improve the quality of student teacher supervision.

--The identified gap between student performance in a teacher preparation program and subsequently in live teaching situations.

--A need to improve the as yet spotty quality of professional education courses and other instructional/learning experiences.

--A lack of a continuing education program for teachers (i.e., from teacher candidacy to retirement).

Other advocacies or developments identifiable with regard to teacher education include:

--Calls for higher teacher education standards.

--More and earlier practical teaching experience. (The literature on student teaching alone is vast, and most

of it seems to favor that experience.)

--Greater utilization of technological developments (e.g., computers), but slowly. They're costly.

--Encouragement of new models of teacher education. (The very recent proliferation has been helped by allocations of federal monies.)

--Improved dissemination of educational information. ERIC is a notable example, but educational publications have broadened their coverage, too.

--A general agreement that a teacher education program should have three major areas: general education, specialized education, and professional education.

--Considerable support for the idea that teacher preparation institutions should encourage truly individualized instruction.

--Extension of the time (four years) usually required for a bachelors degree and teaching certification to be obtained. (Nevertheless, advocacies for a fifth-year and graduate programs are largely beyond the scope of this dissertation. The decision was part of an attempt to keep this dissertation's advocacies within current Kansas State University administrative parameters for undergraduate programs at least as a transitional device, depending on the extent to which innovation is allowed, even encouraged, by the faculty and the administration.)

--Continuous and sophisticated evaluation as a necessity for

teacher education and teacher preparation programs.

--Identification of the characteristics of "good" teachers and teaching, if such can be acceptably defined. [The author's definition of "good" teaching would be: Humanistically effective in guiding one or more students toward learning--acquisition and internalization of knowledge of facts, concepts, and insights about self and world, and their interrelationships--in order to continue growth toward maturity (the fullest humanistic development of self with regard to others) and wisdom (the conscious knowledge or awareness of how and when to act effectively--including deliberately not acting when that seems best--based on comprehension of the existence, characteristics, and interrelationships among the variables present directly, indirectly, or potentially in any given situation). It would follow, then, that a "good" teacher would be a person who was effective in implementing that definition in ways that encouraged a student's positive growth.]

Characteristic Factors

To increase his comprehension of the characteristics and status of teaching in the United States, a teacher candidate might well seek out histories and overviews about the development and current state of American education. Several historical references and overviews

have been mentioned earlier in this dissertation.[868] Another, succinct and recent, is Edward Ladd's discussion in The Teacher's Handbook.[869]

A varicolored thread running through American education has been Purpose, or at least the different purposes of individual educators ranging from ego-fulfillment to providing society with skilled, employable persons to high ideals, such as Dewey's with regard to schools, here summarized by Carmine Yengo:

> As John Dewey visualized the role of the school, "It was to become the means by which American society would be gradually liberalized until the full development of each individual personality was a possibility. Using the experimental method of science as both form and content, the school would produce a society of intelligent, socially conscious, and socially responsible citizens who would not fear to reshape old values in the light of present problems and future directions."[870]

A teacher who can help a school achieve such ideals as Dewey's would have to be well versed in professional competencies. And, as Walter Beggs has declared, "From the outset, it should be made perfectly clear that the professional competencies must be built upon a solid foundation of knowledge and a tough scholarly acumen that leaves no doubt as to the superior intellectual qualities of the person involved. Beyond this base of knowledge and highly developed intellectual capacity, three major interlocking competencies will be

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[868]See, for example, in this chapter, above, footnotes 1, 3, 8, 10, 11, 19, 21, 30, 37, 39ff, 61, 64, 67.

[869]Edward T. Ladd, "The Education of Teachers," in The Teacher's Handbook, Dwight W. Allen and Eli Seifman, editors (Glenview, Illinois: Scott, Foresman and Company, 1971), pp. 4-16.

[870]Carmine A. Yengo, "John Dewey and the Cult of Efficiency," Harvard Educational Review, Vol. 34 (Winter 1964), p. 45.

necessary: the ability to achieve synthesis, the ability to execute coordination, and the ability to serve in a catalyst role."[871]

In short, he should be an educated man able to help others become educated. Thoughtful journalist Smith Hempstone has caught the significance of "educated" in the prerequisite sense: "Newman, in the preface to his 'The Idea of a University,' holds that the educated man is distinguished by the 'comprehensiveness and versatility of (his) intellect' and by 'an instinctive just estimate of things as they pass before him.' . . . What Newman implies is that the educated man is one with a sense of place, a feeling for history, a knowledge of his relationship to other men and to those forces, at once elemental and mysterious, which surround him. . . . As the philosopher Eliseo Vivas points out, 'if a man lacks a picture of the universe, he is forced to accept the incomplete, incoherent, uncritical notions current in the world.'"[872] Unfortunately for the prerequisite sense, as Hempstone further noted, ". . . while a much-schooled man may surmount all obstacles to become an educated person, an unending process which Newman describes as 'commonly not gained without much effort and the exercise of years,' it is unlikely that he will do so."[873] The implication is that most individuals will not be willing to make an effort great enough to overcome sometimes overwhelming

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[871]Walter K. Beggs, The Education of Teachers (New York: The Center for Applied Research in Education, Inc., 1965), p. 106.

[872]Smith Hempstone, "Training, Education Differ," The Wichita Eagle and Beacon, Wichita, Kansas, Saturday, June 12, 1971, p. 7B.

[873]Ibid.

social pressures based primarily on ignorance and/or on specialized interests not always compatible with interests beneficial to society generally.

Cooperation for achievement.--The consensus of the literature about practical experience for teacher candidates is that it can be quite valuable. To achieve it, the schools must be involved. As Paul Woodring acknowledged in 1955, "Even the best possible program of teacher education cannot produce beginning teachers who are fully competent in their work. The public school system must accept a considerable amount of responsibility for on-the-job supervision and training of beginning teachers."[874]

One recent program to increase both school and university competency for such responsibility is the U. S. Office of Education-funded "Triple T" Project, with the TTT standing for Trainers of Teacher Trainers. As Vivian Gellman has described it,

> The three levels of teacher training, or targets of the TTT Project, are distinct, but not isolated, from one another. Single T's are conceived as preservice students including interns or novice teachers in their first year of teaching. Double T's are experienced teachers who serve as cooperating teachers training single T's during their practice teaching. Double T's include those who participate in implementing innovations which involve teacher retraining activities within the school or district. Triple T's are those who have been identified as the Trainers of Trainers of Teachers and include doctoral candidates and professors in the department of social sciences and in the foundations areas.[875]

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[874]Paul Woodring, "Basic Agreements in Teacher Education," Journal of Teacher Education, Vol. VI (June 1955), p. 99.

[875]Vivian Gellman, "To Effect Change in Teacher Preparation," Educational Leadership, Vol. 28 (April 1971), pp. 707-708.

School-University cooperation works both ways (or at least it can and should). For example, in a passage generalizable to most basic disciplinary areas, Donald Cole and Thomas Pressley pointed out that

> Secondary School Teachers, meanwhile, can improve the quality of history teaching in colleges and universities in several ways:
>
> by making college teachers aware of the new methods of teaching that have been so successful in the high schools.
>
> by helping college teachers understand the values and attitudes of the young people, so many of whom are bound for college.
>
> by suggesting ways in which the colleges can avoid the dull and pointless repetition of history courses already given in high schools.
>
> by helping colleges and universities with their programs of teacher training.[876]

Other considerations.--Along with the many considerations about teacher education already included in this chapter, some others with general applicability should be mentioned. Kenneth Winetrout, for example, who has defended the four-year sequence, also is among the advocates of flexibility and pluralism in teacher education programs.[877]

A host of considerations ranging from Willard Spalding's broad overview to descriptions of a number of specific practices and proposals were presented in the report of the 1963 NCTEPS conference in

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[876]Donald B. Cole and Thomas B. Pressley, Preparation of Secondary-School History Teachers (2d ed.; Washington, D. C.: The American Historical Association, 1968), pp. 25-26. This pamphlet was written for the Association's Committee on Teaching.

[877]Kenneth Winetrout, "In Defense of the Four-Year Program in Teacher Education," Phi Delta Kappan, Vol. XLIV (January 1963), pp. 183-184.

Columbus, Ohio.[878] The use of television, experimental learning centers, a Nature of Man sequence, cooperation between arts and sciences professors and teacher educators, research-oriented courses--these were but a few of the topics discussed.

Occasionally publications have established teacher education as the theme of a single issue. One example was the December 1967 issue of Theory Into Practice, in which a number of issues and problems were explored and advocacies presented with regard to "Teachers We Need."[879] The titles (and authors) of the articles included indicate the aspects considered: "Teachers We Need" (Charles M. Galloway), "A Search for Relevancy" (Don Davies), "Professional Education: The Discipline of the Act" (Arthur W. Foshay), "The Need for a New Breed" (Walter J. Mars), "The Long View of Teacher Education" (Donald P. Cottrell), "A Curriculum to Produce Career Teachers for the 1980's" (L. O. Andrews), "Redefining the Role of the Teacher" (Robert Bush), "Preparing Tomorrow's Teachers" (George W. Denemark), and "The Teacher Education We Need" (Kimball Wiles). All are provocative.

Another "theme" issue was the April 1971 Educational Leadership: "Teacher Education: To Transmit? To Transform?"[880] Considerations

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[878]National Commission on Teacher Education and Professional Standards (NCTEPS), Changes in Teacher Education: An Appraisal (Washington, D. C.: NCTEPS, National Education Association, 1964). Official Report of the Columbus Conference, The Ohio State University, Columbus, Ohio, June 25-28, 1963. Spalding's overview is on pp. 37-49. See also the reference on pages 91-92 of this dissertation.

[879]"Teachers We Need" (issue theme), Theory Into Practice, Vol. VI (December 1967).

[880]Educational Leadership, Vol. 28 (April 1971).

included a humane orientation, innovation, aspects of objectives, and the condition of ambiguity.

Many authors have acknowledged that teacher education must keep abreast of change in other academic areas and technological spheres. Glaydon Robbins was one who felt that such change required major modifications in teacher education.[881]

Perhaps the consistent achievement of ideal teacher education goals would be "change" enough, since that seems to be rather rare. What should such goals be? A number can be identified or derived from the literature cited above, and many--as curricular guidelines--are included in Chapter III. One of the most succinct broad lists in the recent literature, however, is that of Louis Fischer of the University of Massachusetts. Professor Fischer cautioned that the list is neither all inclusive nor applicable to every educational context. But, generally, he felt, professional teacher education should include all or most of 12 kinds of academic and other experiences. Three encompass a liberal education, knowledge of human growth and development, and awareness of the process of learning and different theories of psychology. Also advocated are

> --an understanding of the principles and methods of educational research--at least to the point of being an intelligent consumer of research findings;
> --some in-depth study of the culture (with its values, beliefs, etc.) which education is designed to perpetuate;
> --an understanding of important behavioral differences that result from relying on authority, tradition, intuition,

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[881]Glaydon Robbins, "The Impact of Current Educational Change," The Journal of Teacher Education, Vol. XX (Summer 1969), pp. 182-187.

> "common sense," revelation, or tested experience for knowledge, truth, or values;

The teacher candidate also should be aware of curriculum, both in the broadest sense and as particular aspects relate to his age specialization, Fischer stated. Naturally, methodology and materials should be a part of the preservice preparation. And the program should encourage

> --experimentation in working with students in a variety of learning situations under the guidance of experienced professionals;
> --experimentation in learning to handle oneself in a number of contexts--with teaching colleagues, administrators, and various members of the lay public, as well as parents and children;
> --an acquaintance with a range of journals, newsletters, official publications, and organizations; and
> --knowledge of ways and means of gaining further knowledge about subject areas, about children and youth, and about the community--some learning in learning how to learn.[882]

The Concept of 'Competence'

As has been mentioned earlier in this dissertation,[883] there seems to be little agreement among educators as to what characteristics are held in common by "good" or "competent" teachers. Different teachers with different styles and perhaps varying methodologies apparently can be equally effective with students, or at least a certain style might be effective with student group A but not group B, whereas a different style might reach group B but not group A.

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[882]The entire list may be found in Dwight W. Allen and Glenn W. Hawkes, "Reconstruction of Teacher Education and Professional Growth Programs or How The Third Little Pig Escaped The Wolf," Phi Delta Kappan, Vol. LII (September 1970), p. 12.

[883]See, for example, pages 143-144, above.

This indicates that a teacher preparation program might well increase two emphases with regard to each teacher candidate: truly individualized curricula tailored as closely as possible to each one's personal style, and institutional development of each TC's awareness of and competence with a wide range of methodologies based on contextual knowledge and students and school situations. Planning for such a program, in the words of William Ragan and George Henderson, "will begin with an effort to identify the truly professional tasks that teachers are expected to perform in school systems. It will then plan to provide students with experiences that will help them develop the competencies needed in the performance of these tasks."[884]

But how best to develop such competencies compatibly with a teacher candidate's individual characteristics? ". . . If we are going to individualize instruction," William Drummond has declared, "we must apply systems theory to it. We have to apply a rational, systematic approach based upon behavior."[885]

Of course, such an approach, if carried to extremes, has a built-in danger: humaneness, with its capacity to acknowledge and develop human worth within an extensively variable-complex universe of individuals' differences and skills, can be sacrificed to impersonal

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[884]William B. Ragan and George Henderson, "Prospects for the Future of American Education," School and Society, Vol. 98 (March 1970), p. 187.

[885]William Drummond, "The State of Washington: A Case Study," Teacher Education Issues and Innovations, Twenty-first Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968), p. 175. See also pages 131-139 and 279-289 of this dissertation for mentions of systems approaches applicable to teacher education.

quality in accomplishment of relatively narrowly established objectives. "If the human dimension of the teacher can be reduced to a mechanistic efficiency, then perhaps our enemies are right and we are wrong," as John Harold has commented.[886]

That caveat therefore should be kept in mind when developing a teacher education program which ". . . undertakes the educative change of behaviors that will affect the performance and the products that come out of education personnel."[887]

As has been acknowledged, and despite occasional problems, ". . . it is clear that the practice of providing professional laboratory experiences to prospective student teachers is meeting with a high degree of success and acceptance. Although it takes various forms, the practice is becoming an established part of the curriculum. It is held in high esteem by students, cooperating teachers, and building principals alike," reported J. R. Henry and I. N. Bowman late in 1971.[888] They were reporting the results of a survey of Kansas

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[886]John W. Harold, "The Job Nobody Knows" (Des Moines: Iowa State Education Association, undated brochure), cover.

[887]Laurence D. Haskew, "Priorities for Teacher Education," Reality and Relevance, Today's Agenda for Teacher Education, Twenty-second Yearbook (Washington, D. C.: The American Association of Colleges for Teacher Education, 1969), p. 132. Haskew's discussion (pp. 129-134) also includes a good, if brief, description of the growing impact of the Educational Professions Development Act (EPDA) and the Bureau of Education Personnel Development in the larger context of federal involvement with education.

[888]James R. Henry and Dr. I. N. Bowman, "A Report of Professional Laboratory Experiences Conducted by Education Departments of Kansas Colleges and Universities," Fall Newsletter--1971-72 of The Association of Teacher Educators--Kansas Unit, p. 6. Published at the Kansas State Teachers College, Emporia.

institutions having teacher education programs, but the literature in general indicates that their conclusion would be valid for programs in other states as well.

Student teaching and courses in education have been advocated for decades, again as has been acknowledged. Of one set of (even then) relatively traditional program recommendations--that of The Committee on Teacher Training of the National Council of Independent Schools, reported in 1958--Mark Neville observed sweepingly:

> They not only represent an immeasurable improvement over the defensive scoffing one often hears behind the private barricades; but they embody genuine wisdom, a recognition of the fact that teaching is too serious a business to be left in the hands of amateurs--even gifted ones--and a fine perception of the extent to which teacher training provides a common ground for independent and public schools to enlarge their understanding of each other for the welfare of our society.[889]

The emphasis in the foregoing passage is Neville's own. Does it hold up now, a decade later? Most teacher educators would like to think so. Yet in 1965 Ethel Miller concluded "that there is no relationship between the professional courses of teachers and their effectiveness," or at least that she found no such relationship in her study.[890]

And in 1971, after analyzing a series of similarly oriented investigations, W. James Popham concluded that "Experienced teachers

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[889]Mark A. Neville, "We can all be right," Teachers College Record, Vol. 62 (March 1961), p. 446.

[890]Ethel Beryl Miller, "The Relationship of Professional Courses to Elementary School Teacher Effectiveness," Dissertation Abstracts, 26: 6449, May 1966. (George Peabody College for Teachers, 1965.)

are not particularly skilled at bringing about specified behavior changes in learners."[891] Of course, he declared:

> We should not be surprised that teachers are not skilled goal achievers. Certainly they have not been trained to be; teacher education institutions rarely foster this competence. Nor is any premium placed on such instructional skill after the teacher concludes pre-service training. The general public, most school systems, and professional teachers groups rarely attach special importance to the teacher's attainment of clearly stated instructional objectives.
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> * * *
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> But while it may be true that experienced teachers in general--and there are obviously notable exceptions--are not particularly proficient in promoting learner attainment of specified instructional objectives, this is a totally unacceptable state of affairs. Every profession worthy of the name derives its professionalism precisely from the fact that its members possess a special expertise not present in non-members of the profession.[892]

As at least one way of correcting this situation, Popham suggested establishing clinics in which teacher candidates and teachers could take practice-oriented teaching performance tests, then improve their competency after internalizing the analyses of the tests' results. Such analyses should be based on how much student learning has measurably taken place and should not be punitive, he stressed.

In clinics and in other situations, teacher candidates can demonstrate competency through performance, and this realization is already having an impact on teacher education. And there is a widening linkage with the concurrently developing national emphasis on educational accountability. "'If we buy the argument that schools

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[891] W. James Popham, "Teaching Skill Under Scrutiny," Phi Delta Kappan, Vol. LII (June 1971), p. 601. Italics are Popham's.

[892] Ibid.

are indeed accountable for the educational attainment of students coming up through the system, and I think we must,'" Bill Smith told a national conference in 1971, "'then performance-based certification is . . . in fact the starting point.'"[893]

Guidelines for determining specific competencies are a major developmental problem, according to a survey by the New Careers Development Center at New York University, Education U. S. A. reported early in 1971. Most programs "are trying to pinpoint how to measure a good teacher--what skills are needed to facilitate learning."[894]

In any event, Arnold Moore reported after attending the National Institutional Conference on Performance Based Teacher Education at the University of Houston May 24-27, 1971,

> A. There seems to be a strong and rapidly developing movement toward performance-based teacher education and certification and there is every evidence that the majority of the states will be adopting this approach in the not too distant future. Impetus for the movement is emanating from several sources including legislatures, citizens groups, USOE, Teacher Corps, professional organizations and state departments of education. Florida has legislation making such an approach mandatory by 1974. Washington, Minnesota, Texas, New York, and California are also making considerable progress toward performance-based certification. Michigan, Oregon, West Virginia, Utah and Tennessee are other states giving serious consideration to this approach. The Kansas State Department of Education had a representative at the meeting.
> B. Only one institution, Weber State, has made a complete

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[893] "Performance-Based Teacher Education, Certification," Phi Delta Kappan, Vol. LIII (October 1971), p. 137. At the time, Smith was the acting Associate Commissioner for Educational Development, the U. S. Office of Education.

[894] "News Front," Education U. S. A., March 22, 1971, p. 2.

change of their teacher education programs. Many others have used the approach of changing certain components of the program.

C. There appears to be less and less differentiation between the experiences provided for elementary and secondary teachers.

D. The desired competencies are being determined by a coalition of representatives from professional organizations, teacher educators, classroom teachers, administrators, educational leaders, citizens groups which include parents, legislators and students, and state departments of education.

E. A performance-based approach to teacher education and certification (initial and renewal) implies new directions for teacher education institutions as to the kinds of courses and experiences that will be provided. The acquisition of credit hours per se will become increasingly less important and the university efforts will need to be much more clinical and field centered in nature.

F. There will be a very real problem concerning reciprocity of teacher certification between and among states.[895]

The Role of Research

As noted, the search for what constitutes "good" teaching, so that "competence" can be identified, continues. No doubt continued research eventually will begin to indicate answers. Such interim summaries as those cited on page 68 of this dissertation (by the AACTE, C. W. Harris, and N. L. Gage) and one by F. R. Cyphert and E. Spaights[896] will always be helpful.

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[895]Arnold J. Moore, "Recent developments and information," Memorandum to Curriculum and Instruction Faculty (Manhattan, Kansas: College of Education, Kansas State University, June 10, 1971), pp. 2-3. (Mimeographed.)

[896]Frederick R. Cyphert and Ernest Spaights, "An Analysis and Projection of Research in Teacher Education" (Columbus, Ohio: The Ohio State University Research Foundation, 1964). (ERIC ED 003-399.) Included are an annotation of research in education to 1964, an evaluation of the status of research in teacher education, and projections of such research.

Research deficiencies exist with regard to curriculum development, too, and that includes teacher education curriculum. E. C. Short acknowledged in 1965 that "Unsolved problems of research methodology are a large part of the reason for the present unhappy state of affairs in curriculum research."[897] He identified a "need for theoretical frameworks on interrelated systems of concepts that encompass an entire phenomenon" as one requisite for improvement.[898]

Why might theory be important? To quote Kelly Duncan and Jack Frymier, "Theory gives a researcher a place to stand while he observes. A theoretical orientation provides the person doing research with a framework within which and against which he can observe, test, and interpret his observations." Duncan and Frymier postulated two possible areas of research with regard to teacher education: "those which are essentially basic studies . . . and those which are primarily applied." Basic studies cover time and causal factors involved with individual and group cognitive, affective, and psychomotor characteristics, while applied studies would involve aspects of selection and "training" of teachers. The two educators described a three-dimensional "syntactical" model designed to identify a few of the teacher education research possibilities and to help researchers generate their own ideas for study projects.[899]

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[897]Edmund C. Short, Formal Criteria For Curriculum Proposals (Ann Arbor, Michigan: University Microfilms, Inc., 1971), p. 161. (Ed. D. dissertation, Teachers College, Columbia University, 1965).

[898]Ibid., p. 162.

[899]James K(elly) Duncan and Jack R. Frymier, "Research in

A major problem with regard to both research discoveries and innovative developments (in hardware, software, and/or methodology) is the relatively long time too often elapsing before they are or can be implemented practically. With regard to research, "The time lag between the generation of ideas and knowledge and their dissemination must be eliminated," declared Joel Burdin in 1968.[900] Eliminated or at least considerably reduced, and of course that is what ERIC--the Educational Research Information Center--is designed to do.

Research dissemination is one thing; innovations are something else. "Many of the highly recommended and publicized educational innovations of the past decade have never reached the classroom. That is the conclusion of a new study of 67 schools in 13 states by John I. Goodlad, dean of the Graduate School of Education at UCLA, and educational psychologist M. Frances Klein," reported Education U. S. A. early in 1971. "The study, published in paperback as Behind the Classroom Door (Charles A. Jones Publishing Co., Worthington, Ohio 43085; 120p; $2.75), measured 150 K-4 classrooms . . .," but the researchers found few teachers or principals who understood the innovations (e.g., use of objectives, individualized instruction, group discussions, flexible evaluation standards) to any great extent. Among its recommendations, the study advocated revamping teacher edu-

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Teacher Education: A Syntactical View," The Journal of Teacher Education, Vol. XI (September 1960), pp. 357-364. The quotations are from pages 357 and 358.

[900]Joel L. Burdin, "The ERIC Clearinghouse on Teacher Education--First, a Wish--Now, a Way" ("Editorial Comments"), The Journal of Teacher Education, Vol. XIX (Fall 1968), p. 276.

cation programs thoroughly "so teachers graduate with teacher skills" that include being aware of, able to, and willing to use educational innovations.[901]

(It is interesting to compare the Goodlad-Klein report with the considerably more glowing observations of R. O. Nystrand and L. L. Cunningham with regard to the importance of teacher education to successful school programs:

> In this area, the outlook is particularly bright. Stimulated by general public concern for the problem of disadvantaged children in school settings and encouraged by government and foundation support, many teacher education institutions have reassessed their programs. As a result a growing number of teacher education programs are placing greater emphasis than ever before on understanding student and community values and on making education relevant in that context. Schools and teacher education institutions are working more earnestly than ever before to blend theory and practice in reality-based programs. These changes have benefited graduates seeking positions in suburbia as well as those going to inner-city posts.[902])

And What Of The Future?

Most undergraduate higher education programs probably actually prepare students for a future of from one to five years after graduation; beyond that--barring continuing education--they are on their own. Teacher education programs, however, should be considered as preparing teacher candidates for one to 20--even up to 30--years after graduation in terms of skills and desires to analyze, synthesize,

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[901]"Innovations Fail To Reach Classroom, Study Says" Education U. S. A., February 8, 1971, p. 121. The emphasis is the article's.

[902]Raphael O. Nystrand and Luvern L. Cunningham, "Organizing Schools To Develop Humane Capabilities," To Nuture Humaneness: Commitment for the '70's (Washington, D. C.: Association for Supervision and Curriculum Development, 1970), p. 130.

and learn, and teach others to analyze, synthesize, and learn. Aside from general societal considerations, the average college student has need to think primarily of himself or herself and perhaps ultimately a family he or she might raise. But the elementary or secondary teacher candidate must realize that he or she will be teaching many young children and adolescents who may never again have the opportunity in a formal setting to gain the comprehension skills and socialization internalizations so necessary to rise above mere survival in our society.[903]

Thus the long-range aspect of time should be a consideration in teacher education program development.

But time is linked with recruitment, for many people--including students--cannot seem to comprehend the long-range aspect until they have attained a certain cognitive and affective maturity. Selective recruitment and screening, coupled with sophisticated, humane, individualized, continuing advising and counseling, can provide a tremendously strong complement to the institutional and curricular phases of a teacher education program.

(And good teachers are still needed. The Wichita Eagle reported in November 1971 that "Despite the announced oversupply of teachers following 1971 commencements, shortages of specialized teachers were reported across the nation."[904] Beyond that, attrition alone will provide a continuous number of openings for the "nonspecialized"

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[903]See, for example, pages 173-176, above.

[904]"Teacher-Field Enrollees Drop," The Wichita Eagle, Friday, November 26, 1971, p. 5B.

teachers of English, mathematics, social sciences, natural sciences, and so forth. Also, the oversupply may turn out to be less than expected. The same Eagle article reported that "There may be fewer teachers and more businessmen among future graduates of state colleges and universities if a trend revealed in the 1971 American Association of State Colleges and Universities survey holds true. Students are said to be withdrawing from education programs and moving to other major studies. Of the 153 responding institutions, 33 reported significant decreases in the numbers of students with education majors."[905])

The identification of opportunity.--Teacher education in the United States has come a long way in the past 200 years, even in the past 20 years, the literature indicates. Many organizations--the Association for Supervision and Curriculum Development (ASCD), the Association of Teacher Educators, the National Commission on Teacher Education and Professional Standards (NCTEPS),[906] the American Association of Colleges for Teacher Education (AACTE), and others--and many individual educators have worked hard to reconcile differences, exchange ideas, develop and encourage innovation. But much remains to be accomplished.

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[905] Ibid.

[906] I.e., the late NCTEPS. On September 1, 1971, the National Education Association (NEA) created a new Division of Instruction and Professional Development by merging NCTEPS, the Adult Education Service, the Center for the Study of Instruction, and the Division of Educational Technology, according to the American Association of Colleges for Teacher Education AACTE Bulletin, Vol. XXIV (September 1971), p. 8.

Three sources--Edward Ladd, the ASCD, and the federal government's Task Force '72--recently identified a number of the as yet unresolved problems and issues.

Ladd, in The Teacher's Handbook, listed six "nonissues in the educating of teachers" and implied or stated that substantial agreement had been reached in all: (1) "What are the elements of a good curriculum? By 1970, most of the argument about these elements had come down to secondary rather than basic questions . . ." (2) "Should the educating of teachers be an interdisciplinary enterprise?" Yes. (3) "Must colleges and school systems share the job?" Yes. (4) "Does preparing a teacher take four years or five?" It can vary--and never really cease. (5) "Should teacher education abandon moralism for inquiry?" Yes, especially in practice. (6) "Should we make more use of case materials and simulation?" Definitely.[907]

Ladd also posed and discussed "three difficult questions for the years just ahead." (1) "How much variation between programs preparing for the same kind of position is good? And, a related question, to what extent should teacher education policies be made nationwide, statewide, or by each institution?" (2) "How independent should the professionals be, and how responsive to the public?" (3) "What should be the balance between engineering and open systems?"[908]

ASCD, through the medium of a Position Paper prepared for its

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[907]Ladd, "The Education of Teachers," op. cit. (see footnote 869, above), pp. 12-13.

[908]Ibid., pp. 13-14.

1970 annual conference, raised questions of somewhat more specific orientation:

> How can teachers be better prepared for assuming a larger responsibility in curriculum planning and greater autonomy in the selection of instructional materials?
>
> How is the experiential element in teacher education best provided? And what are the chief ends?
>
> Is an undue emphasis being placed on skills and practice in new programs of teacher education? Does the development of the teacher as a person need a larger place?
>
> * * *
>
> What new skills are needed by teachers as they share responsibility for planning together for a larger group of students?
>
> What skills are needed for working with paraprofessional and auxiliary personnel?
>
> Is debate still in order about the balance of time between general and professional education? Is more time needed for the adequate education of teachers?
>
> What problems arise as teachers are educated to become members of the larger community of scholars?[909]

Task Force '72 did not present questions. Formed in November 1970 by the Bureau of Educational Personnel Development of the U. S. Office of Education, the Task Force was--is--"an 18-member panel representing all the major USOE training programs," according to the September 1971 AACTE Bulletin. Among the major national educational problems identified by Task Force '72 as involving teacher preparation were:

> Lack of a total systems approach to teacher education. There is no comprehensive plan for educating a teacher from preservice training until retirement.
>
> School/University/Community trichotomy. Relations among these important educational constituencies are, at best,

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[909]Association for Supervision and Curriculum Development, "The Generation of New Understandings: A Program of Study and Action," A Man for Tomorrow's World (Washington, D. C.: The Association, 1970), pp. 52-53.

often random or incidental and are frequently nonexistent.

Need for more relevant training settings . . . .

Lack of universally accepted criteria for good teaching . . . .

Accountability . . . [hopefully by improved statements of program concepts and increased "specificity of program objectives . . ."].

* * *

The need for feedback and adjustment (renewal) systems in most training programs.

* * *

Practitioners should be included in program and materials development, implementation, and evaluation . . . .

Practitioners should be provided faster and more ready access to proven new education developments. It has been estimated that the time gap between the cutting edges of knowledge and its final transfer into the classroom is 30 years . . . .

There is a need for materials more specifically directed at improvement of the teaching process . . . .[910]

In developing a strong teacher education program, cooperation among different individuals is a necessity. Within most campuses with such a program, the call for years--reflected in the literature[911]--was for increased cooperation between faculty members of the college or department of Education and those of the college of Arts and Sciences. Ellsworth Statler did warn that "The teacher education program should be watched over by the faculty of a college of education,"[912] and probably that would be sufficient where all participants generally continued to agree upon and work to achieve consonant kinds

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[910]"Task Force '72 studies national needs," AACTE Bulletin, Vol. XXIV (September 1971), pp. 7-8.

