THE ROLE OF PHILOSOPHY IN THE PREPARATION OF SCHOOL ADMINISTRATORS

DISSERTATION

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INTRODUCTION

In this country, education is considered the bulwark of democracy. This is the case because a government which rests upon popular suffrage must depend for its success upon an enlightened electorate. Running deeper than this, however, is the fact that democracy is more than a form of government. It is a way of life and a way of choosing and modifying a way of life in conjunction with others. This requires a high degree of personal initiative and adaptability and, if democracy is to be extended, these qualities must be widespread. An education which promotes the development of initiative and adaptability is then more than a bulwark of democracy; it is the chief offensive weapon as well.

Over a period of years an heroic effort has been made to provide universal education through our public schools. In the past sixty years, the enrollment in our public schools, especially at the secondary level, has increased at a breath-taking rate, and a leveling of the course is not yet in sight. In 1890 there were some 400,000 students enrolled in our secondary schools. These students were about 6.7 per cent of the population of the fourteen to seventeen age group. In 1950, nearly 6,500,000 students were enrolled in our secondary schools; this was about 76.5 per cent of the fourteen to seventeen age population. For the sixty year period, the high school age popu-

lation increased some 57 per cent, but the actual enrollment increased about 1100 per cent.[1]

Current enrollment (1953) in our secondary schools is in excess of seven million and enrollment in our elementary schools exceeds twenty-three million. This total of more than thirty million students includes those in attendance at private schools. Our public schools are organized in 64,054 school districts which employ 1,088,584 teachers. Estimates of what total enrollments will be in 1960 and 1965 are of the order of forty and forty-five million.[2]

These figures suggest that the task of administering our schools is one of the largest, most complex, and most important administrative undertakings in our nation today. As our schools move nearer to the ideal of education for all of the children of all of the people, moreover, the trend is towards increased and more varied responsibilities for the school administrator at every level.

Specific consideration will be given in this dissertation to the contribution that philosophy may make in the preparation of personnel to administer our schools. The notion that philosophy should have something to say about education is not new. From at least the time of Plato some philosophers have directed their attention to education. Unfortunately, this attention has often been intermittent and partitive. It has been said that "philosophy is an attempt to see life

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[1]For a graphic presentation see Life, p. 142. December, 1953.

[2]Figures from studies by U. S. Bureau of the Census, National Educational Association, and U. S. Office of Education.

steadily and to see it as a whole" but, in our time, few of the great philosophers have included the whole of education within the domain of their intellectual activity. This failure, on the part of professional philosophers, to direct their attention to education is understandable. The rapid growth of our schools created such a demand for teachers that normal schools and other special teacher training institutions were established. Under the press and surge of circumstances, the overpowering considerations were "more buildings," "more teachers," "more books and other teaching materials." It is not surprising, although none the less unfortunate, that the philosopher, in his quiet corner of the liberal arts college, took a dim view of the whole affair. These school problems were seen as being primarily "practical" and "administrative" in nature.

On the other hand, the task of giving order to the emerging system of public schools did attract the attention of a group of people who gradually became known as "scientific educators." A scientific approach to certain types of educational problems is both feasible and desirable. There is much that can be measured and tested, ranging from certain abilities and aptitudes of children to the durability of various kinds of gym floor wax. But such more or less scientific measurements do not take the place of an effort "to view education steadily as a whole." Concerning the notion that science can clear away all our problems, Professor Kilpatrick has said:

> . . . each significant advance of science, in general, adds more problems for philosophy than it subtracts, and besides makes many an old problem still more tangled. . . . The testing movement in education has added to the number of

> problems facing the philosophy of education. Testing has helped to solve some problems in education, but it has added more than it has settled.[3]

John Dewey, writing in a similar vein, speaks of the need of every science for "working hypotheses of comprehensive application." He goes on to say:

> They are working ideas; special investigations become barren and one-sided in the degree in which they are conducted without reference to a wider, more general view. This statement is particularly applicable in the early stages of formation of a new science. Physics, chemistry, biology, all have behind them a history that has put them in possession of relatively tested and solid general principles. Just because educational science has no such achievement of laws to fall back upon, it is in a tentative and inchoate state which renders it especially in need of direction by large and fruitful hypotheses. No matter how these are obtained, they are intrinsically philosophical in nature, good or bad philosophy as the case may be. To treat them as scientific rather than as philosophic is to conceal from view their hypothetical character and to freeze them into rigid dogmas that hamper instead of assisting actual inquiry.[4]

Nevertheless, the work of the "scientific educators" gained in popularity throughout the period of the 1920's and one or another of these persons attempted to measure all manner of things from "the needs of students" to "the thousand tasks which the good teacher performs." Various proposals for curricular reorganization based on such measurements were made[5] and, no doubt, each contributed something to our understanding of the problems involved in universal pub-

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[3]Kilpatrick, W. H., "The Relations of Philosophy and Science in the Study of Education," School and Society, 30: p. 43.

[4]Dewey, John, The Sources of a Science of Education, p. 55.

[5]Alberty, H. B., Reorganizing the High-School Curriculum (revised edition) Chapter VIII.

lic education.

As time went on, the necessity for someone to take a steady look at the whole of education became more and more apparent. This necessity gave rise to a new discipline - educational philosophy. The modern educational philosopher arose because of the neglect of education by "regular" philosophers. In recent years this discipline has enjoyed considerable prestige among educators and has even been accorded some slight recognition by philosophers. But its actual influence on the conduct of education, especially educational administration, has often been also both intermittent and partitive.

The first generation of educational philosophers were bold and clear in answer to the need which gave them birth. They were either professional philosophers or professional educators who were willing and able to step outside their own discipline, as it was then conceived, and take a steady look at the whole of education. They brought to bear upon educational problems a kind of philosophic temper or philosophic mindedness which enabled them to resist the mad rush to measure everything in sight. They began to question the assumptions of both the traditional schoolmen and the modern scientific educators. To the extent that their thinking was systematic, it resulted in various "educational philosophies."

The present younger generation of educational philosophers often appear neither bold nor clear. It may be that, having received their education primarily, if not exclusively, under the tutelage of departments of educational philosophy, they tend to be neither philosophers

nor educators. They often appear much more expert in expounding the already formulated "educational philosophies" than in thinking philosophically about educational problems. The task of the educational philosopher, as educator or teacher, is to guide and help others in becoming more philosophic in their thinking about educational problems; his task, as philosopher, is to bring to bear upon these problems that same philosophic mindedness which characterizes the thinking of the philosopher in any area, be it science, art, history, or technical problems within philosophy itself.

Consideration of the contribution that philosophy may make in the preparation of school administrators will thus entail a study of the nature of philosophy with particular attention to possible distinctions between science and philosophy and to the role of each in the improvement of value judgments of the kind which the school administrator is called upon to make. These considerations will also entail a careful examination of the characteristics of that philosophic mindedness which the early educational philosophers exhibited and which we believe is sorely needed by the persons who are to administer our schools if they are to continue to be the bulwark of democracy.

Our present programs for preparing school administrators do not appear well calculated for the development of that "wider, more general view" without which, as we noted with Dewey, "special investigations become barren and one-sided." No doubt this wider, more general view may be developed apart from the courses which are provided for the

student of school administration. Santayana, while recalling his student days at Harvard, remarked:

> I soon found the library the best place to work in. It was not crowded; a particular alcove where there were philosophical books at hand, and foreign periodicals, soon became my regular place for reading. I could take my own books and notebooks there if necessary; but for the most part I browsed . . . I don't think my time was wasted. A great deal stuck to me, without my knowing its source, and my mind became accustomed to large horizons and to cultivated judgments.[6]

The student of school administration may, of course, do considerable browsing in a library, on his own initiative, and some of the browsing may include books containing large horizons and cultivated judgments. This is not very likely to happen, however, unless somewhere along the line he has been confronted with problems or topics which require for their understanding an acquaintance with this quality of thinking. A look at the textbooks now used in courses in educational administration does not encourage one to believe that the student receives much of this kind of stimulation. For example, one of the better textbooks,[7] now in its third edition, contains thirty chapters. The first two are entitled "School Administration in a Democracy" and "School Administration as a Profession." The remaining twenty-eight chapters are devoted to such topics as: "Preparation and Certification of Teachers," "Utilization of School Buildings," "School-Budgetary Procedures," "Administration of Pupil Attendance and Census," "Administration of Textbooks," "School Office

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[6]Persons and Places, pp. 186-7. Underscoring mine.

[7]Reeder, Ward G., The Fundamentals of Public School Administration.

Administration."

Another typical text, entitled American High School Administration,[9] contains the following as a first sentence of the preface: "The authors of this book believe that secondary education should be an instrument of democratic policy in the United States of America." This book contains twenty-eight chapters, one of which is devoted to "Learning and General Education," and one entitled, "Youth Education in our Democratic Society." In spite of the preface, the other twenty-six chapters again deal with such topics as: "The Problem of School and Staff Organization," "Conventional Schedule Making," "Cafeteria, Transportation, and Student Aid," "Entrance, Progress, and Graduation Policies and Practices," "School Plant Management," "Business Accounting and High School Administration."

To consider the chapter titles of a book is, of course, only a first step toward an evaluation, but it does seem to suggest that the ratio of large horizons to narrow procedural considerations is not such as to offer much stimulation for browsing. Unless students are confronted with problems which cannot be solved within a single course or within specific reading references, the students are unlikely to develop the habit of reading widely the cultivated judgments of men of large horizons.

But does a school administrator really need to be a person characterized by philosophic mindedness in his thinking? Does he need an acquaintance with the judgments of men who have attempted to clarify

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[9]French, Hull, and Dodds.

the topics and problems which make up the subject matter of philosophy of education? Need he be concerned with the philosophic activity - the improvement of value judgments? An examination of the competence needed by school administrators may help answer such questions.

The following list of "Major Competency Areas" was developed by the Committee on Educational Administration, Department of Education, The Ohio State University.

1. Possession in reasonable degree of appropriate personal attributes and a disposition to improve them

2. Understandings, attitudes, and skills resulting from an adequate general education

3. An understanding of the role of the school in the social order

4. A disposition and an ability to cooperate with other people in planning, executing, and evaluating courses of action

5. An understanding of the instructional program and skills in curriculum development

6. Understandings and skills in the technical aspects of school administration

7. An understanding of the skills in the administrative process

8. An ability and a disposition to apply sound problem solving procedures to school concerns

9. An inclination to act in terms of conscious value judgments

10. An inclination and an ability to understand one's own motivations for action and how they affect his way of working with other people

11. A disposition and an ability to lead lay and professional people in considering the continuing improvement of the school and community, and the ability to discover and

promote such leadership in others[10]

A glance at these areas of competency is all that is needed to make evident that the ratio of large horizons to narrow procedural considerations is somewhat different than the ratio suggested by our textbooks. The technical aspects of school administration have loomed large in the minds of student, teacher, and textbook writer because of the press of circumstances attending the rapid growth of our schools. Even when students have been exposed to the usual course in philosophy of education, they frequently have not developed that philosophic temper which would enable them to extend the horizons of their thinking beyond the "practical" aspects of their problems. Sidney Hook remarks:

> It is understandable that professional educators should be primarily attentive to the immediate uses of an educational philosophy rather than to its fundamental ideas and values, in short, to the very things which make it a philosophy. But over a span of years, unfamiliarity or unconcern with philosophic assumptions that are not directly relevant to day-by-day practice is sure to be costly to the educational technician.[11]

Our considerations of the role that philosophy may play in the preparation of school administrators will include an account of an attempt to study a number of administrators "at work" in order to determine whether or not the degree of philosophic mindedness exhibited by them is related to notable differences in their several schools - especially, differences in morale and attitudes of their respective

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[10]As presented in a mimeographed report, "Competencies Needed by School Administrators," dated March 1, 1953.

[11]John Dewey, An Intellectual Portrait, pp. 177-8.

teaching staffs. For a teaching staff which has low morale, and which reflects a narrow, unphilosophic intellectual disposition on the part of the administrator, "is sure to be costly" to an educational program which aspires to be the bulwark of democracy.

Finally, in the light of these considerations, proposals will be advanced for the improvement of the preparation of school administrators. These proposals will be designed to encourage the prospective administrator to develop systematically to an optimal degree those intellectual qualities which are the mark, not only of the educational philosopher, but of the philosophic educator.

Chapter II

THE NATURE OF PHILOSOPHY

Some Views of Philosophy

Philosophy has usually been defined as both an activity and a subject matter. The early Stoics suggested that philosophy be divided into physics, ethics, and logic. In more recent times, metaphysics, epistemology and logic, and axiology have been suggested by some as its proper divisions. Sometimes philosophy is defined and divided on the basis of a number of questions, such as: What is the nature of being; of truth or validity; of knowledge; of beauty; of goodness? Investigations and speculations concerning these questions are then known as ontology, logic or methodology, epistemology, aesthetics, and moral philosophy. When an individual or group formulates systematic answers to a range of such questions, the formulation is usually known as "a philosophy."

Such philosophies may then, in turn, be classified. According to the way in which they deal with these fundamental questions, they may be designated Idealism, Realism, Pragmatism, Critical-Idealism, Christian-Realism, Conceptualistic-Pragmatism, etc., etc. It should not be assumed, however, that because each such philosophy is systematic it is thereby isomorphic, presenting parallel answers to the same set of questions. As Susanna Langer points out: ". . . a philosophy is characterized more by the formulation of its problems than by its

solution of them."[1]

In addition to these classifications of "philosophy proper," investigations into the foundations or fundamental assumptions and aims of any discipline are usually also called philosophy. On this basis, we have such classifications as philosophy of religion, philosophy of science, of art, of history, of education, of politics, etc. For certain purposes such classifications are quite useful and, as Nelson Goodman says, "Perhaps the day will come when philosophy can be discussed in terms of investigation rather than controversy, and philosophers, like scientists, be known by the topics they study rather than by views they hold."[2] John Dewey speaks of "issues in the conduct of human affairs" which "are so central, so strategic in position" that they "demand the most systematic reflective attention that can be given. It is relatively unimportant whether this attention be called philosophy or by some other name. It is of immense human importance that it be given, and that it be given by means of the best tested resources that inquiry has at command."[3]

At any rate, all of this is instructive, for it suggests something about the nature of philosophy - a concern with whatever is basic and fundamental in every area of thought. It should be noted that the question, "What is basic and fundamental?," is a question in philosophy, rather than a question in the area concerning which the

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[1] Philosophy in a New Key, p. 2. (italics in original)

[2] The Structure of Appearance, Intro., p. xiv.

[3] Problems of Men, pp. 11-12.

question is asked. For example, when the historian seeks to formulate a set of fundamental concepts or questions around which the facts of history may be viewed with understanding, he is working as a philosopher of history rather than as an historian. It is by virtue of this aspect of philosophy that an advanced academic (history, physics, mathematics, education, etc.) degree is known as "Doctor of Philosophy."

But if the day pointed to by Nelson Goodman should come there would still remain an important residue that would properly be called philosophy. Philosophy means literally "the love of wisdom" and wisdom is not confined to investigations or study conducted within predetermined subject matter boundaries, no matter how wisely the boundaries have been predetermined. Nor is wisdom confined to the intensive, technical investigations which result when men specialize in particular areas of knowledge. Bertrand Russell has said that "Philosophy proper deals with matters of interest to the general educated public, and loses much of its value if only a few professionals can understand what is said."[4] C. I. Lewis has emphasized the same point. "It is - I take it - a distinguishing characteristic of philosophy that it is everybody's business. The man who is his own lawyer or physician will be poorly served; but everyone both can and must be his own philosopher."[5] Moreover, Nelson Goodman holds a wider view than the single quotation above suggests. He looks ". . . upon philosophy as having the function of clearing away perplexity and confusion on the

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[4]Human Knowledge, preface, p. v.

[5]Mind and the World Order, p. 2.

most humble as well as on the most exalted levels of thought."[6]

Hullfish states that:

> Philosophy . . . has the mission of helping men think more deeply about the consequences of their daily acts in order that they may with greater wisdom choose those consequences which help all men extend the depth of their thinking."[7]

This view of philosophy appears to be in sharp contrast with the work of many of our respected teachers of philosophy, yet it dates from very early times and is in the best philosophic tradition. Plutarch tells us:

> Socrates neither set out benches for his students, nor sat on a platform, nor set hours for his lectures. He was philosophizing all the time - while he was joking, while he was drinking, while he was soldiering, whenever he met you on the street, and at the end when he was in prison and drinking the poison. He was the first to show that all your life, all the time, in everything you do, whatever you are doing, is the time for philosophy.[8]

Some of the apparent conflict between what philosophers say philosophy is and what some teachers of philosophy speak and write about may be traced not alone to the fact that our teachers have tended to stray from the common problems of men, but also to the fact that the common problems of men are so uncommonly the concern of common men that the general public fails to recognize them when they are made the object of serious study. In any event, it has long since been pointed out

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[6] op. cit., p. xiii.

[7] Hullfish, H. Gordon, Philosophy and Education in Interaction (Columbus, Ohio: The Ohio State University Press, 1944), p. 13.

[8] As reported in The Practical Cogitator. Curtis & Greenslit (editors), p. 364.

that Plato did not have "professors of philosophy" in mind when he suggested that "philosophers should be kings."

The fact that the problem of the nature of philosophy is a continuing and important problem for philosophy suggests, in itself, something about its nature. It is reflexive and autonomous. Except for a period of time when philosophy was considered the handmaid of theology, the methodology and limits of the discipline have been defined from within. According to the position taken in this dissertation, whenever the autonomy of philosophy is abridged, be it by a religion or theology, a political or social theory or institution, or by "a philosophy," it ceases to be philosophy. Philosophy is a form of autonomous inquiry employed in the critical and rational exploration of any human experience.