[911]See, for example, pages 65-67, 74, 77, 84 of this dissertation. See also the discussion by James Bryant Conant in The Education of American Teachers (New York: McGraw-Hill Book Company, Inc., 1963), especially pages 123-142, although he writes directly and indirectly with regard to the point in several places in the book.

[912]Ellsworth S. Statler, "Some Principles for Teacher Education," The Journal of Teacher Education, Vol. XIII (March 1962), pp. 16-17.

of knowledge and quality as ethical and practical program goals for teacher candidates. A major problem, however, is that Arts and Sciences faculty and administrators too often tend to see their own direct interests as not really compatible with orientations outside their academic areas, which can considerably inhibit program cohesiveness for linked professional preparations such as teacher education.

Two major ways of changing this situation for the better are--separately or in combination--persuasion and power. Persuasion can be effective where interest and willingness to cooperate are present and are not offset by direct-interest or other valued reasons of greater weight. Power can be effective where it involves force or fear; it is of course most effective when it persuades persons that they, too, would benefit from positive involvement.

Of course, as Willard Spalding has noted, "A plan for change in teacher education should call for careful assessment of existing centers of power and of their probable effect upon change."[913] Spalding also referred to "new combinations of strengths,"[914] an idea certainly compatible with the long-expressed ideal of a "university-

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[913]Willard B. Spalding, "Evaluation of Proposals for Change in Teacher Education," Changes in Teacher Education: An Appraisal (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1964), p. 47. Official Report of the Columbus Conference, Eighteenth National TEPS Conference, The Ohio State University, Columbus, Ohio, June 25-28, 1963.

[914]Ibid.

wide . . . cooperative effort"[915] by Arts and Sciences and Education faculty members to educate teachers.

But what if such cooperative effort just does not exist? Should primary control--primary responsibility--change? NCATE--the National Council for the Accreditation of Teacher Education--has been one of the organizations most strongly advocating the shared-responsibility-for-teacher-education concept. But the warmth and effectiveness of such relationships apparently has been spotty, down through the years. As a result, according to S. R. Keys, NCATE's orientation is now shifting to the idea of strengthening professional control--that is, that all of a campus' education programs be placed under the control of the college or department of Education.[916] It will be interesting to see if this move succeeds widely.

Guidelines Identifiable

Despite the acknowledgements that problems do exist, acceptable and appropriate curricular elements and guidelines for a teacher preparation program can be derived from a study of the literature. A total of 32 such curricular elements are described in Chapter III in a context that includes relational and interdisciplinary perspectives as well as individual and institutional considerations.

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[915]Ellsworth Statler, "Some Principles for Teacher Education," op. cit. (see footnote 912, above).

[916]Statement by Samuel R. Keys, Dean, College of Education, Kansas State University, during College of Education faculty meeting, Holton Hall, January 12, 1972.

CHAPTER III

SELECTION AND SYNTHESIS OF CURRICULAR ELEMENTS

Curriculum was earlier defined as "the program of planned and organized activities in an educational institution or setting which are designed to bring about intended learnings."[1] Curricular program, in turn, was described as "A specific plan of procedure involving implementation of a curriculum."[2]

Yet since by definition the program aspect connotes a high degree of at least durational specificity, and since the concept of "curriculum" is strongly subject to forces generated by the usually closely related factors of change and human variables, curriculum in the larger sense should always include the strength of flexibility.

One way flexibility can be provided is by structuring each "constituent part of a curriculum"[3]--each "curricular element"--to be as much as possible sequentially interchangeable with other curricular elements, either individually or in a group of such elements. Flexibility is also inherent in the concept of "curricular guideline,"[4] which can include large groupings of such elements.

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[1] Page 32 of this dissertation.

[2] Page 31 of this dissertation.

[3] Ibid. [4] Ibid.

As noted at the end of Chapter II, curricular elements and guidelines for teacher preparation can be derived from the literature. In the following sections of this chapter, the 32 curricular elements which have been so derived will be considered from the standpoints of their part of a teacher education curricular overview, their criteria for selection, their function in one of four "areas" (Foundation, Concentration, Application, Situation), and their importance in the development of curricular guidelines for teacher preparation.

The Professional Teacher Education Program in Perspective

In one broad sense, a professional teacher education program can be considered as a "one-two-three-four" package. It involves one curriculum (teacher education) designed to meet two sets of requirements (degree/professional, and certification) by relating and synthesizing three programs (general, specialized, professional), with the last--professional--encompassing four "areas" (Foundation, Concentration, Application, Situation). All of the programs can be considered as having curricular elements, but since this dissertation is concerned primarily with the aspect of professional preparation, only the 32 such elements derived from the literature as directly pertinent to the professional aspect have been considered herein.

The Curricular Elements' Three Kinds of Contexts

Not all of the 32 elements were derived or developed with a clearly evident indication as to in what kinds of context they fit.

Yet, upon reflection, they fell readily into three kinds, all related to each other: "areas," perspectives, and primary orientations.

The "area" context.--One context, involving functional characteristics, includes four already-cited "areas": Foundation, or broad educational preparation to increase understanding of self and society. Concentration, or specialized educational preparation to increase understanding of a discipline-based focused and delimited aspect of self and society of particular interest to the teacher candidate. Application, or educational preparation and practice in simple and sophisticated methodologically-related techniques to develop competency in teaching and in encouraging learning. Situation, or the identification, establishment, and utilization of environments for the evaluatable practice and implementation of the Application elements to consider and present the Concentration elements in ways shaped or influenced by the Foundation elements.

The perspective context.--"Perspective" has been defined in one dictionary as "The aspect of an object of thought from a particular standpoint, as, historical perspective."[5] It is in this sense--this context--that many of the curricular elements should be considered, although different areas relate to different perspectives. For example, since the Foundation area is wholistically conceived, particularly with regard to the individual teacher candidate, its curricular

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[5]"Perspective," Webster's New Collegiate Dictionary (Springfield, Mass.: G.&C. Merriam Co., 1956), definition number 3, p. 629.

elements should be considered from humanistic and behavioral perspectives. Concentration area elements should be considered from specialized, discipline-oriented, or subject-oriented perspectives. Curriculum elements in the Application area by their nature should be considered from a methodological perspective, while those in the Situation area would involve an experiential perspective.

The primary orientation context.--Although curricular elements involve descriptions categorical (in the classificatory--not the absolute--sense), the elements themselves are not neatly specific. A modifiable set of specific and semi-specific performance objectives should be developed for each element as a prerequisite to practical implementation. Since educational objectives can be readily established in three domains--cognitive, affective, and psychomotor--these domains should be the foci of the primary orientation for the elements and objectives in three of the areas: Foundation, Concentration, and Application. Elements of the fourth area--Situation--will have objectives and implementations more involved with experiential concerns than with cognitive, affective, or psychomotor considerations per se, so their primary orientation should be environmental, distinguishing between real environments (e.g., ongoing school activities) and artificial ones (e.g., microteaching with peers as the "students").

Delimitation reminder.--The primary purpose of this dissertation is to identify curricular guidelines for undergraduate teacher preparation. Guidelines by definition are primarily constituted by groupings and interrelationships of identifiable curricular elements.

Thirty-two such elements have been identified. Specific descriptions of each element's objectives and/or components, particularly with regard to perspectives and primary orientations, are beyond the scope of this already long dissertation, however, since such specifics would require extensive additional research in directions different than those taken for this study. Therefore, no real attempt has been made to include such specific descriptions in this dissertation. The curricular elements themselves are described--by area--in four of the subsequent sections in this chapter.

The Curricular Overview

Seeing macrocomponents of a program in gross relationship to each other is one aid to comprehending that program. Here is a brief outline of the curricular overview context into which the 32 elements and their four areas fit:

ONE. DEGREE AND PROFESSIONAL REQUIREMENTS

I. GENERAL EDUCATION PROGRAM

(Required for breadth and balance.)

II. SPECIALIZED EDUCATION PROGRAM

(The teacher candidate's "major" and, if any, "minor" academic concentrations. The major can be concurrent with the Professional Education Program, as with Elementary Education.)

III. PROFESSIONAL EDUCATION (TEACHER PREPARATION) PROGRAM

A. FOUNDATION AREA

(With humanistic and behavioral perspectives, and with primary orientation of intended learnings in three domains: cognitive, affective, and psychomotor.)

1. Nature of education.
2. Aims of, and influences on, education.
3. Organization of educational systems.
4. Administration of educational systems.
5. Library and research proficiency.
6. Characteristics of self.
7. Characteristics of learners.
8. Process of teaching and learning.
9. Total K-12 awareness.
10. Familiarity with non-teaching human skills.
11. Proficiency in use of general resources.

B. CONCENTRATION AREA

(With subject or discipline perspectives, and with primary orientation of intended learnings on two levels--elementary and secondary--each in three domains: cognitive, affective, and psychomotor.)

1. Substantive generalizations.
2. Methodological generalizations.
3. Interdisciplinary considerations.
4. Development of skills.

5. Application of knowledge and skills.

C. APPLICATION AREA

(With primary orientation of experiences in three domains: cognitive, affective, and psychomotor.)

1. Definition of the problem.
2. Identification of objectives.
3. Planning.
4. Selection of learning resources.
5. Motivation.
6. Group involvement of students in learning (presentation: content and method).
7. Individualization of learning.
8. Evaluation.
9. Diagnosis of learning difficulties.
10. Improvement of learning-related (teaching) procedures.
11. Other considerations.

D. SITUATION AREA

(With primary orientation of situations in two categories: artificial and real.)

1. Structured situations.
2. Laboratory situations.
3. Clinical situations.
4. Semi-structured situations.
5. Practicum situations.

TWO. CERTIFICATION REQUIREMENTS

(As specified by a State or other legally constituted entity or organization empowered to set certification standards.)

An Institutional Orientation

All the programs and elements in this curricular overview are to be considered institutional, in the sense that there is or would be formal provision to make guided experiences available to teacher candidates. Naturally, more than one institution may be involved--e.g., university, college, school, state department of education.

Further, since the curricular elements could also be considered curricular interactions, as mentioned above, a modifiable set of objectives--curricular (e.g., course, modular) or performance (e.g., noninstructional, behavioral)--appropriate to each should be developed.

Criteria for Selecting the Curricular Elements

The more the author of this dissertation immersed himself in teacher-education-oriented literature, the more he realized that curricular guidelines have to be considered macroanalytically. The variables--institutional, human, abstract, ideal, actual--are simply too numerous and their relationships too complex to permit an accurate overview to be developed from study only of even selected microcosms appearing to exemplify generalized characteristics.

Almost inevitably, anyone attempting to comprehend the large view smoothly and continuously will be handicapped by frustrations, particularly because of the sheer quantity and diversity of the litera-

ture and the time required to study and synthesize it while keeping abreast of current developments. And yet, as Henry Hermanowicz has so well acknowledged,

> . . . despite the frustrations, macroanalytical approaches to teacher education must be undertaken simultaneously with microanalytical studies and experimentation. Improvement must be based on systematic overall analysis of teacher education programs; a coherent design for the total program, with clear rationale; and explicit means for evaluating significant outcomes. Otherwise, teacher education will continue to be an intellectual dust bowl of piecemeal innovations, polarized persuasive arguments with little substantiating data, and responsiveness to prevailing winds of fashion, without evidence as to the real significance and efficacy of the projects undertaken.[6]

With the broad view in mind, the author cast a wide net for curricular elements meriting affirmative answers to at least three of the following five questions ("it" refers to each curricular element):

1. Was the rationale for it clearly presented or could that rationale be developed logically?
2. Did its advocacy and rationale by any given educator seem compatible with the views of other educators?
3. Did it have essentially a positive orientation?
4. Was it apparently intended primarily to increase an individual teacher candidate's knowledge/proficiency/competency?
5. Did it seem feasible for undergraduate teacher education?

A sixth criterion--Was it worthy of consideration because of unique

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[6]Henry J. Hermanowicz, "The Need for Macroanalytical Approaches to Teacher Education," The Journal of Teacher Education, Vol. XX (Fall 1969), p. 302.

applicabilities?--was reserved for special cases not meeting the majority of the above five affirmatively.[7]

By the time the search of the literature ended so that the writing of this dissertation could commence, 32 curricular elements had been identified as meeting the above criterion conditions. The author has continued to check many subsequent publications as they have appeared, but has found no additional elements per se warranting inclusion.

In the literature, some of the curricular elements were advocated by many educators and writers, some by only a few. Certain elements were developed from essentially negative criticism that seemed justified. Certain others, notably those in the Concentration Area, were developed from educators' discussions about past, present, and future roles of education, sociological developments and extrapolations, and philosophical perspectives. Among educators/writers, duplications, replicated citations, and overlaps with regard to specific curricular elements, their contexts, or causal considerations often made inordinately difficult the attribution of specific elements to particular sources. Moreover, the multi-dimensional teacher preparation context suggested in this dissertation evolved in the author's thoughts and mental syntheses during and after perusal of the publications quoted and cited in the text (especially Chapter II) and cited in the Bibliography. For these reasons, few of the

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[7]Also see page 59 of this dissertation.

32 elements described in the following four sections have been attributed to specified individual sources.[8]

In any event, the mere listing of the 32 curricular elements could not be anything but part of the broad view. The integration of curricular experiences conducive to gestalt growth of a teacher candidate's self-knowledge and professional competence required that the elements--singly or in combination--be considered in a comprehensive context. That is, factors and characteristics influencing the elements and the primary orientations of their intended learnings, experiences, and/or situations had to be acknowledged, too.[9]

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[8]It should be noted that the Evaluative Criteria Study Committee of the American Association of Colleges for Teacher Education (AACTE) apparently also was familiar with much of the literature. It prepared for The National Council for Accreditation of Teacher Education (NCATE) the draft of Standards for the Accreditation of Teacher Education (Washington, D. C., NCATE, 1970), 22 pages. Standards, et al., sub-titled The accreditation of basic and advanced preparation programs for professional school personnel, was adopted by NCATE January 15, 1970, with mandatory use commencing fall semester 1971. Many of its advocacies paralleled advocacies evident in the larger literature, so also are paralleled by 17 of the author's 32 curricular elements although 11 of the 17 have been modified. Referring to the numbered elements listed in the ". . . Program in Perspective" section immediately preceding this section (the same numbering is used in the four sections immediately following this one), the 17 are: Foundation Area--1-8, slightly modified; Concentration Area--none; Application Area--3-8 with 3, 6, and 7 modified; Situation Area--2, 3, 5. Few of the author's examples for the 17, however (e.g., in the next four sections), were suggested by NCATE's Standards.

[9]As stated above, details and curricular specifics involved with these factors and characteristics are, by delimitation, beyond the scope of this dissertation, although their contextual relationship is shown to some extent in Chapter V, in the section entitled "The Multi-Dimensional CONCEPT Model," pages 468-488.

This is really a concept of perspective, comprehensible perhaps most clearly from the standpoints of four general levels with regard to teacher education/preparation. In inverse overview order, these are:

1. Specifics. This level includes single-concept or (primarily) single-goal activities or curricular ideas and/or procedures oriented around one theme, subject area, or academic discipline. (Examples: History; lectures; developing audiovisual skills.)
2. Relationships. This level includes both the characteristics and the effects of the influences and modifications manifested on, in, and by specifics with regard to each other, either individually or in groupings. (Examples: Intradisciplinary activities; interdisciplinary activities involving history and English academic activities; studies of social pressures and psychological behavior.)
3. Totality. This level encompasses the usually highly complex pattern of relationships--their natures and effects--involving artifacts, variables, and other specifics within an area delimited, for purposes of reference or analysis, by the extent to which specifics and relationships are or can be identified and established as being primarily within or connected to that area. (Examples: Teacher preparation; teacher education; anthropological studies of a culture.)

4. Abstractness. This level includes theoretical considerations, extrapolations, and inquiry with regard to a totality and the concepts, specifics, and relationships involved in or with it. (Examples: Educationally related or oriented philosophies; postulating effects of innovations.)

Curricular implementation according to institutional perspectives will be complicated by the factor that all teacher candidates are unique individuals, varying considerably in personality, background knowledge, maturity, and in other ways. "Thus, not all objectives or terminal behaviors will be appropriate for all kinds and types of students," as David Krathwohl has noted.[10]

> Neither will the same level of proficiency be appropriate for, nor expected of, different levels of ability. Thus a successful performance cannot have a single definition. Further, those planning instructional materials need to know where the student starts, what he brings to the situation (the "entry behaviors"). We may also need to know something about the motivation for learning (or lack of it . . .), and the pattern of problem solving available to us (for example, in teaching the social studies, one approach for those with rigid value patterns, another for those more flexible).[11]

Thus an institution should be prepared to accommodate individual variances while offering a broad enough teacher education ("Professional Education") program to cover a reasonable range of those

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[10]David R. Krathwohl, "Stating Objectives Appropriately for Program, for Curriculum, and for Instructional Materials Development" ("With the Researchers"), The Journal of Teacher Education, Vol. XVI (March 1965), p. 85.

[11]Ibid.

variances. Such a program might well include the 32 curricular elements described in the following four sections devoted to the Foundation, Concentration, Application, and Situation areas.

Foundation Area Elements

The primary purpose of The Foundation Area would be to provide a wholistic perspective for professional teaching competence. This would include study and understanding of the below-listed 11 curricular elements from two humanistic perspectives (historical development and related philosophical concepts) and five behavioral perspectives (psychology, sociology, anthropology, economics, and political science). Information, interrelationships, and concepts derived from such logic- or empirically-oriented fields as mathematics, linguistics, and the biological and physical sciences are to be incorporated into the seven perspectives wherever pertinent and possible.

The primary orientation of the area's elements' intended learnings would be as characterized by the three accepted-as-classic educational "domains"--cognitive, affective, psychomotor.

The Foundation Area Curricular Elements

Here are the 11 elements derived for this area:

1. Nature of education.--This would include comprehension of the characteristics and function of education in general and education in the United States of America in particular.

2. Aims of, and influences upon, education.--This element would encompass educational goals and general (e.g., societal forces), institutional (external and internal), and individual pressures on education and the persons involved with it.

3. Organization of educational systems.--Examples of topics germane to this element would include the characteristics, and curricular arrangements of private and public schools, state educational hierarchies, experimental programs, and specialized programs such as those of business, labor, military services, and community agencies.

4. Administration of educational systems.--This element would include a study of the administrative responsibilities--and who has them--in an educational system, along with considerations of non-teaching responsibilities held by teachers.

5. Research familiarity and proficiency.--Included here would be not only how to interpret and apply research findings, but also how to conduct simple research. A knowledge of how to use such aids as libraries and statistical methods would be inherent for this element.

6. Characteristics of self.--A major goal would be to help each teacher candidate identify, acknowledge, and control the extents of his prejudices, openness, flexibility, maturity, and capacity to incorporate loving behaviors in his interactions with learners and others. Such problems and attitudes should be identified early in

his program, as B. O. Smith and his co-authors pointed out in Teachers for the Real World.[12] They did acknowledge the lack of materials to help achieve such a goal.

7. Characteristics of learners.--Included would be such aspects as learners' personality factors, environmental backgrounds, abilities to cope with pressures.

8. Process of teaching and learning.--Certainly to be included would be comprehension of characteristics and techniques with regard to motivation, discipline, and evaluation.

9. Total K-12 awareness.--By kindergarten through 12th grade awareness is meant that elementary teacher candidates are to become aware of secondary education learner personality and curricular considerations and vice versa. The middle school overlap into both areas also would be included.

10. Familiarity with non-teaching human skills.--Examples of these would be counseling techniques, first aid techniques, and, some educators would add, training in hand-to-hand self defense techniques. Techniques involving in finding a teaching position also would fit here. Additionally, based on his own observations and certain feedback from teacher candidates he has worked with, the author would

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[12] B. Othanel Smith, et al., Teachers for the Real World (Washington, D. C.: The American Association of Colleges for Teacher Education, 1969), pp. 92-93.

advocate the development of basic drama and journalistic skills. Drama study can especially encourage skill with voice projection, gestures, control of face and body, recall, and nonverbal communication. Journalistic study, particularly in newspaper reporting and copy editing and proofreading techniques, can be especially useful for teachers. Reporting practice can develop skills in fast objective viewing of what may be a fairly complex situation, comprehending the important factors and relationships, and subsequently describing the situation succinctly and under pressure. (Initial comprehensions may be modified by later and more reflective study, of course.) Editing and proofreading practice can help develop skills in written communication and in spotting content, stylistic, and grammatical errors that in a teaching situation would identify areas in which a learner may need help.

11. Proficiency in use of general resources.--This element would include developing proficiency in skills involved with the use of media materials and equipment such as audiovisual projectors, recorders, and other items, duplicating and reproducing machines, and typewriters.

Concentration Area Elements

The primary purpose of the Concentration Area would be to suggest and set forth organizations and methods by which academic and other learnings might best be achieved by learners at elementary and secondary levels. This would include a teacher candidate's study

and comprehension (utilizing much from his General Education, Specialized Education, and Foundation learnings) of the below listed five curricular elements from whatever specialized, discipline-oriented, or subject-oriented perspectives he has selected and desires to teach. For the elementary education major, these would include art, language arts, mathematics, music, reading, science, and social studies, and, if desired, foreign languages. For the secondary education teacher aspirant, these would include one major and, if possible, at least one minor or "second field," both selected from among the following: art, business, English, foreign languages, mathematics, music, science, social studies, possibly other subjects.

Specifically excluded from this list (i.e., for this dissertation), although in a comprehensive list they would appear,[13] are such specialized curricular perspectives as agricultural, adult and occupational, home economics, pre-kindergarten, higher, special (e.g., emotionally disturbed, retarded, gifted), and physical education.[14]

To implement his concentration area, a person (whether as candidate or, later, qualified teacher) would use one or more of the curricular elements listed in the Application Area (see next section);

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[13]In fact, they have been included in the Concentration Area Interaction Block of the multi-dimensional CONCEPT model described in Chapter V of this dissertation. See Figure 4, page 478, and its related text discussion in its adjacent pages.

[14]Almost all of these specialized perspectives would be part of Kansas State University's programs.

in the process, especially initially, he should experience the corollary effect of realizing increased development of his own cognitive and psychomotor strengths and affective acceptances and capabilities.

In the Concentration Area, the primary orientation of intended learnings would at least initially (to utilize the most widespread current curricular arrangements) be established according to the level--elementary or secondary--for which a teacher candidate was to prepare. On each level, the intended learnings would be considered basically according to their most readily established domain compatibility: cognitive, affective, psychomotor.

An Emphasis on Concepts and Generalizations

A general impression can be drawn from the cumulative literature that what would normally be considered a teacher candidate's area of concentration is very heavily concerned with academic disciplines and subjects and the facts and details attendant thereto. Indeed, despite the several excellent "new" elementary and secondary curricular programs developed during the last decade which encouraged learnings beyond specifics, emphasis on facts and details still seems to receive primary stress in a vast number of K-12 curricula.

Perhaps this is because many teachers find comprehending concepts and generalizations difficult, so use them rarely as curricular foundations and nexuses. One wonders how many teacher education curricula--including learning experiences outside of departments and colleges of education--stress understanding and use of concepts and

generalizations; the literature did not indicate that information although the subject and need were here and there discussed. Certainly the author has noted that few of the more than 500 teacher candidates he has interacted with during eight semesters at Kansas State University have initially comprehended easily even the concept of generalization.

And yet, as Edgar Dale noted in 1963, "We may be learning a little about a lot of things and rarely dig deeply into any subject. One answer to a surfeit of concrete and semi-concrete experiences lies in integrating these concrete experiences into meaningful generalizations. In an educative environment, therefore, there will be a search for and development of generalizations and principles."[15]

Indeed, as William Ragan and George Henderson observed in 1970,

> If current trends are projected into the future, there can be little doubt that curriculum content will be organized around basic concepts or themes in the various curriculum areas. The rationale for this arrangement is not difficult to discover. One obvious reason is the explosion of knowledge in practically every field; it has been said that knowledge in the field of science doubles every ten years. Since imparting specific information in the various fields is no longer feasible, educators have adopted the scheme of having content specialists in the various disciplines list

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[15]"Edgar Dale on Education," Theory Into Practice, Vol. IX (April 1970), p. 120, extracted from Dr. Dale's statements in Read Magazine, Vol. XII (January 15, 1963).

the various concepts essential for an understanding of the discipline.[16]

Definitions and value considerations.--What do some of these terms mean? For example, "concept"; earlier[17] that term was defined in part as "an understanding composed of several less complex elements of knowledge. (Also, a mental image of a thing formed by generalization from particulars; . . .)"

Further, Bruce Joyce has "defined organizing concepts according to their function: to indicate relations between facts, to organize knowledge within a discipline, and to guide research."[18] And he has cited a paper in which Edith West "distinguishes between concepts (categories or classifications), generalizations (relationships between concepts), and theories (explanation of relationships through phenomena)."[19]

"When concepts are to be cultivated in an educative program, whether for teachers or others, they must be clearly identified and

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[16]William B. Ragan and George Henderson, "Prospects for the Future of American Education," School and Society, Vol. 98 (March 1970), p. 187. The article was a "Preview" selection from Ragan's and Henderson's book, Foundations of American Education (New York: Harper & Row, Publishers, March 1970), 306 pages.

[17]See page 8 of this dissertation.

[18]Bruce R. Joyce, New Strategies For Social Education (Chicago: Science Research Associates, Inc., 1972), p. 79.

[19]Ibid., citing Edith West, "Concepts, Generalizations, and Theories," Background Paper No. 3, Minnesota Project Social Studies (Minneapolis: University of Minnesota, n.d.).

made the objective of instructional units," a TEAM project report has declared.[20]

> It is possible to speak of concepts in many ways, and to use many forms of expression. Each form has its own uses. No one form is suited to all possible uses of conceptual statements. . . . B. Othanel Smith . . . considers concepts as nodes in the development of cognitive networks. Concepts are foci of organization in the mental makeup of the individual: focal points in the organization of experience.
>
> When concepts are expressed either symbolically or operationally, Smith prefers to call them definitions. His two basic classifications of concepts are--
>
> 1. Descriptive, which includes the classificatory, relational, and operational concepts.
> 2. Valuative, which by their very nature embody preference.[21]

Descriptive concepts have been defined as follows: "A classificatory concept is based upon a group of objects or events having certain features selected as characteristic of the group in common. . . . A relational concept is one which includes reference to a relationship between two or more attributes. The relationship may be expressed either as a ratio or a product. . . . An operational concept consists in a way of doing something--a 'know-how.' It is an idea consisting of an awareness of an order of operations that when performed lead to a particular result."[22]

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[20]The American Association of Colleges for Teacher Education (AACTE), Professional Teacher Education, A Programed Design Developed by the AACTE Teacher Education and Media Project (Washington, D.C.: AACTE, 1968), p. 20.

[21]Ibid., pp. 20-21, citing B. Othanel Smith, Logical Aspects of Teaching (Urbana: University of Illinois, n.d.).

[22]Harry S. Broudy, B. Othanel Smith, and Joe R. Burnett, Democracy and Excellence in American Secondary Education, A Study In Curriculum Theory (Chicago: Rand McNally & Company, 1964), p. 123.

Thus, "To say that concepts are centers of organization in our cognitive structure is to say that they are used in identifying and classifying the objects, events, and the like, of our environment. They determine how we see the world. As Kant noted long ago, we depend as much for our understanding upon our concepts as upon our percepts."[23]

Moreover, a teacher's attitude toward children can be affected by his awareness of concepts,--his theoretical training, to cite the term used in Teachers for the Real World.[24] The authors of that book strongly advocated that type of "training" for teachers. To help achieve it, they suggested that a large quantity of audio and video recordings--"protocol materials"--of various educational context "situations" (classroom and "extraclassroom") be developed, classified, indexed, and utilized in integrated interactive learning experiences involving observation, analysis, interpretation, comprehension of relevant multidisciplinary concepts and principles, and internalization and practicing of positive teaching behaviors.[25]

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[23] Ibid., p. 130.

[24] B. Othanel Smith, Saul B. Cohen, and Arthur Pearl, for the Task Force of the NDEA National Institute for Advanced Study in Teaching Disadvantaged Youth, Teachers for the Real World (Washington, D. C.: The American Association of Colleges for Teacher Education, 1969), p. 45.

[25] Ibid., pp. 42-65. Also, in this dissertation see pages 110-111 and 112-113 and, on page 284, the statement made by Carl Lange.

Perhaps one of the more succinct descriptions of the value of concept learning to educators was Taher Razik's:

> First, concepts serve to reduce environmental complexity and allow classification into superordinate categories. Second, concepts are means by which environmental objects and events are identified. Third, they reduce the necessity of continual relearning by providing easily recallable class labels. Fourth, they provide direction for instrumental activity. Fifth, they permit the ordering and relating of classes of objects and events.[26]

Program and content considerations.--"Typically, in the set of courses that make up the teacher education curriculum, no attempt has been made to develop an internally consistent conceptual structure in the sense that basic concepts are introduced with an eye toward further elaboration in later courses," Richard Smith wrote in 1968.[27]

Smith cited the development of the "new curricula" with regard to teaching mathematics and the sciences--physical, natural, social--in elementary and secondary schools and observed that the "concept of inquiry structure is basic to the changes taking place" in them. As one result, there has been, he said, "a fundamental revision of

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[26]Taher A. Razik, "This Issue," Theory Into Practice, Vol. X (April 1971), p. 95. The theme of that issue was "Concepts and Concept Learning."

[27]Richard B. Smith, "The Implications of Inquiry Structures for the Teacher Education Curriculum," The Journal of Teacher Education, Vol. XIX (Fall 1968), p. 340. Note: Teachers for the Real World, published the following year (see footnote 23, above) on page 64 suggested two college-level initial teacher preparation courses in which teaching of such concepts would be included.

the teacher's role, which necessitates that teachers of the new curricula have an understanding of the nature of knowledge, the process of conceptualizing, and the methods of inquiry, as well as a realization of how these processes are related to the conveying, retention, and use of information."[28]

Smith related conceptualizing to involvement with inquiry methods. Herbert LaGrone[29] has related it to the development of the powers of recognition, discrimination and differentiation, analysis, synthesis, and invention. As part of this, he said, "Any conceptualization of teaching must include a meaningful subconcept of content. Content is inherent in any teaching-learning situation and the organization of content influences all other components and elements."

LaGrone included personal adjustment and self-realization in his category of content, holding that "content is more than subject matter." Earlier, LaGrone and Desmond Wedberg,[30] working with the AACTE Teacher Education And Media (TEAM) project, had noted that

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[28] Ibid., p. 389.

[29] Herbert F. LaGrone, "Reconceptualizing Teaching," Partnership in Teacher Education, E. Brooks Smith, et al., editors (Washington, D. C.: The American Association of Colleges for Teacher Education, 1967), pp. 178-192. The quotations are from page 185. The emphasis is LaGrone's.

[30] Herbert F. LaGrone and Desmond P. Wedberg, "A Project to Improve the Professional Sequence in Preservice Teacher Education Through the Selective and Planned Use of New Media" (Washington, D.C.: The American Association of Colleges for Teacher Education, December 1963). (ERIC ED 003-156.)

"Formulating concepts as objectives" and "Identifying required perceptual experiences" were "Organizing Content" factors; "Guiding for perception" and "Assisting concept formation" were factors in "Guiding Pupil Response to Content."[31]

It should be noted that the curricular integration of a teacher education program will be strengthened to the extent that its inherent concepts are, to use E. C. Short's term, essentially "Prescriptive." Such concepts ". . . serve in more ways than simply to describe the particular components with which they are associated. Each should illuminate the whole to some extent and be relevant to, not simply consistent with, every other." This, says Short, is necessary for "structural harmony" in teacher education curriculum proposals[32] (and presumably in programs, as well).