Such a theory of philosophy implies that rationality, itself, be defined by philosophy. It does not imply, however, anything at all with respect to the possible content of human experience. One important task of philosophy is to stipulate what ways of experiencing are to be considered rational. Inasmuch as such stipulations may be made explicit prior to particular experiences, they are functionally a priori to particular experiences. Knowledge of these stipulations (in the sense of grasp or understanding) is a priori knowledge situationally and transcends every particular experience. It is a knowledge or understanding of our own stipulations or contracts about knowledge.[9]

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[9]For a more complete development of this argument see, Smith, Philip G., "Pons Asinorum in Pragmatic Epistemology," Educational Theory, Vol. III, No. 3, July, 1953. p. 281 et. seq.

It is therefore definitive rather than metaphysical. Philosophy, in the light of its own ongoing experience, develops its own rules - its own understanding of itself. Whenever a set of rules, developed from some other source, is imposed upon philosophy, then philosophy, as here understood, is strangled and dies.

Without subscribing to a complete reduction of philosophy to logic - for as Whitehead remarks: "The disease of philosophy is its itch to express itself in the forms, 'Some S is P' or 'All S is P,'"[10] - we may, nevertheless, say with Wittgenstein that: "Philosophy is not a theory but an activity. A philosophical work consists essentially of elucidations. The result of philosophy is not a number of 'philosophical propositions,' but to make propositions clear."[11] If we interpret 'propositions' in a broad or non-technical sense, so as to include various forms in which thought may be expressed, we see philosophy as being concerned with the clarification of thought and the production of understanding rather than with the direct acquisition of knowledge. While its subject matter is human experience, its method is primarily critical rather than descriptive.

The Aim of Philosophy

Exploration of human experience is conducted for the purpose of arriving at understandings. Such understandings may be classified variously, but the following types seem inclusive: (1) knowledge of

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[10] Whitehead, A. N., Modes of Thought, p. 194.

[11] Wittgenstein, Ludwig, Tractatus Logico-Philosophicus, p. 27.

matters of fact; (2) grasp of the relation of ideas; and (3) value judgments. The first two are logically distinct and correspond to the usual distinctions drawn between the concepts of perception and conception, synthetic and analytic, existential and universal. The third is more controversial. It is often said to be identical with one or the other of the first two. According to the position taken here value judgments are compounded of the first two, plus certain emotional or non-cognitive elements, and may best be treated as a distinctive type of understanding.

Both scientific and philosophic inquiry employ statements of all three types, but with different ends in view. The ultimate aim of science is to correct and extend our knowledge of matters of fact; the ultimate aim of philosophy is to improve the quality of our value judgments. Now just as the scientist may engage in lengthy mathematical exploration which is seemingly unrelated to the extension of our knowledge of matters of fact, so the philosopher may engage in extended logical analysis of matters which appear irrelevant to an improvement of our value judgments. But when such explorations or analyses do not finally eventuate in one or the other, they are merely mathematical or logical rather than truly scientific or philosophic. A complete analysis of this argument would carry us far beyond the limits of this dissertation, but the following considerations may serve to render it intelligible so that it may be used as a base from which to proceed to our main concerns.

First, it will be helpful to examine an extended quotation from

Dewey concerning the nature of value judgments.

> A standing ambiguity in the word value, both as verb and noun, has frequently been pointed out. In one of its meanings "to value" is to enjoy and the resulting enjoyment is figuratively called a value. There is neither reflection nor inquiry in these cases of enjoyment as far as they occur spontaneously. . . . If, however, the question is raised whether the subject-matter is worthy of being directly enjoyed; if, that is, the question is raised as to the existence of adequate grounds for the enjoyment, then there is a problematic situation involving inquiry and judgment. On such occasions to value means to weigh, appraise, estimate: to evaluate - a distinctly intellectual operation. Reasons and grounds one way and the other have to be sought for and formulated. . . . An evaluative proposition is not, then, merely declarative with respect either to facts or to conceptual subject-matter. The facts may be undoubted; . . . certain general principles may be accepted as standards. But neither the facts nor the standardized rules as they present themselves are necessarily decisive in the evaluation being made. . . . Their relevancy and weight in the present situation is the matter to be determined by inquiry before an evaluative appraisal can be grounded. . . . all judgments of practice are evaluations, being occupied with judging what to do on the basis of estimated consequences of conditions . . . .[12]

When we say then that the aim of philosophy is to improve the quality of our value judgments, we mean that philosophic inquiry should be directed toward understanding experience in ways that enable us to move from what we know about matters of fact to sound judgments. These judgments are concerned both with what is worthy of being valued in the particular situation confronted and with what should be done in order that such values may be realized. Such understanding is often called wisdom in contrast to knowledge.

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[12]Logic, pp. 172-4.

> Where ability to make correct judgments of value is concerned, we more typically speak of wisdom, perhaps than of knowledge. And "wisdom" connotes one character which is not knowledge at all, though it is a quality inculcated by experience; the temper, namely, which avoids perversity in intentions, and the insufficiently considered in actions. But for the rest, wisdom and knowledge are distinct merely because there is so much of knowledge which, for any given individual or under the circumstances which obtain, is relatively inessential to judgments of values and to success in action. Thus a man may be pop-eyed with correct information and still lack wisdom, because his information has little bearing on those judgments of relative value which he is called upon to make, or because he lacks capacity to apply his information to concrete problems of action. And men of humble attainments so far as breadth of information goes, may still be wise by their correct apprehension of such values as lie open to them and of the roads to these. But surely wisdom is a type of knowledge; that type which is oriented upon the important and the valuable. The wise man is he who knows where good lies, and knows how to act so that it may be attained.[13]

Again, with Dewey, we note the relation of knowledge of matters of fact to value judgments:

> . . . physics, chemistry, history, statistics, engineering science, are a part of disciplined moral knowledge so far as they enable us to understand the conditions and agencies through which man lives, and on account of which he forms and executes his plans. Moral science is not something with a separate province. It is physical, biological and historic knowledge placed in a human context where it will illuminate and guide the activities of men.[14]

> But knowledge of facts does not entail conformity and acquiescence. The contrary is the case. Perception of things as they are is but a stage in the process of making them different. They have already begun to be different in being known, for by that fact they enter into a different context, a context of foresight

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[13]Lewis, C. I., An Analysis of Knowledge and Valuation, p. 372.

[14]Dewey, John E., Human Nature and Conduct, p. 296.

> and judgment of better and worse. . . . It is the part of intelligence to tell us when to use the fact to conform and perpetuate, and when to use it to vary conditions and consequences.[15]

When human intelligence is employed for attaining knowledge of matters of fact, either for its own sake or for moving toward goals which are not in question, then its aim is scientific. When the same intelligence is addressed to the question of what should be the goal, then the aim is philosophic.

The Method of Philosophy

A further distinction between philosophy and science should be noted, that of method. All scientific investigation goes forward under certain methodological stipulations. Some of these stipulations, e.g. "the uniformity of nature," have been so thoroughly tested for usefulness that they now function definitively with respect to science. The distinction between philosophy and science now to be developed is based primarily on one such stipulation[16] - the requirement of science that problems be "factually-meaningful." Herbert Feigl gives us a precise formulation of this requirement:

> . . . an expression is devoid of empirical meaning (i.e. of factual reference) or, briefly, is factually-meaningless, if it belongs to any one or several of the following five groups: (a) Expressions violating the syntactical formation-rules of a given language; (b) Analytic

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[15] Dewey, op. cit., pp. 298-9.

[16] In much of what follows in this section, I am deeply indebted to the thinking of Virgil Hinshaw, although we differ somewhat in conclusions concerning the relation of science and philosophy. See, e.g., his "Levels of Analysis," Philosophy and Phenomenological Research, Vol. XI, No. 2, Dec. 1950.

> sentences; (c) Contradictory sentences; (d) Sentences containing extra-logical terms for which no experiential or operational definitions can be provided; (e) Sentences whose confirmability, i.e. even indirect and incomplete testability-in-principle, is logically excluded by the assumptions of the system of which they are a part.[17]

Now it should be obvious that there is no intention here that science shall not make use of certain factually-meaningless sentences (e.g. those in group "b"). What is intended is to note that science does not attempt to solve problems that cannot be expressed in factually-meaningful language. Any problem, moreover, which can be expressed in factually-meaningful language is, at least theoretically, amenable to scientific investigation. Hence, as was pointed out in the previous section, the aim of science is to extend or correct our knowledge of matters of fact. Its method is primarily descriptive. It employs critical analysis for the sake of being more accurately descriptive.[18]

Philosophy is not restricted by the requirement that its problems be expressible in factually-meaningful language; if a problem has meaning in any sense,[19] it is open to philosophic investigation or speculation. For example, answers to the question, "What is the mean-

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[17] In his chapter "Logical Empiricism," Twentieth Century Philosophy, p. 384, edited by Runes.

[18] Description may, of course, extend to the "how" and "why" as well as to the "what."

[19] Hinshaw (following C. I. Lewis) suggests "consistent thinkability" as a meaning criterion for philosophic investigation. But we shall see that even contradictory expressions may carry an emotional-motivational "meaning" which is of consequence in human affairs and hence needs investigation.

ing of meaning?" will be in the form of elucidations or understandings, not statements of matters of fact. Matters of fact will be employed in the investigation of this problem by way of descriptive statements concerning what meanings have, in fact, been given to "meaning." Such descriptions, however, merely set the stage for the problem of what should be the meaning of "meaning." The method employed in the investigation of this problem will be primarily that of critical analysis. Careful description, where employed, will be employed for the sake of being more usefully critical.

Another problem of the same order is the one with which we are concerned in this section, namely, a delineation of the methods of science and philosophy. In order to investigate this problem scientifically it must first be phrased in factually-meaningful language. This, in turn, will require that operational definitions be given for such extralogical terms as "science," "methods" and "philosophy." But to settle upon operational definitions for these terms is precisely the problem at hand. The problem is therefore philosophic rather than scientific - a matter of critical elucidation rather than of factual description.

But problems of this order are not especially critical. The setting forth of such examples is, itself, nothing more than an illustration of the "elucidative" function of philosophy, rather than a true argument for the usefulness of our proposed distinction between science and philosophy. More critical cases are of the following order: "What is the most effective way of indoctrinating for democracy?" or

"What censorship need be maintained to protect academic freedom?" There are certain "scientific educators" who would relish being commissioned officially to solve such problems. Yet these problems are factually-meaningless on the base of being classified as contradictory sentences. Such a classification comes as a result of philosophic investigation into the nature of democracy and academic freedom. The trouble is that many persons have not made such philosophic investigations and, for these persons, such antilogies as "indoctrination of democracy" and "censorship for freedom" carry considerable "meaning."

When no distinctions are made between philosophic and scientific inquiry, the kind of confusion often arises which is well illustrated by the thinking of some members of the group process movement in education. Certain concepts and principles, gained from the scientific study of group dynamics, plus others from Gestalt psychology, are taken without modification (at least, without intended modification) and proposed as a basis on which to build a general method of education especially suitable in a democracy. It is true, of course, within the science of group dynamics, that certain types of leadership, including so-called "democratic" leadership, have been given rather precise operational definitions. Through a confusion of this scientific use of the word "democratic" with the philosophic concept of democracy, certain educators take the presence or absence of this operationally defined "democratic" leadership in the classroom or staff meeting as the sign of the presence or absence of democracy in the school. All this in spite of the fact that the science of group dynamics suggests the

superior effectiveness of this "democratic" leadership in furthering many types of goals, be they fascistic, democratic, or communistic. Kurt Lewin, an outstanding leader in the truly scientific study of group dynamics, frankly remarks: ". . . the findings of the physical and social sciences alike can be used by the gangster as well as by the physician, for war as well as for peace, for one political system as well as for another.[20]

Closely associated with this kind of confusion is the attempt to define education in terms of changes in observable behavior. It is not uncommon to find educators saying: "Learning is a process of changing behavior . . ."[21] or even, "All education is concerned with changing the behavior of individuals."[22] Now, strictly speaking, to the scientist, "learning" is an abductive inference - a construct - developed for the purpose of accounting for changes in behavior that cannot be attributed to maturation; it is not the change in behavior itself.[23] Moreover, only a minimum of philosophic analysis is required to indicate that education should be concerned not only with behavior, but with beliefs and the grounds for believing. This represents something more than behaving. It is certainly possible in some situations for education to affect only the grounds for a belief, with the belief or the observable behavior being affected not at all. Many times free in-

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[20]Lewin, Kurt, Resolving Social Conflicts, p. 83.

[21]Mendenhall and Arisman, Secondary Education, p. 50.

[22]Association for Supervision and Curriculum Development, Group Process in Supervision, p. 9.

[23]See Hilgard, Theories of Learning, pp. 4-5.

quiry or education will result in the substantiation of a quite useful belief which was originally acquired unreflectively, perhaps at mother's knee or as the result of group pressure. Correct, dependable beliefs often are quite functional in behavior long before they are well-grounded. Education should be concerned with the process of grounding the bases of behavior rather than merely with changing behavior. Unfortunately, it is often much easier to bring about changes of behavior than to bring about education.

Analysis of the term "re-education," currently popular with some people in these same circles, may serve to point up the inadequacy of these behavioral concepts and definitions for education. As a result of the culture in which he is born and reared, the child acquires a sizable fund of functional beliefs long before he goes to school. These informal influences continue, of course, throughout his life. Some of these influences are truly educative; some are not. Consequently, some of the items in his fund of beliefs are well-grounded; others are not. As the number of truly educative experiences (formal or informal) increases, his fund of beliefs becomes more and more an integrated, well-grounded foundation for intelligent, purposive behavior. At some more or less arbitrary point in this process we begin speaking of him as being an educated man.

Once educated, he can become further educated or more fully educated, i.e., his education can be continued or broadened, but how can he be "re-educated"? It would seem that there could be only two occasions: one, after a serious and permanent loss of memory; and two,

after a rather radical and far-reaching revision of the fundamentals of logic and inquiry.[24]

But let us note that even though an individual never reaches the point where he may be called educated, he nevertheless has a fund of functional beliefs - he does behave. Moreover, his beliefs, though ungrounded, do not pop willy-nilly out of the blue; they emerge as a result of specific influences. It is possible to conduct a scientific investigation of how functional beliefs are caused - how they may be planted, nourished and cultivated and, consequently, how behavior may be induced, encouraged and modified. Such scientific information would certainly be invaluable to a person who was disposed to undertake a program of "changing the behavior of individuals." Through such a program, individuals could be trained to behave in certain ways, and later, if other ways of behaving were desired, they could be re-trained. If education is merely training, then the expression "re-education" is factually-meaningful and problems of re-education may be studied scientifically. On the other hand, if education is a growth process of an integrated body of grounded beliefs, then the expression "re-education" is another antilogy.

Even these considerations would not be a critical argument in

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[24]One could possibly build a case for the need of genuine re-education in certain areas of science after some dramatic discovery occurs which requires a re-writing of the textbooks in the area concerned. Actually such scientific "flip flops" are far, far less frequent than might be thought from reading popularized accounts of scientific progress. Even when something of this kind does occur, it is not the well educated men who have difficulty in making the necessary reconstruction of their "fund of beliefs."

favor of our distinction between science and philosophy were it not for the fact that ideas, concepts and problems do not come to us with their logical properties clearly stamped on their face. Science does have precise methodological stipulations and a restricted meaning criterion, but some less restricted form of inquiry is needed for the investigations required to determine the nature of the problems or ideas that confront us. This kind of inquiry must be so unrestricted that it is able to follow a strand of thought beyond the limits of factual meaning, through the rarified atmosphere of the analytic, and even beyond the borders of consistent-thinkability. For the irrational loose ends of our ideas often carry the heaviest load of emotional motivation. The "meaning" of these intellectually fuzzy notions need to be, in some sense, grasped or understood, if the area of intelligent behavior is to be enlarged.

An antilogy, <u>when recognized</u>, may be treated as a harmless, pathetic conceptual freak; when it is not recognized, it may become a destructive monster. Persons present a very real problem who, in complete sincerity, want to indoctrinate for democracy, protect academic freedom by censorship, or educate students by "group processing" them into a change of behavior. To such persons, these meaningless conceptual freaks function as slogans which motivate them to undertake

"action programs" supposedly implied by the slogans.[25] Students may be trained, or perhaps, re-trained, by such programs to behave in certain ways. Unfortunately, they will not thus be educated.

We see then that the methods of science and philosophy are alike in that they both consist of the application of human intelligence to problems arising in human experience. They differ in being directed toward different, though functionally conjoint, ends. Having different ends in view, scientific and philosophic inquiry develop different methodological stipulations. These stipulations, having become relatively stable, function definitively and serve as a basis for distinguishing the two disciplines.

> . . . there is no competition between science and philosophy. They exist, so to speak, in distinct although connected, dimensions. As far as knowledge is concerned, the primacy and ultimacy of science is admitted. For what "science" means is simply the most authentic knowledge of nature, man, and society that is possible at any given time by means of the methods and techniques then and there available. The work of philosophy as critical and constructive does not attempt to furnish additional knowledge beyond the reach of science. Its concern is rather with the values and ends that known facts and principles should subserve. This concern is manifest in ideas whose claim is to have authority over <u>action</u> in effecting realisation of the ends and values in question, not

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[25]Oddly enough, there is a kind of logical correctness in the belief that such slogans imply action programs. Once an antilogy or contradiction is introduced into the premises of a conceptual system, then any proposition you choose may be proved by that system, i.e. may be shown to be implied by the premises. But a system that can "prove" anything and everything, proves nothing. Such a system can even "prove" its own consistency. Hence, any system which demonstrates its own consistency and thus claims to be beyond the need of investigations conducted upon it from outside, should immediately be held suspect.

> to be authoritative in presenting any kind of superior "reality" and knowledge.[26]

When this distinction between science and philosophy is adopted, it has a clarifying and restricting effect upon the claims of each. For example, it removes all of cosmology from the domain of philosophy and makes it recognizable as merely doubtful scientific speculation. On the other hand, claims to the effect that through science, "we now know enough" to determine scientifically the correct blueprint for society, are recognized as being not scientific claims, but merely claims, grounded neither in science nor philosophy. "Science, knowing no more of better or worse than nature does, cannot supply us with a program of life."[27]

On the other hand, philosophical speculation alone (i.e., speculation that ignores matters of fact) can produce nothing more than a sterile, formalistic doctrine which is continually insufficient for sound value judgments. High quality value judgments come as a result of critical evaluation of the facts of a particular situation. The facts of the situation include such public facts as scientific information about the properties of the physical aspects of the situation, the social, psychological, historical, cultural aspects of the situation, and such private facts as a clear understanding of one's own desires, purposes, goals, etc. In every case, potentialities as well as actual-

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[26]John Dewey, "The Determination of Ultimate Values or Aims Through Antecedent or a Priori Speculation or Through Pragmatic or Empirical Inquiry," National Society for the Study of Education, Thirty-Seventh YearBook, Part II, p. 482.

[27]Otto, Max, Things and Ideals, p. 210.

ities must be considered, and the consequences of alternatives must be forecast so that one can render sound judgment as to what should be valued in the situation.

Some analysis of the nature of value pronouncements may help us understand more precisely what is intended when we speak of a sound value judgment. Pronouncements of the form "X is good," or "X is valuable," may be of three distinct types. First, it may be a statement of personal taste or preference. For such a statement to be sound it must be more than "true." For more is involved here than a mere absence of deliberate or even inadvertent prevarication. It is not a simple matter always to have a clear and precise understanding of what it is that is preferred. Specific denotations are required, and this in turn usually requires rather precise operational definitions. Moreover, experience does not come in discrete chunks - experience has continuity, and actions trigger further reactions. One must, therefore, not only remove vagueness, but must view his preference in terms of consequences. In order for this type of value pronouncement to be sound, the most critical kind of elucidation and the most accurate kind of scientific information are required. The folk tales of many cultures contain stories of persons, who, when granted "three wishes," have discovered to their dismay that their value judgments of this type were far from sound.

A second type of meaning for the pronouncement "X is good" occurs when the statement is thought to be a conclusion or theorem of some deductive system. Such a statement is "true," if it is logical-

ly entailed by the basic assumptions of the system. But here again something more than logical "truth" is usually involved if the conclusion is not to remain sterile, i.e., outside the realm of action. When one attempts to act in the light of this type of value pronouncement it is soon discovered that formal logic is insufficient. Even if a more or less dependable "sense of implication" is substituted for a strict, formal deduction, it is still very often inadequate for the determination of specific actions which have a "soundness warrant" commensurate with the "truth" of the original value pronouncement. For example, one may deduce (in a loose sense) from the Bible that Russians, Arabs, Chinese, and others, should be considered as neighbors and that they should be "loved as thyself." The "truth warrant" of this conclusion is, no doubt, relatively high, and it may be very helpful to keep this in mind. Yet it does not tell us exactly what constitutes a sound position on some specific issue before the United Nations.

Third,[28] "X is good" may be a prediction of matters of fact. This is usually called the instrumental sense of good, i.e., "X" is pronounced good because it is thought to lead to some other thing or condition which is held to be good. Such a statement is true if it is

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[28]Additional types of meaning are sometimes differentiated. "X is good" may mean simply, "X is, in fact, valued." Such a statement has no special significance for value theory being nothing more than any other statement of fact such as "X is round or blue." "X is good" may also express a wish or exhortation, i.e., "Would that you, or everyone, valued X." This is just another way of saying, "That you should hold that X is good, is good." It may then be classified as one of the three types discussed.

factually true or its probability is correctly estimated. The soundness of this type of value pronouncement stands or falls on a scientific investigation.

Each of these three types of value pronouncements may be functionally either instrumental or terminal in any particular judgmental situation. Properly speaking, as instruments, such statements are examined for their truth or correctness, and a large number, often including many of each type, must be examined before a terminal statement is formulated which then expresses a sound judgment. The type of statement selected to express a terminal judgment will vary from situation to situation depending upon what is at issue in that situation, but in every case, the correctness or probable correctness of all instrumental statements involved, must be settled before the terminal judgment can be made.[29]

When confronted with a situation calling for a value judgment, one is usually rather quickly able to make a tentative terminal value judgment, "X is good." If one asks, "Why is X good?," then such answers as the following may be given:

Type 1. "X is good because it gives me physical or aesthetic pleasure."

Type 2. "X (or an action suggested by X) is good because X is

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[29]We note that type 1 is essentially non-cognitive, being an expression of personal feelings. Type 2 is essentially analytic, being concerned with the logical relation of ideas. Type 3 is synthetic, being a statement of matters of fact. Inasmuch as terminal value judgments are made on the bases of the correctness of all three types of statements, we see why it was necessary, in the section on the aim of philosophy, to classify value judgments as a third type of understanding, distinct from a mere knowledge of matters of fact or a grasp of the relation of ideas.

implied by 'Y' which I hold to be good."

Type 3. "X is good because it will lead to or facilitate 'Z' which I hold is good."

After the tentative terminal judgment is classified as belonging to one or more of the three types, instrumental statements (of one or more types) may be formulated for each of the types to which the tentative judgment belongs. In addition, more instrumental statements may be formulated to be used in the investigation of each of these instruments. The number and complexity of the instrumental statements is limited only by the time available and the desire for thoroughness. In any event, at some point, one or more things or conditions must be accepted as being functionally of intrinsic value, i.e., being worthy of being valued for their own sake, relative to this particular situation. This is another way of saying that the boundaries of the situation must be determined.

Actually, this is precisely the case in every investigation whether or not it is concerned with value. Questions beget questions, and decisions beget decisions. Until we can agree to take a "situational" approach to value problems, how can we agree upon solutions? Such a situational approach does not mean that we should cast aside all abiding or stable value guides and make our judgments in terms of momentary expediency. In fact, it means almost exactly the opposite. It is just because science agrees, in any given situation, to allow some questions to remain closed, that science has been able to build a body of dependable knowledge. What is sound or dependable is progressively agreed upon (or modified) through "trying it out," imaginatively, vicariously,

or literally.

On the other hand, this does not mean that certain "values" are to be determined a priori as being of "absolute" intrinsic value, in contrast to being functionally or situationally intrinsic. Value properties, like logical properties, are not inherently "in" things; they accrue to things by virtue of the function the things perform in valuation or inquiry.[30]

The Content of Philosophy

If philosophy is an activity with the aim of improving value judgments by a method which is primarily critical and not restricted by the limited meaning criteria of science, then its content - the grist for the philosophic mill - is potentially all of human experience. Nothing less than all will suffice, for even if some part of experience is not relevant to valuation, all must be examined in order to decide this.

But content may be thought of in a somewhat different sense. Remembering that the result of philosophy is not a number of philosophical propositions or value judgments, but "the clarity of propositions," or the improvement of value judgments, what kind of topics or subject matter have most often been selected for clarification? An exact an-

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[30]This statement does not pretend to be a metaphysical pronouncement about the ultimate nature of anything. As a statement of knowledge or understanding, it should be classified as analytic, being a grasp of the relation of ideas. As a value judgment, it may be classified as all three types. Type 1, because it gives me aesthetic pleasure to build a theory of valuation that "hangs together." Type 2, because it is implied by a theory of knowledge which I hold to be good. Type 3, because I believe it will facilitate the improvement of value judgments. It may be opened to investigation on each count.

swer to this question would require a scientific tabulation, but for our purposes, we may note the table of contents of a recently published book of readings in philosophy which are thought to be especially relevant to education. This list is probably fairly typical of the kinds of topics which the philosopher of education attempts to clarify.

1. The Role of Educational Philosophy
2. Science and Philosophy of Education Compared
3. Traits of Reality (e.g. The nature of being, The natural and supernatural, origin and destiny)
4. Human Nature (e.g. The nature of mind, Freedom and determinism)
5. Learning and Capacity to Learn
6. The Nature of Knowledge (e.g. Truth, Ways of knowing, The role of intelligence)
7. Education and Value Theory
8. Educational Aims
9. Social Bases of Education
10. Ethical Principles of Education
11. Democratic Education
12. Nondemocratic Education
13. Education and the Production and Ownership of Wealth
14. Education and Socio-Economic Class Structure
15. Public and Private Education
16. Church and State in Education
17. Nationalism and Education
18. The School and Social Progress
19. Teaching Controversial Issues
20. Academic Freedom
21. Method of Instruction
22. Logic and the Order of Instruction
23. Interest, Effort, and Discipline
24. Freedom as Method
25. Measurement and Evaluation
26. The Curriculum
27. Work, Play, and Art in Education
28. Student Discipline and Government
29. Moral Education
30. Religious Education[31]

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[31]See Table of Contents, Electic Philosophy of Education, John S. Brubacher (editor).

Such products of the "philosophic mill" contain some well ground, digestible and nourishing grain; they also contain some chaff and some flour that has been ground and re-ground until it is so exceedingly fine that one suspects it is intended for use only as a powder to dandify the periwig of some fastidious intellect. Nevertheless, an acquaintance with the kind of grain, chaff and flour that men of "large horizons and cultivated judgments" have produced may be of help to the school administrator who "can and must be his own philosopher." The school administrator is constantly pressed to make value judgments. At the very least, he has the responsibility to protect the schools against the many spurious proposals which are sure to be urged upon him by various pressure groups in the community. And, as Edgar Dale has said, "association with excellence is good vaccination against what is phony."[32]

But more than this, it would seem well to provide, in his preparation, the opportunity for thoughtful consideration of the cultivated judgments of others, not that he may be given a set of answers for his valuation problems, nor merely to vaccinate him against spurious proposals, but that he may "become accustomed" to sound valuation procedures and enhance his ability and disposition to engage in such procedures. This ability and disposition may be called "philosophic mindedness," and the problem of developing or enhancing it is, in its most general form, the age old problem of "helping individuals to think."

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[32]Dale, Edgar, "The Effects of Mass Media," The News Letter, Nov., 1953, p. 4.

We must give our attention, therefore, to this problem and attempt to set forth in detail the characteristics that are the mark of the philosophic minded individual.

Chapter III

PHILOSOPHIC MINDEDNESS

Helping Individuals to Think

In a recent opinion survey, more than ninety-nine per cent of some four hundred teachers agreed that: "The school must provide an atmosphere conducive to thought, must frequently provoke thought, and must help students analyze and evaluate their own thinking."[1] Probably no other aim of education is given such widespread verbal agreement. Yet, whenever this aim is taken seriously - that is, whenever an attempt is made to set up a series of next steps along the road to this goal - agreement tends to give way to controversy.

One of the more basic disagreements centers around the so-called "process - content" controversy. It is said, on the one hand, that thinking is an activity and, if the quality of this activity is to be improved, then the schools must be concerned primarily with the activity or process of thinking rather than with the outcomes of thought. The school's responsibility is for the quality of the process, not for specific products. On the other hand, it is said that as thinking does not take place in a vacuum, and students must have something "to think about," the primary responsibility of the school is to supply

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[1]From an "Opinionnaire" prepared by the writer and administered in an Ohio community cooperating with the School-Community Development Study of the Kellogg Foundation's Cooperative Program in Educational Administration.

the students with facts. The greater the supply of reliable information, the more likely the thinking will be both sound and fruitful.

Surely no one would deny that thinking must have some content, and in the last chapter, we noted a Table of Contents of some thirty topics which we believe to be relevant to school administration. In addition, the administration textbooks mentioned in our Introduction contain many more relevant topics. But it nevertheless appears that good thinking is characterized more by the richness of the interrelations which it develops among the items of its content than by the type or number of items in the content. A little analysis of the possibilities of thought with respect to entertaining relations of interconnections may be instructive.

Suppose we have two items or data "to think about" with respect to possible modes of action. There are at least seven modes of action which thinking may suggest. (1) Both items may be thought of as irrelevant or without weight in the situation. (2) Item "A" may be taken as relevant while item "B" is dismissed. (3) Item "B" may be taken as relevant and item "A" dismissed. (4) Both may be taken as relevant, but with item "A" given considerably more weight. (5) Both may be taken as relevant, but with item "B" given more weight. (6) Both may be taken as relevant and reinforcing. (7) Both may be taken as relevant, but in opposition.

In many situations, numerous other possibilities will be present in consequence of gradations of weighting within (4), (5), and (7). Nevertheless, with two items making possible just seven modes of ac-

tion, if we add just one additional item, the possible modes will be in the neighborhood of one thousand. Indeed, mathematicians suggest that the presentation of as many as six items on this basis will provide enough possible modes to give us a new one "to think about" every tenth of a second for the duration of a normal lifetime. If we are seriously worried that students do not have anything "to think about," we need only see to it that our schools supply them with six items, thus providing them with intellectual food for the rest of their lives.

In any living problem situation, the data or items that could be considered are so numerous that the possible modes of interrelation are inconceivably large in number. Yet it is not enough for students to be occupied with the methodical exploration of these possible modes. We have electronic and mechanical devices which will do this kind of task much more effectively than the human mind. Students must learn to sense what is fundamental and relevant in a situation and thus quickly dismiss countless millions of possibilities. The ability to do this, as we shall see later, is one of the marks of the philosophic mind which we wish to engender.

It then appears that no student need be without sufficient content to keep his mind occupied. Yet he may well be without the particular content which is necessary if he is to reach a well-grounded solution to certain problems. And, more important for this discussion he may be without either the disposition or ability to use what content he has or to seek the content he needs. We are compelled to wonder why it is that, with substantially the same factual content, some in-

dividuals so frequently think effectively while others do not, and why the same individual may "think" in some situations and not in others.

A logical analysis of the thinking process will enable us to distinguish the better from the worse when we hold a post-mortem examination of examples of problem solving thinking. A scientific analysis may describe both how and why thinking actually goes forward under given circumstances. But in either case, it is doubtful if an analysis of the process can "catch up" a particular individual who engages in it, and thus give us a set of marks or characteristics of "the thinking individual" in general. Such a set of characteristics is what is needed, however, if teachers are to help students become the kind of individuals thus characterized.

The problem here is somewhat like that of developing salesmen. Effective sales techniques have been analyzed from both a logical and psychological standpoint. But a knowledge of these analyses is only moderately helpful to the "would be" salesman. Significant progress may be made, however, when the characteristics of effective salesmen are delineated and then other individuals are selected and prepared on the bases of these characteristics. Good salesmanship is not something that is added to an individual who is a poor salesman; it is a set of characteristics of a new and different individual. A person who is a poor thinker does not learn to do good thinking merely by knowing the facts of good thinking; he must become a new and different individual - an individual characterized by good thinking rather than by poor thinking. Teachers who are really serious about helping stu-

dents to think must recognize, as did both Socrates and Jesus, that they are involved in the remaking of individuals. This is teaching. Personality, disposition, habits, beliefs, values, behavior, all that makes an individual an individual must be subject to reconstruction if the quality of thinking is to be much improved.

Dimensions of Philosophic Mindedness

Just as salesmen may be classified as automobile salesmen, insurance salesmen, real estate salesmen, etc., and a set of more or less special characteristics delineated for each, so effective thinkers may also be classified and characterized. Keeping in mind the nature of philosophy as set forth in the last chapter, we shall now be concerned with developing a set of characteristics especially applicable to the effective thinker who is philosophically inclined or oriented in his approach to problems. These characteristics, taken together, we shall call philosophic mindedness.

Such an individual seems to exhibit characteristics which may be grouped along three interrelated dimensions, namely, comprehensiveness, penetration, and flexibility. Along each of these dimensions we shall discuss four marks or indicators of philosophic mindedness, as follows:

I

Comprehensiveness

1. Viewing particulars in relation to a large field
2. Relating immediate problems to long-range goals
3. The power to generalize
4. Tolerance for theoretical considerations

II

Penetration

1. Questioning of what is "taken for granted" or "self-evident"
2. Seeking for and formulating fundamentals
3. Sensitivity for implication and relevance
4. Expectations based on an abductive-deductive process

III

Flexibility

1. Freedom from psychological rigidity
2. Evaluation of ideas apart from source
3. Seeing issues as many sided and the development of alternate hypotheses, explanations, etc.
4. Tolerance for tentativeness and suspended judgment

We should keep in mind that these marks and characteristics are signs which the individual exhibits in his thinking. They are characteristics of the individual rather than characteristics of his thinking. It is the whole individual who thinks, and if the characteristics which we are about to discuss all have an intellectual cast, it is because we are viewing the individual from the standpoint of his thinking or intellectual behavior. This distinction will take on greater importance as we give consideration to helping individuals develop these characteristics.

I

Comprehensiveness

(1) Viewing particulars in relation to a large field.

During World War II, this point was recognized in the custom of briefing the soldiers on what was called "the big picture." It was

found that when the individual understood his limited assignments in terms of the more comprehensive objectives of the large units of the army, that not only did morale improve, but individual behavior became more intelligent. The philosophic minded individual characteristically interests himself in the big picture. He strives to enlarge the field of his perceptions, and to see the larger implications of his drives and concerns. But in order to do this, he must resist the press of particulars.

During an enemy attack on a defensive position, the individual enemy soldier who manages to penetrate to within fifty feet of a machine gun implacement tends to take on an importance far greater than the unseen hundreds of enemy soldiers who are being stopped five hundred feet away by the carefully planned interlacing fire of a system of machine gun implacements. To the machine gunner who does not understand "the big picture" of the defensive position (which includes provisions for "taking care of" this lone enemy soldier), the urge to swing his gun away from the preplanned fire lane toward the one enemy that he can see is almost irresistible. An understanding of the big picture may help overcome this urge.

There is another way of insuring that the machine gunner continues to fire along his preplanned fire lane; it is the way of rigorous training and discipline. For a given particular situation, individuals may be trained to behave "as if" they understood the big picture. Those educators who would make education a behavioral science often appear willing to settle for products that behave "as if" they were educated.