Teaching concepts and teaching/learning styles.--To teach a concept, one must first learn it. To learn it, one must first be able to learn it. One way a teacher candidate can develop the ability to learn concepts is by being taught in terms of concepts. What might be some of the underlying teaching principles? Say, rather, as Richard Owens has:

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[31] Ibid., p. 5. "Evaluating and Replanning" was the third area.

[32] Edmund Coen Short, Formal Criteria For Curriculum Proposals In Teacher Education (Ann Arbor, Michigan: University Microfilms, Inc., 1966), p. 169. (Doctoral dissertation, Teachers College, Columbia University.)

> Some of the principles of learning concepts are: (1) encourage active participation; (2) emphasize the important aspects (the student seldom sees the most important parts on his own); (3) relate this learning to previous learning; (4) organize the sequence such that he will learn the material in a logical manner; (5) use guided discovery (even if he does not discover anything new if what he discovers is something new to him great learning has occurred, so leave some open-ended situations for the learner); (6) provide opportunity for the application of the conceptual material to realistic situations.[33]

From the teaching standpoint, Jerrold Coombs has described 14 types of "logical activities" in teaching strategies "relevant to disclosing concepts" in learning situations.

> These include: (1) describing criteria that identify the concept, (2) analyzing the concept into a set of constituent parts, (3) specifying a set of sub-classes of the concept, (4) classifying the concept, (5) uniquely describing the concept as a sub-class of some more inclusive class of things, (6) differentiating the concept from another concept, (7) comparing the concept to another concept, (8) describing conditions sufficient to identify instances of the concept, (9) disclosing the means of producing an instance of the concept, (10) identifying an instance of the concept, (11) noting that something is not an instance of the concept, (12) establishing an empirical correlation implied by a criterion of the concept, (13) describing the nature of concepts in general, and (14) substantiating the claim that something is an instance of the concept.[34]

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[33]Richard E. Owens, "The Teacher in Action: Translating Concepts Into Reality," Relating Principles of Learning to Instructional Activity (Columbus, Ohio: The Ohio State University, n.d.), p. 42. Report of the Symposium on Learning conducted by the North Central Region Resident Instruction Colleges of Agriculture at Allerton Park, University of Illinois, June 25-28, 1967.

[34]Jerrold Rex Coombs, "Teaching Strategies and the Teaching of Concepts," Dissertation Abstracts, 25: 6427, May 1965. (University of Illinois, 1964.)

"Concept development is central to the entire process of education," Herbert Smith has noted.[35] One reason is inherent in the consideration that ". . . helping students to build better concepts can only be accomplished when thinking is stimulated, and normally, directed. This is why the inductive approach to learning in a new situation is often advocated. The inductive approach forces students to build their own generalizations; i.e., to think."[36]

Smith further noted that "It is imperative, too, to recognize that concepts do not stand alone, but rather provide an endless web of structure on which we base our thinking and our actions."[37] And he called attention to the "reasonable hypothesis that time is essential to the flowering of a concept--increasing as the particular concept becomes more complex and sophisticated. . . It is probable that perceptions relating to a concept only recently grasped by a student need to be mentally reviewed again and again before they become a fully internalized and functional part of a thinking repertoire," Smith declared, advocating the provision of learning situations periodically requiring such recall and review.[38]

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[35]Herbert A. Smith, "The Teaching Of A Concept, An Elusive Objective" (Washington, D. C.: National Science Teachers Association, n.d.), p. 11.

[36]Ibid., p. 5. The emphases are Smith's.

[37]Ibid., p. 8.

[38]Ibid., p. 11.

The time factor was one of the basic assumptions of the people who established the University of Florida's humanistically oriented teacher education program in September 1960; it helped to determine that the program "should not be condensed into the last year of college." Other "basic assumptions about teacher education and about learning in general" called for the integration of appropriate concepts with methodological and curricular aspects of the program.[39] "An over-all basic assumption was that a psychological approach, based upon the experience, problems, and needs of students and oriented to conceptual development, might prove superior to the organized subject matter approach of the standard teacher education program."[40]

Concepts, generalizations, and the Concentration area.--In learning concepts, the usual direction (judging by the bulk of the pertinent literature) seems to be to go from the concrete to the abstract. Nevertheless, the concrete-abstract continuum is a two-way street. Edgar Dale noted this in discussing his "concern for

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[39]Ira J. Gordon, et al., "The Florida Experiment in Undergraduate Teacher Education," Changes in Teacher Education: An Appraisal (Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1964), pp. 253-274. Official Report of the Columbus Conference, Eighteenth National TEPS Conference, The Ohio State University, Columbus, Ohio, June 25-28, 1963. The quotations are from page 255.

[40]Ibid., p. 256.

the concrete, and the movement toward the abstract. That notion," he said, "coupled with William James' idea that you can't see any further into a generalization than your knowledge of its details extends, formed the bedrock for a lot of my thinking. I feel an abstract is meaningless unless you can put back into it a great many of the details out of which it was developed."[41]

Since a concept, per se, represents a certain level of abstractness, it and related concepts of approximately the same generality can be considered horizontally--on a horizontal plane, as Herbert Smith has postulated.[42] Generality, then, can be considered vertically (Smith, again[43]), which suggests that Dale's details would provide the concrete foundations for whatever related increasingly abstract generalizations extended above. Or, turn it around. There are times when teacher candidates and teacher education program developers high in thinning layers of generalization must "take a deep breadth" and intellectually attempt to spread themselves wide into related conceptual areas as they move down toward details that can help them try to comprehend the complexities of teacher education component interrelationships.

How might this be manifested practically in teacher preparation

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[41]"An Interview with Edgar Dale," Theory Into Practice, Vol. IX (April 1970), p. 107.

[42]Herbert A. Smith, "The Teaching Of A Concept, An Elusive Objective," op. cit., p. 8. (See footnote 35, above.)

[43]Ibid.

for teacher candidates and educators able to understand the concept of generalization, particularly with regard to (academic) disciplinary considerations? Perhaps by identifying and working with concepts with multidisciplinary applicabilities.

"Scholars have long recognized generalizations as the basic element of human thought and knowledge," B. O. Smith, W. O. Stanley, and J. H. Shores wrote in 1957. "All reasoning depends upon principles, by means of which though moves safely from one particular fact to another. . . . Moreover, some principles are more fundamental than others in the sense that some include others."[44] (That is, a generalization may be applicable to concepts in two or more disciplines.) "Concepts that are thus basic to two or more disciplines may serve as the pattern of integration."[45] One major problem is that "Efforts to develop curriculums upon such logical integration of subject matter have seldom been successful. The required generalizations are often not available, because the interdisciplinary sciences have not yet developed."[46]

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[44]B. Othanel Smith, William O. Stanley, and J. Harlan Shores, Fundamentals of Curriculum Development (Yonkers-on-Hudson, New York: World Book Company, 1957), p. 258.

[45]Ibid., p. 259.

[46]Ibid. In this passage, Smith, Stanley, and Shores were discussing the "principles" type of subject matter integration, with particular applicability to "Broad-Fields" curricula. On pages 259-261 they did cite the K-12 social studies generalizations developed during and after the 1920's by Harold Rugg and his associates and by other educators.

Even so, useful groupings of these larger concepts have been attempted. Harold Rugg, for example, in The Teacher of Teachers, listed a number of what he termed "key concepts" or "great concepts" or "super primary concepts." As examples: ". . . Energy as a field of force. . . Cultural Change. . . Experience . . . 'Integration.' . . .Growth, or Development. . . Culture and its Molding of Personality. . .Expression."[47]

How a teacher can be helped to internalize these kinds of concepts can be a problem. The education - arts and sciences dichotomy on many campuses has been mentioned in Chapter II;[48] Rugg, too, has been highly critical of it, particularly where its existence acts to inhibit or distort general education for teacher candidates. He has cited university instances where outstanding leaders of the study of education have been kept from participating in the planning of programs "for even those freshmen and sophomores who fully intend to become teachers in American schools and will enter education courses in the junior year. This seems to many of us to be a stupid

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[47] Harold Rugg, The Teacher of Teachers: Frontiers of Theory and Practice in Teacher Education (Westport, Connecticut: Greenwood Press, 1952; reprinted in 1970), pp. 155-162. Rugg discusses these and other concepts extensively; indeed, much of his excellent book has to do with teacher education curriculum program potential and the factors influencing it.

[48] See, for example: James Bryant Conant, The Education of American Teachers, op. cit. (in this dissertation, Chapter II, page 65 and footnote 4); Paul Woodring, "Basic Agreements in Teacher Education," op. cit. (in this dissertation, Chapter II, page 65 and footnote 5).

handling of a critical and difficult problem . . . ."[49]

Rugg acknowledged the "difficult problem of self-education among tens of thousands of college and university liberal arts teachers" teaching teacher candidates. "Not only are these academicians failing to educate prospective teachers in the foundational understandings of man, his behavior, and his society--understandings that are crucial to our times;[50] worse yet, because of their control over the college curriculum, they are making it impossible for progressive teachers of teachers to do it."[51]

No wonder NCATE is shifting to the idea that all of a campus' teacher education programs be placed under the control of the college or department of Education. [52] Perhaps one solution on campuses where even this would not be permitted yet where arts and sciences departments' willingness to tailor certain of their programs to

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[49]Rugg, The Teacher of Teachers, op.cit. (footnote 47, above), p. 234.

[50]Rugg wrote in 1952. Eighteen years later Fred Wilhelms was just as harshly critical, noting that 80 percent of teacher candidates' time is controlled by the arts faculties, whose curricula are extensively fragmented and "are not only largely irrelevant, but almost deliberately so."--Fred T. Wilhelms, "Realignments for Teacher Education," in Teacher Education: Future Directions, Margaret Lindsey, editor (Washington, D.C.: Association of Teacher Educators, 1970), pp. 6-7. See Chapter II footnote 816 (page 313 in this dissertation) for additional information about this reference.

[51]Rugg, The Teacher of Teachers, loc.cit. (footnote 47, above). The emphasis is Rugg's.

[52]Statement by Samuel R. Keys, Dean, College of Education, Kansas State University, during College of Education faculty meeting, Holton Hall, January 12, 1972.

teacher candidates would be unlikely would be to let teacher candidates continue to take fragmented-discipline courses (see Wilhelms' criticism, footnote 50, just above) but have the College of Education expand its preservice experiences to include teacher candidate internalization of and practice with the concepts and generalizations of those disciplines. Granted, B. O. Smith, et.al., in Teachers for the Real World, presented well two strong criticisms of this approach: that there are as yet too few interdisciplinary generalizations to provide interdisciplinary integration, and that such an approach continues to avoid confronting basic questions with which man--and students--are concerned. Resolving both would be extremely difficult. Yet Smith, et.al., did not see either criticism-problem as necessarily insurmountable.[53]

Certainly a concept- or generalization-oriented approach could be useful in helping a teacher candidate comprehend disciplinary values and knowledge. And it should even help him place in broad social context fundamental-value-question-related "modules of knowledge," such as those called for by Smith, et. al.[54]

It was mentioned above (see the reference to Herbert Smith, footnote 43 in this chapter) that generalizations have a vertical characteristic of increasing-decreasing abstractness. Since the

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[53] B. Othanel Smith, Saul B. Cohen, and Arthur Pearl, for the Task Force of the NDEA National Institute for Advanced Study in Teaching Disadvantaged Youth, Teachers for the Real World (Washington, D.C.: The American Association of Colleges for Teacher Education, 1969), p. 118.

[54] Ibid., p. 121.

world is essentially interdisciplinary, and since teachers should be able knowledgeably to encourage students' interdisciplinary as well as disciplinary learnings, generalizations can be highly valuable in a teacher preparation program's Concentration Area.

Several of James Womack's descriptions are apropos here: "A generalization is a broad inclusive statement in complete grammatical sentence form which serves as a principle or rule . . . Generalizations, as principles or rules, comprise the underlying structure for each . . . discipline . . . Generalizations are abstractions which can be broken down into gradations of complexity and completeness so that they can be understood and mastered, to some extent, even by primary grade students . . . Definitions and concepts are not themselves generalizations, but may be incorporated into a generalization."[55]

Two of the four types of generalization identified by Womack seem particularly appropriate for the Concentration Area: substantive and methodological. "Substantive generalizations are rules or principles expressed in complete sentence form which have universal application and which may be inductively reasoned from the contents . . ." of disciplinary areas.[56] "A methodological generalization

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[55]James G. Womack, Discovering the Structure of the Social Studies (New York: Benziger Brothers, Inc., 1966), p. 2. Womack's descriptions are all oriented to the social sciences, but are largely themselves generalizable to other-discipline and interdisciplinary contexts. His book is packed with examples for the social studies.

[56]Ibid., p. 7.

is a principle or rule which describes a skill or technique for studying . . . content" in a disciplinary area.[57]

Womack's contention that his proposals were highly applicable to K-12 curricula has been severely criticized by A. H. McNaughton:[58]

> Womack has implied through his four-point categorization of generalizations across grades that the application of an inclusiveness criterion is all that is necessary for the broad kind of classification he uses. . . Womack's classification scheme is of limited use in the evaluation of the response of children of a particular grade level because of its broadness and consequent lack of precision for the finer kinds of distinctions that class teachers and research workers often need to make. It . . . is more in the nature of a broad theoretical construct . . .[59]

But the breadth of Womack's two major types of generalization is precisely what makes them valuable to the teacher preparation Concentration Area as elements; by declaration (see the first two sections of this chapter, above), the curricular elements are at least one level above specific program components such as related performance objectives and implementation stipulations in any case.

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[57] Ibid., p. 4. Womack's other two types are the sub-generalization, which "has limited rather than universal application" (p. 4), and the normative generalization, which expresses a value judgement and often has only limited application (p. 5).

[58] A. H. McNaughton, "A Generalization Is a Generalization," The Record, Vol. 70 (May 1969), pp. 715-727. (Teachers College, Columbia University.)

[59] Ibid., pp. 724, 725.

The Concentration Area Curricular Elements

Here are the five elements derived for this area:

1. Substantive generalizations.--This collective element would include conceptual schemes, major ideas, general principles. Where not already established, these would be derived from concepts (denotative and connotative), "understandings" (usually with definite referents),[60] specifics (e.g., facts, details), and value-oriented categorizations such as certain sub-generalizations and normative generalizations. Different terms may be used for these categorizations in different disciplines, but all disciplines include major principles of some kind.

2. Methodological generalizations.--This would encompass principles or rules describing techniques for teaching or learning content.[61] Example: Standards of measurement should be defined as clearly and precisely as possible for the context in which they apply.

3. Interdisciplinary considerations.--Included in this element would be concepts and studies applicable to two or more disciplines or relating or integrating two or more disciplines. Examples:

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[60]For a description of social studies "understandings," see Womack, op. cit., pp. 29, 41-46.

[61]The definition is derived from Womack, op. cit., p. 4.

Considering the same content from different disciplinary perspectives and applications. Using one discipline (e.g., history) as a common thread or "base of operations" from which to consider Man's interactions from the standpoints of other disciplines.

4. Development of skills.--This element would stress the development of personal, interpersonal, and impersonal skills related to the use of generalizations, content, and other discipline and subject-area considerations. Examples: A personal skill would be the development of a critical thinking capability. An interpersonal skill would be the ability to help others develop a critical thinking capability. An impersonal skill would be the capability of organizing generalizations and concepts in logical relationships as prerequisites to the type of curricular planning for learning experiences included in the Application Area.

5. Application of knowledge and skills.--This primarily would be personal mental application, based on internalization of pertinent generalizations and concepts, to encourage one's own growth both in "real-life" encounters with other human beings and in other situations and to achieve personal goals. (Overt application in teaching and teaching-related situations would be part of the Application Area, however.)

Application Area Elements

The primary purpose of the Application Area would be to accomplish effective implementation of the teacher preparation program

through organization of specifically-oriented methodological and other experiential learning situations and, concomitantly, to demonstrate techniques teachers can use effectively.

The primary orientation of the area's elements' experiences would be as characterized by the three established educational domains--cognitive, affective, psychomotor.

Consideration: Cognitive Content and Concepts

Obviously, orientation toward the cognitive domain implies a certain emphasis upon the mastery of content and content-related concepts derived from pre-college learnings, from nonacademic experiences, and from academic encounters in the Foundation and Concentration areas. Both the Application and the Situation areas should be organized to encourage use of appropriate content, particularly to develop and improve thinking skills with regard to concepts. "If we don't use our learning, we lose it," Edgar Dale has reminded us.[62]

> To develop high level concepts we must constantly use them in the higher mental processes: inferring, analyzing, judging. The chief difference between the higher and the lower mental processes is that the lower mental processes usually involve retrieving unchanged ideas from our mental filing system. Our approach to concept development will differ markedly, depending on whether we are educating students or training them.[63]

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[62]Edgar Dale, "Education As Conceptualizing," The News Letter, Vol. XXXVI (March 1971), p. 3.

[63]Ibid., pp. 3-4.

Such approach can be implemented within the cognitive domain at least partly through development of appropriate concept-learning-oriented learning units (also called teaching units), as Conrad Toepfer has pointed out.[64] Further, he added,

> Beyond serving as unifying themes for instructional units, concept learning has a definite potential for the development of resource units. Where a specific concept can serve as the unifying theme for an instructional unit in the cognitive domain, a wealth of instructional objectives, statements of contact, instructional materials, instructional activities and evaluative devices can be organized to prescribe ways to approach the particular concept.[65]

Consideration: Growth By Ordeal

There is much to be said for emphasizing cognitive aspects of application. But the Application area should not be oriented solely or even primarily toward content (e.g., Foundation and Concentration) involvement. Its orientations should also include such other provisions as a continuous emphasis on internalization of desirable values (e.g., the ethical aspect of professionalism; see page 15 in this dissertation) and the development of "survival" and "mastery" or "high capability" skills necessary to a teacher but not always directly involved with teaching. An example of the latter would be a capability to cope with the complex stresses and strains inherent in many situations involving human, organizational, and societal-

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[64]Conrad F. Toepfer, Jr., "Actualizing Concept Learning: The Challenge to Curriculum Planning," Theory Into Practice, Vol. X (April 1971), p. 136.

[65]Ibid., p. 137.

cultural variables, such as those facing a teacher responsible for motivating 30 students to learn what the school's curriculum specifies, and in a way that will keep parents happy and still permit compliance with administrative directives, policies, and interruptions.

The effects of many medical and law schools' heavy academic load requirements and peer common-task and social characteristics separately and cumulatively tend to create pressure situations which change and mature those of their students who successfully pass through them, Robert Dreeben has pointed out in a long and perceptive essay.[66] In teacher preparation, student teaching can sometimes cause similar changes. But unlike the medical and law programs, student teaching is not only usually done for a relatively brief period and in a jurisdiction other than that of the teacher preparation institution, its still essentially dyadic characteristics (e.g., student teacher-supervising teacher primary relationship) limit student teachers' opportunities to view, experience, and discuss among themselves many different situations and the variety of teachers' effective or ineffective responses to them.

Thus, Dreeben observed, even the unstructured "crisis" experience of student teaching must be undergone individually yet without

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[66]Robert Dreeben, The Nature of Teaching; Schools and the Work of Teachers (Glenview, Illinois: Scott, Foresman and Company, 1970), pp. 116-156. See also pp. 204-215.

any realistic preparation or even the emotional security of colleagues' broadly and mutually collective support, such as graduate students share when preparing for their comprehensive examinations. For teachers, he stated, ". . . the point is that the standard training process contains no formal provision for the creation and management of such crises."[67]

Citing an M.I.T. study,[68] Dreeben declared that if its findings had been interpreted correctly "(that the collective character of the ordeal is important for establishing both commitment and a sense of enhanced occupational competence), teacher preparation is conspicuously lacking . . ."[69]

Dreeben had earlier acknowledged that the primary mission of schools of education (and certain other "training" and rehabilitating institutions) is to effect psychological changes in people. Highly important in this are the institutions' leverage on a person to change and the provision of social linkage aspects for relevance and/or continuity with regard to the person's past, present, and future training-related situations.[70]

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[67] Ibid., p. 142. Emphasis is Dreeben's. See also pp. 135-141.

[68] Ibid., p. 142, citing Dan C. Lortie, "Shared Ordeal and Introduction to Work," in Howard S. Becker, Blanche Geer, David Riesman, and Robert S. Weiss, editors, Institutions and the Person (Chicago: Aldine Publishing Company, 1968), pp. 252-264. Dreeben suggests seeing also Douglas T. Hall, "Identity Changes During the Transition from Student to Professor," School Review, Vol. LXXVI, No. 4 (1968), pp. 445-469.

[69] Dreeben, op. cit., p. 142.

[70] Ibid., p. 135.

Now, said Dreeben, "an organization that aims to change people--their styles of thinking, repertoire of skills, patterns of conduct, attitudes, and beliefs--must have certain capacities: to induce, to punish, to reward, to create goodwill, to support--that is, to exert leverage."[71]

> [But] Schools of education . . . mobilize few of the resources apparently necessary to form an occupational community among teachers. They do not subject students [e.g., by requiring seemingly impossible workloads and high-anxiety tasks] to the intense pressures and crises that contribute to the creation of solidarity among them, a solidarity that can produce unanticipated benefits in occupational learning. Part-time--and by implication partly committed--participation characterizes these schools.[72]

The conclusion is clear. Despite Dreeben's expressed pessimism as to improvement possibilities,[73] a teacher preparation institution would do well to require as much student full-time commitment to program as possible and to develop and include crisis and stress characteristics and situations for every teacher candidate. Dreeben has indicated that students successfully meeting such situations individually and collectively would benefit in a number of ways: A sense of increased confidence through having survived demanding ordeals. An awareness of the value of continuous or frequent communication--sharing knowledge, ideas, feelings--with colleagues.

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[71] Ibid., p. 143.

[72] Ibid., p. 142. See also pp. 143-144.

[73] Ibid., p. 144.

Realization of the mutual support possible among colleagues. Greater commitment to the "profession." (The last three, particularly, would contribute to the needed development of a sense of "colleagueship" among students, continuing when they become teachers, Dreeben felt.)[74]

For the institution, obvious additional benefits could include the establishment of another--student-oriented--screening and selection procedure, attraction of high-caliber, motivated teacher candidates, and possibly opportunities to improve school-university cooperation.

This advocacy of stress situations does not mean that the teacher candidate has to be or should be plunged immediately into crises. He can and should get his feet wet slowly in most cases. Acknowledgement that helping a student gain insight into himself and others is one teacher preparation program goal should be concurrent with institutional recognition of individual differences. Thus, Fred Wilhelms has advocated that in the professional learning environment:

> From the very outset there ought to be a variety of exploratory opportunities [which] . . . should be revealing--revealing of the nature and possibilities and choices inherent in teaching, revealing of the student to himself, with special reference to his role as a teacher. The earlier experiences, particularly--and perhaps all of them [though Dreeben would question this]--should be fairly free of blinding emotional strain. There should be enough of them and each should be small enough, so

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[74] Ibid., particularly pp. 135-144, 154-155, and 212-213.

> that no one of them assumes make-or-break proportions. A student should be able to admit a failure, especially to himself, maybe chuckle about it ruefully, and assess realistically his next steps.[75]

And, Wilhelms warned, don't rush the process. ". . . Whether in a [formal or informal] group setting or individually with a teacher-counselor, every student needs a chance to turn experience into insight,"[76] and that takes time.

If time is important to a student, it obviously also is important to a teacher preparation institution in that--as a variable--it can be controlled to some degree to increase or decrease pressures--stress--on teacher candidates.

Such stress, if tailored as much as possible to a teacher candidate's individual characteristics and curricular program, can be healthy for that candidate by helping him grow. In fact, this very concept, as a principle advocated by James Tyson and Mary Ann Carroll for secondary school students,[77] is highly pertinent for college students voluntarily in a teacher preparation program:

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[75]Fred T. Wilhelms, "Professional Education Period as a Time of Self Discovery and Personal Development," Strength Through Reappraisal, Sixteenth Yearbook (Washington, D.C.: The American Association of Colleges for Teacher Education, 1963), p. 196. See also the quotation from Robert Blume on page 315 of this dissertation.

[76]Ibid., p. 197.

[77]James C. Tyson and Mary Ann Carroll, Conceptual Tools for Teaching in Secondary School (Boston: Houghton Mifflin Company, 1970), 321 pages.

> Ordeal is a part of life.[78]
>
> Self-actualization is a function of going through an ordeal.[79]
>
> Ordeal when accepted as a challenge forces man to be all he can be.[80]

Certainly a teacher candidate's entire teacher preparation program does not have to be an "ordeal." In fact, it should not be. But the idea of controlled stress considerations as motivation for self-growth in a teacher education program is not widespread despite its compatibility with the institutional and professional goal of enhancing the quality of individually-tailored teacher preparation curricular experiences. It follows that the factor of controlled stress ought to be considered for any such program.

The Application Area Curricular Elements

Here are the 11 elements derived for this area:

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[78] Ibid., p. 246.

[79] Ibid., p. 247. This is the last of several "growth need concepts" identified by Tyson and Carroll as prerequisite to responsible behavior in times of greatest--or less than great--stress. The others are cited in the following passage, also on page 247: "Man behaves most responsibly and honorably, then, when he possesses the following need concepts: safety-security is a function of a. searching for new knowledge; b. man's being involved in the search for knowledge and the instigation of change that may prevent the recurrence of disasters, and the resultant faith in life's purpose and in the future; c. building bridges to others; d. living a significant life. Love-belonging is a function of building bridges to others. Self-esteem is a function of a. profoundly respecting the intrinsic value of every human being; b. having concern for others; c. using one's mind and talent to raise the level of human experience; d. keeping faith with oneself, with others, and with the human race. ."

[80] Ibid., p. 246.

1. Definition of the problem.--Perhaps "Definition of the curricular task" would be a better designator, from either the institutional or the individual's standpoint. Involved with this element would be the interrelated actions of identifying and developing (and, where possible, answering) appropriate "right" questions and of establishing the scope and boundaries of the problem.

By "right" questions is meant those designed to bring about or increase understanding of the problem and what resolving it will require. Further, there should be no shirking asking such questions because of ego, fear, unnecessary tact, or any other reason. The "tough" questions can often be the most "right," as H. W. Greenup has noted:

> If we were willing to ask ourselves, and each other more tough questions we would not wind up with so many soft answers. By tough questions I mean keen, incisive, discerning questions which open up issues and result in action or review of a policy that has gone unchallenged. Such questions force us to face issues that have been neglected or to give consideration to possible alternative solutions to a problem. The really valuable man in any organization is not, as a rule, the one with the quick answers, but the one who can ask the right questions. The man with the quick answers generates activity and keeps people busy. The man who asks the right questions generates ideas and makes people productive . . . The creative, well-aimed question can be one of our greatest aids in defining problems and making decisions.[81]

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[81]H. William Greenup, "Asking tough questions" ("Education and Training"), Marine Corps Gazette, Vol. 56 (March 1972), p. 17. Mr. Greenup is Head, Educational Research, Education Center, Marine Corps Development and Education Command (MCDEC), Quantico, Virginia.

Endeavoring to answer the "right" questions will help in establishing the problem's scope--the range of responsibility and/or effect it will have or is intended to have with regard to both the larger curricular context of which it is a part and the desired outcome its educational activities are intended to achieve.

Inherent in defining a problem is the development of an initial descriptive statement of the problem. As new data and/or insights are realized, the statement should be modified as necessary.

For a simple example, assume for a moment that positive answers to certain teacher preparation macrocurricular questions have established that one competence a teacher should have is how to use an overhead projector. The apropos initial statement of the problem--the curricular task--could be: Establish a curricular module designed so that a teacher candidate can learn why, how, and when he can or should use an overhead projector. The scope would encompass knowledge of appropriate curricular context for overhead projectors, skill in using such a projector, skill in making and/or using transparencies, and any other pertinent learnings. Questions to be answered might include: What is the "best" method to effect learning in overhead projector skills? What should a teacher know (at least initially) with regard to when to use the projector? How can competency be measured or otherwise evaluated satisfactorily?

2. Identification of objectives.--This element would include the setting out of the goals and subgoals to be achieved in resolving

the problem or completing the curricular task.[82] Objectives can be stated as performance (e.g., McAshan's "noninstructional" or two-level behavioral)[83] objectives or in some other way, but usually the more sharply delineated they are, the more helpful they can be.

3. Planning.--This element would be the thought and activity involved with describing the actions and learnings necessary to achieve stated objectives and projecting whatever degree, organization, and linear or other sequence seem most logical for those actions and learnings. Learning units (also called teaching units), resource units, lesson plans, and similar projective devices are among the planning manifestations utilizable by institutions and program implementers.

Planning organization can be structured according to themes (e.g., subjects, development of certain values, concepts[84]), domains (e.g., cognitive, affective,[85] psychomotor), competency development, or in some other way, including combinations of orientations. Wher-

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[82]See, for example, the subsection on objectives in Chapter II of this dissertation, pages 321-326.

[83]H. H. McAshan, Writing Behavioral Objectives: A New Approach (New York: Harper & Row, Publishers, Inc., 1970), 116 pages. See also Chapter II pages 225-227 of this dissertation.

[84]As noted, for example, by Conrad F. Toepfer, op. cit. (See Chapter III footnote 64, above).

[85]See, for example, the discussion in B. O. Smith, et. al., Teachers for the Real World, op. cit., pp. 81-93 (See Chapter III footnote 53, above).

ever applicable, teacher preparation planning should include considerations with regard to strengths, needs, and concerns of individual teacher candidates. Considerations of curricular and methodological alternatives ought also to be a part of planning.[86]

4. Selection of learning resources.--After objectives have been identified and basic planning considerations have been decided, appropriate learning resources should be identified. These resources can be human,[87] audiovisual, bibliographical, environmental, or part of some other category. Availability, which may be complicated by time factors, should be a prime consideration with regard to this element. So should helping a teacher candidate learn how to create his own learning resources where necessary or desirable.

5. Motivation.--This element would include factors involved with establishing and increasing a student's desire and interest in learning that which will be or can be useful to him in the immediate and/or long range future, even if such usefulness is not immediately obvious to him. A major goal would be for the student to internalize the value of self-motivation in learning. Motivation probably always will be complicated by the extent of knowledge and prejudices held by

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[86] See also Chapter II pages 227-228 of this dissertation.

[87] See, for example, Edward D'Angelo's suggestion on Chapter II page 228 of this dissertation.

all participants involved, which places a premium on affective considerations.[88]

Also of major relevance to this element would be characteristics of management of classrooms and other learning situations.[89]

6. Group involvement of students in learning.--This element, involving teaching-learning situations with groups of two or three or more students, would include considerations of content and method (e.g., through presentations, seminars, question-answer interactions).

7. Individualization of learning.--Avenues of curricular individualization would be the prime consideration here.[90] Such methods as tutoring, independent study, and programmed instruction could be effectively utilized by a teacher preparation program with regard to this element.

8. Evaluation.--This element should pervade all teacher preparation programs. But apparently the pervasiveness is somewhat rare, although attempts at evaluation usually are made consistently at certain points in most programs, e.g., during student teaching. Also, there seems to be widespread dissatisfaction with the quality

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[88] See, for example, the discussion by M. Marcia Buchanan, "Preparing Teachers To Be Persons," Phi Delta Kappan, Vol. LII (June 1971), pp. 614-617.