Thus a particular citizen, who is both influential and vocal, may appear, to the administrator, far more important than the unseen hundreds of citizens who also have a stake in the schools. Unless the administrator can see the demands or requests of this particular citizen in relation to "the big picture" of the school in the community, he is likely to give them undue weight. It is difficult to train the administrator to behave like an educated, philosophic minded, individual in such situations, for the possible alternatives and consequences are neither so simple nor so long-studied as in the case of the machine gunner.

In more highly intellectualized situations, the ability to resist the press of particulars is again one mark of the philosophic minded individual. In the field of meteorology, so long as observers were concerned only with gross changes in the weather conditions of their particular localities, or with the refinement of particular measuring devices, the best predictions possible were based on nothing more than the few trends and cycles that could be established empirically. Before knowledge in this area could move from systematic folklore to science, it was necessary to give attention to the big picture of global atmospheric conditions understood in the light of theoretical physics.

The teacher or administrator can give endless attention to the continual refinement of particular testing devices or teaching techniques, but until he sees that which is tested or taught in relation to the big educational picture, he is failing to exhibit philosophic mindedness.

(2) Relating immediate problems to long-range goals.

Involved here is a kind of intellectual and emotional stamina marshalled against the press of the immediate, so that decisions are made in terms of relatively distant and stable objectives. Thus a time dimension is introduced into the big picture. Just as particulars may be viewed as part of a large context or picture, so the immediate may be seen in terms of its history and potentialities.

It would be a mistake, however, to think of these matters merely in terms of the amount of time and space involved. We would hardly say that a person who sees an immediate problem in terms of a ten year program is thereby more philosophic minded than one who is concerned with a five year program. Actually, the big picture may be timeless and spaceless, for it may be quite abstract or idealized. A long-range goal may be an ideal that is never seriously expected to be actualized, but which may serve as a relatively stable guide over a long period of time. As Dewey points out:

> . . . ideals are not intended to be themselves realized but are meant to direct our course to realization of potentialities in existent conditions - potentialities which would escape notice were it not for the guidance which an ideal, or definition, provides.[2]
>
> To ignore or depreciate the ideal because it cannot be literally translated into existence is to acquiesce not only to things "as they are" - as is sometimes said - but also to things "as they are not" because all things that are have potentialities.[3]

The big picture or context in which immediate particulars are placed

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[2]Dewey, John, Logic, pp. 303-4.

[3]Ibid.

may be, then, not one of mere actuality, but an "historically thick" context of antecedents and potential consequences. It is only in such a context that truly intelligently purposive behavior can take place.

(3) The power to generalize.

This third mark of comprehensiveness is intimately involved with the first two. But to understand this, we must distinguish between two types of generalization, empirical or purely inductive generalization, and what is sometimes called abductive generalization. It is the second, or abductive generalization, which is the mark of philosophic mindedness.

In a certain school, the students became interested in the question of "percentage" in playing slot machines. With the help of the teacher, the students decided to investigate the matter. They obtained a slot machine, removed the back so that they could retrieve their nickels, and then made several thousand carefully recorded plays. On the bases of this record, the students were able to generalize about the percentage of "take" of the machine. They also generalized about the frequency of "jack pots," "lemons," "cherries," and other combinations that a player could expect. This was an act of simple inductive generalization.

Had these students, on the other hand, carefully examined "the works" of this machine, while the back was off, and then constructed a theory about the mechanics of the device they could have determined, by examining the wheels, what the various possible combinations were. By moving back and forth between hypothesis and test, they would have

modified their theory gradually into a well-grounded understanding of the mechanical operations involved, and consequently, of the range of possibilities and the long run probabilities. In addition, they could have constructed and tested hypotheses about how "the take" of the machine could be changed. The end product would again have been generalizations about what a player could expect, but these generalizations would have been, essentially, abductive in nature, and would have indicated philosophic mindedness at work.

In the first case, actual occurrences are recorded, and then an "inductive leap" is made. In the second case, the question is posed, "How may I account for what is observed?" The answer to this question is an abductive generalization. Such generalizations are progressively modified and grounded by the back and forth movement between deduction and observation. This kind of procedure has the great "practical" advantage of permitting deduction to possibilities that may not have been observed at all under any given number of observations. For example, it is barely possible that some particular thousands of plays would fail to trip any "jack pots" at all. At any rate, if the students had a reasonably well-developed knowledge of mechanics, they would arrive at safe generalizations by the second procedure much more quickly than by the first.

Now, of course, in many problem situations, one cannot - so to speak - take off the back of the machine. Life very often confronts us with what is sometimes known as a "black box" situation. We can observe what goes into the box, and we can observe what comes out,

but we can't see what takes place inside. By careful observation we can establish trends, cycles, correlations, and the like, and by induction we can generalize about the relation of what comes out to what goes in, and thus make predictions. But the philosophic mind is not content merely to predict, no matter how accurately, on this basis. He wants to know what "goes on" inside the box. To answer this question, he creates by abduction such explanatory concepts as gods and devils, electrons and gravity.

Such constructs are generalizations in that they are generalized explanations for great numbers of observed phenomena. It is in the light of such generalizations that particulars are said to make sense, i.e., to form a big picture. The picture is composed of particulars, remembered, immediately observed, and deductively projected, but its "pictureness," i.e., its being picture, rather than a conglomeration, is a matter of abductive generalization. The long range concerns give the picture its depth and perspective. The soldier is urged to understand the big picture supplied by higher authority; the philosophic mind "picturizes" the immediate and the particular for itself.

(4) Tolerance for theoretical considerations.

This fourth mark of comprehensiveness is displayed, to some extent, when a person strives to grasp the big picture, when he is concerned with long range goals, and when he creates abductive generalizations. But such a tolerance may also be displayed in situations wherein the first three marks of comprehensiveness are not especially obvious and it should therefore be listed as an additional mark. Moreover,

this mark is helpful in distinguishing the first three from their non-philosophic counterparts.

For example, when faced with a conglomeration of particulars, the non-philosophic mind may strive to enlarge the conglomeration. If one wishes to appear wise, it is usually a safe bet in most any situation to say, "We need more facts." In the same way, if long range planning is suggested, it does not require any great tolerance for theoretical considerations to suggest that the length of time be extended. Nor does it require philosophic mindedness to make either more hasty or more sweeping generalizations.

In some situations, what is needed is not so much the placing of the immediate and the particular in a larger and more long range context, as a kind of theoretical withdrawal from the realm of the actual or existential. What is intended is not a wild flight of fancy, but a responsibly ordered use of the imagination. But it is not always easy to judge oetween the two. Usually it is we who responsibly order our imagination and become daringly creative, and the other fellow who is just wildly fanciful. This suggests that a tolerance for theoretical considerations includes a willingness to tolerate the other fellow's theory and the other fellow's imaginative constructions.

To think at all is to withdraw somewhat from the actual, to abstract, to theorize. A tolerance for theoretical considerations is a relative matter therefore. To the parent who wants to discuss her child's progress with the classroom teacher, considerations of reading readiness may be intolerably theoretical. If the supervisor or

administrator attempts to engage the teacher in considerations of the place of reading in a general education program, the discussion may be viewed by the teacher as being too theoretical to be of any help with her practical classroom problems. One often hears practicing supervisors or curriculum directors remark that what they learned in college about curriculum revision was all right in theory but quite impractical in actual school situations. The professor of courses in curriculum tends to grow intolerant of the professor of educational philosophy who wants to "play with ideas," and when these ideas run into purely speculative philosophy, even the educational philosopher is likely to find his tolerance strained.

Now the most abstract and theoretical considerations of philosophy proper may themselves be dealt with in a very pedantic and non-philosophic manner, and if the person doing so is paid to do it, he thereby becomes a professional philosopher - although a non-philosophic minded one. So it appears that a philosophic tolerance for theory is not necessarily most surely displayed on the level of philosophic theory, but rather it is the mark of the individual who is willing seriously to entertain considerations which are somewhat more theoretical than the usual or customary approaches to his kind of problems. In some cases, it could more properly be stated as a tolerance for unfamiliar theoretical considerations. Any problem, pushed far enough, will likely bring one to the level of philosophy proper, but it is the willingness to push, not the arriving at some predetermined level, that is the mark of the philosophic mind.

II

Penetration

(1) Questioning what is generally taken for granted or thought to be self-evident.

By resisting the press of the obvious the philosophic minded individual calls into question what others do not question and thus increases his chance of moving beyond the limits of prejudice, bias, and stereotypes. It is impossible of course to open all questions at once or doubt everything at the same time. In order to pry loose an assumption or belief with the lever of doubt, one must have some place to stand. Moreover, one cannot remove a prejudice merely by an act of will. As Pierce pointed out,[4] the matters about which one carries really deep-rooted prejudice are the very same matters about which it does not occur to one to raise questions. Some consideration must be given then to the nature of prejudice or bias.

Since at least the time of Bacon, men have recognized the social origins of much of bias and error. But gradually a profound change has taken place in the generally accepted notions of the nature of both man and bias. For Bacon, errors or bias were like pitfalls, and the power of reason gave man the ability to avoid these pitfalls once they were carefully located and marked. Through the years, our conceptions have been modified by such thinkers as Freud, Marx, and finally, Mannheim, until at present, some social scientists apparently take

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[4]See Chance, Love and Logic, p. 2.

the view that man is so inextricably involved in social bias that truth can have no meaning at all except in relation to some cultural context.

Be this as it may, analysis discloses that even if this were "the truth" about truth, we could not know this without involving ourselves in contradiction. For if all beliefs are biased, then surely this viewpoint, itself, is a biased one. But more important for our present concerns, whether or not turth is relative, bias must be, for one could hardly be biased in general (i.e. absolutely biased). Prejudice, bias, error, is always with respect to, or relative to, something - some belief, some "standing ground," some truth (relative or absolute). It follows, therefore, that it is possible to be at least relatively unbiased, and this is a sufficient ground upon which to build an aim of education. We need not settle the general question concerning whether or not every "standing ground" or position is, in some ultimate or absolute sense, a biased one, in order to set as an aim of education the progressive elimination of bias relative to any and every particular stand that may be taken.[5]

It is the mark of the philosophic minded individual to change "standing places" deliberately in order to open the questions that have been held closed by the weight of much standing. Such a person is very likely to be rather unpopular in a group which has certain areas marked off in such a way that it is obvious that "reasonable men stand here." He must be willing, therefore, to forego the group ac-

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[5]This argument is, of course, a correlate of that developed for the situational approach to value problems. See pp. 34-35.

ceptance which is extended to those who share the common beliefs and stereotypes.

True education increases the power of penetration, and thus enables the individual to, in some sense, transcend the stereotypes, prejudices, and conventions of his social climate and origin. Any program of instruction which fails in this respect is not, properly speaking, education. This is not to say that a considerable amount of non-educative instruction is not properly a concern of the schools, for even the educated person needs <u>training</u> for the development of certain skills, but unless this distinction is recognized, we will be in danger of attempting to <u>educate</u> through the use of methods and pressures which, by their very nature, preclude the attainment of our goal.

(2) <u>Seeking for and formulating the fundamental ideas, questions and assumptions in the situation</u>.

Freed from the tyranny of the obvious, the philosophic minded are enabled to consider basic ideas which may serve as keys to the solution of a wide range of problems. In order that a school administrator, or anyone else, may carry on with all of the many day by day demands that confront him, it is necessary that much of his work be routinized. For example, much of the reporting and handling of supplies is taken care of, in an efficient organization, by a standardized procedure.

In extremely efficient organizations, there is often developed what was known in the Armed Forces as an S.O.P. (i.e., Standing Opera-

ting Procedure). Through long experience it is found that certain types of problems are best handled in certain well defined ways, and an S.O.P. thus not only results in a uniform practice throughout an organization, but supposedly gives the novice the benefit of the long experience of the "old hands." A well formed S.O.P. even provides for many emergency or unusual types of situations, and thus gives the user of the S.O.P. quite a sense of security.

Whether or not the use of an S.O.P., formal or informal, is a worthwhile practice for a school organization is not here at issue. But in every organization certain procedures tend to become habitual. The longer a habit or routine endures and the more widespread it becomes, the more obviously correct it appears, and thus, the more unlikely that it will be seriously questioned. Unfortunately, merely to question or doubt the obvious often leads to frustration, for it produces such insecurity that irrational behavior results. Actually a non-specific or general doubt is irrational, and perhaps pathological. What is needed is a series of specific questions directed toward disclosing what is fundamental in the situation.

Suppose, for example, that in a certain school it has become S.O.P. for the principal to say a few words at each P.T.A. meeting. He informs the parents concerning the current problems of the school, and explains to them what the school needs and what they through their organization, can do to be most helpful. Through long use, this will become a very comfortable procedure, and it will appear quite reasonable and obviously sound. If some skeptic has the temerity to ask

publicly why this should be a set procedure, he will be confronted either with an uncomfortable silence or a flood of superficial justifications. The fundamentals of the situation have either never been grasped, or else long forgotten. When a group is continually operating at a level far removed from what is fundamental, a well-established routine is something like a safety belt - it gives one something that protects against sudden shock. A suggestion that the safety belt be thrown away is bound to be received with considerable discomfort.

What is needed instead of this general question is a series or "ladder" of questions which will enable one to get his feet on the ground by a number of easy steps. An investigation of such questions will cause the obvious reasonableness which surrounds the S.O.P. to dissolve, so that other specific questions directed toward a determination of whether or not this practice is well calculated to further the aims of the organization, may be raised. The safety belt of unthinking routine is merely an encumberance when one is standing on the firm ground of fundamentals.

(3) Sensitivity for implication and relevance.

Once the fundamentals of a situation have been grasped, the philosophic minded person displays a penchant for exploring these fundamentals. He rearranges them, turns them round and about, and guesses at or "senses" their implications. At this stage, prolificness is more important than extreme accuracy, for accuracy can be checked by other more methodical operations of men or machines. Without a hunch or guess, the methodical mind (human or mechanical) can only wait to

be given something to check, unless it starts on the lifelong task of checking all possible combinations, which, as noted earlier, would mean to check one every tenth of a second.

By use of the word "implication" we intend that that which is implied follows by logical necessity from that from which it is implied. Implication is thus limited to inferences of deductive logic. The truth of the implication is formal or analytic. When it is said that the philosophic minded individual displays a keen sense of implication it is not intended that he necessarily be an expert logician, and certainly not that he behave like an electronic analyzer. Except for certain more or less trivial implications, the discovery of what is implied by a set of fundamental ideas is usually neither a simple nor a methodical affair. There are stories of precocious children who, at the age of eight or ten, when given a copy of Euclid's geometry, spend a few hours in looking it over and then announce that while it is interesting, yet, after all, given the definitions, axioms, and postulates, all of the theorems are obvious. Such children are so exceptional that extended consideration need not be given them here, but their case does point up what is involved in our use of the word "obvious," and the way in which it is related to "implication."

The expression, "This is obvious or self-evident." is always elliptical for "This is obvious or self-evident <u>to me</u>." For most of us, Euclid's theorems are not immediately obvious. Yet, until they are so rendered, they cannot be said to be proved. On the other hand, the theorems are immediately implied by the definitions, axioms

and postulates. The trick is to discover this fact, and to prove a theorem is to "make obvious" this discovery. But before it is likely that such a discovery will be made, it must be suspected, and it is precisely here that the third mark of penetration is displayed. The philosophic minded individual is quick to suspect hidden implications. Once suspected, these hunches can be checked, but without the hunch, the implications remain hidden.

But this is only half the story, for, "This is obvious to me," is elliptical for "This is obvious to me by virtue of such and such." In the case of a deductive system like Euclid's geometry which approaches the ideal of formal systemization, it is not difficult to make the "such and such" accurately explicit. In the case of non-formal situations, the such and such often amounts to nothing more precise than a great and perhaps conglomerate mass of past experience. For example, when a school administrator insists that it is obvious that school policy should be left entirely in the hands of professional educators, he should add, not only that this is obvious to him, but also that this obviousness is by virtue of . . . a vague mass of experience with communities and their schools. In the light of a different mass of experience, something quite different may appear obvious. Even with physical objects, that which stands out under one condition of light, perspective and orientation (psychological as well as physical) will be obscure in another setting.

It turns out, then, that when one questions what others consider obvious, one may do so in either or both of two ways. Granted the

assumptions, one may question if what is thought obvious really does in (logical) fact follow or stand out. This is the equivalent, in the realm of physical objects, to questioning if others really do see what they think they see, i.e., one considers the possibility of optical illusion, etc. The second way is to question the assumptions by virtue of which the obviousness is claimed. This is equivalent to suggesting that more or other lights be turned on, or that we change perspective and take another look.

Except for formal problems (largely limited to mathematics and logic) our thinking takes place in situations in which neither the assumptions nor the deductive steps are fully or accurately made explicit. One hears much talk of "frames of reference," "positions," and the like, and such attending expressions as "it follows that," and "the implications are. . . ." At best, this way of speaking is merely careless; at worst, it represents wishful thinking or self-delusion. Many situations in which men must act are so complicated that to sort out the possible assumptions and their implications would be a lifetime task for a logician. Yet, if action is not to be random, some insightful hunch must function as guide. A more or less keen sense of implication and relevance serves (and, when highly developed, it is the prod that prompts) the philosophic minded person to ask the penetrating questions which may explode the myth of logical obviousness, elliptically or implicitly claimed for so many widely held conclusions.

(4) Expectations are based on an abductive-deductive process rather than on a simple inductive process.

Like the fourth mark of comprehensiveness, this mark of penetration amounts to a recognition of the role of theory in all our affairs, even the most practical. One of the most common errors of our time is, perhaps, an overemphasis on "the practical" divorced from "the theoretical." Unfortunately, this error has, very likely, been encouraged by a wrongly conceived pragmaticism. As Northrop remarks: "What Dewey's followers acquired was not his correct thesis that theory and its theoretical problems are as necessary a part of scientific inquiry as empirical evidence and experimental methods . . . but the erroneous assumption that experimentation and an appeal to what happens in practice, without guiding theoretical principles, are alone what matters both in science and in life."[6]

When one fails to penetrate, i.e., move abductively beneath the surface of observed empirical data, one's expectations are based on an inductive, psychological conditioning. Such expectations are, essentially, conditioned responses. Pavlov's dog, after the conditioning period, expected food to appear after hearing a bell. The bell thus came to mean food. All of us acquire a large fund of such conditioned meanings or expectations. Recent developments in physiological research have moved far beyond the work of the early psychologists in the area of conditioned responses, so that now enough is known about the functioning of the nervous system to make possible the construction

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[6]Northrop, F. S. C., The Meeting of East and West, p. 152.

of an electronic circuit incorporated in a machine which can then "learn by experience" by developing conditioned meanings.[7]

By the use of a photoelectric cell and a scanning device, a simple, mobile machine can be constructed which will locate and move toward light. A hearing device can be built into the same machine. With the introduction of a conditioning circuit, the machine can be "taught" to move toward a distinctive sound and to continue to respond to the sound in the absence of the light which was its "natural" attracting stimulus. Now the interesting thing about such a device is that by altering the condensers, tubes, etc. in the conditioning circuit, the learning time or learning characteristics of the machine can be changed. The machine can be made "stubborn" or "skeptical," or the degree of discrimination can be increased or decreased. For example, the circuit can be constructed so that three or four "experiences" of sound and light together are all that is needed to "throw the switch" and make sound mean light. On the other hand, a more complicated circuit can be constructed which will require that the sound precedes the light by not more than, say, three seconds, that twenty such sound-with-light experiences are required out of a total of say twenty-five experiences with light, and that, once conditioned, the meaning must be reinforced, say, seventy-three per cent of the time if the switch is to remain closed. By tinkering with the circuit, the "learning personality" of the machine is thus altered. Theoretically, circuits could be built on circuits, so that the personality of one circuit could be conditioned by the

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[7]See Walter, W. Grey, The Living Brain.

next circuit above.

Now the philosophic minded individual tinkers with his own condensers, so to speak, and short circuits this conditioning process by asking penetrating questions about "what goes on here." He attempts to answer his own questions by abductively creating explanations, hypotheses, or theories. His expectations are based on the sensed implications of his theory, and, of course, tested and modified in the light of future experience. Any particular expectation may or may not turn out to be the same as if it had been merely a conditioned one, and if it does turn out this way, and also proves to be a reliable guide for future experience, then it is often difficult, even for the individual involved, to tell by which process he acquired the meaning. It is when meanings turn out to be less than adequate that the difference in origins becomes very important.

When a meaning proves inadequate, we say, in current educational parlance, that a reconstruction must take place. Now just what is it that must be reconstructed? If the meaning is the result of conditioning, nothing worthy of the name <u>construction</u> has ever taken place, so there is nothing to <u>re</u>construct. An expectation or meaning which has been ingrained by a process of conditioning will simply fade away by lack of reinforcement. But when a meaning or expectation is the result of a sensed implication from an abductively constructed hypothesis or theory, then in the face of failure, that which was constructed must be reconstructed to account for this new experience. In the light of the reconstruction, a new understanding is gained, not only of the

present, but of the past, and expectations for the future are modified on the bases of the reconstructed totality of experience.

We see then that just as the philosophic minded individual tends to violate some of the social-psychologists' generalizations about the behavior of individuals and groups with respect to the acquisition of prejudices and bias, so he also, by taking thought, sets aside or disrupts what is admittedly the "natural" or usual conditioning process. If anyone is disposed to argue, from the circuit-on-circuit analogy, that it is not <u>really</u> possible to escape the conditioning process and that philosophic mindedness is itself merely the conditioning of a higher circuit, then we may point out that so long as it is possible for man to <u>construct</u> such an argument or explanation, we are content.

III

<u>Flexibility</u>

(1) <u>Freedom from psychological rigidity</u>.

Exhibitions of rigidity seem to occur in three types of situations or circumstances. First, under circumstances which are so novel that past experiences leave one totally unprepared to react in a way that is appropriate to the new situation. If we were suddenly to find ourselves in the position of the disciples in the boat when Jesus came walking to them on the water, our reactions would likely be just as rigid as were theirs. But even here, there is some question as to whether past experience should have left them totally unprepared. Matthew reports[8]

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[8]Matthew XIV, 28-31.

that Peter attempted to make an appropriate response, based, no doubt, on a rather rapid reconstruction, but he lacked the courage or faith to trust completely what his sense of implication told him. It is interesting to note that Mark adds an observation of his own to the account of what happened: ". . . they were sore amazed in themselves beyond measure, and wondered. For they considered not the miracle of the loaves: for their heart was hardened."[9] Mark evidently felt that this situation was not so novel as to exclude the possibility of non-rigid behavior completely. The miracle of the loaves, which occurred earlier that day, should have moved the disciples to reconstruct their fundamental ideas in such a way that when they saw Jesus walking on the water their sense of implication would not have been violated. "They were sore amazed" because their expectations were not based on any such reconstructed, abductive "picture" and this failure occurred, as Mark realized, for emotional rather than strictly intellectual reasons - "for their heart was hardened."

The second situation in which rigidity is frequently exhibited is brought about by a series of similar experiences followed by one which is superficially similar, but fundamentally different. Behavior, which is appropriate in the series, is quite inappropriate in the face of a fundamental change. The series of experiences has a conditioning effect which builds a psychological set that blocks the individual from grasping the fundamental change.

This situation is well illustrated in the psychological labora-

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[9]Mark VI, 51-52.

tory by confronting the subject with a series of problems whose solution depends on a single principle or procedure, for example, releasing locked doors by discovering "a combination" of press buttons. After this, if the subject is confronted with a closed, but unlocked door, he is likely to waste a great deal of time, tinkering with the buttons, instead of merely pushing against the door to open it. The conditioning effect of the series of successful solutions by the use of one procedure amounts to the construction of a stereotype about "how to open doors." The subject has had too much "experience": he "knows" too much about how to open doors to try anything so simple as pushing against the door. Is it possible that some of our school administrators "know too much" about how to "put over a school levy," how to "sell the community on a change in program," how to "handle the P.T.A.," how to "get a new teacher started off right," and the like?

The third type of rigidity is displayed in situations involving extreme emotional stress. Persons trapped in a burning building, soldiers suffering from battle fatigue, or school administrators under excessive pressures tend to become so emotionally blocked that all sense of appropriateness is lost. They then behave in some rigid manner. The emotions, instead of merely adding color and flavor to the intellectual processes, dictate rigid boundaries for the thought process so that the resulting behavior may be as if some sudden and fantastic reconstruction had taken place which was quite "out of joint" with the realities of the situation. The reason why this breakdown occurs may be a matter of true physical fatigue, but it may also occur through a

long failure to "face up" to fundamentals. The "extreme emotional stress" may be caused by nothing more "real" than the sudden removal (or threat of removal) of several pet "safety belts." The person who is literally falling or drowning may rigidly grab again and again at flimsy straws; the person who is figuratively falling, may put forward again and again flimsy or irrelevant considerations as if they were weighty arguments.

The philosophic minded are comparatively immune to these rigidity producing circumstances because they are oriented toward considerations which transcend particular situations, for example, long range goals, fundamental ideas, and abductive constructs. Yet they recognize that the appropriateness of these considerations for any particular situation is always open to question. They thus escape becoming so enmeshed in the situation that they are unable to "step outside" and see the problems in relation to a larger whole, and yet they avoid becoming so tied to these outside considerations that their ability to act in the situation is restricted.

Common sense tends to associate wisdom with old age or length of experience. We have associated wisdom with philosophic mindedness, and as a lack of rigidity is a mark of philosophic mindedness, common sense would then expect that older, more experienced persons would tend to exhibit greater flexibility or lack of rigidity. Actually, however, experimentation seems to indicate that rigidity tends to increase with age. This apparent contradiction comes about from a failure to distinguish between experience measured time-wise and experience measured

in terms of the amount of reconstruction that has taken place. Oftentimes a child will remain quite flexible in the face of some unusual experience simply because he does not know enough to recognize that the situation is unusual. He is not afraid of the tame lion on the movie set because he thinks it is probably just a big gentle cat. An older person, with a great mass of undigested experience, may exhibit a rigid fear of the lion. An individual, of any age, who has been nourished by well-digested experience, will exhibit a cautious flexibility in his approach to the unusual situation. It is the individual who has continually reconstructed his experience, his meanings and expectations, who remains perpetually "young in spirit." He is not childish, but he is childlike, in that, like the child, he does not know so many things "for sure" that his thinking is rigidly set.

(2) Evaluation of ideas apart from source.

The genetic fallacy has long been recognized as a potent source of error, yet there remain a number of considerations related to this matter which have not always been fully understood. In the first place, there are at least four meaningful distinctions which may be made with respect to the origin or source of an idea. There is source in the sense of the person who originates or advances an idea; source in the sense of the social-psychological conditions out of which an idea arises; source in the sense of the conceptual "neighborhood" or "cluster of ideas" from which a particular idea is drawn; and source in the sense of logical origin, or system, by which an idea is implied.

The school administrator who is acquainted with the influential

persons in his district will often be tempted to categorize or label them. Person "A" is a labor union man, person "B" a socialist, person "C" an "America Firster," etc. The administrator believes he's "got their number" and consequently knows how to deal with them. When an idea or suggestion is put forward, the administrator is likely to ask first of all, "Where did this suggestion come from?" and then evaluate the suggestion almost entirely in terms of his previous evaluation of the source. The thinking seems to run: "This suggestion came from a socialist, therefore, it is nothing but another socialistic suggestion."

This genetic fallacy, or the "nothing but" type of thinking, may also occur with respect to our second sense of source. Some teachers are apparently so enthusiastic about helping the school fulfill its role as a reconstructor of values, that they openly condemn any belief or idea put forward by a student, if the student admits that he unthinkingly "just picked it up" from his family or community. It is a great temptation, sometimes, to "explain away" a question or idea by describing how it was caused by certain unfavorable social or psychological conditions. One may even express sympathy and understanding for the individual holding the idea, saying, "Had I been in those same circumstances, probably I would feel the same way he does." Again the thinking seems to be that an idea is nothing but a reflection of the conditions. Under this way of "dealing with ideas," the idea as idea, may never be considered or evaluated at all.

Now quite aside from the person who advances an idea, many ideas are condemned on the bases of "guilt by association" with other ideas.

Ideas tend to travel in clusters and the clustering principle is more often psychological than logical. That is to say, the value of any one idea is not necessarily related to the value of the other ideas in the cluster. For example, the idea of the administrative consolidation of two or more school districts comes from a cluster which contains the idea of the consolidation of attendance units. There is no reason why the two have to go together, as has been well demonstrated by certain counties in West Virginia in which a number of one and two room schools have been retained and strengthened by a county-wide administrative district. Yet it is difficult for some people to evaluate the idea of administrative consolidation without pre-judging on the bases of the whole consolidation movement or cluster of ideas.

Even the terminology in which an idea is expressed often prejudices our evaluation of it because of past meanings of the terminology. A person who seriously wants to communicate an idea must, of course, consider this and exercise care in selection of terminology. But the responsibility lies partly with the receiver. Actually a receiver never just "receives" an idea in the sense of being a passive agent. One never merely hears an idea, one actively attends to it. If one then evaluates the idea on the bases of some previous context in which the key terms have appeared, one is surely committing the genetic fallacy.

Much of the difficulty here again is due to an active emotional block rather than to an intellectual or logical oversight. Some persons are so vehemently opposed to all that is traditional in education

that they immediately reject even the most novel or progressive suggestions when they are phrased in language which employs one or two expressions from the traditional terminology such as "mind," "instinct," "subconscious," and the like.

The failure to evaluate an idea apart from its source in our fourth sense of source, is, from a logical standpoint, a formal fallacy. It is sometimes known as the fallacy of denying the consequence because of denial of antecedent. But psychologically, this error is often caused by the same kind of emotional block which produces the genetic or "nothing but" fallacy. An example of this failure to evaluate an idea apart from its logical source occurred a number of years ago when many educators, impressed by the defunct status of faculty psychology with which the idea of transfer of training was associated as logical consequence, refused to entertain the idea of transfer of training as a useful concept in spite of the rather evident fact that transfer, in some form, had to occur if education was to take place at all. This would be somewhat like rejecting the constitution of The United States because of a decision to reject the philosophy of John Locke.

A second consideration which has not always been understood is that the instrument used to "cut away" an idea from its source must be a two-edged blade. It is just as easy to become emotionally tied to a source in a favorable way as in an unfavorable way. Actually it may be somewhat more difficult to cut the favorable ties. When one is unfavorably disposed toward a source, one is at least in an active,

critical state of mind: but, when one is favorably disposed toward a source, one tends to accept ideas from this source passively, without even being aware of this fact.

A third consideration is that this two-edged blade, like Ocam's razor, must be used with some delicacy. When we parsimoniously shave off the needless hypotheses, we must be careful to leave enough to explain or account for all of the observed phenomena, and with the same delicacy, when we "cut away" an idea from its source, we must not cut so completely as to leave the idea in meaningless isolation. A consideration of the source may be of invaluable help in understanding the meaning or intent of the idea, and one can hardly evaluate an idea that is not first at least tentatively understood. The trick is to give full consideration to the source and still cut away emotional reactions and judgments about the source from judgments about the idea.

And finally, in actual practice, one must sometimes make quick judgments about the probable value of an idea when there is not time for a careful evaluation. Here, even the philosophic mind is likely to base his estimate on what his experience has shown to be the usual value of ideas from the same source. But he does this, not as a compulsive emotional reaction, but as a reasonable, tentative estimation of what he believes a full evaluation would reveal.

(3) Seeing issues as many-sided rather than two-sided, and the development of relatively large numbers of alternate hypotheses, explanations, viewpoints, etc.

It is possible that a tendency toward dichotomous thinking is a

natural correlate of the development of consciousness of self. Very likely, one of the earlier distinctions drawn by the child is the division between self and the rest of the universe. Everything is divided into "I" and "not I," at first and, a little later, into "mine" and "not mine." The child who is not able to distinguish between "mine" and "not mine" presents quite a problem to parents, school and society.

A little later in life, this same two-way division is likely to extend to our thinking about desires, beliefs, values, and issues in general. The universe may be divided into "things which I desire" and "things which are not the things which I desire"; "Things which I believe" and "things which are not the things which I believe." When a person suggests that we should consider <u>both</u> sides of an issue or question, it is likely that he has drawn a line between his own point of view or side, and an undifferentiated universe of all possible points of view, less one.

Actually there is nothing illogical about this way of thinking. The principle of excluded middle has long been recognized as one of the three basic laws of thought. There is no middle ground between true contradictories. The difficulty arises because we fail to realize that one side of a contradiction may be composed of an exhaustive disjunctive series of contraries, less one, and then some one of these contraries is mistakenly thought of as being the full contradiction of the other side of the dichotomy. This kind of illogical procedure is often known as "black or white" thinking. The true contradiction

of black is "non-black"; "white" is merely one of a series of contraries which make up the disjunctive series of "non-black."

Unfortunately, this essentially simple matter has often been beclouded by a number of arguments which suggest that the principle of the excluded middle is unsound or inadequate. For example, is the flake of dandruff on your scalp "you" or "non-you"? How about the air in your lungs? If it is true that snow is white, then is it false that some snow is grey?

The trouble here arises from a confusion of the soundness of a principle with the physical and psychological difficulties attendant upon making classification decisions under the principle. The philosophic minded individual is careful to distinguish between contraries and contradictories, and he also recognizes that the principle of excluded middle as an ideal requires that possibilities be precisely formulated in an exhaustive disjunctive system of contraries. Striving to approach this ideal in his thinking, he thus formulates and considers relatively large numbers of alternate hypotheses, points of view, explanations, and the like.

(4) Tolerance for tentativeness and suspended judgment and a willingness to take action in an ambiguous situation.

A relentless desire to know, with the highest possible degree of certainty, has long been associated with both the scientist and the philosopher. On the other hand, a fear of the unknown, and a relentless anxiety, is the mark of the neurotic - a person who may literally be "worried to death." How often have we heard someone remark: "If I

could just be sure of what the outcome would be, then I could quit worrying about it - it's this not knowing that gets me."

We must distinguish between intellectual curiosity and an emotional urge for prognostication. The first springs from a love of freedom and a desire intelligently to utilize and to extend that freedom; the second springs from a fear of freedom and a desire to abdicate the responsibility for making decisions.

So long as man remains free to act, situations will remain ambiguous. Meanings and outcomes are not rigidly set. Man can and does alter them by taking action. The philosophic minded individual has a tolerance for tentativeness. He recognizes that only the tentative is tenable in the kind of free world he cherishes. He is willing to take action in an ambiguous situation, recognizing that only by taking action can the ambiguity be resolved in ways that bring the situation more nearly in line with intelligent human purpose. Russell has said, "To teach how to live without certainty, and yet without hesitation, is perhaps the chief thing that philosophy, in our age, can still do for those who study it."[10]

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[10]Russell, Bertrand, A History of Western Philosophy, p. xiv.

Chapter IV

A STUDY OF PHILOSOPHIC MINDEDNESS AMONG SCHOOL PRINCIPALS

> "As is priest, so is parish," is an ancient Russian proverb. This proverb may be paraphrased and applied to school employees . . . as is principal so is the school . . . .[1]

It would seem proper to expect that a principal who is comprehensive, penetrating, and flexible in his thinking would exert a different influence in a school than one whose thinking lacks these qualities. This influence should manifest itself in two ways. It should be evident first in the results of his thinking, i.e., the plans, organizational arrangements, etc. which he promotes should carry the imprint of the thinking which devised them. Second, the quality of his problem-solving behavior should have a noticeable effect on the behavior, feelings, and attitudes of his employees or co-workers.