[89] See also Chapter II pages 228-235 of this dissertation.

[90] See, for example, Chapter II page 235 of this dissertation.

and effectiveness of many measuring or reporting instruments.

Nevertheless, this is a vital element that should be included beginning with the earliest identification-of-objectives and planning activities, whether institutional (e.g., programmatic) or individual. Depending upon what seems appropriate, evaluative devices can vary widely in form, degree, and sophistication (e.g., from simple self-review and introspection to tests to systems techniques to observation and analysis utilizing television, computers, and other technological developments).

9. Diagnosis of learning difficulties.--For the individual, and for the program in the sense of provision and response, this element would follow evaluation where appropriate.[91]

10. Improvement of learning-related (teaching) procedures.--In turn, this element logically ties to the elements of evaluation and diagnosis of learning difficulties; the nature of this element will be largely shaped by those two elements. Feedback and improvement of program also loom large with regard to this element.[92]

11. Other considerations.--Admittedly, this is a catch-all, or general, element, intended for flexibility and to provide for new developments. (Suppose mental telepathy became widespread, for instance.) It also provides for consideration of not-so-new-but-not-

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[91]See, for example, Chapter II pages 236-238 of this dissertation.

[92]The brief discussion on Chapter II pages 238-239 is pertinent here.

so-widespread approaches or practices, such as team-teaching, and the development of skills with regard to positive human relationships with teachers, administrators, parents, and others.[93]

Situation Area Elements

The primary purpose of the Situation Area would be to provide environments for effective implementation of the experiential learning situations.[94]

The primary orientation of the areas' elements' situations would be as characterized as artificial (and therefore subject to greater control for the purpose of guiding learning) or real. Both orientations can apply to some degree to each of the area's five elements,[95] although the imbalance of degree may be most evident for the laboratory element, which would be primarily artificial, and the practicum, which would be primarily real.

The Situation Area Curricular Elements

Here are the five elements derived for this area.

1. Structured situations.--This element would involve direct

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[93]See, for example, Chapter II pages 239-242.

[94]See also the brief discussion on Chapter II pages 242-244 of this dissertation.

[95]See also the Situation Area element-related citations on pages 244-270 of this dissertation.

communication activities (e.g., lectures,[96] motion pictures, computer-assisted instruction) and planned interactions (e.g., seminars,[97] debates, discussions).

2. Laboratory situations.--Involved with this element would be primarily artificial experiential activities with replication and repetition as needed by individual teacher candidates. These activities would include observations and demonstrations followed by appropriate practice, simulation, and/or microteaching in which the teacher candidate plays a role or practices by responding to pupils' actions or initiating his own. The element would also include presentation of contextual and individual problems followed by individual and group attempts to identify or suggest appropriate solutions.

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[96]While the use of lectures is still widespread, especially on college campuses, among teacher educators particularly there seems to be a gradually increasing acknowledgement that they have limited value in individualized programs. In a May 28, 1970, conversation with the author, for instance, Dr. Herbert K. Heger (currently Associate Director, Louisville, Kentucky, Urban Education Center) called "overlecturing" in Methods courses "the worst kind of concept and content overkill." Perhaps one of the most perceptive observations with regard to the danger of misusing lectures was Gordon Allport's comment about presenting conclusions to students who may well find them "gibberish" because they have not undergone--and internalized--the experiences necessary for extensive comprehension of those conclusions. See the Allport citation in Chapter II, page 248 of this dissertation (and Chapter II footnote 609).

[97]Seminars here are to include not only interim and topic-centered interactions but also synthesizing seminars, such as the interdisciplinary INSITE program experience and the continuing seminar advocated by Fred Wilhelms, both mentioned on pages 314 and 313 of this dissertation. See also Chapter II pages 312-315 for citations about other types of seminars.

An example of a laboratory situation with a "real" orientation would be teacher candidate participation in a research experiment involving a control group and an experimental group, both including students in a regular school setting.

3. Clinical situations.--This element would be primarily designed for individuals. Teacher candidates in clinical situations with specialists' help or, later, by themselves would learn to diagnose and "treat" (perhaps "attempt to resolve" would be more accurate) typical cases, practices, or problems involving individual pupils.

This is deliberately not so extensive an element as that implied in H. C. Southworth's definition of "clinical environment" for the University of Pittsburgh's elementary teacher training model:

> Clinical environment refers to all of the situations, places or settings in which a prospective teacher learns about teaching children, being taught, simulating teaching, or through carrying out such instruction-related activities with pupils, parents, or colleagues as materials development, materials and method testing, conferring about pupil growth, and curriculum designing. Usually the clinical environment for this model is a school building, encompassing all of its parts and facilities.[98]

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[98] Horton C. Southworth, "A Guide to A Model of Teacher Training for the Individualization of Instruction" (University of Pittsburgh), in Joel L. Burdin and Kaliopee Lanzilotti, editors, A Reader's Guide to the Comprehensive Models for Preparing Elementary Teachers (Washington, D. C.: The ERIC Clearinghouse on Teacher Education and the American Association of Colleges for Teacher Education, December 1969), p. 259, n. 20. See also Horton C. Southworth, "Teacher Education for the Middle School: A Framework," Theory Into Practice, Vol. VII (June 1968), pp. 123-128, especially p. 125.

Whatever is in Southworth's description that is not a part of the Situation Area clinical element is provided for in other elements. (For example, simulations most likely would be part of the laboratory element.)

4. Semi-structured situations.--This element would include such experiences as tutoring and being a teacher aide. These can lead to serendipities, as when a content-oriented tutor realizes that his tutee's major learning is simply that someone cares about him, about his worth as a human being.

5. Practicum situations.--This element would involve a teacher candidate's direct and substantial participation in teaching over an extended time. NCATE's description is one of the better ones:

> "Practicum" refers to a period of experience in professional practice during which the student tests and reconstructs the [self-applicable teaching and learning] theory which he had evolved and during which he further develops his own teaching style. It provides an opportunity for the student to assume major responsibility for the full range or teaching duties in a real school situation under the guidance of qualified personnel from the [teacher preparation] institution and from the cooperating elementary or secondary school. It presupposes the learning experiences included in all other professional studies; it is not a substitute for them. It is a more complete and concrete learning activity than laboratory and clinical experience.[99]

Thus, the practicum experience would have primarily a "real" orientation. One way this element might have an "artificial" orien-

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[99]National Council for the Accreditation of Teacher Education (NCATE), Standards for the Accreditation of Teacher Education, op. cit., p. 6. (See Chapter III footnote 8, above.)

tation would be for the teacher candidate, prior to his student teaching, to teach one or more regular elementary or secondary classes for a very short period of time (e.g., one to four class periods one day a week for six weeks) under close supervision by a supervising teacher and, if possible, by a teacher preparation institution supervisor. The author has sponsored just such an experience for his secondary social studies Methods students, and with apparent success. Certainly the experience was popular with both teachers and students, and the teacher candidates' transition into full-time student teaching seemed to be made much more smoothly and quickly than in previous semesters where no such early experience had been provided.

The practicum element would encompass student teaching, internships, and similar practical experiences.

Curricular Guidelines for Program and Elements

Human beings vary widely in personality, interests, talents, intelligence, background, beliefs, experience. Since individualized curricular programs ostensibly are designed for human beings, it stands to reason that such programs should be flexible within a reasonable range of characteristics, so long as whatever justified quality is established for learning, progress, achievement, or other related action is not compromised. Naturally, guidelines for such programs must also be general.

But not too general, if they are to be directionally functional. Of course, there can be guidelines for guidelines (rare though they

are in teacher preparation literature). Fred Daniel has described a set commissioned by the Florida Teacher Education Advisory Council:

> The guidelines are developed by task forces composed of Council members and representative (both professors and practitioners) of the specific subject or service areas to which the guidelines will apply. In order to be acceptable, the guidelines must meet the following criteria:
>
> 1. They must cite the types of behaviors in children which are expected to be fostered through the services of the personnel participating in the teacher education program.
>
> 2. They must describe the competencies needed by teachers in order to provide the desired services.
>
> 3. They must describe the teacher education experiences needed to develop the desired competencies.
>
> 4. They must present criteria for selecting candidates for the teacher education program.
>
> 5. They must include a plan for following up persons who have completed the program to determine their effectiveness on the job.
>
> 6. They must be applicable to both preservice and inservice teacher education programs.[100]

A somewhat more specific list of 19 guidelines for an undergraduate elementary teacher education curriculum had been postulated in 1964 by Frederick Bunt.[101] Organized around the three major

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[100]K. Fred Daniel, "Whither Teacher Education?" in Howard E. Bosley, editor, Teacher Education in Transition, Volume II, Emerging Roles and Responsibilities (Baltimore, Maryland: Multi-State Teacher Education Project, July 1969), p. 29.

[101]Frederick Benjamin Bunt, Jr., A Professional Education Curriculum for the Undergraduate Education of Prospective Elementary School Teachers (Ann Arbor, Michigan: University Microfilms, A Xerox Company, 1971), 229 pages. This publication was Dr. Bunt's Doctor of

headings of "Nature and Scope, Organization and Order, and Guidance,"[102] the guidelines advocated: organized bodies of subject matter as resources, direct and vicarious (e.g., a "Kappa Delta Pi lecture"[103]) experiences, early and continuous teaching opportunities, acknowledgement of a student's strengths and weaknesses in determining his time of entry and type and extent of his curricular experiences, exemplary teaching of professional courses and presentations, and "active student participation in the planning, conducting, and evaluating of course and non-course activities."[104] Particularly noteworthy guidelines were:

> 3. The professional education curriculum should consist of both course and non-course experience opportunities; professional education should not be inhibited by course structures or by physical or personal limitations of the plant or the staff.[105]
>
> * * *
>
> 5. A concept of teaching should be the organizational focus for the professional education curriculum. The curriculum should be designed in three stages which follow the basic format of whole-part-whole learning.[106]
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> * * *

Education doctoral project for Teachers College, Columbia University, 1964. A list of the guidelines is on pages 164-167 of Dr. Bunt's report.

[102] Ibid., p. 164.

[103] Ibid., p. 128.

[104] Ibid., p. 166.

[105] Ibid., p. 165.

[106] Ibid. Bunt also advocated that the student, with guidance, begin to formulate his own concept of teaching when he first encountered teaching tasks. (Bunt's guideline 7, also p. 165.)

11. Both prescription and guided election of courses and/or experience opportunities are needed.[107]

* * *

19. The professional curriculum should make provision for evaluation of the student's achievement in terms of his ability to perform essential teaching tasks, handle persistent teaching situations, and utilize acquired knowledge in concrete situations.[108]

Although stated in a considerably different format and with a somewhat different orientation, Bunt's guidelines do seem basically compatible with the curricular concerns indicated in this dissertation.

For Individuality: Context, Pattern, Flexibility

A curricular guideline, as defined on page 31 of this dissertation, is "A principle, direction, or fundamental grouping of elements advocated as increasing the human effectiveness of a curriculum."

For the teacher preparation concerns considered in this dissertation, at least eight general curricular guidelines can be stated:

1. The major purpose of a teacher preparation curricular program should be to develop humanly effective teachers, each competent with regard to:

--Self-discipline, to develop and increase his own cognitive, affective, and psychomotor knowledge, positive capabilities, and maturity.

--General knowledge, in the sense that his education is the extent to which he comprehends life,--its many human

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[107] Ibid., p. 166.

[108] Ibid., p. 167.

and other variables, values, forces, entities, relationships, integrations, synergisms, problems, joys. General knowledge with regard to education as a separate field is included.

--Specialized knowledge with regard to both the characteristics, concepts, trends, and most important content details of his chosen field, and how to teach such information and insights,--that is, how to make them readily and meaningful learnable by students.

--Professionally specialized knowledge and skills pertaining to encouraging and developing positively his students' cognitive, affective, and psychomotor growth and maturity. This would include competency with use and development of educational research.

--Communicative skills--written, oral, and nonverbal--with regard to human interaction, in or out of formal educational situations.

--Administrative and other nonteaching skills and responsibilities usually required or expected of teachers.

--Commitment to increasing ethically-based quality of professional concerns and practices in order to improve education for all students, young and old.

2. To achieve the major purpose stated in guideline one, above, curricular elements should be developed as logical and appropriate. These elements should be stated generally in order to provide planning

flexibility, since collectively they represent the main interim stage between what, theoretically, a teacher preparation curricular program should include and the detailed provisions and specifications for implementing that program. In this dissertation, 32 such elements have been identified. (One project beyond the scope of this dissertation would be to develop the necessary descriptions, objectives, procedures, activities, and evaluations for each of the elements and their interactions with each other.)

3. The curricular elements can be organized or grouped according to three related contexts: Area, Perspective, Primary Orientation. The Area context involves functional characteristics and in this dissertation includes four designations: Foundation, Concentration, Application, Situation.[109] The curricular elements in each area should be considered from different perspectives (humanistic/behavioral, discipline/subject oriented, methodological, experiential), and the elements' intended learnings/experiences/situations would be primarily oriented either toward domains (cognitive, affective, psychomotor) or environments (artificial or real).[110]

4. In an integrated teacher preparation program, just as the contexts relate to each other, so <u>all</u> curricular elements will relate to each other, although some will relate more closely than others.

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[109]See page 358, above, for a brief description of what each area includes. See also the Chapter III section for each area.

[110]See pages 358-359, above, for a brief description of each area's perspectives and primary orientations. See also the Chapter III section for each area and the CONCEPT Model in Chapter V pages 468-488.

In program evaluation, particularly, provision should be made to consider the effects of these relationships upon various aspects of program generated activities and interactions.

5. Both behavioristic and humanistic activities and experiences should be provided for in the curricular program. They do not have to be incompatible. The nature of the curricular elements allows for both.

6. Since the curricular elements' combinational patterns can be changed, the patterns do not have to be linear although certain combinations of elements (e.g., in the Application Area) or experiences within an element might be most logically arranged that way.

7. Implementation of the curricular elements should wherever possible be primarily keyed to the needs, strengths, and concerns of individual teacher candidates. Other implementation orientations of course would have to include institutional considerations and potential employment conditions for the teacher candidates.

8. Because of their general nature and their combinational flexibility (even though their implementation specifics may and probably should change), the curricular elements should remain valid regardless of their applicability in a current, traditionally linear, minimum direct experience teacher preparation curricular program, a program undergoing gradual transition to a much different format, a comprehensively restructured program, or a highly innovative program.

General Note

The above guidelines can be changed or modified as necessary

to cover new situations.

Further, although these guidelines, and the curricular elements with which they are concerned, are intended to apply to an institution's in-house teacher preparation program, all or at least certain ones might well apply also to aspects of institutional participation in heavily off-campus programs such as those involved with Multi-Institutional Teacher Education Centers (MITEC), Cooperative Urban Teacher Education (CUTE), or the Teacher Corps.

CHAPTER IV

CONSIDERATIONS FOR KANSAS STATE UNIVERSITY'S TEACHER PREPARATION PROGRAM

Philosophy was earlier defined in this dissertation[1] in part as an individual's or group's beliefs, concepts, and principles acknowledged as justifying and purposefully motivating actual, intended, and possible actions. "For educators, particularly, philosophy connotes an ethically-based rationale for goal-oriented behavior," the definition stated.

A philosophy in this sense provides for an entity a unifying or cohesive bond often strongly influencing direction and necessary for positive synergistic accomplishment. If possible, for self-understanding, it should be stated. But stated or not, its presence or partial or complete absence may well be evident in the entity's actions.

In 1970 a student in one of the author's Educational Sociology classes (in which educational philosophy is always considered) presented questions and observations about "the 'philosophy' of our education department at K-State:"

1.) Does the department have an overall philosophy or is it merely made up of individual philosophies or personalities?

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[1]Pages 14-15 of this dissertation. See also pages 68-69.

> 2.) Does the department have a system in which instructors encourage evaluation of one another's teachniques and encourage criticism of one another or is there too much pride involved after a person reaches the masters degree level?
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> * * *
>
> In other words, the average student in education knows nothing about the college he is in. What is especially tragic is the fact that we, as students, see no unifying aims, objectives, or ideals that we can identify with a group of education instructors, let alone a whole department. Such a hodge-podge of objectives, philosophies, and personalities that I have thus far witnessed will never be able to command the support nor the respect of its clients which it needs to be maximumly effective.[2]

This student was not talking about objectives, or intentions. He was talking about his perception of a lack of cohesive philosophy for the College of Education as expressed in his curricular and other interactions with the College's faculty and teacher preparation program. Two years later, the author has heard other students and faculty members still expressing the same concerns.

Stated University and College Objectives

General objectives there are, and well stated. They exist for both the University and its College of Education. Because both sets constitute an idealized philosophical statement of sorts, they should be considered before the current teacher preparation program and its compatibility with the literature-derived curricular elements and guidelines are discussed. The following two subsections are excerpted from

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[2]Kent Noel, in an unpublished Educational Sociology take-home examination answer to a question about individual teaching philosophy, March 10, 1970, pp. 26-27. Mr. Noel is currently teaching in an eastern Kansas secondary school.

the College's October 1970 NCATE Report.[3]

Objectives for Kansas State University

The objectives of the total educational program at Kansas State University were developed during a two-year period of study by the all-college "Committee on the Philosophy of Education at Kansas State (then) College"; and approved by the faculties of all the schools by 1954. The following statement appears in the current catalog:

> The objectives of the educational program at Kansas State University are to develop an individual capable of applying an enlightened judgment in his professional, his personal, and his social life. To that end the University is designed:
>
> 1. To provide full and efficient counseling and guidance to the student while in the University.
>
> 2. To prepare the student adequately in a technical sense for an occupation or a profession which includes an organized body of information and theory so that he may realize his creative potentialities in the field of his choice.
>
> 3. To provide every student with an opportunity to gain the knowledge and abilities which members of a democratic society, relative to their capabilities, need to possess in common,

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[3]College of Education, Kansas State University, TEACHER EDUCATION PROGRAMS At Kansas State University, A Report for the National Council for Accreditation of Teacher Education, October 1970 (Unpublished), pp. 6-8. (The cover was dated November 1970, the title page October 1970.) The report was compiled for the NCATE Committee evaluating K-State's teacher education program that year. (It should be noted that College of Education Dean Samuel Keys reported in the mimeographed College of Education Bulletin [Vol. IV., No. 9] for March 6, 1972: "We have just received the annual list of NCATE approved institutions and note that Kansas State's programs at all levels have been approved at the Master's Degree. We will continue to pursue the approval of our doctoral programs when [a] sufficient number of graduates have completed their work.")

whatever occupation or profession they expect to enter.

4. To stimulate the faculty and students to extend the boundaries of knowledge through critical and creative thinking and experimentation.

5. To provide the facilities for extending education outside the boundaries of the campus to the members of the community which the institution serves.

In the catalog each of the first three objectives has additional statements which specify the meaning of the objective. . .[4]

Objectives for the College of Education

During the school year 1956-57, the faculty of the Department of Education examined the professional aspects of the Teacher Education program and produced a new statement of objectives correlated with the objectives of Kansas State University. This statement was re-examined in 1961 and reaffirmed in slightly revised form as the "Objectives of the Professional Aspect of Teacher Education at Kansas State University". In May of 1968 a committee was appointed to explore procedures for evaluating the programs of the College of Education. It was recommended by this committee that an Objectives Committee be appointed to develop a statement of overall objectives to be stated as operationally as possible. In October, 1968 the committee was appointed to formulate objectives for the College of Education. Three subcommittees were given assignments to formulate objectives for the three basic aspects of the program: instruction, research, and service. The objectives which follow were accepted by members of the College of Education on April 14, 1970.

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[4]Kansas State University Bulletin 1971-1972, General Catalog Issue (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, July 1971), quarterly, Vol. 55, No. 2, p. 5. That is the currently current catalog. The "current catalog" reference cited in the October 1970 NCATE Report (op. cit.), with exactly the same passage, was the General Catalog 1970-1971 (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, July 1970), KSU Bulletin, quarterly, Vol. 54, No. 3, p. 5.

I. Instruction

A. The Student as an Individual

The student understands and accepts himself as an individual and is committed to a professional education career commensurate with a realistic self-appraisal of his attainments, interests, and potential.

B. The Student as a Member of Society

The student has a broad understanding of major areas of intellectual activity and of current social, economic, and political issues and trends. His professional activities reflect these understandings and are in accord with a thoughtfully derived philosophy of education. He continues to expand and refine his understanding throughout his professional career.

C. The Student as a Practicing Professional

The student understands the fundamentals of human development, human learning, mental hygiene, and student evaluation; and he implements these understandings in his student teaching and teaching. He continues to be a critical consumer of information and ideas throughout his professional career.

The student knows various strategies for attaining educational objectives and uses these appropriately in his professional activities to produce desirable changes in the educational environment for which he is responsible. He continues to develop his knowledge and use of worthwhile strategies throughout his professional career.

D. The Student as a Professional Educator

The student understands the organization and operation of varied educational systems and professional organizations within social, philosophical, historical, and ethical contexts. He continues to study, evaluate, and act upon these understandings as the contexts change.

II. Research

A. The Student as a Consumer and Producer of Research

The student will use research findings related to all phases of his professional education program and will appreciate the role of research in solving problems. As an undergraduate student he will engage in practical classroom experimentation. As a graduate student he will: demonstrate competence in evaluating, interpreting, reporting, and using research data; understand the relationship between teaching and research; engage in research that is relevant to current educational programs; and will develop ability to assist others in acquiring a variety of research skills in the application of research methods basic to theory and practice in the educative process.

III. Service

A. The Student as a Contributor to Off-Campus Services and Studies

The student becomes aware of available opportunities for working cooperatively with schools in the solution of educational problems and general improvement of education; and through limited participation his understanding of the educational environment is broadened.

An indication as to how these objectives are implemented in the current teacher preparation program at Kansas State University is included in the next section of this chapter.

The Current Teacher Preparation Program

Essentially the basic undergraduate campus-based teacher preparation program at Kansas State University is linear. That is, most of its professional experiences are kept within the frameworks of courses, which singly or in concurrent groups are to be completed sequentially.

Naturally, a student also must satisfactorily complete courses in general education (currently 50 credits) and specialized education[5] before he can be graduated. The specialized group differs somewhat for elementary and secondary teacher candidates.

Elementary teacher candidates must, with their advisor's consent, take for specialization 15 hours in one of eight "Areas of Concentration": Biological Sciences, English and Speech, Home Economics, Modern Foreign Languages, Music and Art, Physical Science and Mathematics, Social Science, Special Education.

Secondary candidates must specialize in a major in at least one of 23 fields: Agricultural Education, Art, Business, English (or Journalism or Speech), Home Economics (Vocational Teaching), Mathematics, Modern Language, Music, Physical Education, Psychology, Science (Earth Science, Physics, Biological Science, Chemistry, or Physical Science), Social Science (Economics, Geography, History, Political Science, Sociology, or Anthropology).

The Professional phases of the current elementary and secondary programs are each divided into three sequential groupings: courses required initially, and which may be completed before the student's admission to the College's Teacher Education program; courses prerequisite to the professional semester and for which prior admission to the Teacher Education is required; and courses in the professional

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[5]Both terms, along with "professional education," are defined on page 10 of this dissertation.

(or "block") semester. These courses, and their grouping sequences, are shown in Table 1, "Professional Courses Required in Kansas State University's Current Basic Teacher Preparation Program," on the next page.

With gradual modification over the years, these courses and sequences developed along the lines of generally still-typical undergraduate teacher preparation programs. The focus at Kansas State University has been to prepare teachers for traditionally-structured rural, middle-class schools in the United States. Increasingly, however, graduates of the program are accepting teaching responsibilities in other kinds of situations--urban schools, suburban schools, innovative educational settings--and this is placing considerable pressure on the College to change to a flexible, multifaceted program more in keeping with present-day developments.

In line with traditional practice, the current program is structured primarily around courses, with off-campus direct or even vicarious involvement with schools rare except for available teacher aide experiences, the required student teaching, and a small number of experimental programs (e.g., those involving secondary English and social science teacher candidates in the professional semester prior to student teaching).

Nevertheless, the current program does seem broadly compatible with the general objectives for the College of Education,[6] as indicated

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[6]See pages 423-425 of this dissertation.

Table 1

Professional Courses Required In Kansas State University's Current Basic Teacher Preparation Program[a]

SEQUENCE[b]		ELEMENTARY[b]	SECONDARY[b]
(General Ed. and Specialization)[c]		(As specified by College of Education)[c]	(As specified by College of Education)[c]
Professional Courses[d]	Required Initially[e]	Educational Psychology I (3) Principles of Elementary Education (3)	Educational Psychology I (3)
	Courses Prerequisite to the Professional Semester[f]	Educational Psychology II (3) Science for Elementary Schools (3) Mathematics for Elementary Schools (3) Language Arts for Elementary Schools (3) Social Studies for Elementary Schools (3) Introduction to Instructional Technology (1)	Educational Psychology II (3) Introduction to Instructional Technology (1)
	The Professional Semester[f]	Elementary School Reading (3) Educational Sociology (3) Teaching Participation in Elementary School (Student Teaching) (8)[h]	(Field) Methods of Teaching in Secondary School (2&) Principles of Secondary Education (3) Educational Sociology (3) Teaching Participation in Secondary School (Student Teaching) (8)[h]

[a]As of April 1972.

[b]The arrows indicate the linear sequence. Course credits are in parentheses. All professional courses except Teaching Participation must be letter-graded.

[c]Some of these courses may be taken with or after the Professional courses.

[d]Additional letter-grade-only Elementary requirements, all taught in College of Arts & Sciences departments, include: Music for Elementary Teachers (3), Art for Elementary Schools (3), Literature for Children (3), Personal & Community Health (3).

[e]Admission to the Teacher Education program not required.

[f]Admission to the Teacher Education program required.

&To be 3 credits beginning fall semester 1972.

[h]Always to be last in Professional course sequence. Credit/no credit only.

by Table 2, "Design of the Current Basic Teacher Education Program In Relation to Stated Objectives," on page 430.

Perhaps the most succinct description of the current basic professional education program is the still-valid information in the College of Education's Report for the 1970 NCATE evaluation:[7]

> Content for the teaching specialty
>
> Each curriculum makes provision for the prospective teachers to learn the subject content they will teach as well as acquire additional background knowledge for that subject content. In the curriculum in elementary education opportunity for learning the content needed for teaching elementary school subjects is provided in the special methods courses in science, mathematics, language arts, social studies, art, reading, and music. The students also have courses in Literature for Children and Personal and Community Health.[8]
>
> * * *
>
> Provisions for ensuring that a systematic effort is made to keep the content and learning experiences current with developments in the appropriate disciplines as they relate to teaching are the responsibility of the College of Education and other University departments which share in the responsibility of teacher preparation. Joint appointments and joint committees are two ways that communication is established and cooperative efforts employed in the selection of content and learning experiences. Courses which are required for various teaching specialties are changed from time to time to reflect changes in emphasis in the teaching of the content area. However, the content of these courses is determined by the faculty of the content area.[9]
>
> * * *
>
> Humanistic and behavioral studies
>
> In all of the basic programs for Teacher Education, instruction in the humanistic and behavioral studies is provided by means of the following required courses: General Psychology, Educational Psychology I, Educational Psychology II, Principles

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[7]College of Education, Kansas State University, TEACHER EDUCATION PROGRAMS . . ., op. cit. (see Chapter IV footnote 3, above).

[8]Ibid., p. 80.

[9]Ibid., p. 81.

Table 2

Design of The Current Basic Teacher Education Program[a]
In Relation To Stated Objectives

Objectives[b]	Elements in Basic Program[c]	Curriculum Aspects to Achieve Objectives for Basic Program
I. Instructional Concerns A. Student as an Individual.	General Studies; Humanistic and Behavioral Studies.	Advisement for Individual Programs; Requirements for Admission to Teacher Education; Student Teaching and its Individually Oriented Supervision and Evaluation.
B. Student as a Member of Society.		General Education requirements; Educational Sociology[d]; Principles of Education (Elementary or Secondary).
C. Student as a Practicing Professional.	Teaching and Learning Theory; Teaching Participation.	Methods Courses; Educational Psychology I & II; Teaching Participation.
D. Student as a Professional Educator.	Content for Teaching Specialty; Practicum.	Principles of Education (Elementary or Secondary); Area of Concentration and Special Methods (Elementary) or Teaching Major (Secondary); Teaching Participation.
II. Research Concerns Student as a Consumer and Producer of Research.	Teaching and Learning Theory; Content for Teaching Specialty.	Opportunities possible in all courses.
III. Service Concerns Student as a Contributor to Off-Campus Services and Studies.		Optional opportunities, such as CUTE Program, Teacher Aide Program, Friendship Tutoring, Adult Basic Education Program, MITEC Program, Teacher Corps.

[a]Modified slightly from Chart E. "Design of the Current Basic Program in Teacher Education in Relationship to Objectives (Sept. 1970)," TEACHER EDUCATION PROGRAMS at Kansas State University, op. cit. (See footnote 3, p. 422), p. 76.

[b]See Objectives for College of Education, pp. 423-425.

[c]Related to elements defined in NCATE Standards for the Accreditation of Teacher Education, op. cit. (See Chapter III footnote 8, p. 366.)

[d]Except Agricultural Education and Home Economics Education majors, who substitute, respectively, Vocational Education and Curriculum in Home Economics.

of Elementary (or Secondary) Education. Sociological and philosophical aspects of education are included in Educational Sociology. These subjects give future teachers an opportunity to be aware of the nature and aims of education so that they may understand the place of the school in society.

Course requirements in these humanistic and behavioral studies include reviews of articles dealing with educational research and developments. Professors keep abreast of recent research through their professional journals and ERIC. Professors are members of professional organizations, attend their meetings and conferences, contribute papers to their conferences and/or journals, and use their materials in their preparation for teaching.[10]

Teaching and learning theory with laboratory and clinical experience

Teaching and learning theory are presented and studied in Educational Psychology I and II and in the various methods courses through lectures, discussions, audiovisual presentations, assigned or suggested readings, and teaching demonstrations by students and teachers.

* * *

In many secondary education methods classes teaching demonstrations are presented before classes, video taped, and critiqued by professors and students.[11]

* * *

Practicum

Students in the elementary and secondary education curricula have a professional semester during which they enroll in Teaching Participation (commonly called student teaching) for eight semester hours credit. All of the activities in Teaching Participation are coordinated by the Coordinator of Student Teaching. The other subjects taken during the professional semester vary for the different curricula as shown below:

Curriculum in Elementary Education: Educational Sociology, Elementary School Reading.

* * *

Curriculum in Music Education: Educational Sociology, Principles of Secondary Education, Instrumentation and Orchestration.

Curriculum in Secondary Education, Curriculum in Physical Education, and various curricula in Arts and Sciences:

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[10] Ibid., pp. 81-82.

[11] Ibid., pp. 82-83.

Educational Sociology, Principles of Secondary Education, and Methods of Teaching in the Secondary School.

Most supervision of student teaching in the professional semester is by regular full time College of Education faculty members who have had experience in teaching and supervision. Supervision of student teachers is considered to be from one-fourth to one-half of a normal teaching assignment. The number of student teachers for each supervisor ranges from five to fifteen each semester.

Some University supervisors use forms of interaction process analysis to describe and analyze student teacher interaction. Other supervisors use observation forms developed by a committee of the University supervisors and cooperating teachers. The majority of the student teachers are video taped before and during the student teaching period.