In order to explore these assumptions, the following conditions would be required:

1. Available for study, a number of principals and their schools, reasonably similar with respect to personnel and problems.
2. A means of differentiating the principals with respect to philosophic mindedness.
3. Instruments for measuring plans, behaviors, feelings, and attitudes present in the several schools
4. A statistical method for determining the significance of any

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[1]Reeder, Ward G., The Fundamentals of Public School Administration, p. 207.

actual differences found in the measurements taken under numbers 2 and 3.

What follows is an account of how the above conditions were found or created.

The School-Community Development Study

At the time this study was undertaken, The Ohio Center of The Cooperative Program in Educational Administration[2] was located on the campus of The Ohio State University. The Center, known as The School-Community Development Study, was engaged in extended explorations of public school administration throughout the state of Ohio. Intensive study of conditions and practices was being carried on in a number of communities, one of which seemed to offer excellent opportunities for the study of a number of principals and their schools.

Forty-six schools of substantially the same grade levels, all operating under one central administrative office, were available for study in this community. Each of the schools had been directed by the central office to undertake a study of some curriculum problem or problems. The central office had left the choice of problems and the methods of study entirely up to the schools.

Here then was an opportunity to study the characteristics exhibited by the forty-six principals as they were confronted with the common problem of meeting the directive of the central office. Here also was the opportunity for measuring the attitudes and feelings of the

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[2] A Kellogg Foundation Project.

forty-six staffs as they worked under the direction of these principals.

The School-Community Study agreed to include a study of "P.M." (philosophic mindedness) as a part of its more extended study of these schools, and assigned research and clerical personnel to assist in the development of instruments and the collection, recording, and evaluation of data.

Measuring Philosophic Mindedness

Extended consideration was given to the problem of quantifying the characteristics of "P.M." Without recounting each of the false starts made, it may be noted that each was in some way instructive and, as a result, the concept of philosophic mindedness underwent clarification and refinement. One of the early attempts was concerned with a content analysis of a sentence completion test.[3] This was part of a battery of questionnaires and tests completed by several hundred school administrators, including the forty-six principals now under special study. This test included such uncompleted sentences as:

"When a school head appoints a teacher committee he is . . . ."

"Faculty meetings are . . . ."

"A poor teacher . . . ."

"School administrators are often . . . ."

The instructions were "Work rapidly. Finish these sentences as fast as you can. Write down the first idea that comes to your mind."

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[3]See Appendix A.

Work with this test revealed that while it is possible to classify the "paper and pencil" behavior of administrators as being more or less comprehensive, penetrating and flexible, the reliability of scoring such unstructured completions is very low. It revealed that the three dimensions of comprehensiveness, penetration, and flexibility are very likely three different ways of looking at, or understanding, what is substantially a single set of qualities. For example, in completing the sentence, "Faculty meetings are . . . ." a certain administrator wrote ". . . worthwhile if the ideas developed are acted upon." A second administrator wrote ". . . are OK if not excessive in number."

It was not difficult to obtain agreement that the first answer indicated more "P.M." at work than the second, but should the answer be scored under comprehensiveness or penetration? Finally, because the instructions on the test suggested that the completions should be impulsive rather than thoughtfully considered, it seemed that such an instrument was unsuitable as a measure of "P.M." Some informal studies were undertaken to explore differences between "quick" completions and completions which were more deliberately considered, and these studies led to some clarification of the role of temperament or disposition in "P.M." There was some indication that the person of high "P.M." shows less difference between "quick" answers and "deliberate" answers. Later, attempts were made to "match" "P.M." scores with personality profiles, but with no conclusive results.

Some attempts were made to quantify the "P.M." characteristics

displayed in answers given to a "Case Analysis"[4] section of this large test battery. Here the testee is presented with several briefly described "situations" and then asked such questions as "What would you say to Mr. Jones?," "What do you think was really troubling Miss Smith?," and the like. Here again, the results were generally unsatisfactory.

In the course of this work, the problems of reliability and validity were considered. It was found that the reliability of a "P.M." scoring on such unstructured answers was quite low. Countless informal discussions were held by members of the staff and university personnel, in an attempt to reach some common understanding of what kind of "paper and pencil" behavior constituted a valid indication of the presence or absence of the various characteristics of "P.M." During these confidential, informal talks, many references were made to actual examples of thinking-behavior on the part of mutual acquaintances, in an attempt to illustrate the various marks of "P.M."

Gradually two things became clear. In order to develop a reliable scoring for a "paper and pencil" instrument, the instrument would have to be so structured that we would no longer have faith in its validity. Second, the subjective classification (high, medium, low) of persons whom we had observed in the process of confronting problems, seemed to show a high degree of reliability. This suggested that the forty-six principals could perhaps be best differentiated on the bases of the subjective estimates of a team of observers or interviewers who

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[4]See Appendix A.

were grounded in an understanding of the characteristics of "P.M."

Arrangements were made for the selection and training of a team of eight persons, and appointments were made for visits with the principals. Loosely structured interviews were devised to provide opportunity for a team member to engage in lengthy discussions with a principal concerning the problems encountered in connection with the curriculum study going on in each school. Each principal was to be visited once in the Winter and once in the Spring and no team member was to visit the same principal twice. In this way, two independent estimates of "P.M." were to be obtained for each principal.[5]

At no time during the study was the concept "P.M." mentioned to the principals either directly or indirectly, and all of the questions during the interviews were directed toward the problems of the curriculum study in that school. But at both the Winter and Spring interviews, one question was especially designed to "bring out" the "P.M." characteristics. For example, during the Spring interview, after a series of questions about the nature of the curriculum problem selected, how it was selected, and how the staff was organized for its study, the following question was posed: "As you look back over the year's curriculum study activities, what, if anything, do you wish you had done differently?"[6] While the principal answered this question, the interviewer weighed his remarks with respect to comprehensiveness, penetration, and flexibility. By the time this point of the interview was reached,

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[5]Due to scheduling difficulties, this was not possible in every case.

[6]See Appendix A.

the principals were usually relatively relaxed and the interviewer was free to ask additional leading questions in order to "keep him talking" on this topic.

Each team member was provided with the following rating scale[7] on which to locate the principal's remarks with respect to each of the dimensions of "P.M."

a. Comprehension: L ——— H

Low: Sees particulars in isolation; concerned chiefly with immediate accomplishments and the "practical" aspects of the activities.

High: See year's work as a whole; shows concern for long range and enduring goals or values; considers the theoretical aspects of the activities.

b. Penetration: L ——— H

Low: Does not examine basic assumptions; attributes success or failure to superficial causes; fails to grasp the meaning of what has happened for future planning.

High: Questions what was taken for granted or assumed; recognizes the fundamental or underlying factors; sensitive to implications and relevance among factors and to future planning.

c. Flexibility: L ——— H

Low: Does not consider what was <u>not</u> done; has a "pat" or dogmatic explanation of what happened; discusses "personalities" rather than issues or ideas.

High: Sees other ways in which things could have been done; suggests alternate explanations and meanings for what happened and welcomes counter suggestions.

This type of scoring is, of course, highly subjective, but it need not be merely arbitrary, capricious or unreliable. The scoring scale, with its brief reminders of the marks of "P.M.," had been used in team practice sessions, during which mock interviews had been conducted,

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[7]See Appendix A.

with team members analyzing possible comments in order to develop a common understanding of what type of remarks could be considered as positive or negative indications.

The problem of training interviewers was somewhat more difficult than was anticipated, and this was also quite instructive. Strictly speaking, a person cannot be merely trained to estimate "P.M." - he must be educated to do it. Persons may be trained to score reliably, specific predetermined behaviors or responses. But when this is done, the same question of validity arises which was noted in connection with a highly structured "paper and pencil" test. If a set or "key" of possible responses to a question is carefully prepared in advance with the "correct" scoring assigned, and then during the interview, only responses which match ones from the prepared "key" are noted, a "P.M." rating can be made with high reliability. Yet the operation is almost mechanical. Unless there is some independent test for the validity of the prepared responses and their "correct" scoring, however, the high reliability is worthless.

The problem is precisely that which is encountered by the classroom teacher of, say, American History. Suppose one of her objectives is to teach "understanding and appreciation" of the evolving concept of democracy. Somewhere along the line she can give an "objective" test of factual material, dates, events, and the like. This test may be very reliable and can be scored by almost anyone who has the "key." But unless there is some good reason for believing that an ability to respond "correctly" to the questions on this test is a valid indica-

tion of "understanding and appreciation" of the evolving concept of democracy, the teacher is wasting her time so far as this objective is concerned. Actually, in this example, she may be doing worse than wasting time. The test may block the achievement of the objective.

Our objective was to differentiate the forty-six principals with respect to "P.M.," and we saw no way of establishing the validity of a set of predetermined responses. Our preparation program for interviewers was therefore designed to give validity to their understanding of "P.M.," in the hope that they would become sufficiently educated in the use of comprehensiveness, penetration, and flexibility that they would be able to score whatever responses were made by the principals in terms of these qualities.

Many factors, such as lack of time, unavailability of suitable persons, the need to fit the "P.M." study into the requirements of the larger studies of the School-Community Study, etc., were present and, in consequence, our original interviewing team fell somewhat short of the mark. Again, our understanding of what constituted suitable or adequate preparation for this type of interviewing underwent clarification and refinement during the process. As the work progressed, it finally became clear that two members of the team could not be considered adequately prepared. Their reports were retained in the School-Community Study files of data on the schools, but their "P.M." estimates were removed from the more restricted study.

The following table (Fig. 1) shows the "P.M." rating assigned to each of the principals during the Winter and Spring interviews. As

each of the three dimensions was scored on a four point scale, the "P.M." scores ranged from three to twelve. On the table, these scores have been converted to a one-to-ten rating. Principals are designated by code numbers and interviewers are designated by letters.

Figure 1

ORIGINAL "P.M." ESTIMATES

Code Number of Principal	Winter Score	By	Spring Score	By	Code Number of Principal	Winter Score	By	Spring Score	By
10	4	E	1	B	34	*		*	
11	7	E	*		35	7	E	4	B
12	8	E	5	A	37	7	E	1	C
13	9	A	10	A	38	**		1	C
14	5	C	6	B	39	1	B	6	A
15	1	C	5	F	40	*		7	F
16	4	B	4	C	41	5	B	2	B
17	4	E	**		42	1	D	3	C
18	9	C	*		43	6	E	5	A
19	3	C	6	F	44	6	E	4	A
20	5	B	3	B	45	**		6	F
21	**		9	C	46	4	A	*	
22	*		3	F	47	5	A	*	
23	*		10	A	48	**		*	
24	2	C	9	A	49	3	B	4	A
25	*		5	A	50	2	D	2	C
26	10	A	4	C	51	1	B	5	C
28	*		6	F	52	5	A	6	F
29	*		*		53	*		9	B
30	1	C	1	B	54	8	C	*	
31	2	A	1	B	55	5	A	1	C
32	1	B	1	C	56	2	C	7	B
33	7	A	10	B	57	7	A	6	F

* Assigned to the interviewers dropped from the team.
** Unable to obtain interview because of transfer, illness, etc.

From Figure 1 it can be seen that there were twenty-five principals for whom we were able to obtain two independent estimates by qualified interviewers. Figure 2 shows the number of rating points by which the two estimates differed. We note that in approximately seventy per cent of the cases, the two estimates of "P.M." differed by not more than three points, but in five cases, the interviewers differed by five or more points.

Figure 2

POINT - DIFFERENCE
BETWEEN TWO ESTIMATES OF "P.M."

Size of Difference	Number of Cases
0 points	4
1 point	6
2 points	2
3 points	5
4 points	3
5 points	2
6 points	2
7 points	1
2.6 average	25 total

It was assumed that "P.M.," being somewhat related to both general intelligence and personality, remains relatively constant over a period of a few months and Figure 2 therefore seems to suggest that qualified interviewers can, <u>in most cases</u>, make dependable estimates of "P.M." If <u>all</u> the estimates of the six qualified interviewers are accepted, then the "N" of the principals may be increased by the addition of the eleven principals for whom we have just one rating, and the three principals who were interviewed twice by the same interviewer. If this were done, the "N" would be thirty-nine.

The next problem was to derive from these estimates, a single "P.M." score for each principal. An average of the estimates for each principal would seem to be suggested, but from Figure 2, we noted that there were five cases where the estimates differed by five or more points. It would seem that in these cases, an average would result in a score that would not reflect a balanced judgment. When two estimates disagreed only slightly, an average of the estimates resulted in a score to which both interviewers could agree. When the estimates were separated by fifty per cent of the scale, a mathematical average produced a score unsatisfactory to both interviewers. If we accept all the work of the six qualified interviewers as being in most cases sound, then the few cases in which serious disagreement occurred would seem most likely to be the exceptions to the general rule of "sound." These cases should probably, therefore, be dropped from the data, thus reducing the "N" to thirty-four.

Figure 3

DERIVED "P.M." SCORES AND GROUPINGS

Principal's Code Number	"P.M." Score	"P.M." Group
10	2.5	Low
11	7.0	High
12	6.5	High
13	9.5	High
14	5.5	Medium
15	3.0	Low
16	4.0	Medium
18	9.0	Medium
19	4.5	Medium
20	4.0	Medium
22	3.0	Low
23	10.0	High
25	5.0	Medium
28	6.0	High
30	1.0	Low
31	1.5	Low
32	1.0	Low
33	8.5	High
35	5.5	Medium
40	7.0	High
41	8.5	High
42	2.0	Low
43	5.5	Medium
44	5.0	Medium
46	4.0	Medium
47	5.0	Medium
49	3.5	Medium
50	2.0	Low
51	3.0	Low
52	5.5	Medium
53	9.0	High
54	8.0	High
55	3.0	Low
57	6.5	High

"N" =		
	High	11
	Medium	13
	Low	10
	Total	34

Measuring Teachers' Attitudes

The School-Community Development Study was interested in exploring the relation between certain administrative behaviors and practices and certain aspects of human relations in the school. At the time the "P.M." study was undertaken, a number of questionnaires and other instruments were in the process of development, and arrangements were made for the use of these instruments in the forty-six schools in which we were to obtain "P.M." estimates on the principals.

One such instrument was designed to measure teacher morale. For the purposes of this study, morale was defined as being scorable along four dimensions:

1. Sense of progress
2. Sense of direction
3. Sense of togetherness
4. Sense of contribution (self and others)

Questions were devised to measure teacher reaction along an eight point scale for each of these dimensions, and these questions were incorporated in the questionnaires[8] administered to the forty-six schools of the "P.M." study.

In addition to affecting morale, it would seem that the characteristics of the principal's thinking should be felt by teachers at a number of points in the process of their working together on a curriculum problem. Because of the leadership position of the principal it was assumed that the first such point might be in the selection of the particular problem or problems. Teachers were therefore asked to indicate

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[8]See Appendix A for complete copies of all questionnaires used.

who made the selection of the problems with which they were expected to be concerned that year. Was it the principal, the principal and a select group of teachers, the teachers themselves, etc.?

Such a question would appear to be a straightforward fact seeking question, but, as with all such questions, the matter of differential perception enters. Perhaps a principal will believe that the teachers themselves select the problem for study in staff meetings, whereas many of the teachers may feel that the decision was actually "railroaded through" by the principal or by a small clique of teachers. The perception problem was recognized throughout the study, and efforts were made to check all such questions from at least two perception points.

In a group of forty-six schools, it would be reasonable to expect that some schools would do a much more careful job of selecting problems for study than others. This would also appear to be an appropriate point to look for possible correlations with the amount of "P.M." exhibited by the principal. The following eight point scale (three points defined) was included in the questionnaire to teachers.

> "How did you personally feel about the curriculum study problems when they were selected by your building group?"
>
> | | | |
> |---|---|---|
> | Well thought out, good selection. | Rather well thought out, but other problems not sufficiently considered. | None of the problems given sufficient consideration. |
>
> Comments:

Similar scorable questions were asked concerning the teachers' reaction to the way they were organized for the curriculum study and their reaction to the usefulness and general value of the study they were doing.

Some interesting questions were asked concerning the communication patterns present in the several schools. How many of the teachers felt that it was generally easy to talk over problems with the principal? Did the teachers talk over problems with each other? If so, with what frequency and with what breadth?

A number of other questions were asked in an attempt to determine the teachers' attitude toward the principal's behavior. For example:

> How helpful is the principal's office in getting needed materials and supplies for you?
>
> How well are you kept informed about the things which affect your work and your school?
>
> How frequently do you find yourself being given encouragement and approval by the principal?

This type of question was also presented above an eight point scale similar to the others. In this way it was possible to quantify the attitudes of the teaching staffs of the several schools for comparison with the "P.M." scores of their principals.

"P.M." and Teachers' Attitudes

The agreement to dovetail the "P.M." study into the larger investigations of the School-Community Development Study involved a number of advantages and disadvantages. Without the staff and financial assistance which the School-Community Study made available, it would

have been impossible to conduct the "P.M." study on a scale which involved so many hundreds of teachers and so many thousands of computations. On the other hand, because so many people were involved in the large study, more rigid time schedules were necessary than would have been required for the "P.M." study alone and this rigidity prevented, in some cases, the full use of all the little refinements of thinking that developed in process. For example, many days after the instruments had been "fixed" and sent to the mimeographers, certain changes were suggested by our experience in the "interviewer education" sessions. To re-evaluate and change the instruments at that late date would not only have been costly and disconcerting to the staff personnel involved, but it would have resulted in a postponement of the appointments with principals and teaching staffs which had been made and confirmed long in advance.

Moreover, the over-all research design of the School-Community Development Study imposed certain limitations on the "P.M." study design. From the "P.M." standpoint, a design characterized by a maximum of comprehensiveness, penetration, and flexibility would have been most desirable. An emphasis on theoretical considerations and an abductive-deductive development would result in a design providing for repeated samplings of teacher attutudes, separated by staff "theory sessions" in which abductive explanations may be created to account for what is found. After each "theory session," a return to the field could be made in the light of continually improved directive hypotheses based on the abductive theory thus far developed. In this way the

theory could be modified gradually into a well-grounded understanding of the relation of "P.M." in the principal to the attitudes of his teaching staff.

As it turned out, the over-all design provided for only two soundings of teachers' attitudes, timed to correspond with the Winter and Spring interviews of the principals, and the time schedule called for the preparation of the second set of teachers' questionnaires long before the results of the first sounding could be fully digested with respect to "P.M." The study of "P.M." in relation to teachers' attitudes therefore took on a kind of "empiricism" coloroing. The situation was essentially as follows: When all the study material was in, the schools could be divided into three groups based on the high, medium or low "P.M." of the principals. These three groups of schools could then be compared with respect to average ratings and standard deviations found on the various teacher attitude scales. These scales had been designed with a number of other considerations in mind; nevertheless, from the standpoint of "P.M.," a number of interesting "findings" were developed.

The two tables immediately following (Figure 4 and Figure 5) present the mean ratings and standard deviations of the teachers' responses to the four morale questions in the winter and spring. The schools are grouped according to the "P.M." classification of the principals.

Figure 4

TEACHERS' MORALE - WINTER

(eight point scale)

		Sense of Direction	Sense of Progress	Sense of Contribution	Sense of Togetherness
High (N=11)	Mean	5.33	4.71	3.90	5.98
	S.D.	.66	1.01	1.07	.87
Medium (N=13)	Mean	5.37	4.24	3.83	5.37
	S.D.	1.24	.96	.55	.87
Low (N=10)	Mean	5.17	4.24	3.62	5.11
	S.D.	.97	1.00	.84	1.04

Figure 5

TEACHERS' MORALE - SPRING

(eight point scale)

		Sense of Direction	Sense of Progress	Sense of Contribution	Sense of Togetherness
High (N=11)	Mean	5.33	4.43	4.41	5.94
	S.D.	1.04	.87	.85	.95
Medium (N=13)	Mean	5.44	4.49	4.07	5.44
	S.D.	.99	1.15	.84	.61
Low (N=10)	Mean	5.25	4.34	3.97	5.54
	S.D.	.59	.71	.88	.77

From these two tables we see that in every case, both in the winter and in the spring, the teaching staffs, working under low "P.M." principals, responded less favorably to all four types of morale questions than did the staffs working under the high "P.M." principals. This immediately suggests that the "P.M." of the principal may have some influence on the morale of his teachers. But how significant are the small differences that appear on these tables?

The statistical method that seemed most appropriate is the one commonly known as the "t-test."[9] This test or formula is designed to determine what the probabilities are that a given difference could have occurred by pure chance. For example, we see from Figure 4 that the mean response of the eleven teaching staffs (working under the high "P.M." principals) on an eight point "sense of togetherness" scale was 5.98, while the mean response of the ten teaching staffs (working under the low "P.M." principals) on the same scale, was 5.11. There is, therefore, a difference of .87 between these two groups. The "t-test" takes into consideration the size of the scale used, the size of the groups, the standard deviation within each group, etc., and compares the difference which actually occurred with the difference which could be expected if two groups of these sizes were randomly selected from an infinitely large number of groups and the responses recorded on such a scale. The final result thus gives the statistical significance of the relation of "P.M." to the other item involved. In this example, it turned out that such a difference could occur only five per cent by

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[9]Student's t-test of statistical significance.

chance. In other words, it is quite unlikely that a difference as great as .87 would have occurred if the schools had been grouped on the bases of, say, pulling numbers out of a hat, instead of on the bases of the "P.M." of their principals.

In most studies it is agreed that a difference which gives a "t-test" result of .05 or less should be considered a <u>significant difference</u>. On this base, it turns out that the example we choose is the only one from Figures 4 and 5 which is significant.[10] There are, however, some other considerations which should not be overlooked. No matter how great a difference is found, it is always conceivable that it could have happened by pure chance; no matter how small the difference, if it is consistent (i.e., if one group of schools consistently rank higher than another group), then it may well be that a cause and effect relation is present. Statistical analysis is never more than a tool for helping one to interpret the facts of a particular, finite study. It can neither add to nor subtract from what is actually present in a given particular situation.

The next table (Figure 6) presents the teachers' reactions in the winter to "How well thought out the problem selection was," "How well were the teachers organized," "How easy was it to communicate with the principal," and "How generally worthwhile did they feel the curriculum study was."[11] Figure 7 presents the teachers' reaction in the

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[10] I am indebted to the staff of the School-Community Development Study for all of the statistical analysis involved in this study.

[11] See questions 2, 4, 1, and 7b of the winter questionnaire in Appendix A.

spring to the four questions about their principal mentioned earlier.[12]

Figure 6

TEACHERS' REACTIONS - WINTER

(eight point scale)

		Problem Selection	Organization	Communication With Principal	Generally Worthwhile
High (N=11)	Mean	5.94	5.00	6.17	3.91
	S.D.	.92	1.11	.94	1.24
Medium (N=13)	Mean	5.58	4.90	6.06	3.53
	S.D.	.93	.89	1.04	.80
Low (N=10)	Mean	5.60	4.38	5.67	3.39
	S.D.	.79	.94	.73	.70

Figure 7

TEACHERS' REACTIONS - SPRING

(eight point scale)

		Supplying Information	Defining Responsibilities	Giving Approval	Ease of Communication
High (N=11)	Mean	6.03	5.54	5.93	6.47
	S.D.	.79	1.09	.86	1.08
Medium (N=13)	Mean	5.98	5.56	5.89	6.29
	S.D.	.68	.54	.71	.88
Low (N=10)	Mean	5.68	4.98	5.27	5.61
	S.D.	1.21	.79	.99	.88

[12]See questions 11, 12, 13, and 14 of the spring questionnaire, Appendix A.

In these two tables we see a very consistent pattern. In every case, the teachers in the "high" schools react more favorably than the teachers in the medium schools; and the teachers in the medium schools react more favorably than those in the low schools - with one exception. In Figure 7, we find the medium group responding approximately the same as the high group with respect to how clearly they feel responsibilities have been defined in their schools.

Once more, only one difference is great enough to attain strict statistical significance, but several more are of the order 10 to 20 per cent level. In view of the consistent pattern it seems reasonable to assume that a more refined study would hold promise of revealing more significant differences rather than destroying the pattern. Thus far, then, the data seem to offer some support to the conclusions which immediately follow.

Teachers working under the leadership of a high "P.M." principal, in contrast to teachers working under a principal of low "P.M.," generally feel that:

1. It is easy to communicate with the principal.
2. The principal is helpful in getting needed materials and supplies.
3. The respective responsibilities of the principal and teachers have been clearly defined.
4. The principal frequently gives encouragement and approval.
5. There is good morale (i.e., there is a sense of direction and progress, a sense of working together and a feeling that self and others are able to make worthwhile contributions).
6. Study problems have been thoughtfully selected.
7. Teachers have been organized so that there is an effective use of time and energy.
8. The problem study activities have been valuable.

We should note, however, that not <u>all</u> teachers working under the lead-

ership of high "P.M." principals feel this way. From the tables we see that the standard deviations in the "high" schools range from .66 to 1.24. It is evident that a number of teachers do not feel this way, but enough do so that, on an average, the responses in these eight areas are consistently more favorable in the "high" schools than in the "low."

"P.M." and Organizational Arrangements

Some interesting findings were developed in answer to the question, "Do high 'P.M.' principals tend to promote certain types of organizational arrangements in their schools in contrast to other types by low 'P.M.' principals?" An examination of the information gathered about the forty-six schools revealed that they could be classified or grouped in a least four ways. First, with respect to a division of the staff for "group work" in the curriculum study. It was found that five schools did all of their curriculum study in small groups. Eight schools used some small group work but also did some of the work either as a total staff or by means of a coordinating committee which "cut across" the small groups. Nineteen schools used small groups, plus both a coordinating committee and some total staff work. Seven schools worked always as a total staff. Seven schools were non-classifiable in this respect, i.e., conclusive information was lacking, or two or more schools had combined their staffs for curriculum study. Figure 8 presents the distribution of the "P.M." classifications in each of the above groups.

A second way of classifying the schools was with respect to what type of small groups were used. Twenty-six schools used "grade groups." That is, the teaching staff was divided into small groups on the bases of grade level. Eight schools used "interest groups." In these schools, small groups were formed in terms of special interest in a certain aspect of the problem regardless of grade level. The seven schools in which all work was done by the total staff working as a group constituted a third group under this classification, and five schools were non-classifiable. Figure 9 presents the distribution of "P.M." classifications in each of these groups.

Figure 8

"P.M." AND ORGANIZATION I

(Each X represents one school)

	High "P.M."	Medium "P.M."	Low "P.M."	Not Classified
Small Groups	X	X	XX	X
S.G. plus total staff or Coordinating Committee	XXX	X	X	XXX
S.G. plus total staff and C. Committee	XXX XXX	XXX XXX	X	XXX XXX
Total staff only	X	XXX X	XX	___
Non-classifiable		X	XXX X	XX

Figure 9

"P.M." AND ORGANIZATION II

(Each X represents one school)

	High "P.M."	Medium "P.M."	Low "P.M."	Not Classified
Grade Groups	XXX XX	XXX XXX X	XXX XX	XXX XXX XX
Interest Groups	XX	X	XX	XXX
Total Staff	X	XXX X	XX	___
Non-classifiable	XXX	X	X	___

A third way of classifying schools was found with respect to how the principal functioned in the organization. In thirteen schools, the principal frankly did not consider himself a part of the staff with respect to their work on the curriculum study. The curriculum study was "something the teachers are doing." The principal remained generally separated from the study groups. In thirteen other schools, the principal considered himself a part of the staff in relation to curriculum study when the staff met as a committee of the whole. He did not, however, participate as a member of any of the small work groups. In nine schools, the principal considered himself not only a member of the total staff group, but a regular, active member of one or more of the smaller work groups. Eleven schools were non-classifiable in this respect. Figure 10 presents the "P.M." distribution in these groups.

Figure 10

"P.M." AND ORGANIZATION III

(Each X represents one school)

	High "P.M."	Medium "P.M."	Low "P.M."	Not Classified
Principal Out	X	XXX X	XXX XX	XXX
Principal in total staff only	XXX XX	XXX	—	XXX XX
Principal in total staff and small groups	XXX	XXX	X	XX
Non-classifiable	XX	XXX	XXX X	XX

A fourth classification turned on the point of "who selected the problem or problems for study." In fourteen schools, there was general agreement that the problem was selected by the teachers themselves (or by a committee responsible to the teachers). In five schools, there was general agreement that the principal and a select group (or clique) of teachers made the selection. In five schools, the problem was selected by the principal and teachers working together. In seven schools, it was the principal who decided what problem should be selected. In eight schools, there was such a spread of opinion about how the problem was selected that not even a majority of teachers could agree. In seven schools, there was a divided, but clear-cut difference of opinion. In each of these last seven schools, the staff divided into two distinct groups, one saying that the problem had been selected by "the teachers," the other maintaining that the problem had

been picked by a select group, working with the principal. Figure 11 presents "P.M." in relation to these groups.

Figure 11

"P.M." AND ORGANIZATION IV

(Each X represents one school)

	High "P.M."	Medium "P.M."	Low "P.M."	Not Classified
Teachers	XXX XX	X	XXX XXX	XX
Principal and small group of teachers	___	XX	___	XXX
Principal and teachers	X	XX	X	X
Principal	XXX X	XX	___	X
Widespread opinion	___	XX	X	XXX XX
Opinion divided between principal and small group, and teachers	X	XXX X	XX	___

As we look at these four organization tables, no clear patterns emerge. Figure 8 reveals that the high "P.M." principals seem to favor the more highly organized combination of small groups, plus coordinating committees and some total staff work; on the other hand, the same observation could be made concerning the schools whose principals were "not classified" on "P.M." Figure 10 suggests perhaps that there was some tendency for the high "P.M." principals to establish closer working relationships with the teachers, while more of the low "P.M."

principals remained detached from the teachers' work groups. In general, however, it seems clear that this data does not indicate a strong relationship between "P.M." and organizational arrangements.

We recall that the teachers were asked to express their opinion concerning the way in which they were organized, and this was reported in Figure 6 with respect to "P.M." The following table (Figure 12) shows the mean response and standard deviations on this same question when the schools are grouped in terms of the several organizational arrangements. Figure 12 also repeats the relevant parts of Figure 6 for ease of comparison.

It appears from these data that if we wish to predict teachers' reactions to the way in which they are organized, a knowledge of the way in which they actually are organized is less dependable than a knowledge of the "P.M." of the principal or a knowledge of the extent to which he "belongs" in whatever organizational arrangements there are. Of the fifteen organizational groupings, the mean responses of eleven lie within the spread of the high-low "P.M." responses. That is, in only those schools in which the principal selected the problem, do the mean responses average lower than in the low "P.M." schools, and in only the following three cases do the mean responses average higher than in the high "P.M." schools.

1. Schools in which the principal is a "group member" of both the total staff and at least one small group.
2. Schools in which the problem was selected by the principal and a select group of teachers.
3. Schools in which the problem was selected by the principal and teachers together.

Figure 12

TEACHERS' REACTION TO ORGANIZATION

(Winter questionnaire)

Schools Grouped According to	Number of Schools in the Group	Mean Response	Standard Deviation
Small groups only	5	4.92	.69
Small groups and T.S. or C.C.	8	4.17	.95
Small groups and T.S. and C.C.	19	5.00	1.00
Total staff only	7	4.85	1.17
Grade groups	26	4.59	1.00
Interest groups	8	4.65	.85
Principal out	13	4.39	.88
Principal in T.S. only	13	4.69	1.15
Principal in T.S. and small group	9	5.18	.76
Problem selected by teachers	14	4.90	.81
Principal and select group of teachers	5	5.10	1.02
Principal and teachers	5	5.04	.82
Principal	7	4.28	1.07
Widespread opinion	8	4.39	.85
Opinion divided between principal and select group and teachers	7	4.84	.70
High "P.M."	11	5.00	1.11
Medium "P.M."	13	4.90	.89
Low "P.M."	10	4.38	.94

A multiple variable analysis of this situation should prove instructive. It turns out, however, that the "N's" involved are too small to give us much confidence in the results. In the case of "P.M." and "who selected the problem," we note (see Figure 11) that the "N" reduces to zero when we attempt the third quadrant combination of low "P.M." and "problem selected by principal." In the case of "P.M." and "principal in - principal out" combinations, we have "N's" ranging from one to five, so these are presented in Figure 13, as being suggestive for a possible future study.

Figure 13

TWO VARIABLES AND TEACHERS' RESPONSE TO ORGANIZATION

High "P.M." 5.00

II	I
N=1 mean 5.00	N=3 mean 5.31

Prin. "out" 4.39 ——— Prin. "in" 5.18

III	IV
N=5 mean 4.07	N=1 mean 5.00

Low "P.M." 4.38

This table shows clearly that the reinforcing conditions expressed in quadrants I and III result in mean responses that run beyond those of either variable taken singly.

With respect to the selection and preparation of school principals, all of this at least suggests that attention to "P.M." and to the disposition and ability to participate with teachers as a "group member" holds more promise than emphasis on some "correct" set of organizational procedures, such as "interest grouping," "small group work," "coordinating committees," and the like.

Another interesting aspect of these data is the standard deviations. A group having one of the highest mean responses was the one in which the problem was selected by the principal and a select group of teachers. From Figure 12 it can be seen that the standard deviation of this group was relatively high, 1.02. This suggests that the average of this group may be high because the members of the select group responded extremely favorably while the typical teacher reacted much less favorably. Honesty requires that we note the possibility of a similar condition in the high "P.M." group, where the standard deviation is 1.11. The typical teacher may prefer to work under the leadership of a principal whose "P.M." is somewhat lower than the highest found in this study. At any rate, the standard deviation suggests that there is considerable difference of opinion. Another possible interpretation, however, is that the high "P.M." principal creates an atmosphere in which the teachers feel free to express wide differences of opinion. In any event, the fact remains that in this study the

teaching staffs of high "P.M." principals on an average responded very favorably to the questions we have considered.

"P.M." and Other Data

Because of the fact that the "P.M." study was part of a larger study, it was possible to consider "P.M." in relation to certain data in a way that had not been anticipated. The questionnaires used in the winter and spring contained a few questions which the teachers seemed to find particularly difficult to answer. For example, on the winter questionnaire, the following questions frequently obtained no response:

> In what ways do you believe your participation in the activities of the curriculum study is being of help to you in your own teaching?[13]
>
> What do you see as the particular responsibilities of teachers like yourself in curriculum development?[14]

A blank space was provided for each teacher to write an answer to the questions, and, in each case, a number of teachers simply wrote "none." There were a number of other teachers who, for some reason, did not choose to respond at all to these questions. A similar situation existed in the spring with respect to the following two questions:

> Please circle the number of any of the areas above in which you feel significant improvement has been made in your school this past year as a result of the curriculum study activities.[15]

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[13]Question 1 on Winter Questionnaire.

[14]Question 13 on Winter Questionnaire.

[15]Question 5b on Spring Questionnaire.

> There is a wide range of opinion about how effective curriculum development work gets done, and where the responsibilities rest for its accomplishment. Please rate <u>each</u> of the statements below by <u>marking each of them</u> according to the following scale:[16]

A failure to respond to the first question in each of these pairs <u>could</u> be interpreted as equivalent to an answer of "none." A failure to respond to the second question, however, seems to indicate either a lack of understanding or a lack of disposition to "face up" to the problem and "think it through." Figure 14 presents the percentages of "no response" to each of these questions in relation to "P.M."

From Figure 14 we once again see a clear, consistent pattern of difference when schools are grouped on the bases of the "P.M." of their principals. Figure 15 suggests that the influence of our "Principal in-Principal out" variable is no longer so important, for the quadrant I condition of high "P.M." and principal "in" and the quadrant III condition of principal "out" and low "P.M." do not produce a clear reinforcement of the pattern as was the case in Figure 13. This seems to suggest that while the salutary effect of the principal's participation as a regular member of teacher groups is very important with respect to their feelings about matters which may be roughly classified as <u>esprit' de corps</u>', the fact of participation is not of itself sufficient to sustain the teachers when they are confronted with the more difficult type of question considered here. The clear pattern displayed in Figure 14 seems to be an excellent illustration of the rule "as is principal so is the school."