Supervisors in the College select cooperating teachers in the public school with the assistance of the school administrator. Teachers are selected who have had experience and who are judged by their administrators to be good teachers. With few exceptions they have had prior experience supervising student teachers. Many of the cooperating teachers are graduates of the College of Education or are currently enrolled in Graduate School and completing advanced degrees . . .

Good relations exist between cooperating schools and the University. Cooperating teachers are often invited to the campus to attend SEA banquets, speak to methods classes, attend seminars, or attend workshops designed to improve supervision of student teachers. Both groups have worked to develop the evaluation sheets now being used to evaluate student teachers. Three-way conferences which involve the student teacher, the cooperating teacher, and the University supervisor are common.[12]

A Handful of Observations

A number of observations about the current program can be made, aside from noting its traditional aspect. For example, requirements for admission to the Teacher Education program do not at present include demonstrations of competency with regard to major or specialization area concept learnings or even content learning retention.

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[12] Ibid., pp. 83-84.

Another obvious point (see Table 1, page 428) is that the Principles courses, elementary and secondary, are taught at different times, a situation doing much to preclude combinational possibilities with regard to content and methodology for both Principles and Educational Sociology. Actually, this same situation was noted early in 1971 by Dr. Arnold J. Moore, Head, Department of Curriculum and Instruction, who stated with regard to both:

> The common elements should be determined and offered by a group of instructors to both elementary and secondary students. Selected objectives should be designated for achievement prior to the professional semester, the others to be included in the professional semester. If there are distinct differences in the components for elementary and secondary students, differentiated experiences would be provided as a part of the professional semester.[13]

Subsequently the faculty members teaching Educational Sociology and Principles of Secondary Education did attempt--apparently with at least partial success--to reduce those courses' overlaps in content and perspective.

Dr. Moore also cited duplications in the elementary methods courses and suggested three actions:

a. Adjust the number of credit hours in each of the courses by expanding or reducing the amount of time and objectives incorporated into each course.
b. Provide some measure of flexibility by permitting students to elect a minimum of methods courses.
c. Combine the common elements from the various separate courses and designate their inclusion in a single course.[14]

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[13]Arnold J. Moore, in a memorandum to the Curriculum and Instruction Faculty, February 4, 1971, p. 2.

[14]Ibid.

None of these actions has yet been adopted by the faculty.

Not so obvious are the continuing lack in the program of three other features, all noted particularly by Dr. Leo Schell: No real provision for undergraduate electives in the College of Education to help satisfy required experiences (i.e., no real flexibility), although there is some in a student's area of concentration. No real allowance for independent study in education by undergraduates. (In 1971, certain intersession experiences did provide this to a limited degree, but there is as yet no provision for an independent study semester with regard to College of Education courses.) No special provision "for those students with extremely high intelligence, GPA, etc. ('honors students')."[15] (The faculty- and student-member College of Education Advisory Council did report in March 1972 that it "Considered a proposal for the establishment of an honors program in the College of Education. Tabled this proposal until there is a greater evidence of student interest in and desire for such a program."[16])

Also not obvious, but a definite plus for the program, has been the arrangement whereby Educational Psychology I students fulfill part of their course requirements--and learn something of teaching--by being a teacher aide in local schools. Involvement in the experience is consistently high.

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[15]Leo M. Schell, in two memoranda to the author, both October 31, 1969. Dr. Schell is Associate Professor of Education, Kansas State University.

[16]College of Education Advisory Council, memorandum to College of Education Faculty, March 23, 1972, p. 2.

Much of the teacher preparation program continues to be strait-jacketed by time factors. Excluding student teaching (which has its own time problems in the schools), most of the courses' contact hours with students are locked into 50-minute segments three to five times a week extending over a semester. Many faculty and students have experienced classes where discussion or other involvement was really going well only to be chopped by the bell, and bye-bye.

Moreover, a number of value-oriented concepts involved with growth of self-knowledge and of comprehension of sociological and human complexities--which most people require time to consider and internalize--are crammed into the first eight weeks of the professional semester in an accelerated framework. Faculty and students both have expressed unhappiness on many occasions with this aspect of the program.

Compatibility of Current Program and Literature-Derived Elements

Despite its limitations, Kansas State University's current basic teacher preparation program seems to have graduated a number of effective teachers, if comments made to the author by students, administrators, and other faculty members during the past two years are to be believed. Certainly the author's own observations bear this out.

Still, few programs are so good they cannot be improved, and one purpose of this dissertation is to suggest factors and approaches (e.g., curricular elements and guidelines) intended to contribute to improvements in teacher preparation.

Initially, the author considered attempting to identify possible duplications and vacuums in Kansas State University's teacher preparation program, an idea suggested by listening to Dr. E. C. Powell, Dean of Instruction, Jarvis Christian College, Hawkins, Texas, describe a "two-way" figure designed for this. Such a figure (see Figure 1, "A Format To Identify Major Duplications and Vacuums In a Teacher Education Program," below) could be organized to show desired major concepts along one side, while program content currently offered could be the heading across the top, with specific courses or areas shown as subheadings.[17] The cells should show the extent to which

Figure 1

A Format To Identify Major Duplications And Vacuums In a Teacher Education Program

DESIRED MAJOR CONCEPTS	CONTENT CURRENTLY OFFERED				
	Course 1	Course 2	Course 3	Area 1	Area 2
1					
2					
3					
4					
etc.					

[17]Described by E. C. Powell during a special session of the "Systems, Models, and Teacher Education" Workshop sponsored by The American Association of Colleges for Teacher Education on the University of Missouri-Kansas City campus December 2, 1969.

a given concept was or was not covered in one or more of the program's courses and areas; they might show merely whether or not such concepts were present.

Identifying such concepts for Kansas State University's program proved to be difficult, however, because they were rarely included in course descriptions. Deriving such concepts from discussion with course instructors would have been a considerable research project in itself, but it had to be placed beyond the scope of this dissertation when the latter's emphasis shifted to identifying overall curricular elements and guidelines (not concepts per se) derivable from the teacher preparation literature and applicable to the University's program.

As part of the new emphasis, the author did attempt to ascertain very generally which of the 32 literature-derived curricular elements--or aspects of each--could be construed as applying wholly or partially to the University's current basic teacher preparation courses. "Partially" in this context means either that a course's syllabus indicated that some aspect of a given element was covered or that not all the instructors teaching the course included consideration of the element.

The results are shown on the next page, in Table 3, "Literature-Derived Elements Wholly or Partially Present in Current Kansas State University Basic Teacher Preparation Courses."

It should be acknowledged, of course, that all elements will

Table 3

Literature-Derived Elements Wholly Or Partially Present In Current Kansas State University Basic Teacher Preparation Courses[a]

| CURRENT BASIC TEACHER PREPARATION COURSES | LEVEL (Secondary, Elementary, or Both) | LITERATURE-DERIVED CURRICULAR ELEMENTS[b] | | |

not apply primarily or even extensively to all course experiences or emphases.

Two immediate conclusions can be drawn from a look at Table 3. One is that no basic course apparently is involved with a truly clinical situation in the sense of making separate individual diagnoses of active students' educational problems and endeavoring to resolve them. The other conclusion is that most students apparently will encounter most of the elements, or some aspect of them, at least at one point during their professional course encounters. (The extent of resultant learnings is not known.)

Nevertheless, the course format still is subject to time rigidities. One answer would be to begin to build curricular modules around each of the elements. With regard to teacher candidate involvements, such modules, or groupings of modules, could be interchangeable where feasible. They might be developed on two levels, basic and advanced. They also might be oriented toward three types of teacher candidate learning: required learnings, desired learnings, and awareness.

Logically, such modules could be designed to be part of a flexible-time, competency-based (or performance-based) teacher preparation program, such as those cited in Chapter II pages 136-138,[18]

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[18] See also pages 131-135, 279-289, and 339-345.

or the one actually in operation at Weber State College, Ogden, Utah.[19]

Of course, the Weber State faculty were able to take "a year off to think," thanks to a $200,000 Carnegie Corporation grant; as a result, they identified 300 skills "as needed before a student can teach" and developed a set of multi-activity unit packets, each usually requiring a student to learn specified objectives and then--at his own pace--to demonstrate proficiency with regard to two or three of the skills.[20] No such grant for a similar purpose is on the horizon for Kansas State University, apparently. But in February 1972 the College of Education Steering Committee unanimously approved a proposal to form a faculty-student group to study and develop a competency-based teacher education program for the College.[21] The group currently is establishing its major objectives.

One of its initial problems will be semantic. It is calling the program it is attempting to develop "competency-based." The American Association of Colleges for Teacher Education would call it "performance-based." But then, as the AACTE Committee on Performance-Based Teacher Education has noted, ". . . the adjective itself is relatively unimportant if there is consensus on what is essential

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[19]Jack L. Kennedy, "Pick Up Kit, Learn, Forget Grades, College Urges Its Student Teachers," The Wichita Eagle and Beacon, Saturday, April 8, 1972, p. 16A. See also item B, page 334 in this dissertation.

[20]Ibid.

[21]Kansas State University College of Education Steering Committee for Teacher Education Programs, "Minutes" for February 21, 1972, p. 2.

in distinguishing performance- or competence-based programs from others."[22]

The fact that the College of Education group has commenced its complex task is perhaps the most immediate important new teacher preparation development for Kansas State University. It should be helped considerably by one of the major program features of the approximately $450,000 Teacher Corps project granted in February 1972 to Kansas State University--developing materials and modules for competency-based preparation of teachers for urban education.[23]

Noncurricular Factors Affecting Curricular Implementation

The effectiveness of any curriculum is in part subject to noncurricular factors, some of which have been cited in Chapter II.[24] Since this dissertation is concerned primarily with curricular program aspects, no extensive discussion of noncurricular factors affecting Kansas State University's teacher preparation program will be considered. But, because of their importance, such factors should

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[22]Stanley Elam, "Performance-based teacher education: what is the state of the art?". AACTE Bulletin, Vol. XXIV (December 1971), p. 3.

[23]News item in "Gifts, Grants," KSU University Newsletter, Vol. XIV (March 31, 1972), p. 2. The two-year grant from the Department of Health, Education, and Welfare is for a Teacher Corps consortium with four communities' schools to improve reading and linguistic skills of children from low income families.

[24]See, for example, pages 78-79, 83-84, 85, 89, 136, 147-160, and 181-182.

at least be mentioned. They fall generally into three groups: Human Considerations, Institutional Considerations, and Other Factors Influencing the Program.

Human Considerations

These, at a minimum, would involve students, faculty, and supervising teachers, plus certain other groups.

Factors directly involving students.--Recruitment, screening (including entrance requirements), and advisement are among the main program concerns involving students. At the present time, recruitment per se for the University's basic undergraduate Teacher Education program does not seem to be too active, probably because there continues to be no lack of applicants.[25]

Students enter the Teacher Education program from the University's pre-Education program in the College of Arts and Sciences, from junior colleges, and, more rarely, from other sources. Except for minimum grade point averages, successful completion of certain courses,[26] an often abbreviated interview by an education advisor, and near-junior or higher standing, there is not really much entrance screening. Donald Cruickshank's remark that "We admit anybody to

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[25] Recruiting is active on the graduate degree program level, however. For undergraduate recruiting considerations see pages 78-79, 83, and 349.

[26] For example, oral communication (Speech) with a "C" or better, General Psychology.

teacher education . . ." has already been cited,[27] and it has considerable application here. The College of Education faculty is aware of the problem and is grappling with it.[28] But resolution will not be easy,[29] and will very probably include consideration of advisement factors and continuing screening as well as entrance and exit criteria.

Additionally, as an optional initial experience for freshmen and sophomores, perhaps the "Orientation to Education" course[30] first presented on campus during the spring 1972 semester, at some near-future date also could be taught at the Kansas junior colleges from whom the College of Education receives most of its junior college applicants.

Faculty factors.--Faculty responsibilities--faculty "load" elements--were in effect grouped into four categories February 1, 1972, when the College of Education faculty voted to accept and implement a Faculty Activity Credits System.[31] The categories are Teaching Activities, Research and Creative Endeavors, Professional

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[27]See page 317.

[28]Discussion during Curriculum and Instruction Department faculty meeting April 13, 1972, about forming an "ad hoc" committee or task group to develop and recommend improved screening procedures.

[29]See also pages 150-160.

[30]This one-credit optional course is offered under the guise of "Independent Study in Education." Several faculty members have been involved in its presentation.

[31]Kansas State University College of Education faculty meeting February 1, 1972.

Activity, and Institutional and Public Service. Under the system: From September 1 to January 1 each faculty member and his department head determine the emphasis (to 100 percent) he will place in each category. From January 1 to December 1 the faculty member gathers data to support his effectiveness in the various categories. Near the end of the calendar year the faculty member, other contributing individuals he chooses, and his department head make judgments as to his accomplishments in chosen areas. These will be translated into a percentage score or a total of Faculty Activity Credits (FACs) to be used when next the faculty member is considered for salary and promotion.[32] The full effect of this system on the quality of the College's teacher preparation program probably will not be evident for more than a year, if then.

A teacher of teachers is usually expected to demonstrate an exemplar role, and the literature supports this.[33] Thus the premium is high on such qualities as knowledge, teaching, accessibility and commitment, and objectivity, sensitivity, and capability in supervision and evaluation. Indeed, as Boyer and Keller have noted,

> . . . no faculty member can any longer be regarded as simply a purveyor of factual knowledge, even in his field of specialization. Increasingly, professors must act not only as sources of information but as sensitive intellectual

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[32](Kansas State University College of Education) Promotion and Salary Committee proposal to College of Education Advisory Council about "Recommendations for Implementation of a Faculty Activity Credits System," November 8, 1971, 4 pages (Mimeographed).

[33]See, for example, pages 304-312, especially pages 307-309.

> guides, as concerned questioners of personal and social actions and values, and as provocative stimulants urging students to discover their own capacity for critical and creative thought.[34]

In addition, he had better be able to bridge comfortably the two worlds of humanistic concerns and behavioral factors, for more and more it appears that systems approaches will pervade education.

Supervising teachers.--If, as is also indicated, a greater emphasis is to be placed in the future on field-centered situational experiences, a concomitant increasing emphasis will have to be placed on selection, involvement, and in-service education of supervising teachers. The idea of teams composed of supervising teachers, clinical professors,[35] and student teachers may yet be feasible for Kansas State University's undergraduate basic teacher preparation program.

Other human factors.--Any faculty task group considering how to implement an improved teacher preparation program will have to consider how it will be received (and, hopefully, supported) by university, college, and school administrators; the general public, particularly parents of teacher candidates; boards of education; and other interested parties.

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[34]Ernest L. Boyer and George C. Keller, "The Big Move To Non-College Campuses," Saturday Review, Vol. LIV (July 17, 1971), p. 49.

[35]See, for example, William R. Hazard and B.J. Chandler, "The Clinical Professor In Teacher Education," Phi Delta Kappan, Vol LII (February 1972), pp. 370-371.

Interpersonal communications will be important, as always, but more formal announcements, descriptions, and explanations about the College's program through the news media and by public relations techniques--even on campus--also should be developed and expanded. Although he wrote in 1965 and although Kansas State University's College of Education has several cooperative ties with other colleges and departments, James Hanlon's comments generally continue to be valid:

> Information about teacher education must be disseminated more widely. . . Professors in our colleges and universities who are not engaged in teacher education do not understand the problems of teacher education. Neither does the general public . . . In a time of change, this is neither wise nor prudent. We must explain, justify, and document every move we make, whether it be for the sake of experiment or a more or less permanent shift in direction. In other words, we must end what appears to many to be our self-made isolation.[36]

At present, the College does have good relations with the Office of University News, and considerable information does appear in various publications. Public relations, of course, goes much beyond emphasis on dissemination of news, important though that is.

Institutional Considerations

An institutional consideration of major importance is program evaluation. This has been stressed before, and many of the factors

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[36]James M. Hanlon, "Changes in Teacher Education: Influences, Directions, Implications," The Journal of Teacher Education, Vol. XVI (March 1965), p. 28. (Emphasis his.)

involved have been cited.[37] But any program evaluation should include provisions for longitudinal studies of at least one, two, five, and ten years. Teacher preparation learnings are not necessarily perishable, but their value is often not fully realized until the learner has been teaching for one or more years, if the numerous remarks made to the author over the past several years are to be believed.

Facilities and technical support also are important for a teacher preparation program. Money for the proposed new building to house the College of Education[38] is still a matter of question, with no action having been taken by the spring 1972 Kansas Legislature. But the College has its own audiovisual materials center, the Education Library in the University's Farrell Library is thriving, and there is considerable administrative and some faculty support for a proposed elementary and secondary (and Teacher Corps) curriculum materials center.

Money to fund program changes will always be a problem. The College encourages its faculty to develop proposals for program and project grants.

Other Factors Influencing the Program

Other noncurricular factors influencing undergraduate basic teacher preparation at Kansas State University for good or otherwise include:

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[37]For example, see pages 236, 299-312, and 316-329.

[38]See page 6.

A basic dependence on state funds, indirectly affected by taxpayer feelings and directly affected by the State Board of Regents, the Governor, and the Kansas Legislature.

A current investigation, by the Council of Chief Academic Officers (COCAO) of the state's six public higher educational institutions, to identify strengths, weaknesses, apparent duplications, program needs, resource allocation justifications, and certain other considerations.[39]

The accreditation until 1980-81 of the College's Teacher Education program, at the bachelor's and master's degree level, by the National Council for Accreditation of Teacher Education (NCATE),[40] despite "the lack of space alloted to the education department. The College of Education, located in Holton Hall, has only two classrooms. Most education courses are presently meeting in various buildings throughout the campus. . . The reason for accrediting, according to [Student Teaching Coordinator Roy A.] Bartel, 'is to keep us constantly upgrading our programs.'"[41]

The off-campus undergraduate programs, such as MITEC (Multi-Institutional Teacher Education Centers) and CUTE (Cooperative Urban Teacher Education). In both, all sixteen weeks of the professional,

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[39]Dean (Samuel R.) Keys and Ed (Eddy J.) Van Meter, Memorandum to Kansas State University College of Education Faculty about "Kansas College of Education Deans' Meetings," March 21, 1972, 3 pages. (Mimeographed.)

[40](Kansas State University) College of Education Bulletin, Vol. III, No. 17 (June 15, 1971), p. 1.

[41]"College Gets Accreditation," Kansas State Collegian, September 9, 1971, p. 8.

or "block," semester involve learning and student teaching in Wichita, with MITEC also in the Kansas City-Shawnee Mission area and, beginning in the fall of 1972, in Topeka. Both programs offer very real opportunities for the achievement of the kinds of staff development, clinical experiences, and research E. Brooks Smith saw as feasible for a "cooperative clinical teaching center."[42] The CUTE program, which prepares teachers for inner-city positions, was recently praised by the U. S. Office of Education as "one of the nation's five most innovative education programs . . ."[43] Entrance screening for both programs is somewhat stiffer than for the campus-based program. Note: Kansas City is 110 miles from Manhattan, Topeka 60 miles, and Wichita 130 miles.

Faculty interest in change.--For Kansas State University, this will be the deciding factor with regard to major program revisions. It will depend in large measure on the extent to which the teacher education faculty as a whole can be persuaded to become involved. "A group will be less reluctant to accept an innovation if its members have participated in planning it," as James Stone has observed. "Moreover, . . . an individual who has actively participated . . . will be more likely to want it to succeed. This strategy applies

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[42]E. Brooks Smith, "Needed: A New Order in Student Teaching That Brings Joint Accountability for Professional Development." October 28, 1969, 16 pages. (ERIC ED 023-624.)

[43]"CUTE Student Teachers Begin Working in Wichita; Program Focuses on Inner City," The Wichita Eagle, April 3, 1972, p. 12C.

particularly to those staff members whose security is threatened by the innovation."[44]

What questions should the faculty ask (and answer) initially? Donald Cruickshank has described the four developed for the Department of Early and Middle Childhood Education, The Ohio State University, in the fall of 1969, which the author has converted to apply to any teacher preparation institution:

> (1) To what extent are we willing to revise the undergraduate program in teacher education? (i.e., How committed, really, are we?)
>
> (2) What inputs will be needed in order to make decisions about the nature of the changes?
>
> (3) How can the faculty organize itself to get the job done? Who else (outside the faculty or university) should be involved? Who will be the chairman of the pilot program?
>
> (4) What should be our task and time schedule? Should we PERT[45] our work in order to determine events and dates of completion?[46]

In his department, four committees (Content, Process, Evalua-

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[44]James C. Stone, Breakthrough in Teacher Education (San Francisco: Jossey-Bass, Inc., Publishers, 1968), p. 182. (Emphasis his.)

[45]See page 132 in this dissertation.

[46]Minutes of Kansas State University College of Education Department of Curriculum and Instruction faculty meeting for December 4, 2969, with attached summary of Warren I. Paul's supplemental report to the C & I faculty on the American Association of Colleges for Teacher Education Dissemination Workshop, Kansas City, Missouri, November 30-December 2, 1969. At the time, Dr. Cruickshank was Professor of Education, Department of Early and Middle Childhood Education, The Ohio State University, Columbus. See also pages 283-286 in this dissertation.

tion, and Steering) were established as an initial answer to (3) above, Cruickshank said. He stressed that crossmembership of certain faculty members (e.g., a professor serving on both the Content and Process committees), clear definitions of tasks, and frequent progress reports all facilitate communication, understanding, and accomplishment. Further, he declared, "Once a faculty is committed to a program of change, written statements of encouragement and support should be obtained from the College Dean and from the University's central administration."[47]

One other observation--Arthur Combs'--is also apropos: "Change will only occur in an atmosphere where change is valued, difference is warmly appreciated, and mistakes, which are the inevitable concomitant of trying, are accepted as a normal part of the price of growing."[48]

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[47] Ibid., along with the author's notes made at the Workshop, p. 29. (Emphasis is Cruickshank's.)

[48] Arthur W. Combs, Chairman. Perceiving, Behaving, Becoming: A New Focus for Education, 1962 Yearbook (Washington, D. C.: Association for Supervision and Curriculum Development, 1962), p. 207.

CHAPTER V

THREE POSSIBLE WAYS TO ORGANIZE THE CURRICULAR ELEMENTS

"'All waste,' said John Dewey in a lecture nearly [71] years ago, 'is due to isolation. Organization is nothing but getting things into connection with one another.'"[1]

That simple concept has fascinating implications for and applications to education. Consider it, for example, with regard to: (a) certain kinds of microanalytic research about teaching, (b) the proliferation--and rate of proliferation--of "professional" publication, (c) the recurring criticism of the existence and effect of fragmented, even compartmented, curricula.

And by all means consider Dewey's concept with regard to teacher preparation. So far in this dissertation the reader has seen a brief review of pertinent literature, has had described 32 teacher preparation curricular elements derived from that literature, and has been apprised of certain considerations with regard to those elements and Kansas State University's program. In this chapter, three possible kinds of ways of

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[1]Quoted, without citation of source, by William G. Carr, in "The Teacher and the Professor," Unity in Diversity, Fourteenth Yearbook (Washington, D. C.: American Association of Colleges for Teacher Education, 1961), p. 29. In Carr's original quotation, the time of the lecture was "nearly 60 years ago . . ."

organizing the elements generally for a teacher preparation program are suggested: a linear context, a two-dimensional matrix, and a multi-dimensional model.

A Linear Context

A flow model[2] is essentially linear. Traditional teacher preparation--such as Kansas State University's campus-based basic undergraduate program--is also linear.[3] But where a flow model--a systems model--connotes a certain degree of specificity in individual experiences, particularly with regard to evaluation of student learning, the traditional program usually comprises a set of more generalized encounters built around courses, class attendance, progress rate by group, and broad evaluation designations such as grades.

The traditional program is primarily institutionally oriented. It is linear in the sense of requiring that a student indicate retention of certain short-term learnings in a sequence of group-median-based experiences (classes, courses, groups of courses) arranged almost as pearls, or clusters of pearls, on a string. Time is a constant, requiring the student willy-nilly to keep up as best he can.

The components of a systems-grounded flow model also can be linear, but its characteristics can more readily allow time to be a variable when evaluation is aimed more at identifying individual learn-

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[2]See, "Flow model," page 42.

[3]See pages 425-432, and especially Table 1, "Professional Courses Required in Kansas State University's Current Basic Teacher Preparation Program," page 428.

rates and competency strengths and needs. Such evaluation might well utilize criterion-referenced tests, such as Glenn Roudabush has described:[4]

> A criterion-referenced test is intended to reflect comprehensively the content of a particular curriculum. The curriculum is defined in terms of sequences of specific objectives, usually in a way similar to Gagne's[5] definition, "A curriculum is a sequence of content units arranged in such a way that the learning of each unit may be accomplished as a single act . . ." Achievement, then, is defined as the successive mastery of discrete content units or objectives stated in terms of the behaviors the student is able to perform. At any point in time, a student will have mastered some portion of the behaviors represented by the curriculum, and his score on a criterion-referenced test is a listing of those behaviors he has mastered and those which he has not yet mastered.

Roudabush's reference to "discrete content units" almost seems to imply that curricular experiences should be more or less self-contained (a characteristic grossly purported by standard course-organized curricula), so that duplication is minimized. Aside from increasingly sophisticated development in advanced considerations, however (e.g., Jerome Bruner's "spiral curriculum"[6]), apparent duplication in the actual form of different perspectives can be valuable in reinforcing and enhancing learning.

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[4]Glenn E. Roudabush, "Criterion-Referenced Tests Are Different!" CRITERIA--CTB Newsletter on Evaluation, No. 4 (1971), p. 2. The newsletter is published by CTB/McGraw-Hill, Del Monte Research Park, Monterey, California 93940.

[5]Robert M. Gagne, M. Scriven, and Ralph W. Tyler, "Curriculum Research and the Promotion of Learning," in AERA Monograph Series on Curriculum Evaluation, 1: Perspectives of Curriculum Evaluation (Chicago: Rand McNally, 1967), p. 23. Quoted in Roudabush, op. cit. (See footnote 4, just above).

[6]Jerome S. Bruner, The Process of Education (New York: Vintage Books, A Division of Random House, 1963), pp. 13, 52-54.

Louis Fischer noted that very point more than a decade ago in distinguishing between unwarranted duplication in courses and "Necessary and Desirable Overlap."[7]

> In the area of education one set of facts, i.e. [sic], the human problem of teaching multiplication of fractions to a child may give rise to set of educational problems labeled educational philosophy, psychology, sociology, methods, and others. The same case would be relevant to four separate courses in schools of education . . .
>
> In professional education the course materials need to start from specific case situations or need to end there or both. There is bound to be an apparent identity of content in two or more courses that analyze, though from different concerns, the same facts or situations. When an educational sociologist and an educational methodologist analyze the same classroom situation there appears to be an overlap. The unsophisticated beginning student tends to spot the overlap, and reach a quick decision in the negative. It takes sound understanding and professional sophistication to realize the several dimensions of any problem.[8]

Obviously, such overlap cuts across disciplinary and other educational lines, complicating linear curricular arrangements. But Fischer stressed that the ultimate goal of perspective-oriented analyses was comprehension of how human problems craving solution are integrated; thus solutions must be integrated, too.

Although this of course applies to learning about teaching, it seems often to be ignored or forgotten on the undergraduate level. "The professional component of teacher education for the last 25 or 30 years has taken for granted that the teacher education student will put together the talk about education and his teaching," Herbert LaGrone

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[7]Louis Fischer, "Necessary and Desirable Overlap," The Journal of Teacher Education, Vol. XI (September 1960), pp. 349-352.

[8]Ibid., p. 351. (Emphasis is Fischer's.)

observed in the mid-1960's. But, as he pointed out, "The recent research in teaching and work in theory indicates that an assumption of this magnitude is more likely false than true."[9]

Thus, despite the stretch-out condition inherent in any linear arrangement, a condition which can inhibit integration-oriented learnings (in teacher preparation, John Goodlad would call such learnings "teaching syntheses"[10]), teacher preparation programs must include repeated reminders of integration.

The 32 literature-derived curricular elements can be arranged sequentially or embodied in linearly sequential experiences. Knowledge of integration per se is not a separate element. But consciousness of its importance and stress on its internalization should be--as acknowledged particularly by curricular guidelines one and four[11]--a key binding aspect of any teacher preparation program.

A Two-Dimensional Matrix

The linear concept is a very useful one, particularly in attempting to simplify or order complexities as an aid to comprehension. The human mind does not always seem to think linearly, however, and certainly the effect of life's impacts is not always so understood, even if

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[9]Herbert LaGrone, A Proposal for the Revision of the Pre-Service Professional Programs of Teacher Education (Washington, D. C.: American Association of Colleges for Teacher Education, 1964), p. 63.

[10]John I. Goodlad, School, Curriculum, and the Individual (Waltham, Massachusetts: Blaisdell Publishing Company, 1966), particularly pp. 234-236.

[11]See pages 415-416, 417-418.

perceived. Indeed, as John Pfeiffer has pointed out,

> We tend to approach phenomena in "linear" terms, as if events always followed one another in a direct chain reaction, like the falling of a row of dominoes. Our sentences and our ideas are organized that way.
>
> We might have been able to depend on our own simple capacity for this kind of thinking in a simpler, slower-moving, and less closely-coupled world. But the problems confronting us today involve incredibly complex mazes or "nests" in interconnections and linkages rather than straightforward associations and cause-and-effect sequences, and the results of important changes may be extremely difficult to predict.[12]

This is true for life; this is true for teacher preparation. Near-total reliance on linear organization[13] is no longer sufficient. It is time to move on to more flexible organizational patterns.

Developing such patterns is complicated by the fact that individual and institutional concerns are not always the same. For example, individuals learn at different rates. Ideally, they should have access to learning facilities (e.g., libraries) at any time they find necessary. But from the institutional standpoint, keeping such facilities open all the time to accommodate those individuals with different learning rates can be unwarrantedly costly. Individuals themselves frequently must adjust their activities to conform to others' desires if they would gain the benefits of group interactions. The problem of coordinating individual and institutional schedules and

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[12]John Pfeiffer, New Look At Education: Systems Analysis In Our Schools and Colleges (Poughkeepsie, New York: Odyssey Press, 1968), p. 6. Pfeiffer was building a justification for systems models, but his statement is equally appropriate for a matrix concept.

[13]For example, Kansas State University's present program. See Table 1, "Professional Courses Required In Kansas State University's Current Basic Teacher Preparation Program," p. 428.

concerns can involve extensive complexities.

What might all this--and the need for new patterns--suggest for Kansas State University?

Begin by initially accepting the program's stated objectives.[14] Table 2[15] showed how current curricular and curriculum-related experiences and other aspects were designed broadly and generally around courses to meet those objectives. Chapter III presented a list[16] of somewhat more specifically described curricular elements derived from educators' and other informed observers' presentations as to what teacher preparation should include. Table 3[17] provided a very broad and general indication as to which of those elements apparently are partially (or perhaps even wholly) in the current basic teacher preparation courses.

Table 4, on the next page, breaks away from the course pattern and shows "One Way the Literature-Derived Curricular Elements and Guidelines Could Be Considered In Relation To the General Objectives Stated for Kansas State University's Basic Teacher Education Program." To go beyond primary reliance on courses, however, implies that other organizational patterns are possible for the elements.

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[14]See Objectives for the (Kansas State University) College of Education, pp. 423-425.

[15]"Design of the Current Basic Teacher Education Program In Relation to Stated Objectives," p. 430.

[16]See pages 359-362 and 369-412.

[17]"Literature-Derived Elements Wholly Or Partially Present In Current Kansas State University Basic Teacher Preparation Courses," p. 438.

Table 4

One Way the Literature-Derived Curricular Elements and Guidelines Could Be Considered In Relation To the General Objectives Stated for Kansas State University's Basic Teacher Education Program[a]

Objectives[b]	Primarily Applicable Curricular Elements[c]		Curricular and Other Aspects to Achieve Objectives for Basic Program[c]
I. Instructional Concerns A. Student as an Individual.	Foundation Area: Concentration Area: Application Area: Situation Area:	1,6,10-11 4-5 8,10,11 1-5	The elements at left. Guidelines 1-8. Also: Advisement for individual programs. Requirements for admission to Teacher Education. Individually-oriented supervision and evaluation.
B. Student as a Member of Society.	Foundation Area: Concentration Area: Application Area: Situation Area:	1-4,7-11 1-3 1-5,8-11 1-5	The elements at left. Guidelines 1-8.
C. Student as a Practicing Professional.	Foundation Area: Concentration Area: Application Area: Situation Area:	1-5,8,10-11 1-5 1-11 1-5	The elements at left. Guidelines 1-8. Also: Individually-oriented supervision and evaluation.
D. Student as a Professional Educator.	Foundation Area: Concentration Area: Application Area: Situation Area:	1-5,7-11 4-5 11 1,5	The elements at left. Guidelines 1-8.
II. Research Concerns Student as a Consumer and Producer of Research.	Foundation Area: Concentration Area: Application Area: Situation Area:	5,7-8,10-11 1-5 1-11 2-5	The elements at left. Guidelines 1-6, 8. Note: Opportunities possible in almost all curricular situations.
III. Service Concerns Student as a Contributor to Off-Campus Services and Studies.	Foundation Area: Concentration Area: Application Area: Situation Area:	1-4,11 1-5 1-11 2-5	The elements at left. Guidelines 1-8. Note: Optional opportunities available, such as CUTE Program, Teacher Aide Program, Friendship Tutoring, Adult Basic Education Program.

[a]See also Table 2, p. 430, and Table 3, p. 438.

[b]See Objectives for College of Education, pp. 423-425.

[c]Element and guideline numbers correspond to the four areas' elements listed on pages 360-363 in this dissertation and to the list of guidelines on pages 415-418. All elements apply in some degree to all objectives, but these are the most directly applicable for the objectives in, respectively, the box directly to their left.

And so they are. One such would be the development of curricular modules based on the elements.[18]

Considerations About Modules

As pointed out in the definition on page 31, a curricular module is self-contained, "although it may relate in some way to other modules (e.g., by increasing depth or breadth) . . . and might well be interchangeable sequentially with other modules in a student's curricular program."

A module's objectives--for itself and for the teacher candidate--should be succinctly stated. What is desired with regard to activities to be completed and learnings to be achieved should be clearly explained. Necessary materials or references should be sufficiently complete to minimize time waste and confusion.

Guy Martin and Michal Clark have described how such modules would fit into the conceptual framework for a competency-based teacher education program:

> The conceptual framework specifies a set of competencies to be attained by a teacher. From these competencies a set of specific instructional goals can be derived. A module would address a goal, and the module's objectives would operationally define the goal. A competency is then operationally defined by all of the objectives contained in the modules within the competency. The assessment of performance in every module should be adequate so that successful completion of the set of modules for a given competency ensures achievement of that competency. Hence, modules become the media for bringing about competency attainment. It is hoped that as the system develops, more than one module directed toward each goal will be available to allow for greater individualization in the modules a teacher trainee

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[18]See also pages 439 and 441.

uses to attain the necessary competencies.[19]

Martin and Clark state, in effect, that every module should have its own objectives and that achievement of those objectives should be assessable. Sets of modules also should have their own objectives where appropriate, as William Webster and Gordon McLeod have pointed out:[20]

> Module-set objectives are operationally defined as objectives that take longer than one module to master. These may be objectives that are actually mastered at some distinct point in time, or discrete steps in developmental objectives. Learning activities within PLAN[21] modules are geared to both the module objectives that appear on each module and the module-set objectives that are to be mastered through the study of a number of modules. Mastery of module-set objectives is measured at specific points in the curriculum through devices known as PLAN Achievement Tests.

The concept of module-sets, with their own objectives and achievement tests, is highly applicable for teacher preparation.

Modules may well have combinations of similar characteristics even

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[19]Guy N. Martin and Michal C. Clark, "Developing A Modular Teacher Education Program for An R & D Center" (paper presented to the American Educational Research Association annual convention, March 4, 1970, Minneapolis, Minnesota), p. 3.

[20]William J. Webster and Gordon J. McLeod, "An Empirical Approach to Curriculum Design" (paper presented at the American Educational Research Association national convention, March 1970, Minneapolis, Minnesota), 9 pages. The quotation is from page 5.

[21]Ibid., p. 1, on which Webster and McLeod describe PLAN as an acronym "for a Program of Learning in Accordance with Needs. PLAN is an ungraded, computer-supported individualized program of . . ." elementary and secondary education. See also certain other papers presented at the same convention, particularly: James A. Dunn, "The PLAN Approach To Curriculum Definition." Margaret T. Steen and Dewey Lipe, "The Use of the Teacher Observation Scale In the Development of the PLAN Teacher Training Program." John E. Rhetts, "The Impact of Student Learning Style On Curriculum Assessment and Performance In the PLAN Program of Individualized Instruction."

though they may be described as primarily stressing only certain characteristics, e.g., knowledge (Teachers for the Real World[22]), behavior and behavioral change (University of Wisconsin elementary model[23]), skills (Weber State College[24]), synergistic free method problem solving and decision making (University of Minnesota[25]).

But above all, even if they provide for group interaction, they should be heavily individually oriented to minimize traditional reliance on the Procrustean bed of the median and to challenge teacher candidates to rise above the minimally required.

Roseamonde Porter is one who has seen that "The principles of the uniqueness of the individual and the unique pattern and rate of development and learning of individuals apply to prospective teachers. This means that mass production methods, which seem to assume that everyone can learn the same thing in the same way, are no more effective in teacher education than at any other level."[26]

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[22]B. Othanel Smith, Saul B. Cohen, and Arthur Pearl, for the Task Force of the NDEA National Institute for Advanced Study in Teaching Disadvantaged Youth, Teachers for the Real World (Washington, D. C.: The American Association of Colleges for Teacher Education, 1969), p. 121.

[23]John M. Kean, editor, Wisconsin Elementary Teacher Education Project, Volumes I-IV (Madison, Wisconsin: School of Education, University of Wisconsin, February 1969). (ERIC ED 036-678.)

[24]Jack L. Kennedy, "Pick Up Kit, Learn, Forget Grades, College Urges Its Student Teachers," The Wichita Eagle and Beacon, Saturday, April 8, 1972, p. 16A.

[25]"'Free Method' Teacher Training," Phi Delta Kappan, Vol. LIII (November 1971), p. 204.

[26]M. Roseamonde Porter, "Some Basic Premises for Teacher Education," The Journal of Teacher Education, Vol. XV (December 1964), p. 440.

L. O. Andrews has acknowledged this, too, and postulated as one appropriate solution:

> One of the less publicized but more serious criticisms of teacher education has been its failure to "practice what it preached" in the area of individualized instruction. College students have often been painfully aware that their professors tried to teach them how to individualize their efforts in teaching children, while at the same time forcing prospective teachers through a stultifying lockstep program that admitted little or no variation for either individual differences, needs or previous backgrounds. The level of readiness for professional learning varies amazingly, while the background of professional and preprofessional experiences is extremely great. There may actually be no other approach which would improve teacher education as much as to have competent, empathetic professor-counsellors work with individual students throughout their teacher-preparation years, diagnose their needs, adapt their experiences to their needs, and modify the curriculum to suit their rates of development.[27]

Personalizing curriculum--in modules or other ways--is obviously not the sole responsibility of the student.

After studying the literature and considering ideas and viewpoints from other sources (e.g., conversations with persons interested in education), the author has come to believe that a demonstrated-competency-based program utilizing learning modules would probably be the most effective--from both individual teacher candidate and institutional standpoints--for the curricular aspects of Kansas State University's preparation of teachers for the 1970's and beyond. Further, module-related learning experiences should be adjusted reasonably to teacher candidates' institutionally identified and internally acknowledged needs.

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[27]L. O. Andrews, "Challenges and Needed Developments in Teacher Education," in Howard E. Bosley, editor, Teacher Education in Transition, Volume II, Emerging Roles and Responsibilities (Baltimore: Multi-State Teacher Education Project, July 1969), p. 170. (Emphasis is Andrews'.)

Prerequisite to extensive individual immersion in such a program would be the development of a thorough personality and skill profile of some kind for every teacher candidate. If possible, the profile should indicate the likelihood of the candidate's teaching effectiveness, or at least effectiveness with regard to specified kinds of situations. Developing such profiles may well have to involve diagnostic centers and interdisciplinary diagnostic teams, such as those suggested by Scott Thomson for a somewhat different context.[28]

Until such sophisticated profiles can be developed and demonstrated to be consistently effective, however, competency-effecting curricular modules probably would have to be considerably generalized. Initially they might even emphasize institutional concerns almost exclusively, with greater balance evolving with continued refinement.

Eventually development and repository centers might be established from which curricular modules could be obtained as needed or desired by an area's teacher preparation institutions. For example, the University of Texas in the late 1960's was involved with a program to build such modules in three categories: Laboratory-Based Teacher Experiences with regard to early preservice teacher education, Curriculum-Based Instructional Approaches in various academic subject

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[28]See pages 159-160 in this dissertation. The reference is to Scott D. Thomson, "Beyond Modular Scheduling," Phi Delta Kappan, Vol. LII (April 1971), pp. 484-487. Thomson's proposal actually was intended primarily for secondary schools, but it has a real value for aspects of teacher preparation. See also the idea of an "open-file permanent record system" presented by Dwight W. Allen and Glenn W. Hawkes, "Reconstruction of Teacher Education and Professional Growth Programs or How the Third Little Pig Escaped the Wolf," Phi Delta Kappan, Vol. LII (September 1970), pp. 6-7.

areas, and Personalized Module Building with regard to teachers' concerns, counseling of teachers, and motivation.[29]

The concept of the self-contained module implies internal integration of all of the parts, elements, aspects involved. External integration in a program can be enhanced by the module-set concept. Just as a person's characteristics are integrated (though not always balanced), so should integration be present in modules, particularly modules built around sets of elements such as the literature-derived 32 for teacher preparation described in Chapter III.

The Triangular Matrix

Guideline four[30] stated that in an integrated teacher education program, all curricular elements relate to each other. Conceptualizing the extent of this can be helped by developing not a table but a matrix.[31]

Figure 2, on the next page, is a "Basic Interrelationship Matrix for Teacher Preparation Curricular Elements," specifically the 32 elements derived from the literature and described in Chapter III.

In keeping with the delimitation provision that specific activities

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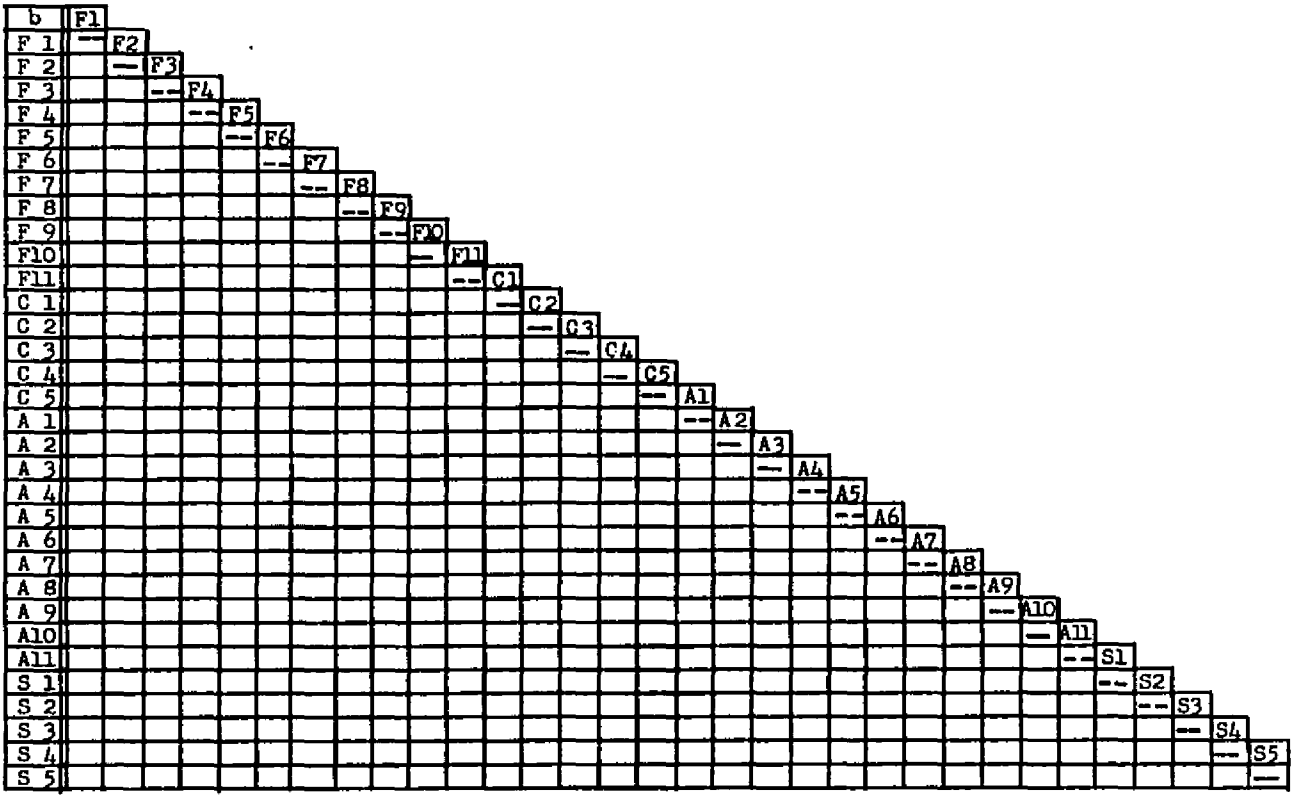
[29]Oliver H. Bown, Investigator, "Interdisciplinary Module Building Groups. Research and Development Center for Teacher Education, Program 04" (Austin, Texas: University of Texas Research and Development Center, Proposal Date June 1, 1969). (ERIC EP 011-984.)

[30]See pages 417-418.

[31]One of the characteristics that distinguish a matrix from a table is the matrix's more cohesive integration. A table's items, cells or boxes relate directly always to their stated or implied top and, if any, side categorical headings, usually to other items or boxes in the same column, and only sometimes to items or cells in other columns. In a matrix, on the other hand, every cell relates to and influences every other cell.

Figure 2

Basic Interrelationship Matrix for Teacher Preparation Curricular Elements[a]



[a]Each of the 496 interrelationship cells is to include a description of the nature and extent of relationship of the connected curricular elements (e.g., C3F7) as equally as possible with each other. Also to be included, if possible are identification of (1) curricular experiences (e.g., courses, modules) where the relationship would be evident, and (2) means by which each student can be helped to internalize the elements' characteristics and interrelationships. (See also Figure 8, page 487.)

[b]Element letters designate the four areas (F - Foundation, C - Concentration, A - Application, S - Situation). Element numbers correspond to the numbers listed in Chapter III, particularly pages 360-363.

and other details are beyond the scope of this dissertation, such data are not shown in Figure 2. If and when Figure 2 becomes developed fully, however, each of the 496 interrelationship cells should show a description of the nature and extent of relationship of the elements it connects as equally as possible with each other. Also to be included to the extent possible would be a detailed listing of modules, courses, and/or other curricular experiences where the relationship would be present, evident or not. Further, the intended curricular means by which each teacher candidate could be helped to internalize (learn) those of the elements' characteristics--separate and interrelated--appropriate to him should be included.

Developing the matrix fully would involve a rather large effort. But no one has claimed--at least recently--that teacher preparation is simple or easy. As the relationships would be developed, it is quite possible that diverse patterns of curricular organization with regard to sequence and scope may become evident for both institution and individual. It might well be compatible with existing innovative patterns, such as the University of Massachusetts' use of credit modules.[32] With different elements, the matrical concept might even be feasible for extensive university-wide program innovation, such as the New Competency Curriculum which Sterling College, Sterling, Kansas, will initiate in

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[32]Dwight W. Allen and Glenn W. Hawkes, "Reconstruction of Teacher Education and Professional Growth Programs or How the Third Little Pig Escaped the Wolf," Phi Delta Kappan, Vol LII (September 1970), pp. 8-9. "Arbitrarily 15 credit modules are defined to equal one semester unit of credit in the University of Massachusetts' application," according to the footnote on page 8. Modules can be individual or multiple. See also pages 97-101 in this dissertation for an earlier description of the University of Massachusetts' program.

the fall of 1972.[33]

In any event, a matrix such as is shown in Figure 2 can be vastly useful with regard to the 32 teacher preparation elements presented in Chapter III. Even so, it still does not indicate an idea of all of the interrelationships involving teacher preparation curricular elements. For that, two dimensions are not enough; a multi-dimensional concept is necessary. One is suggested in the next section.

The Multi-Dimensional CONCEPT Model

"'Utmost simplicity' is sometimes seen as a desirable characteristic of good design," wrote Paul Klohr in 1965. However, he added, "Our concern in curriculum planning is more than just simplicity. We seek a larger context in order to cope with necessary diversity and complexity."[34]

Certainly this is true for teacher education. Herman Hermanowicz's call for macroanalytical approaches already has been

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[33]"Change Attempted At Sterling College," Topeka Daily Capital, Monday, January 31, 1972, p. 7. A student can partially meet graduation requirements by passing standardized tests in any of nine required competencies: comprehension of Christian heritage and its relevance; knowledge of how to acquire and use knowledge; "adeptness in verbal communication; understanding artistic and esthetic dimensions of a culture; demonstration of a degree of physical skill in some recreational sport; awareness of values and a consciousness of relation to them; comprehension of the relationship of man to his physical and social environment; ability to work in groups studying, analyzing, and formulating solutions to problems and acting on them; and a student must demonstrate proficiency in at least one discipline in depth. The curriculum has five basic principles: student-centered; experience oriented; demonstrated performance; flexible to meet student needs; and high degree of relevance toward ultimate professional requirements."

[34]Paul R. Klohr, "Use of the Design Element in Curriculum Change," Educational Leadership, Vol. 23 (October 1965), p. 26.

cited,[35] as has Ibrahim Saadeh's citation of R. S. Soar's acknowledgement of the value of simultaneous examination of a large number of behavior aspects when the interactions among variables are key determinants of results.[36]

Consideration of a larger context involves perspective. Ross Mooney has suggested that if we back away from and/or rise above an area of contemplation far enough, we can begin to see even disparate or seemingly incompatible elements in an ecological perspective of relationships.[37]

Considerations Dimensional

Movement up and away to gain perspective involves moving in at least three dimensions. Since physical movement of this nature is not always possible, mental movement must precede perspective perception. Here, imaginative models can help, particularly if the mental mover remains aware of realities (e.g., with regard to accepted characteristics or boundaries) but does not allow them to inhibit experimental extrapolation.

Models vary widely in concept, from simple ones to two dimensions to complex cones, spirals, and other configurations. They are designed to show graphically the directions and relationships of and among the elements they include. The two-dimensional, triangular matrix (Figure 2, page 466) described in the previous section could be con-

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[35]Hermanowicz, op. cit. (see page 364 above, in this dissertation).

[36]Saadeh, op. cit. (see page 144 in this dissertation).

[37]Ross L. Mooney, Professor of Education, The Ohio State University, in conversations with the author and others at The Ohio State University during the summer of 1969.

sidered an illustration of a model with a heavily institutional orientation. Individual orientation could involve other kinds of elements. For example, previous, present, future academic, personal, pre-professional, and other individual and institutional experiences could be structured as components into a two-dimensional modular matrix for an individual student's program.

Now, consider all these components as variables, some perhaps with changing characteristics, in the student's environment. His adjustment to them, and comprehension and/or mastery of them, would represent the process by which he could meet the objectives of his program [structure].

These variables, as elements of curriculum individually tailored or acknowledged as to the student's pace, ability, and interest levels, could be organized into a three-dimensional, or even cubical, matrix. One dimension could be the detail components and sequential steps of subject or content orientation. The second dimension could be the larger generalizations and cognitive and affective skills learned within the specific areas of the first dimension. The third dimension could be the comprehension of relationships and integrations among the disciplines (subject areas), using and extending laterally and vertically the disciplined generalizations of the second dimension and identifying commonalities among them.

Such a cube could be expanded so that experiences outside the educational institution could be included. In that sense, the overall, synthesized cubical space could be considered a fourth dimension (perhaps a synergistic dimension).

The factor of time could be a fluid fifth dimension in the sense that the student and the entire cube were on a continuum even though

individual variables might have varying rates of change.

The cubical matrix concept raises a number of questions. For example, could quality, measured as a combination of intensity of experience and probable (perhaps even ultimately determinable) extent of retained learning, be a sixth dimension?

How can effectiveness in reaching curricular objectives be reconciled with keeping a student's sense of privacy inviolate?

Imagine, briefly: what would be the nature of the changes in the matrix's cells if they were affected by proximity to, changes in, or increased size of adjacent or other cells? (Computer utilization would be a must to even approach descriptions of the complexities involved in most such changes.)

Conceptually, if in no other way, would current cell elements ("celements"?) always have to be finite [as, apparently, are protons in an atom or bits of a genetic helix], so that the nature of their weight or gravitational pull would change as new celements are added or, perhaps, old ones knocked away or modified by bits of roving knowledge or thought? Or would movement (rate, speed, and scope) of a cell's elements be constrained by the introduction of foreign or compatible *new* bits within the fixed universe of a given cell's size and shape? Indeed, Schell has pointed out that a cubical matrix's cells could vary in size and would not have to be uniform within the cube.[38] In that case, would movement of bits (and thus their effect) be heightened by increasing a cell's size? A major problem would be to identify the knowledge or

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[38]Leo M. Schell, Associate Professor of Education, Kansas State University, in conversation with the author December 10, 1969.

thought bits and to measure how, and at what rate, they are affected in the matrix.

Since the cells in such a conceptual construct could vary in size, certain ones might even be multilevel to incorporate relationships directly belonging to more than one level, equally or not. Most intercellular/interlevel relationships probably would be osmotic. [In the sense that the separate parts that form a basis for a synthesis (or sometimes even a synergism) in a person's knowledge or awareness often afterward cannot be identified, the concept of educational osmosis seems reasonable.]

The foregoing postulates one kind of multi-dimensional structure. It is quite possible that somewhat the same results as imagined for size-variable cells could be achieved by appropriate programming of a computer. The computer's ability to coordinate great numbers of variables turns its operational microrigidities into curricular macroflexibilities.

Considerations of Theory and Theoretical Structure

What the foregoing really suggests is a theoretical framework designed to gain insight with regard to much of the "diversity and complexity" to which Klohr referred.[39]

Theory, according to part of one definition, is "1. Contemplation, speculation. . . . 4. A more or less plausible or scientifically acceptable general principle offered to explain phenomena."[40] Now, as Tom Vickery and DeLayne Hudspeth have noted, "The basic function of any

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[39]Klohr, op. cit. (see Chapter V footnote 34, page 468).

[40]"Theory," Webster's New Collegiate Dictionary (Springfield, Massachusetts: G & C Merriam Co., 1956), p. 881.

theory is to describe some system of events well enough that the output of that system can be predicted. . . . For our purposes, we will consider a theory to be an explanation of the way certain events come to pass and curriculum to be the product of the decision-making process which curriculum theories try to explain."[41] In effect, according to Kelly Duncan and Jack Frymier, "Theory gives a researcher a place to stand while he observes."[42]

One problem in developing a new theoretical framework for an area is that if it is too radical or unusual, people who are asked to approve its implementation, even experimentally, may not be able to comprehend it. In other words, as so often with effective teaching, enough references to characteristics, procedures, and concepts already understood and accepted must be included in any proposal so that anyone involved with it can proceed from the familiar to the strange as unthreateningly as possible. "New frameworks lacking a linkage to the old cause resistance because of the inadequate development of points of contact between what is new and what has gone on before," Louise Berman has pointed out.[43] This is why consideration of the 32 literature-derived teacher preparation curricular elements has in previous pages

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[41]Tom Rusk Vickery and DeLayne R. Hudspeth, "Towards An Empirically Based Curriculum Theory: A Guide for Research" (paper presented at American Educational Research Association national convention, March 1970, Minneapolis, Minnesota), pp. 2,3.

[42]Duncan and Frymier, "Research in Teacher Education: A Syntactical View," op. cit. (see Chapter II page 346, including footnote 899).

[43]Louise M. Berman, editor, The Nature of Teaching: Implications for the Education of Teachers (Milwaukee: University of Wisconsin-Milwaukee, 1963), p. 103.

been developed from their Chapter III description[44] through their general applicability to Kansas State University's program[45] and the idea of their matrical interrelationships[46] to the threshold of their place in a multi-dimensional construct.

For to postulate educational theory means to postulate organizational structure, since, as Terry Cornell has put it,

> . . . any educational program is affected by many variables, not only within the educational setting, but also outside of it. These variables may combine in many different ways to produce different kinds of outcomes in the educational program. It would therefore be helpful to the evaluator if these variables could be displayed in such a way that he could visually see the different ways in which the variables could come together to affect the outcomes of an educational program.[47]

Cornell's paper described "An Organizational Structure of Variables Affecting Educational Programs," with the structure being a three-dimensional solid, developed by the EPIC Evaluation Center, Tucson, Arizona.[48] That the three-dimensional cellular concept is neither new nor unique to the EPIC Evaluation Center[49] in no way detracts from its usefulness.

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[44] Pp. 359-362, 369-412.

[45] E.g., pp. 435-439, 460, 461.

[46] Pp. 456-460, 465-468, 469-470.

[47] Terry D. Cornell, "An Organizational Structure of Variables Affecting Educational Programs" (paper presented at the American Educational Research Association national convention, March 2-6, 1970, Minneapolis, Minnesota), p. 2. (See also pages 146-147 in this dissertation.)

[48] Ibid., n. 1. Cornell's paper discussed the application of the EPIC Organizational Structure with regard to schools in communities.

[49] See, for example, pages 145-146.

Thus, the 32 literature-derived teacher preparation curricular elements, perspectives, and orientations described in Chapter III[50] are best viewed contextually in a series of three-dimensional figures, which appear in the following pages. The figures reflect consideration of the elements in the three kinds of contexts--area, perspective, and primary orientation--explained and discussed in pages 357-359.

The Foundation Area Interaction Block

As explained on page 369, study and understanding of the 11 curricular elements in the Foundation Area (pp. 369-372) should be undertaken from two humanistic perspectives (historical development and related philosophical concepts) and five behavioral perspectives (psychology, sociology, anthropology, economics, and political science). The area's intended learnings for teacher candidates would be primarily oriented to the three domains (cognitive, affective, and psychomotor).

The relationships of these components are depicted on the next page in Figure 3, "The Foundation Area Interaction Block of the Multi-Dimensional CONCEPT Model."[51] The 11 Foundation Area curricular elements are one dimension of the cells, the seven Foundation Area perspectives collectively are a second dimension, and the three primary orientations are the third dimension. Interactions among all are represented both by the 231 cells and the overall block itself.

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[50] Pp. 359-362, 369-412.

[51] "CONCEPT" as used with Figures 3, 4, 5, and 6, is an acronym for Comprehensive Overview of Necessary Curricular Elements for the Preparation of Teachers. Figure 6, p. 482 , is the actual CONCEPT Model.

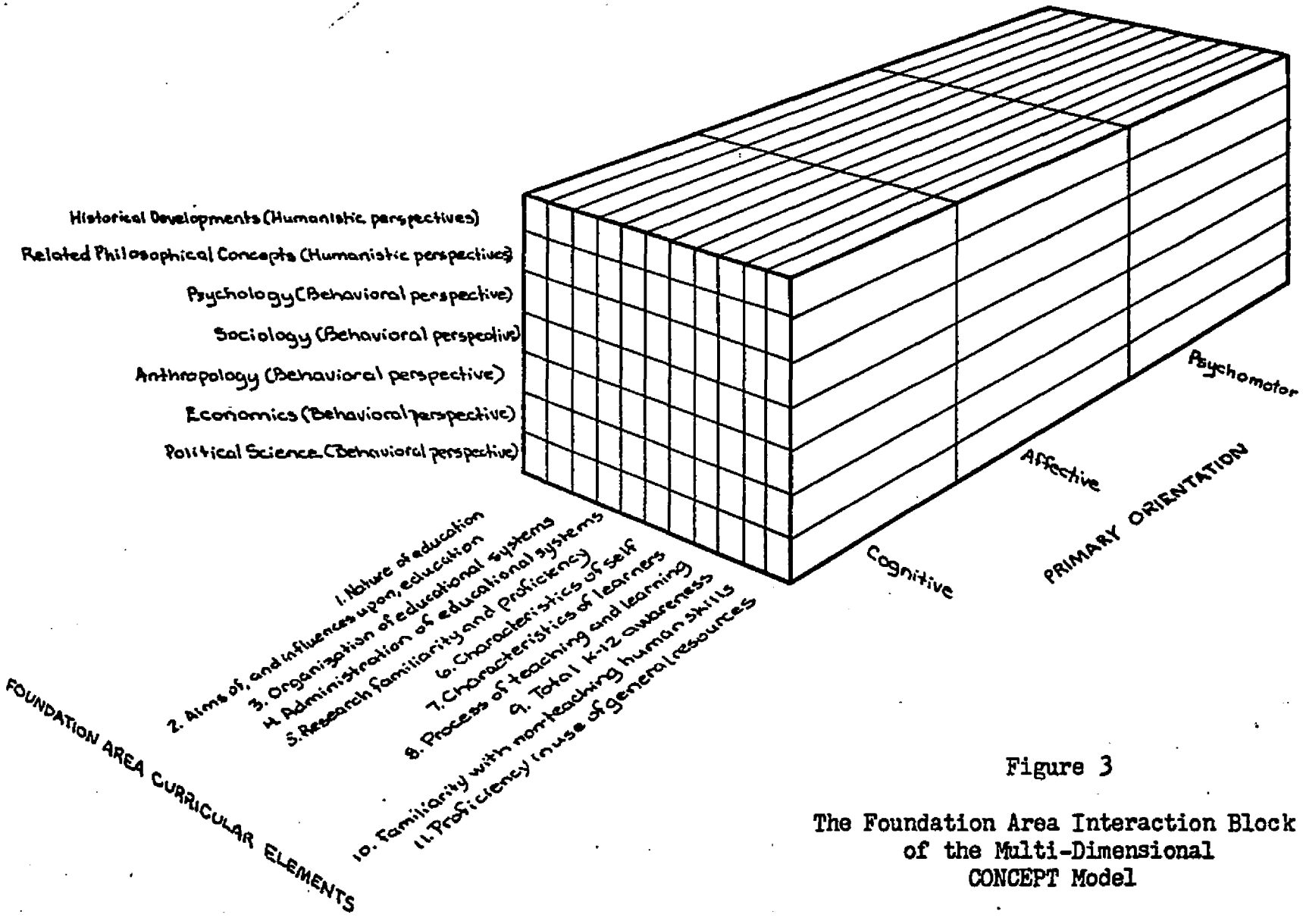

Figure 3

The Foundation Area Interaction Block
of the Multi-Dimensional
CONCEPT Model

The Concentration Area Interaction Block

As explained on pages 372-374, individual learners should internalize five Concentration Area elements in three primary orientations (cognitive, affective, psychomotor) from subject areas selected from the 24 majors or groups of majors[52] made available by the teacher preparation institution, in this case Kansas State University. (Other institutions might have more or fewer majors or groups of majors.) For this interaction block, majors, as "perspectives," form one dimension. The five elements form another, and the third dimension is represented by the domains of the primary orientation.

The 360 cells and the overall block itself represent the block's interactions. Figure 4, "The Concentration Area Interaction Block of the Multi-Dimensional CONCEPT Model," is on the next page.

The Situation-Application Interaction Block

All four of the areas--Foundation, Concentration, Application, Situation--relate to each other. But the relationship of the latter two to each other is more obviously direct than, generally, any of the other relationships. For that reason, the Situation and Application areas' elements and primary orientations have been combined to create Figure 5, "The Situation-Application Interaction Block of the Multi-Dimensional CONCEPT Model." It is presented on page 479.

The 11 Application Area curricular elements form one dimension of

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[52] "Groups of majors:" e.g., secondary science would include such specific subject areas as Biological Science, Chemistry, Earth Science, Physical Science, and Earth Science at Kansas State University.

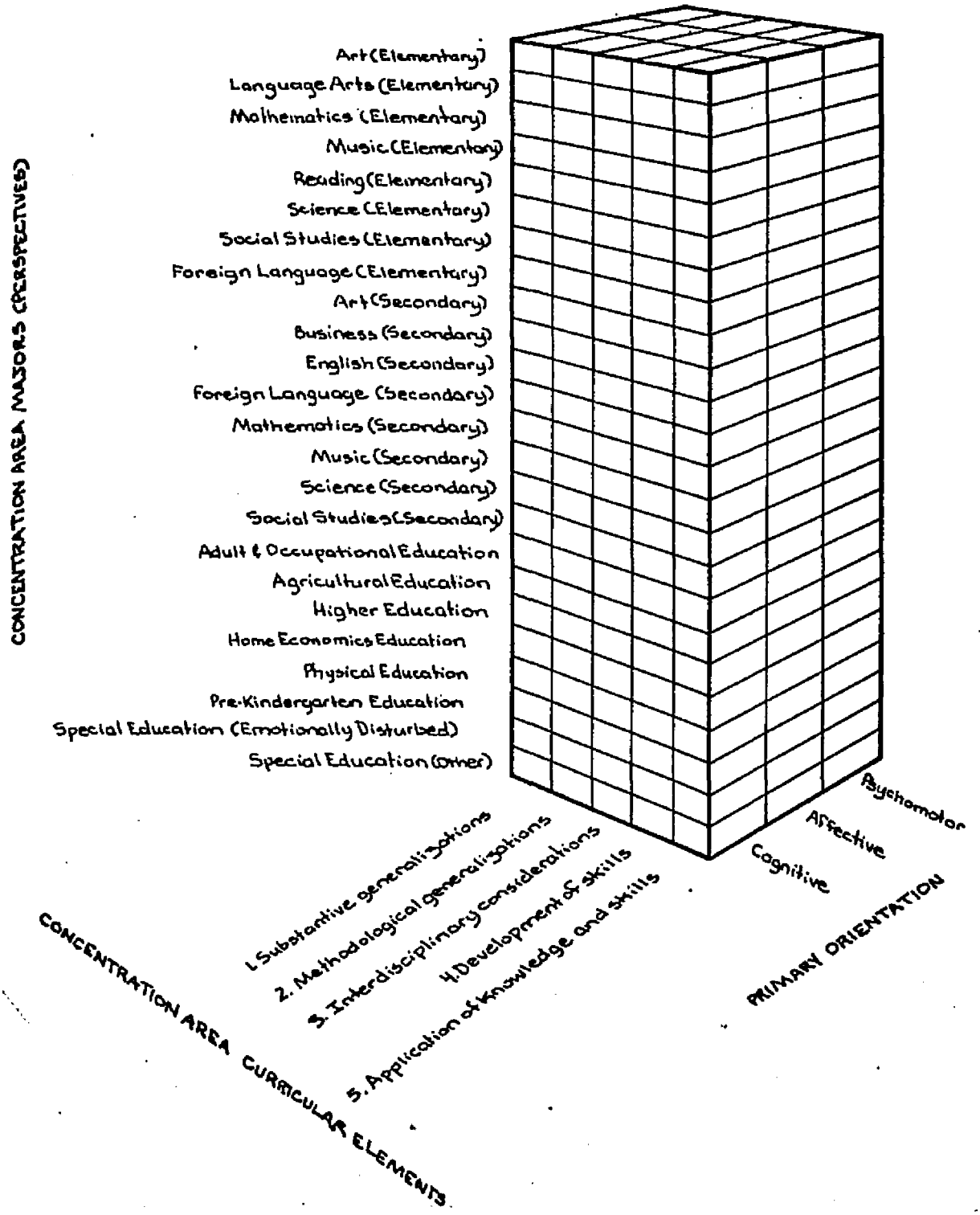

Figure 4

The Concentration Area Interaction Block
of the Multi-Dimensional
CONCEPT Model

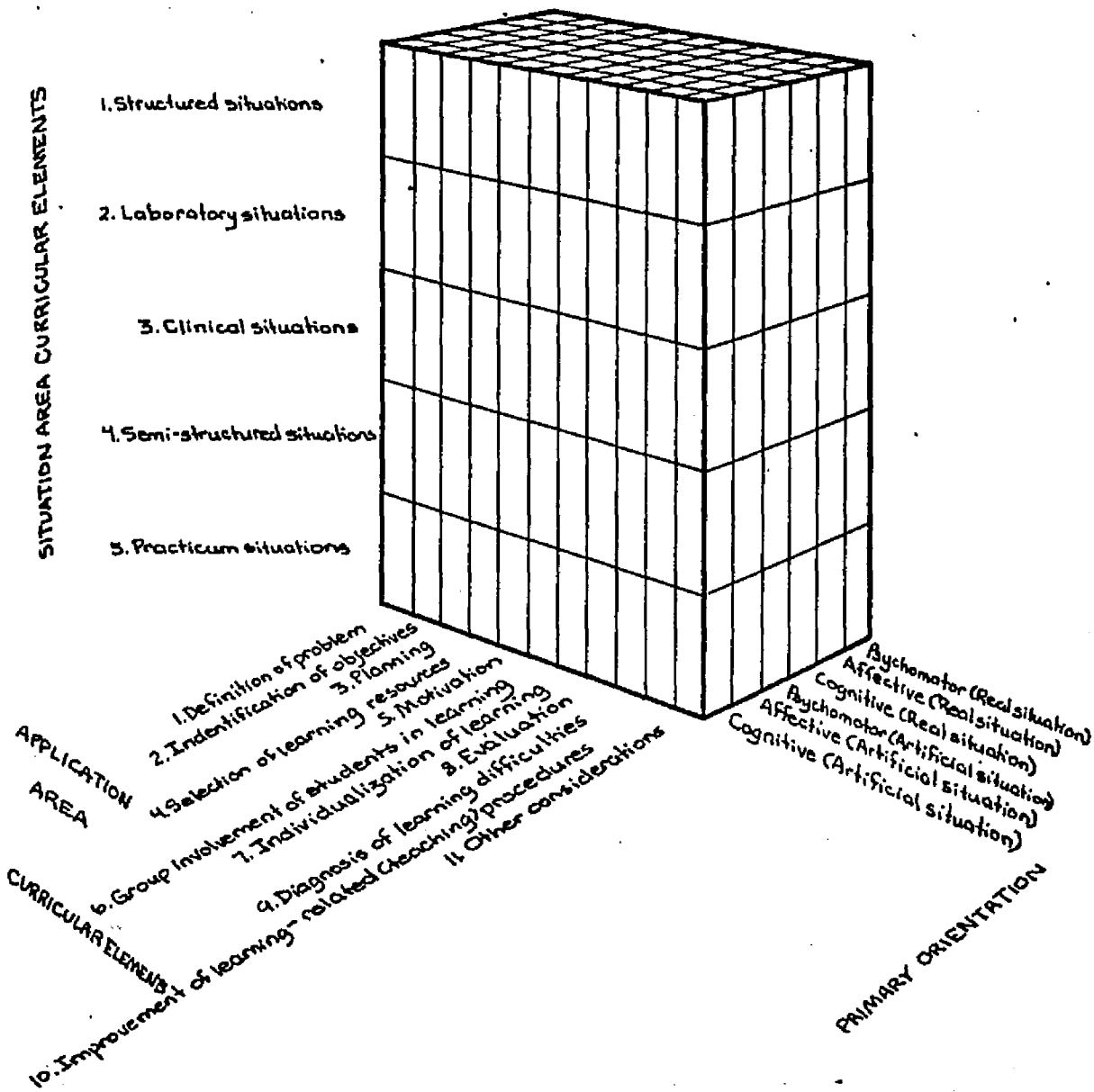

Figure 5

The Situation-Application Interaction Block
of the Multi-Dimensional
CONCEPT Model

the block. For a time some consideration was given to reducing these elements to four groups: Organizational (with elements 1-4), Presentational (with elements 5-7), Evaluational (with elements 8-10), and Other (element 11). But those categories, while useful, would be too broad for the more functional level of the current elements. The Application Area's purpose and primary orientation are described on page 393; the elements are discussed on pages 401-408.

The block's second dimension is formed by the five Situation Area curricular elements. The third dimension combines the primary orientations of the Application Area (the cognitive, affective, and psychomotor domains) and the Situation Area (artificial situations and real situations). Primary purpose and primary orientation for the Situation Area elements appear on page 408 above; the elements themselves are described on pages 408-412.

There are 330 interaction cells in this block, which by its overall, integrated nature also represents interaction of all the cells.

Culmination: The CONCEPT Model

"Before attacking a complex entity as a totality, it is sometimes possible to attack its parts to find the most promising approach, but to settle with the piecemeal approach, or to assume it to be a valid one, is an untenable position," Ibrahim Saadeh has declared.[53]

With regard to the totality of teacher preparation, however, a major part of the problem, as B. O. Smith acknowledged nearly a decade

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[53]Ibrahim Q. Saadeh, "Teacher Effectiveness or Classroom Efficiency: A New Direction in the Evaluation of Teaching," The Journal of Teacher Education, Vol XXI (Spring 1970), p. 75.

ago, is that "There is no unified theory of teaching. Those who are studying teaching are like the blind men feeling the elephant. Some investigators feel another part of the anatomy and construct a different picture. So today we have diverse views of teaching, each having its own theories."[54]

The author does not pretend to put forth another theory of teaching. But he has attempted both to reduce the blindness and to back away far enough to sense the totality of teacher preparation. The result is "The Multi-Dimensional CONCEPT Model," Figure 6, page 482, with CONCEPT an acronym for Comprehensive Overview of Necessary Curricular Elements for the Preparation of Teachers.

The model includes the 32 elements with their various perspectives and primary orientations. But the significance of it is that all these relate to each other first within their own area and then within the other areas.

Thus, all of the components of the Foundation block relate to each other. But since they are, as the name implies, essentially foundational for the other areas, and most immediately the Concentration Area, each cell in the Concentration Area is in effect a complete Foundation Area interaction block. The Concentration Area, with its own unique input and characteristics, is made up of 360 Foundation Area blocks. This is indicated in Figure 6 by the dotted lines running from the Foundations block to the Concentration block.

In the same way, every cell of the Situation-Application block

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[54]B. Othanel Smith, "Teaching: What It Is and What To Do About It," The Bulletin of the National Association of Secondary-School Principals, Vol. 47 (April 1963), p. 99.

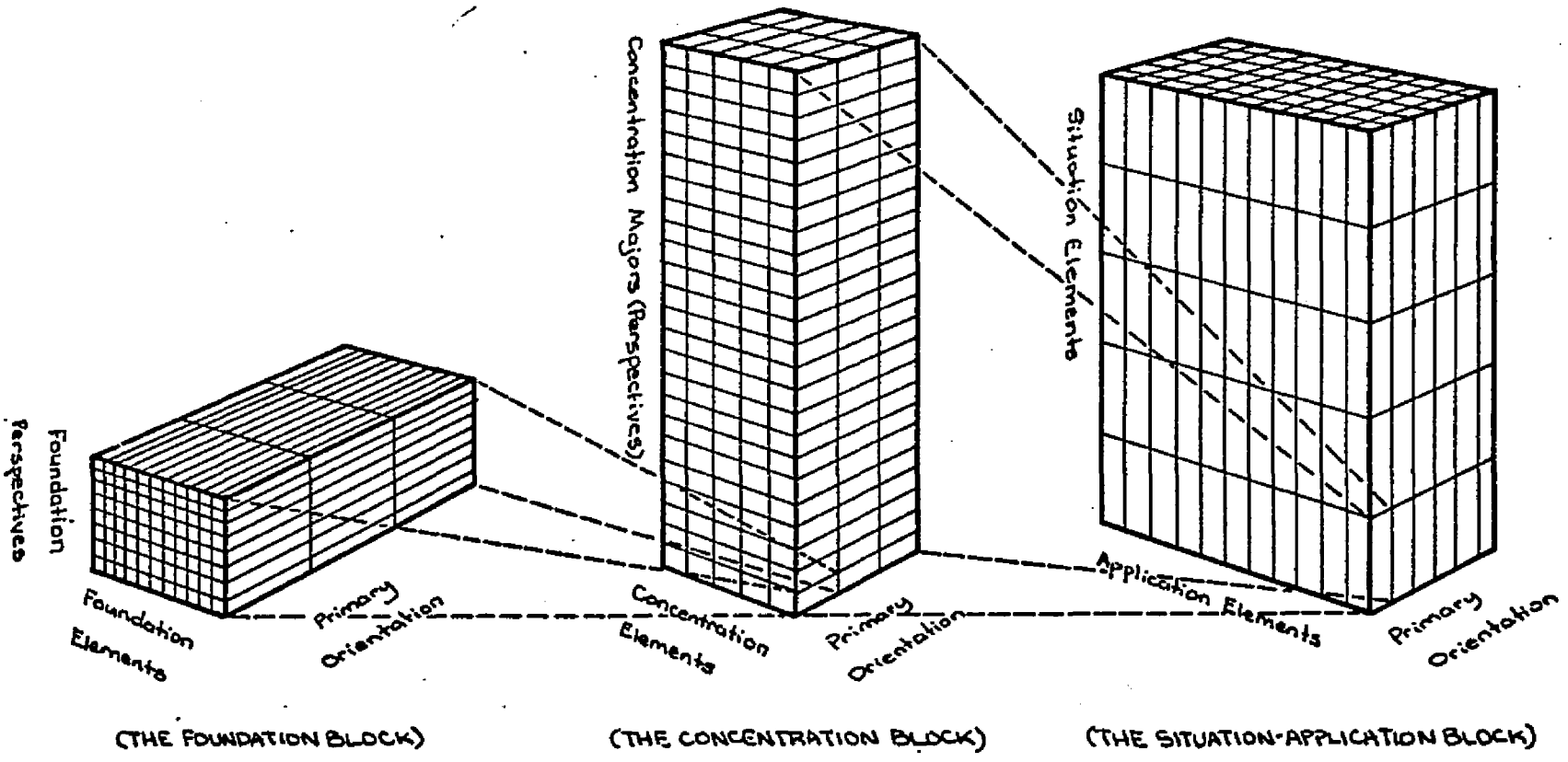

Figure 6

The Multi-Dimensional CONCEPT Model

would be an entire Concentration area interaction block, which of course would increase the number of curricular interactions rather incredibly.

If all the foregoing premises are accepted, and they certainly provide one way to take a macroview, a teacher preparation institution should be prepared to provide at least 27,442,800 curricular interactions for its teacher candidates!

More than twenty-seven million! And each probably with its own perspective with regard to objectives and experiences in far greater detail. Of course, individual students would encounter far fewer interactions. But the model encompasses the institutional programs in a three-dimensional way, with time being a fourth dimension and perhaps extent-of-quality a fifth.

The literature indicates that educators think in scopes of large theory or in rather small detail about teacher education,--about teacher preparation. But rarely do they consider the in-between stage. John Goodlad did cite the need for "intervening models" back in 1966,[55] but such models still seem to be scarce.

The author does not claim the CONCEPT Model to be such an intervening model. But perhaps it will help others conceptualize about teacher preparation componently, elementally, totally, and synergistically.

Similarly, the author does not proclaim the CONCEPT Model to be a theory. However, at least in the sense of the dictionary definition cited on page 472, the CONCEPT Model can be stated theoretically in

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[55] John Goodlad, op. cit. (see quotation on page 125 of this dissertation).

mathematical form. Certainly its three most tangible dimensions can be so stated, using the following symbols: P_{tp}--Program of teacher preparation; A--Application Area elements; S--Situation Area elements; C--Concentration Area elements; F--Foundation Area elements; @--Orientation; P--Perspective; M--Major; a--artificial; r--real; b--behavioral; h--humanistic; e--elementary; s--secondary; o--other. Here is the formula:

$$P_{tp} = \left[11Ax5Sx(30_a+30_r)\right] x \left[5Cx(8M_e+8M_s+8M_o)x30\right] x \left[11Fx(5P_b+2P_h)x30\right]$$

Perhaps factors for the dimensions of time and quality could be added later. In any case, the steps of the formula for the three most tangible dimensions are presented on the next page in Figure 7, "The Multi-Dimensional CONCEPT Model Stated Theoretically In Mathematical Form."

Individualizing the Program

When a teacher preparation program begins to consider planning and arranging more than twenty-seven million curricular interactions, it's time to turn to computers and individualized curricular organizational patterns.

Only computers can readily cope with such quantities. As for the teacher candidate, the institution can make the program available, but the responsibility for its success will involve each student. "In other words," as Harold Taylor has dreamed,

> starting from a base in a concern for the total development of each teacher, the university or school of education would work with him to put together an individual program of experience and study that placed a major responsibility on the student himself for choice and decision about the content of his own education. His preparation might take four years or five, depending on the length of time that

Figure 7

The Multi-Dimensional CONCEPT Model Stated Theoretically In Mathematical Form

KEY TO SYMBOLS		
P_{tp}--Program of teacher preparation	0--Orientation	b--behavioral
A --Application Area elements	P--Perspective	h--humanistic
S --Situation Area elements	M--Major	e--elementary
C --Concentration Area elements	a--artificial	s--secondary
F --Foundation Area elements	r--real	o--other

THE MATHEMATICAL FORM

$$P_{tp} = [11A \times 5S \times (30_a + 30_r)] \times [5C \times (8M_e + 8M_s + 8M_o) \times 30] \times [11F \times (5P_b + 2P_h) \times 30]$$

$$P_{tp} = [55AS \times 60_{ar}] \times [5C \times 24M_{eso} \times 30] \times [11F \times 7P_{bh} \times 30]$$

$$P_{tp} = [330] \times [360] \times [231]$$

P_{tp} = 27,442,800 Institutionally possible interactions involving curricular elements*

*This may well be a minimum, for it does not include any multiples of internal interactions resulting from initial interactions among given cells.

> seemed appropriate for the various stretches of work and study. . . . It would be an education in which everyone taught everyone else, since, in a reformed program of teacher education, the major part of the instruction would be through student-run seminars, tutorials, independent study, and discussion. [Direct experience in the field and sharing faculty curricular development would also be included.] How else could a teacher learn what it means to teach?[56]

Implementing the CONCEPT Model: Initial Considerations

Considering the complexity of the CONCEPT Model, how might the intentions for--and subsequent actions in--a CONCEPT cell be described? While illustrating detailed components of such a cell would be beyond the scope of this dissertation, a start can be made toward identifying individual and institutional curricular interactions and their relationships with regard to the elements. One way would be to devise a form on which information about such activities could be placed.

A rudimentary suggestion for such a form appears on the next page as Figure 8, "Two-Dimensional Form For Initial Planning and Evaluation of Curricular Interactions of the Elements of the Multi-Dimensional CONCEPT Model." It is self-explanatory.

Complex Capability

Ideally, the concept of a multi-dimensional matrix such as the CONCEPT Model is as applicable for a teacher preparation program as for an individual student. Certainly it could provide flexibility in making institutional program adjustments relatively quickly, particularly with regard to allocation of resources and space. It would allow for

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[56]Harold Taylor, "Educating Teachers, The Need for Radical Reform," Saturday Review, Vol. XLVIII (November 20, 1965, p. 93.

Figure 8

Two-Dimensional Form For Initial Planning and Evaluation of Curricular Interactions of the Elements of the Multi-Dimensional CONCEPT Model[a]

ELEMENT: (Number—F1, A3, etc.--and Name)

CURRICULAR INTERACTIONS	OBJECTIVES FOR CURRICULAR INTERACTIONS[b]	DESCRIPTION OF RELATIONSHIPS WITH AND/OR INFLUENCES ON OR BY OTHER ELEMENTS									OTHER INFORMATION[d]	EVALUATION[e]
		Foundation Area			Concentration Area		Application Area		Situation Area			
		General	F1.Nature of Education[c]	F2(etc.)...F11	Gen.	F1...F5	Gen.	F1...F11	Gen.	F1...F5		
1. (Title and detailed description, including suggestions as to where student can place this interaction in his curricular sequence.)												
2.												
3. (etc.)												

[a]This is merely the basic format. On an actual form, obviously the boxes would have to be considerably larger to allow space for all the data to be inserted. The form itself would probably be huge, perhaps even extending over one or more walls, as complex PERT charts sometimes do.

[b]Indicate whether General Performance, Behavioral, etc., and group accordingly for each interaction.

[c]The short form of these headings would be the same as in Table 3, page 438.

[d]Including noncurricular factors such as Advisement Requirements, Cost, etc.

[e]Both evaluation procedures and, after the interactions have begun, descriptions of effectiveness are to be included. If desired, space for evaluation information could be left in each of this form's boxes.

simultaneous parallel experimental projects and might well facilitate their evaluation in compatible context with the objectives, achievements, and costs of the institution's primary program.

And last, but most vitally not least, by incorporating a large capacity for complexity, the multi-dimensional matrix--the CONCEPT Model--could encourage institutional acknowledgement of and response to the different characteristics of individual students, a major strength in a world increasingly subject to dehumanizing pressures.

CHAPTER VI

CHALLENGE AND OPPORTUNITY

All life is a challenge and an opportunity. To help prepare students for life is both challenge and opportunity. To prepare teachers for the responsibility of helping others learn is also challenge, and opportunity.

This chapter will suggest a few related challenges and opportunities.

Suggestions for Further Study

The main thrust of this dissertation has been to identify what seem to be the most appropriate curricular guidelines for undergraduate elementary and secondary teacher preparation, to organize those guidelines into logical and coherent groupings and relationships, to indicate the extent to which Kansas State University's current program incorporates and implements the guidelines, and to suggest a model or other perspective by which their characteristics could be considered in relation to each other and as a whole.

One by-product of the research to identify the curricular elements and guidelines has been that much is yet to be learned about education.

Examples: How interdisciplinary concepts can be helped to transcend over-reliance on specialized viewpoints, and in practical as well as theoretical curricular application. How to involve communities more

in improving quality of schools and the preparation of teachers. How to improve the public image of teachers and teacher preparation institutions. How to ascertain what "works"--or seems to--in teacher preparation innovations.

Also, how best to use new devices, tools, implements, organizational patterns, ideas with regard to teacher preparation. For example, Dwayne Gardner recently described a new, computer-based technique for planning schools:

> We know that effective planning for the future of any community's schools requires three basic elements: (1) a clear set of educational goals, (2) knowledge about learning and various ways to implement it, and (3) insight into the multiple socio-political and administrative processes that foster change. We are also aware that too often these important elements are missing.
>
> In addition, to make planning work within a community, planners must be knowledgeable about various tasks, the available resources, the consequences of planning (both predictable and non-predictable), and the eventual effects of alternatives measured against the identified goals.
>
> Designed to be an effective means of introducting these elements in a logical and sequential pattern, SIMU-SCHOOL is a simulation technique that recreates the educational planning process. By utilizing the computer as a planning tool, it permits a compressed-time simulation of the planning tasks and participants experience the results of alternative decisions on a programmed community situation.[1]

Educational research need not be oriented primarily to "new" ideas. Many of the old problems are still with us. In fact, many--perhaps most--of the several hundred titles (topics) suggested for research by the American Association of Colleges for Teacher Education in 1954 are still valid.[2]

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[1]Dwayne E. Gardner, "The View From Here," CEFP Journal, Vol. IX (June 1971), p. 2.

[2]American Association of Colleges for Teacher Education, Needed Research In Teacher Education. (Oneonta, New York [now at Washington,

Challenge, and Opportunity

Perhaps if past research in teacher education had been more extensive, more coordinated, more comprehensive, educators of the present would be more confident about coping with change in the future. For, like it or not, change pervades all. Change is a real challenge.

But it provides opportunity, too, as Donald Cottrell observed:

> It is . . . important to recognize that institutions, particularly those designated as educational, have both the function and the responsibility to produce changes in the culture, under regularized conditions but effectively, failing which they suffer the penalty of their own replacement by other devices. It is their obligation to produce change, just as truly as their obligation to prevent it, which enables educational institutions to survive and to command public recognition and support . . . To recognize the existence of [this] fundamental cultural dilemma of an institution for teacher education is to perceive the great difficulty inherent in the efforts of members of those institutions to induce changes in their own goals and methods of operation.[3]

Fourteen years later, as we entered our present decade, Richard Miller extended the challenge, and it is hitting close to home:

> Our attitude toward change needs further emphasis. Unless a college of education really wants to be different, and unless its members are willing to work as a team, improvements will be hit-or-miss and in small increments. We do not need more tinkering in teacher education. We need full-blown, courageous models of something new--new in the sense that the many parts are molded together, a whole that differs from the sum of its parts. Who will be first?[4]

D. C.]: The Association, 1954). The paperbound book was number 2 in the AACTE Study Series.

[3]Donald P. Cottrell, editor, Teacher Education for a Free People (Oneonta, New York: The American Association of Colleges for Teacher Education, 1956), p. 402.

[4]Richard I. Miller, "Teacher Education and Preparation for the 21st Century," School & Society, Vol. 98 (Summer 1970), p. 281.

And if we are not first? Can we--will we--dare we--be among the leaders?

A challenge indeed. And what an opportunity!

APPENDIX A

HEADS OF THE PROFESSIONAL EDUCATION AREA

AT KANSAS STATE UNIVERSITY 1900-1972

(Prior to 1900 no Education courses were offered by Kansas State University, then named Kansas State Agricultural College.)[1]

Term	Name	Remarks
1900-1911	Professor William A. McKeever[2]	No department. Taught 3 courses.
1911-1913	Professor William A. McKeever, Head Department of Rural Education and Sociology (1911); Department of Rural and Vocational Education, Division of General Science (1912.)[3]	
1913-1946	Dr. Edwin L. Holton, Head Department of Education, Division of General Science[4] (to 1942); Department of Education, School of Arts and Sciences[5] (to 1945); Department of Education and Psychology, School of Arts and Sciences.[6]	1. Dean, Summer School, 1910-1944. 2. During leave of absence 1918-1919, Associate Professor Harry L. Kent was Acting Head, Department of Education.[7]

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[1]Julius T. Willard, History of Kansas State College of Agriculture and Applied Science (Manhattan, Kansas: Kansas State College Press, 1940), p. 142.

[2]Ibid. [3]Ibid., pp. 205, 207. [4]Ibid., pp. 207-208, 270.

[5]Minutes of (Kansas) State Board of Regents meeting for March 23, 1942. The division became a school July 1, 1942.

[6]Verified by personal correspondence from Mr. Evan W. Williams, Special Collection Librarian, Farrell Library, Kansas State University, June 30, 1970. See footnote 24 in Appendix B of this dissertation.

[7]Willard, op. cit., pp. 270, 272.

Term	Name	Remarks
1946-1951	Dr. H. Leigh Baker, Head Department of Education and Psychology, School of Arts and Sciences.[8]	
1951-1963	Dr. Finis M. Green, Head[9] Department of Education, in School of Arts and Sciences[10] (to 1962); School of Education, in College of Arts and Sciences.[11]	
1963-1967	Dr. William Coffield, Dean School of Education, College of Arts and Sciences[12] (to 1965); College of Education.[13]	

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[8]Minutes of (Kansas) State Board of Regents meeting for February 26, 1946, p. 2. The appointment was effective July 1, 1946, (Actually Dr. Holton had retired June 30, 1945, but the minutes of the (Kansas) State Board of Regents meeting for June 18, 1945, show that his retirement was postponed for the 1945-1946 fiscal year [beginning July 1], enabling him to continue as Head until June 30, 1946.) According to the Kansas State Collegian, June 14, 1951, the record of which is on file in the Kansas State University News Office, Dr. Baker was to relinquish the position July 1, 1951, as he did, remembered Dr. Maurice C. Moggie, Kansas State University Professor of Education, during an interview May 18, 1970.

[9]Minutes of (Kansas) State Board of Regents meeting for September 29, 1951. The appointment was effective October 1, 1951.

[10]Minutes of (Kansas) State Board of Regents meeting for September 29, 1951, showing that the Board authorized the transfer of all psychology courses, except educational psychology, to a newly established Department of Psychology, also in the School of Arts and Sciences.

[11]Minutes of the (Kansas) State Board of Regents meeting for November 8, 1962.

[12]News release issued by Kansas State University News Office, dated May 31, 1963. The appointment and the deanship became effective July 1, 1963.

[13]News release issued by Kansas State University News Office, dated June 23, 1965. The College of Education became a reality July 1, 1965.

Term	Name	Remarks
1967-1969	Dr. James D. McComas, Dean College of Education.[14]	From July 25 to August 1, 1969, when Dr. Keys assumed the Deanship, Dr. George A. Olson was interim Dean.[15]
1969-	Dr. Samuel R. Keys, Dean College of Education.[16]	

[14]News release issued by Kansas State University News Office, dated April 20, 1967. Dr. McComas commenced his duties August 1, 1967.

[15]Letter from Dean James D. McComas to "All Faculty, College of Education," dated July 22, 1969 (mimeographed).

[16]"Dr. Keys Selected Dean," College of Education Perspectives, Kansas State University, Vol. 1, No. 2 (Summer 1969), p. 1.

APPENDIX B

SELECTED 1860-1972 CHRONOLOGY INVOLVING PROFESSIONAL EDUCATION PROGRAMS AT KANSAS STATE UNIVERSITY

1860 - Bluemont Central "College" (apparently an elementary school) opened January 9 in Manhattan, Kansas.[1]

1862 - President Abraham Lincoln signs into law the Morrill Act authorizing the establishment of "land-grant" colleges.[2]

1863 - Kansas State Agricultural College established. (Located in building of former Bluemont Central College, which closed after its land was offered to, and accepted by, the state of Kansas for a land-grant college.) September 3 enrollment 52 (26 men, 26 women); faculty 4 (2 men, 2 women).[3]

1900 - First professional education courses (history of education, philosophy of education, and methods and management) taught by Professor William A. McKeever, in the Department of Philosophy. Building presently (1972) known as Holton Hall and housing the College of Education constructed for the Farm Department.[4]

1910 - Education faculty doubles as Dr. Edwin L. Holton becomes profes-

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[1]Julius T. Willard, History of Kansas State College of Agriculture and Applied Science (Manhattan, Kansas: Kansas State College Press, 1940), pp. 10-12.

[2]Ibid., p. 17. [3]Ibid., pp. 19, 24. [4]Ibid., pp. 114, 142.

sor of rural education in April. Kansas Board of Regents authorizes Department of College Extension to establish correspondence courses in the various departments relating to farm life. (Gradually this was expanded to include non-farm-oriented areas.) Extension courses for credit were under the direction of the appropriate resident departments [later this included the Department of Education, which developed an extensive correspondence clientele]. Dr. Holton appointed Director of the Summer School. During 1910-11 he also gives resident lectures on rural education.[5]

1911 - Department of Rural Education and Sociology established in Division of General Science (which had been formed in 1909). Six courses.[6]

1912 - Name changed to Department of Rural and Vocational Education. Faculty consists of 3 professors.[7]

1913 - Name changed to Department of Education, with Dr. Holton as Head. Vocational Education faculty moves into what is now Holton Hall.[8]

1917 - Department of Education faculty grows to 5. College adopts semester system. Smith-Hughes Act passed; under its provisions and the Board of Regents approval, the College was authorized to prepare teachers of agriculture and home economics.[9]

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[5]Ibid., pp. 207-208, 484-485. [6]Ibid., pp. 182, 207.

[7]Ibid., p. 207. [8]Ibid., pp. 114, 207.

[9]Ibid., pp. 189, 207-208, 271-272.

1918 - Dr. Holton, still Head of the Department of Education, also named Dean of the Summer School, on January 25.[10] Associate Professor Harry L. Kent appointed Acting Head, Department of Education, October 1 for 1918-1919 and Acting Dean of the 1919 Summer School during Dr. Holton's one-year leave of absence to assist federal efforts in vocational rehabilitation of wounded soldiers.[11]

1919 - Dr. Holton returns as Head, Department of Education, and, for 1920 and beyond, Dean of the Summer School.[12]

1923 - Publication of Bulletin, 1923, No. 40 of the Kansas Bureau of Education in which a special commission recommends that the "normal schools" concentrate on preparing elementary teachers, that Kansas University be the natural leader in preparing secondary teachers, and that Kansas State Agricultural College be responsible for preparing teachers in agriculture (all levels), home economics and science (both secondary), music (elementary), and such vocational areas as agriculture, home economics, and trades and industries.[13]

1924 - Department of Education moves into Education Hall, now known as Holton Hall.[14]

1925 - Department of Education faculty grows to 8.[15] Also, in the 1920's sometimes as many as three-fourths of a given summer session enrollment of, say, 800 would be in the Department of

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[10] Ibid., p. 208. [11] Ibid., pp. 208, 270, 272.

[12] Ibid., p. 270. [13] Ibid., pp. 297-300.

[14] Ibid., pp. 114, 347n. [15] Ibid., p. 270.

Education.[16]

1931 - Name of College changed March 9 to Kansas State College of Agriculture and Applied Science.[17]

1933 - Department of Education faculty grows to 11, including 5 in agricultural and home economics education, 4 in psychology, and 2 in education. The latter taught Philosophy of Education, History of Education, Methods of Teaching in Secondary School, and Methods of Teaching in Elementary School.[18]

1935 - Board of Regents stipulates that graduate training in education at the University of Kansas be unlimited and at Kansas State College reflect major emphasis on rural and vocational education.[19]

1936 - This was the last year that as few as four courses were the minimum required for Kansas teaching certification.[20]

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[16]Recollection May 18, 1970, by Dr. Maurice C. Moggie, Professor of Education, during an interview by the author of this dissertation. Dr. Moggie has been a faculty member of Kansas State University's College of Education and its predecessors since 1933.

[17]Willard, op. cit., p. 546.

[18]Moggie, interview with, op. cit. Dr. Moggie recalled that the Department of Education at that time and for years afterward included education and psychology (and that initially he taught psychology). Interestingly, the psychology inclusion is nowhere mentioned in Dr. Willard's history of Kansas State College, although it is indicated in a number of the College's general catalogs for those years. From 1945 to 1951, when most of the psychology faculty and courses went to the newly established Department of Psychology, the department was officially named the Department of Education and Psychology; see footnotes 24 and 31, below.

[19]Willard, op. cit., p. 443.

[20]Moggie, interview with, op. cit.

1937 - Department of Education drops its elementary teacher preparation curriculum because of inability to expand it to meet increased state requirements. Not resumed until 1952.[21]

1939 - Department of Education faculty grows to 18 members.[22]

1942 - Division of General Science, of which the Department of Education is a part, becomes the School of Arts and Sciences.[23]

1945 - Department of Education becomes Department of Education and Psychology, still within the School of Arts and Sciences.[24] Kansas State College opens Counseling Bureau (now--1972--Counseling Center), consolidating activities developed largely by Education faculty members during prior years.[25]

1946 - Dr. Edwin Lee Holton, on his retirement, is succeeded by Dr. H. Leigh Baker as Head of the Department of Education

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[21]Ibid. [22]Willard, op. cit., p. 389.

[23]Minutes of (Kansas) State Board of Regents meeting for March 23, 1942. The division became a school July 1, 1942.

[24]Personal correspondence dated June 30, 1970, to the author of this dissertation from Mr. Evan W. Williams, Special Collections Librarian, Farrell Library, Kansas State University, verifying the author's conclusion that the name change occurred in 1945. Both the author and Mr. Williams noted that the "department is called 'Education' at the head of a list of courses on p. 116 in the Catalogue Number, 81st Session, 1943-1944 (Kansas State College Bulletin, V. XXVIII, No. 2, January 15, 1944)" and ". . . 'Education and Psychology' at the head of a similar list on p. 115, 82nd Annual Catalog, 1945-1946 (Kansas State College Bulletin, V. XXIX, No. 6, May 15, 1945)." The 81st included announcements for 1944-1945, making it "in effect a two-year catalog."

[25]See reference to Counseling Bureau in Mercury Chronicle newspaper of September 27, 1945, as recorded in the Kansas State University News Office. Prior records show no mention of the Counseling Bureau, only that counseling was done in the Department of Education and Psychology, which was confirmed by Dr. Moggie during the May 18, 1970, interview, op. cit.

and Psychology.[26]

1949 - Board of Regents grants permission to Kansas State College and the University of Kansas to develop and offer an elementary teacher education curriculum.[27]

1950 - Teacher placement function transferred from Department of Education and Psychology to Kansas State College's new centralized Placement Center.[28]

1951 - Education Building renamed Holton Hall in honor of Dr. Edwin Lee Holton, Kansas State College President announces.[29] Dr. Finis M. Green succeeds Dr. H. Leigh Baker October 1 as Head of the Department of Education and Psychology.[30] Also on October 1, all psychology courses, which up to that date had been offered in the Department of Education, are transferred--except for educational psychology courses--to the Department of Psychology, newly established in the School of Arts and Sciences.[31]

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[26]Minutes of (Kansas) State Board of Regents meeting for February 26, 1946, p. 2. Dr. Baker's appointment became effective July 1, 1946.

[27]Maurice C. Moggie, "Educating Teachers," The K-Stater, March, 1955, reprinted article, p. 3.

[28]Moggie, interview with op. cit.

[29]News release issued by Kansas State College News Office. The new designation had been authorized by the (Kansas) State Board of Regents December 22, 1950.

[30]Kansas State Collegian, June 14, 1951, the record of which is on file in the Kansas State University News Office. The position was vacant from July 1 until October 1, when Dr. Green was appointed to it, according to the minutes of the (Kansas) State Board of Regents meeting for September 29, 1951.

[31]Minutes of (Kansas) State Board of Regents meeting for September 29, 1951.

1952 - Four-year curriculum in elementary education offered by the Department of Education; 66 students enrolled in it.[32] Practice of preregistration, student program-building advising conferences, developed by members of the education faculty over several years, begins to spread throughout Kansas State College, a forerunner of the present (1972) pre-enrollment procedures.[33]

1954 - Objectives of the total educational program developed during a two-year period of study by the all-college "Committee on the Philosophy of Education at Kansas State College," approved by the faculties of all the College's schools.[34] It still applies to Kansas State University in 1972.[35]

1955 - Four-year curriculum in secondary education first offered by the Department of Education (even though the Department, coordinating with other departments and divisions, had been a major source of secondary school teachers since 1925).[36]

1956 - Board of Regents authorizes Kansas State College to offer the Bachelor of Arts degree.[37] (At least one prior request for

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[32]Moggie, "Educating Teachers," loc. cit.

[33]Moggie, interview with, op. cit.

[34]Kansas State University College of Education "NCATE Committee Report on Purposes," February 18, 1970, p. 1. (Mimeographed.)

[35]Kansas State University Bulletin 1971-1972, General Catalog Issue (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, July 1971), quarterly, Vol. 55, No. 2, p. 5.

[36]Moggie, "Educating Teachers," op. cit., pp. 3-4.

[37]Student Catalog 1970-1971 (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, November 1969), quarterly, Vol. LIII, No. 4, p. 8.

such permission had been denied in 1930.[38])

1957 - Department of Education faculty develops statement of objectives for professional aspects of teacher education program correlated with 1954 total educational program for Kansas State College.[39]

1959 - Name of Kansas State College changed March 20 by Kansas Board of Regents to Kansas State University of Agriculture and Applied Science.[40] Beginning this year, every new Kansas teacher required to have a bachelor's degree.[41]

1960 - Department of Education on April 1 receives $179,000 Ford Foundation grant to establish a Master of Arts in Teaching (MAT) program for senior high school teachers. Kansas State University thus becomes the only institution between the Mississippi River and the West Coast of the 42 initially taking part in the Foundation's $29 million "Breakthrough Programs" to develop "new approaches for the preparation of liberal arts graduates for teaching careers, with an economy of time and a depth of both academic preparation and professional training,"[42] and, at KSU and some other institutions, "to provide an

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[38]Willard, op. cit., p. 333.

[39]Kansas State University College of Education "NCATE Committee Report on Purposes" (unpublished), February 18, 1970, p. 2.

[40]News release issued by the Kansas State University News Office, dated March 20, 1959.

[41]Moggie, "Educating Teachers," op. cit., p. 4.

[42]James C. Stone, Breakthrough In Teacher Education (San Francisco: Jossey-Bass, Inc., 1968), pp. 14, 15.

opportunity to secure a MAT degree at the same time as initial certification."[43] KSU program director is Dr. William Coffield. [The University's program was somewhat less than successful. One evaluation observed that its required "'teaching internship' was simply an extended practice teaching assignment,"[44] and referred to Kansas State's and other institutions' "'unfortunate experiences' . . . in their relations with the surrounding schools," apparently largely because the school districts were not "involved in the early steps of the planning."[45] See also "The Kansas State University Cooperative Program in Teacher Education; Final Report," August 1965 (unpublished). The College of Education no longer offers the MAT, only the Master of Science degree on the master's level.[46] One major change that did result was that the minimum grade point average required in a student's secondary level major field to enter and remain in the teacher education program was raised from 2.0 to 2.5,[47] still required in 1972.[48]]

1961 - Department of Education faculty slightly revises its 1957 statement of objectives and affirms them as "Objectives of the Professional Aspect of Teacher Education at Kansas State

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[43] Ibid., p. 109. [44] Ibid., p. 106. [45] Ibid., pp. 183-184.

[46] Kansas State University Bulletin 1971-1972, General Catalog Issue (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, July 1971), quarterly, Vol. 55, No. 2, p. 185.

[47] Stone, op. cit., p. 100.

[48] KSU Bulletin 1971-1972, General Catalog, op. cit., p. 182.

University."[49]

1962 - School of Arts and Sciences becomes College of Arts and Sciences; Department of Education becomes semi-autonomous School of Education within that college.[50]

1963 - Dr. William Coffield succeeds Dr. Finis M. Green as Dean of the School of Education.[51]

1965 - School of Education becomes a separate College of Education within Kansas State University July 1,[52] giving up the right to enroll freshmen and sophomores in the curricular programs over which it has authority.[53]

1966 - All correspondence courses transferred to University of Kansas.[54]

1967 - Dr. James D. McComas succeeds Dr. William Coffield as Dean of the College of Education.[55]

1968 - College of Education authorized to award the Doctor of Philosophy

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[49]Kansas State University College of Education "NCATE Committee Report on Purposes," February 18, 1970, p. 2 (mimeographed).

[50]Minutes of the (Kansas) State Board of Regents meeting for November 8, 1962.

[51]News release issued by Kansas State University News Office, dated May 31, 1963. The appointment and the deanship became effective July 1, 1963.

[52]News release issued by Kansas State University News Office, dated June 23, 1965.

[53]Moggie, interview with, op. cit.

[54]Minutes of the (Kansas) State Board of Regents meeting for January 26, 1966. The action was effective April 1, 1966.

[55]News release issued by Kansas State University News Office, dated April 20, 1967. Dean McComas commenced his duties August 1, 1967.

degree.[56] (This was 36 years after Kansas State College had first been authorized to award the Ph.D.[57]) College of Education Philosophy and Objectives Committee, considering the three basic aspects of the teacher education program at Kansas State University (instruction, research, and service), reworks the 1961 objectives, develops new aspects, and produces the current (1972) "Objectives of the College of Education."[58] During the week of September 30, between 45 and 50 volunteer students initiate the College of Education's Teacher Aide program by commencing assignments in Manhattan schools of Unified School District 383.[59]

1969 - First issue of College of Education Perspectives appears; quarterly publication planned.[60] Dr. Samuel R. Keys succeeds Dr. James D. McComas as Dean of the College of Education.[61] Evaluation of all student teachers changes from letter grades

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[56]General minutes of the (Kansas) State Board of Regents for May 16, 1968.

[57]Willard, op. cit., pp. 442-443.

[58]Kansas State University College of Education "NCATE Committee Report on Purposes," February 18, 1970, pp. 2-3 (mimeographed).

[59]Letter from Dr. Wayne W. Laughery to College of Education faculty dated November 4, 1968 (mimeographed).

[60]College of Education Perspectives, Kansas State University, Vol. 1, No. 1, Spring 1969. After issue number 2, Summer 1969, appeared, publication was suspended until 1970, when issue number 3 was scheduled to be brought out in the summer or fall. As of February 28, 1972, however, it had not appeared, apparently mostly because of faculty apathy.

[61]"Dr. Keys Selected Dean," College of Education Perspectives, Kansas State University, Vol. 1, No. 2, Summer 1969, p. 1.

to pass-fail, to begin in September 1969.[62] College of Education faculty grows to 66 (1 dean, 15 professors, 16 associate professors, 19 assistant professors [4 of whom were promoted to associate professor in April 1970], 14 instructors, and 1 assistant instructor). Several of these have joint appointments with other colleges and departments in other colleges. The total does not include 9 graduate assistants.[63] College of Education faculty approves change in name of Area of Adult and Vocational Education to Area of Adult and Occupational Education.[64] In September, College of Education begins involvement in CUTE (Cooperative Urban Teacher Education), an off-campus "inner-city" semester-long urban teacher preparation "field experience" sponsored in Wichita and other midwestern cities by Kansas City-based MCREL (Mid-Continent Regional Educational Laboratory); the program includes students from KSU and 12 other colleges and universities.[65] Board of

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[62]Memorandum from Dr. George A. Olson, Coordinator of Student Teaching, to College of Education faculty, dated July 18, 1969 (mimeographed).

[63]"College of Education Directory, 1969-1970," Kansas State University (mimeographed).

[64]Minutes of College of Education faculty meeting for October 7, 1969.

[65]"Announcement: McRel's Semester Field Experience Program of the Cooperative Urban Teacher Education Program of Kansas, A Program of Student Teaching" (unpublished multilithed paper obtained May 27, 1971, by Warren I. Paul from Dr. Roy A. Bartel, Kansas State University Coordinator of Student Teaching, undated). Also, the program is discussed by Dr. Arnold J. Moore in "Cooperative Urban Teacher Education Program," College of Education Perspectives, Kansas State University, Vol. 1, No. 2, Summer 1969, p. 2.

Regents approves departmentalization of the College of Education for administrative and budgetary purposes.[66]

1970 - Three departments are established in the College of Education: Administration and Foundations, Adult and Occupational Education, and Curriculum and Instruction.[67] Through Educational Sociology courses, all spring 1970 on-campus Block Semester students receive first of the University Library orientations for Education students; such orientations will recur each semester.[68] Design and construction of a new building for the College of Education (and the Department of Psychology in the College of Arts and Sciences) is authorized and more than $5,000,000 is budgeted [but not yet authorized] for it; if construction could be begun in 1971, the building could be finished by 1974.[69] The College of Education faculty votes to establish a potentially powerful steering committee responsible for reviewing proposed projects and programs and recommending approval, modification, or rejection and for initiating curricular improvement where desirable.[70] The "pass-fail"

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[66]General Minutes of the (Kansas) State Board of Regents for December 19, 1969.

[67]Memorandum from Dean Samuel R. Keys to "All Department Heads and Concerned Administrative Personnel," dated January 7, 1970.

[68]Personal correspondence from Warren I. Paul to Mrs. Marjorie Blossey, Education Librarian, dated November 17, 1970.

[69]Minutes of College of Education faculty meetings for March 5 and April 16, 1970.

[70]College of Education faculty meeting April 23, 1970.

designation becomes "credit-no credit" throughout Kansas State University.[71] On June 30, Kansas State University begins participation in K-VIEW (Kansas Vocational Information for Education and Work), a federally-funded cooperative program between the College of Education's Area (later Department) of Adult and Occupational Education and the Vocational Education Division of the Kansas State Department of Education. In K-VIEW, information about job openings and markets for vocational-educational students is collected, organized, synthesized, kept current, and made available on microfilm to counselors, other faculty or staff members, and students.[72] The Adult and Occupational area also begins its participation in the "Exemplary Project," also known as the "Career or Occupations Project," a federally funded program to increase elementary students' awareness of the importance of careers and to provide junior high school students exploratory experiences to help them select their careers. This $700,000, three-year program involves the University (which gets about ten percent, largely used for special courses for the social studies, art, English, vocational, and other school teachers participating) and schools in Clay Center, Lawrence, and Kansas City, Kansas.

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[71]Minutes of Kansas State University Faculty Senate meeting for April 14, 1970. The action is retroactively effective February 2, 1970.

[72]"k-view: Kansas vocational information for education and work" (unpublished brochure obtained May 27, 1971, by Warren I. Paul from the College of Education's Department of Adult and Occupational Education). Dr. Robert G. Meisner, Department Head, confirmed the date during a May 29, 1971, telephone conversation with Mr. Paul.

[Several other schools later also began participating despite not being funded.][73] In August, the Education Library in KSU's Farrell Library is expanded and moved to Farrell Library's north wing.[74] In the fall, Dr. John T. Roscoe succeeds Dr. Charles M. Peccolo as head of the Department of Administration and Foundations; the heads of the departments of Adult and Occupational Education and of Curriculum and Instruction continue to be, respectively, Dr. Robert G. Meisner and Dr. Arnold J. Moore.[75] College of Education faculty votes to include student representatives on the College of Education Advisory Council.[76] For the fall semester, the College of Education has 42 full-time faculty (1 dean, 6 professors, 16 associate professors, 13 assistant professors, 5 instructors, 1 assistant instructor), 25 part-time faculty, [total 67 faculty members], 15 graduate assistants and 13 secretaries and other staff members.[77] Updated statistics show that 761 students from

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[73]Described by Dr. Robert G. Meisner during telephone conversation with Warren I. Paul May 29, 1971.

[74]Personal observation by Warren I. Paul during conversation with Mrs. Marjorie Blossey, Education Librarian, August 26, 1970, in the relocated Education Library. See also correspondence from Dean Samuel R. Keys to Dr. Richard A. Farley, Director of Farrell Library, dated August 7, 1970.

[75]Announcement by Dean Samuel R. Keys at College of Education faculty retreat session, Rock Springs Ranch, Geary County, Kansas, August 24, 1970.

[76]"College of Education Bulletin," Vol. II, No. 8, dated September 9, 1970, p. 2.

[77]Derived from "College of Education Faculty and Staff Alphabetical Listing," Kansas State University, dated September 29, 1970, and updated March 22, 1971, by Miss Helen R. McIntosh of the College staff.

four KSU colleges (Education, Arts & Sciences, Agriculture, Home Economics) were admitted to the Teacher Education program for the 1969-70 academic year; this compares with 628 admitted for 1967-68, and 624 for 1968-69.[78] Dr. Richard E. Owens, Associate Professor of Education, is appointed to the newly created position of Director of Educational Improvement, KSU Office of Educational Research, with University-wide responsibilities.[79] Student teaching block semester, formerly a 5-to-6-week period of methods and other education courses followed by 7½ to 8 weeks of student teaching followed by a 2-day on-campus evaluative seminar.[80] Kansas State University moves fall semester back to begin August 31 and end December 22, allowing Christmas vacation and a 2-week intersession before the start of the 1971 spring semester.[81] NCATE visitation team on campus November 16-18.[82] The report with the findings of the

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[78]"Table 8. Number and Per Cent of Students Applying for Admission to Teacher Education Who Were Admitted, Admitted Provisionally, and Rejected," NCATE Report, College of Education, Kansas State University, November 1970 (unpublished), p. 56. The 1969-70 total was an insert inked into the official file copy of the Dean of the College of Education.

[79]Based on correspondence from Dr. Donald P. Hoyt, Director, KSU Office of Educational Research, to College of Education Dean Samuel R. Keys, dated July 30, 1970, and Dean Keys' reply to Dr. Hoyt, dated August 19, 1970. Dr. Owens will be also a three-tenths member of the Department of Curriculum and Instruction faculty.

[80]Memorandum from the Coordinator of Student Teaching to the College of Education faculty, dated July 29, 1970.

[81]General Catalog 1970-1971 (Manhattan, Kansas: Kansas State University of Agriculture and Applied Science, July 1970), KSU Bulletin, quarterly, Vol. 54, No. 3, p. 4.

[82]"College of Education Bulletin," Vol. II, No. 28, dated September 9, 1970.

NCATE team is not expected until June 1971; the expected reaccreditation would be valid until 1981.[83]

1971 - Three College of Education course experiences (one by each department) offered during the University's first intersession January 4-15.[84] For first time, a teacher aide experience is made a required part of the current introductory teacher education course, Educational Psychology I. Total 1971 spring semester teacher aides: 383, up from 128 in 1969-70.[85] College of Education S-T-P (Share-Talk-Prepare) conference in KSU Union attracts more than 100 students to discuss the College's programs with the Education faculty February 1-2.[86] College of Education to participate with five Kansas school districts, beginning in late summer, in a federally-funded $200,000 "I-70 Project" to develop a program whereby administrator- and paraprofessional-supported teachers become coordinators of specialists who come to classrooms to instruct students.[87] This program is to be preceded by another: "Developing better leaders in public schools is the goal behind a $140,000 Kansas '76' project at Kansas State University and

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[83]"College of Education Bulletin," Vol. II, No. 39, dated November 19, 1970.

[84]Memorandum from Sheldon Edelman, KSU Office of Innovations, to all [KSU] Faculty, dated March 15, 1971.

[85]Memorandum from Dr. Roy A. Bartel (Coordinator of Student Teaching) to Faculty of College of Education, dated February 23, 1971.

[86]"Education Ideas Exchanged," Kansas State Collegian, Tuesday, February 2, 1971, p. 1. Also, Memorandum from College of Education Advisory Council to College of Education, dated January 26, 1971.

[87]"Project will give teachers new role," Kansas State Collegian, Tuesday, March 23, 1971, p. 4.

the forerunner of what may become a $5 million 'I-70' project. The Kansas '76' project is a joint effort between Kansas State University, Manhattan school district [i.e., Unified School District 383], Wichita State University, and Wichita school district [i.e., Unified School District 259]. Funds made available by the Federal Government through the State Department of Education for one year will be used in a period of study and decision making to develop training for educational leaders."[88] Other programs in which the College of Education continues to be involved include: (1) A multi-pattern program, begun during the 1971 spring term, whereby teachers in Manhattan's parochial Seven Dolors Elementary School work with KSU student teachers in teams to provide pupils "more individual instruction, more small group assistance and a broader range of learning opportunities" over extended periods of time (e.g., 9 to 10 weeks).[89] (2) The CUTE (Cooperative Urban Teacher Education) program in Wichita.[90] (3) In the Department of Adult and Occupational Education, the K-VIEW Project and the Exemplary Project, both of which will continue for another two years.[91] Two new

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[88]"'Developing leaders' goal behind two jointly sponsored projects," Manhattan [Kansas] Mercury, May 21, 1971, p. 7A.

[89]"KSU student trainees add to Seven Dolors education," Manhattan [Kansas] Mercury, May 12, 1971, p. 7D.

[90]Confirmed by Dr. Roy A. Bartel, Kansas State University Coordinator of Student Teaching, in conversation with Warren I. Paul May 14, 1971. See 1969, above, for a brief description of the program.

[91]Reported by Dean Samuel R. Keys at the College of Education faculty meeting May 4, 1971. See also the minutes of that meeting, p. 2. For brief descriptions of the two programs, see 1970, above.

programs involving teacher preparation and scheduled to begin in the fall of 1971 are (1) An off-campus, semester-long involvement in one or more of three Multi-Institutional Teacher Education Centers (MITEC) to be located in Topeka, Wichita, and the Kansas City [Kansas]-Shawnee Mission area; faculty and students will be drawn from several Kansas teacher preparation institutions, including KSU.[92] (2) A pilot program involving a full 16-week (semester-long) "public school experience for English, Speech, and Journalism teacher education students in team teaching situations at Manhattan High and Manhattan Junior High Schools. . . . The [time] will not all be spent in assigned classrooms, but is designed to meet the total requirements of the existing professional semester"[93] and will include on-campus College of Education course meetings in Educational Sociology, Principles of Secondary Education, and Methods of Teaching in the Secondary School. Dr. Richard G. Hause, KSU associate professor, and Mr. C. Louis Kaupp, Manhattan High School English Department Chairman and a KSU instructor, will be the main coordinators.[94] Funds for two other new programs, both in the Department of Adult and Occupational Education, also have been arranged; they are a manpower study project, and a Leadership Fellowship program 'which

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[92]Reported by Dean Samuel R. Keys and three faculty members at the Department of Curriculum and Instruction faculty meeting May 6, 1971.

[93]Minutes of Department of Curriculum and Instruction faculty meeting May 6, 1971, p. 1.

[94]Ibid.

will bring 14 persons to the College of Education to pursue doctoral work.[95] The year's spring brings special recognitions, too: Both of the faculty members selected (after faculty nomination and confirmatory evaluation by their students) for the two University-wide 1971 annual awards ($1,000 each) to tenure-eligible faculty for outstanding undergraduate teaching are in the College of Education, an unprecedented honor. They are Dr. Richard G. Hause, associate professor of curriculum and instruction, and Dr. Wayne W. Laughery, associate professor of administration and foundations.[96] Dr. Jordan B. Utsey's proposal, "A Consortium: Providing Self-Instigated Professional Mobility for Displaced Educators," is funded by the U. S. Office of Education, with approximately $215,000 approved for the first year. The consortium includes KSU [College of Education], Southern University, Grambling College, Prairie View A&M College, and Arkansas A&M College; all are to cooperate to provide graduate and specialty training and, where possible, placement for educators displaced as a result of the implementation of desegregation.[97] NCATE continues for ten years (to 1980-81) its accreditation of KSU's [College of Education] programs to prepare elementary and secondary

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[95]Reported by Dean Samuel R. Keys at the College of Education faculty meeting May 4, 1971. See also the minutes of that meeting.

[96]"Outstanding teachers named," Kansas State Collegian, May 6, 1971, p. 2.

[97]"College of Education Bulletin," Vol. III, No. 7, dated June 15, 1971, p. 1.

teachers at the Bachelor's and Master's degree levels and "to prepare school service personnel (elementary and secondary principals, elementary and secondary supervisors and curriculum coordinators, and guidance counselors) at the Master's degree level."[98] Beginning fall semester 1971, Kansas State University becomes involved with Multi-Institutional Teacher Education Centers (MITEC) in Wichita, Kansas City (-Shawnee Mission), and Topeka.[99] All state teacher education institutions plus Washburn University are involved; "Under the pilot program, college students volunteer for one of the three cooperative program sites" where they will be for an entire 16-week semester,[100] including engaging in the equivalent of ten weeks of full-time student teaching.[101]

1972 - College of Education faculty, as of January 31, totals 81 members (49 holding full- to half-time appointments and 32 adjunct faculty, enrollees in Kansas State University degree programs, and faculty holding joint appointments with other departments in the University), plus 26 graduate assistants

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[98]Letter from Rolf W. Larson, Director, National Council for Accreditation of Teacher Education, to Kansas State University President James A. McCain, June 1, 1971.

[99]Harlan J. Trennepohl, "MITEC Report to Steering Committee" (of Kansas State University College of Education), September 15, 1971.

[100]Jack L. Kennedy, "Experiment in Teacher Education Could Spawn Significant Changes," The Wichita Eagle and Beacon, Sunday, June 30, 1971, p. 1A.

[101]Trennepohl, op. cit.

and 14 members of the clerical staff, a grand total of 121 persons. Of the 49 "regular" faculty, 4 are in the Dean's Office and 45 are in the three departments (14 Administration and Foundations, 9 Adult and Occupational Education, 22 Curriculum and Instruction).[102] To assist in salary and promotion decisions, College of Education faculty adopts a Faculty Activity Credits (FACs) System: Faculty members are to negotiate annually the emphasis each will place in one or more of four categories (Teaching Activities, Research and Creative Endeavors, Professional Activity, Institutional and Public Service); at calendar year's end his achievements are evaluated and translated into percentage scores or a total of FACs.[103] On just-published list of NCATE-approved institutions, Kansas State University's College of Education programs at all levels are shown as approved at the Master's Degree level. Approval of the relatively new doctoral programs will continue to be pursued when a "sufficient number of graduates have completed their work," noted Dean Samuel Keys.[104] Dr. James B. Boyer is named Director of the

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[102]Kansas State University College of Education listing of Faculty, Graduate Assistants, and Clerical Staff, January 31, 1972. (Mimeographed.)

[103](Kansas State University College of Education) Promotion and Salary Committee proposal to College of Education Advisory Council about "Recommendations for Implementation of a Faculty Activity Credits System," November 8, 1971, 4 pages. (Mimeographed.) (The "FAC--Faculty Activity Credit"--designation was Warren I. Paul's suggestion.) The FAC System proposal was adopted at the College of Education faculty meeting February 1, 1972. See also pp. 443-444 of this dissertation.

[104]"College of Education Bulletin," Vol. IV, No. 9, March 6, 1972.

federally-funded approximately $450,000 two-year Teacher Corps consortium of KSU's College of Education and public schools in Manhattan, Clay Center, Junction City, and Salina.[105] The Teacher Corps consortium will involve differentiated staffing patterns, a strong field approach, and teaching teams, according to Doctors Arnold J. Moore and Jordan Utsey of the College of Education. The new "'team concept' . . . could lead to restructuring of the Kansas State University teacher training approach . . ." The program is to begin in the fall of 1972.[106]

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[105] KSU University Newsletter, Vol. XIV, No. 8, March 31, 1972, p. 2.

[106] Jack L. Kennedy, "Kansas Schools Will Test New Teacher Training Idea," The Wichita Eagle, Friday, March 31, 1972, pp. 1A, 6A. The quotation is from page 1A.

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