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[16]See question 9 on Spring Questionnaire.

Figure 14

"P.M." AND NO RESPONSE

(range, 0% to 86%)

	Winter		Spring	
	Question 1	Question 13	Question 5b	Question 9
High "P.M."	18.10%	8.58%	33.70%	4.29%
Medium "P.M."	20.56%	12.35%	35.60%	7.82%
Low "P.M."	28.90%	19.33%	49.80%	11.52%

Figure 15

TWO VARIABLES AND "NO RESPONSE"

High "P.M."

II I

25.0% 0.0% 13.0% 12.5% 14.7% 9.7% 34.0% 4.99%

Prin. "Out" ——— Prin. "In"

46.2% 27.0% 48.0% 16.4% 9.9% 15.4% 36.0% 9.1%

III IV

Low "P.M."

Another unforeseen but rather striking indication of the possible influence of the "P.M." of the principal on the behavior of his teachers was developed from the reports of the persons who administered the questionnaires to teachers. The teachers had been assured that the data collected would remain confidential, that individual teachers or schools would not be identified except by a confidential code number, and that the original material would not be open to the inspection of anyone connected with the schools of that community. In this way there was no possibility that some teacher's handwriting could be identified or that a particular school could become known as one in which many teachers said "so and so," and the like. There were a few schools, nevertheless, in which considerable difficulty was encountered. Teachers expressed the belief that the whole study was merely some kind of administrative plot or espionage scheme. In some of these schools two or three teachers asked questions which displayed a mild concern of this kind. In a certain few schools, however, a very sizable group of teachers were obviously quite upset with fear. When the code numbers of these schools were compared with the "P.M." ratings of the principals, it turned out that in every case the principal was in the low "P.M." group.

It was possible to compare the "P.M." ratings with certain background information[17] that was available about the principals. For example, there seems to be a high correlation between "P.M." and recent

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[17] I am indebted to Charles A. Blackman of the School-Community Development Study for bringing to light the relation of "P.M." to the background information about the principals studied.

advanced graduate study. To secure this insight principals were divided into three groups: those who had done advanced graduate study in the past five years; those who had engaged in such study five to ten years ago; and those who had not done advanced graduate study in the past ten years. In the first group, ten rated as high "P.M.," eight as medium, and two as low. In the second group, none were high "P.M.," two were medium, and one was low. In the third group, one was high "P.M.," two were medium, and seven were low. This raises an interesting question. Do high "P.M.'s" tend to go to graduate school, or does graduate study tend to develop "P.M."?

The following tables (Figures 16 and 17) present "P.M." in relation to "age of principals" and "years of experience" as principal. It appears that relatively young, inexperienced principals who have recently engaged in graduate study tend to rate high on the "P.M." interview.

Figure 16

AGE OF PRINCIPALS AND "P.M."

	High "P.M."	Medium "P.M."	Low "P.M."	Unclassified "P.M."
36 to 40 ("N"=8)	6	0	0	2
41 to 50 ("N"=8)	1	3	1	3
51 to 60 ("N"=19)	3	7	4	5
61 or over ("N"=10)	1	2	5	2

Figure 17

YEARS OF EXPERIENCE AND "P.M."

	High "P.M."	Medium "P.M."	Low "P.M."	Unclassified "P.M."
1 to 5 ("N"=11)	6	2	0	3
6 to 10 ("N"=11)	2	4	3	2
11 to 15 ("N"=6)	1	1	3	1
16 or more ("N"=18)	2	6	4	6

Summary

It seems that the information gathered in this attempt to explore possible relationships between the philosophic mindedness of principals and the attitudes and behaviors of their teaching staffs has been suggestive of a number of hypotheses which could serve as a directive for further study. First, it may be that the optimum of age and experience is considerably less than the average of our present school administrators. This may be especially true in the case of older administrators who have not recently returned to the university for advanced study. The distinction, developed in Chapter three, between experience measured in years and experience measured in terms of reconstructed abductive generalizations, should be kept in mind in this connection. Further study in this area should prove helpful in the improvement of the selection and the pre-service and in-service

preparation of administrators.

Second, it appears that when the principal of a school exhibits comprehensiveness, penetration, and flexibility in dealing with the problems which confront him, the teachers, on the average, tend to feel that it is relatively easy to communicate with the principal. On the other hand, when the principal is low in these "P.M." qualities, many teachers report that communication is difficult and a notable number of them express serious fears concerning the possibility that unprofessional or unethical reprisals will be made against them if they make a candid statement of their opinions and feelings. Certainly the problem of communication is crucial enough to warrant further study. It may be that an indirect approach, through the development of "P.M.," will result in the removal of certain blocks to communication that do not yield to more direct techniques applied in a non-"P.M." atmosphere.

Third, there seems to be a direct relation between the "P.M." of the principal and the general morale of the teaching staff. This relation seems to extend to teachers' reaction to such specific things as the way in which they are organized for curriculum study and the way in which study problems are selected. Moreover, this relation "cuts across" various forms of organization and group procedures, and therefore seems to suggest that "P.M." is more fundamental than forms and procedures. Further study in this area could prove of the highest importance in preparing administrators for successful staff leadership, and such study should be undertaken before we accede to the proposals now being urged by some persons concerning the "correct" forms and

procedures of so-called democratic leadership.

Fourth, even in the area of providing supplies and information concerning the work of teachers, the high "P.M." principal was perceived as functioning more satisfactorily than the low "P.M." principal. A principal can be trained to handle supplies efficiently, but if he is not perceived as performing satisfactorily in this respect, teachers will likely remain dissatisfied and hence fail to reap the full benefit of his efforts. This is not to suggest that if an administrator were to employ, say, a kind of hypnosis, so that his teachers all believed that he was performing all his tasks in the best possible way, that this would serve as a substitute for the actual performance of administrative tasks. But it does suggest that successful administration is more than the successful performance of specific administrative tasks, and that the preparation of school administrators should therefore not be task oriented. A distinction between task and problem then becomes the basis for our concluding considerations.

Chapter V

PHILOSOPHY AND THE PREPARATION OF SCHOOL ADMINISTRATORS

Administration: Task or Problem

French, Hull, and Dodds point out that, "School administration is the process of organizing and directing the resources of the school to provide effective learning situations."[1] This process of organizing and directing resources has often been thought of as a series of tasks which the good administrator must learn to perform diligently and efficiently. As we have seen, (Chapter I) these tasks may be classified or grouped under some twenty-six chapter titles. This is essentially a job analysis approach to administration and it reflects the influence of the general scientific education movement which we noted earlier. Usually this approach is disguised somewhat by the introduction of certain considerations dealing with the history of education and the role of the schools in our democratic society. It remains essentially task-oriented, however, because it does not pose problems which require for their solution determination of what is worthy of being valued in the situation. An individual is confronted with a task when he recognizes that a series of actions must be performed if he is to bring about a desired change in the existential situation. He is confronted with a problem when he recognizes the need for decision concerning what possible changes are desirable.

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[1]French, Hull, and Dodds, American High School Administration, p. 207.

So long as this basic orientation remains, it is only a slight improvement to speak of areas of competency rather than groups of tasks. Even so, it is considerable improvement to recognize that several of these areas are concerned with problem solving and value judgments. But what is needed is a basic re-orientation. The school administrator should be prepared primarily to deal with problems and only secondarily to perform tasks. If he is primarily a task performer, then "the process of organizing and directing the resources of the school" converts him into "a task master." If he is primarily a problem recognizer, a problem clarifier, and a problem solver, then "organizing and directing the resources of the school" becomes a matter of introducing comprehensiveness, penetration, and flexibility into the situation so that whatever existential changes are brought about will reflect a pattern of grounded value judgments. The actual performance of the tasks involved in bringing about these changes will, of course, continue to be of crucial importance, and where the budget will not allow the employment of trained specialists to carry out these tasks, the administrator had better be able to do them, and do them well. But a pre-service and in-service program which provides for the development of skill in task performance need not be primarily task oriented.

The Harvard Committee has pointed out that, ". . . a general education is distinguished from special education not by subject matter, but in terms of method and outlook, no matter what field."[2] Surely

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[2]General Education in a Free Society, p. 56.

the method and outlook in our preparation programs can be reconstructed so as to provide for the enhancement of the "P.M." qualities without excluding opportunities for the development of task skills. As a matter of fact, sound learning theory suggests that such skills can be developed more quickly when their relation to larger concerns is grasped. A preparation program that is proolem oriented will provide a context in which the tasks of administration may be viewed in their relationship to alternate value judgments. When the performance of a task is understood in relation to possible solutions of a problem, then it is possible to bring the "P.M." qualities to bear in evaluating the worth of alternate task procedures. When administrative tasks are viewed just as tasks, more or less necessary in and of themselves, then there is really nothing to think about - one just gets on with the work.

The Problems of Administrators

The School-Community Development Study has been in an excellent position to identify many of the problems which confront school administrators.[3]

> The situations which have been observed include meetings of local citizens community-study groups, faculty study committee meetings, administrative council meetings, and boards of education. Interviews with administrators, teachers, students, board members, and citizens in the community provide further observations. The observations are described in field notes or contact reports made by

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[3]For an account of the way in which the Study has been related to communities and their schools see, Lewis E. Harris, "A Cooperating Center" in The Nation's Schools, March, 1954.

> the coordinators. The reports include observations of administrative behavior, comments by administrators, faculty members, board members, citizens, and students. Included also are descriptions of the behavior exhibited by staff members in the situations observed. The observers reported what had been seen, heard, and felt as they worked with the administrator and components of the situation. The judgments made by experienced observers who have become immersed in the community center become a part of the data collected. The contact reports are supported by local material such as newsletters, newspaper articles, conference summaries, notes of faculty and board meetings, copies of conference and workshop programs, and reports to boards of education by administrators. The observations are primarily concerned with the problems which administrators face as they work at their respective jobs.[4]

The staff of the School-Community Development Study has engaged in a careful analysis of these field notes[5] and has arrived at a tentative classification of the problems which administrators encounter. This classification is in terms of the following nine problem areas:

I. Communication
II. Conception of Role
III. Group Process
IV. Power Structure
V. School-Community Relations
VI. Beliefs, Attitudes, Values
VII. Policy
VIII. Coordination
IX. Administrative Process

Each of these problem areas are sub-divided into clusters of problems. For example, School-Community Relations is divided as follows:

A. Administrator's perception of community needs
B. Lay perception of educational problems

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[4]From a forthcoming article by Lewis E. Harris to be published in Nation's Schools.

[5]A number of excerpts from these field notes are included in Appendix B.

C. Public involvement
D. Coordination of lay-educational concerns
E. Value conflicts
F. Communication of research findings to community

Whether or not this tentative classification of nine areas and their sub-divisions is exhaustive of the problems which confront administrators is not here at issue. The important point is that the School-Community Development Study has demonstrated that it is possible, through careful observation of administrators at work, to identify large areas in which problems repeatedly occur. This, then, suggests that there is some feasibility to a problems approach in the preparation of school administrators.

The kind of material developed by the School-Community Development Study probably could be used to advantage in the preparation program in three ways. First, it may be used to enrich a traditional program by the introduction of illustrations from actual administrative situations. Second, it may aid in the development of a series of "case studies" around which courses of the more traditional content may be organized. Third, a basic reconstruction of the preparation program may be undertaken in terms of such problem areas. If this were done, the function of the teacher would be to engage the students in problem solving. Problems should be used to stretch the mind, not to limit it. Care would need to be taken so that teaching did not become the supplying of a series of answers to a series of problems. Something of "doubt" must be introduced if thinking is to be stimulated. Such a program would resemble some of the "core" classes which have

been developed on the secondary school level.[6] In any case, once problems are introduced, then it is possible to stimulate the development of that philosophic mindedness which, according to the findings of our study, is so favorably related to conditions of good communication and morale in our schools.

Developing "P.M." in the Classroom

While the research study described in the last chapter was going forward, arrangements were made with one of the universities cooperating in the School-Community Development Study[7] for a professor of educational philosophy to devote a graduate seminar in education to exploration of the problem of developing the "P.M." characteristics in the thinking of students as they confronted a variety of problems related to education. Each of the students involved in the seminar was at a point in his graduate study where he was concerned with the selection of a problem or topic for thesis or dissertation. The professor's job was to help the students develop comprehensiveness, penetration, and flexibility in their thinking about the selection and development of their problems.

Under the leadership of the professor, the work of the seminar progressed along two lines, developing an understanding of "P.M." and actual practice in "thinking" as thus defined. These two lines of development were not divided into distinct phases, but were developed

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[6] Alberty, H. B., Reconstructing the High-School Curriculum.

[7] Western Reserve University, Cleveland, Ohio.

as interlocking activities. After some initial brief exploration of the meaning of "P.M." in terms of the twelve characteristics set forth in Chapter III, students were encouraged to "think" with comprehensiveness, penetration, and flexibility about their several problems. Some of the thinking was done "out loud," some was done "on paper." This thinking was then analyzed by the group, and an increased understanding of "P.M." developed as critical suggestions were presented and analyzed. As the seminar progressed, the balance of time shifted from understanding "P.M." to practicing it.

The professor in charge of the seminar had this to say about the idea of "practice in thinking."

> . . . the idea of teaching people how to think by practicing on other subject matters is not a new one. Professors of philosophy, teaching logic, have not refused to teach logic by applying logical analysis to arguments about theology, economics, etc. But in the field of philosophy of education, we have not had many examples of courses in how to think about education. . . . We have talked about problems and problem solving, but we have not given our students any "home work" so that they may practice. If philosophic mindedness is a characteristic which a person exhibits in his thinking, then perhaps the best pedagogy is to try to get the person to think philosophically about something he will ordinarily be thinking about anyway. When this is made the central aim of a course or seminar in education, the actual content of the course becomes as wide and varied as the professional interests and concerns of the people who make up the group.[8]

In speaking of reactions to the course, he remarked:

> Such a course in philosophy of education brings raised eyebrows and sometimes raised voices among the colleagues

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[8]From a paper by Robert E. Mason, Professor of Education, Western Reserve University, read before the Ohio Valley Philosophy of Education Society during his report on attempts to develop "P.M." in the classroom.

> of the professor of philosophy of education. Educational statisticians who have considered that educational research is their province, accuse the philosophy of education professor of incompetent meddling; academic professors and the Dean of the Graduate School shake their heads. How can it be philosophy of education when students are writing and reading and talking about papers on everything from band uniforms to state aid formulae? But if the work of the course actually becomes practicing, and critical effort to improve that practice, then much of the library work and much of the class discussions will have to do with matters which appear remote from philosophy of education. Each student should practice on the kind of material which he uses professionally.[9]

It is, of course, difficult to judge the exact worth of teaching of this kind. Most teachers, on every level, give some attention to improving the quality of thinking of their students, and perhaps, most teachers have some feeling of success. Nevertheless, this more deliberate attempt seemed, to the professor in charge, to be especially fruitful.

> The twelve characteristics of philosophic mindedness give students a set of criteria or critical check points with which to evaluate their own efforts. When used as a series of questions, they force students to examine assumptions and call attention to basic philosophic considerations present in educational problems frequently treated as merely technical. The use of these twelve check points is an excellent device for stimulating group discussion on a wide range of problems and it facilitates an impersonal examination of individual contributions. I believe that this approach to improving the quality of the problem solving behavior of students holds great promise.[10]

If a similar attempt to stimulate "P.M." were made in the prepar-

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[9] Ibid.

[10] A statement by Robert E. Mason, Ph.D., Professor of Education, Western Reserve University, Cleveland, Ohio. Prepared especially for use in this dissertation.

ation program for students of school administration, then, of course, the content of the various "courses" would be determined by the kind of material which administrators "use professionally." It is the method of teaching, however, that would need to be singled out especially for reconstruction. Central to the success of such a program would be a corps of instructors willing and able to undertake such a departure. It is interesting to speculate concerning the role that would be played by the professor of philosophy of education in such a corps. Would he teach courses in school finance, school law, etc.? It could be suggested that he would have no role to play, the philosophic activity becoming incorporated in every course and taken over by the other instructors.

An examination of the evolution of the concept of guidance in the public schools[11] may be suggestive of a possible role for the philosopher of education. In the modern concept of guidance, every teacher is a guidance person. It is almost impossible to separate good guidance from good teaching. When it is separated, guidance tends to become sterile. Nevertheless, a person, specially trained in guidance, may still perform at least three important functions in the modern school. First, he serves as a resource person or consultant to the other teachers, helping them to function more effectively in their role of primary guidance. Second, he handles more technical or advanced guidance problems for individual students. Third, he may teach certain courses of a guidance nature.

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[11]See Mendenhall and Arisman, Secondary Education, Chapter VII.

Similar functions may well be performed by the philosopher of education. Modern industry has not hesitated to adopt a team approach to both management and research problems. At the present time, the Operations Research team of Case Institute of Technology employs a professional philosopher as a full time consultant member. Many important corporations are finding it worth their while to purchase the consultant services of "intellectual methodology" specialists.[12] Is it not time that persons responsible for the preparation program of school administrators invite their colleagues in philosophy of education to counsel with them in a reconstruction of their approach?

The philosopher of education has an additional important contribution to make as a member of the "graduate committee" for advanced students of school administration. Here, like the guidance specialists, he may be of service to individual students. What student, writing a thesis or dissertation, would not benefit if one of his committee were especially concerned with helping him tackle his problem, whatever it might be, with a maximum of comprehensiveness, penetration, and flexibility, to the end that his value judgments, explicit and implicit, would be of highest quality?

Finally, there remains a place for courses in philosophy of education as such, taught by philosophers of education. When every teacher is a guidance counselor, then special courses in guidance taught by guidance specialists, such as, "Marriage and Family Problems," "Choosing

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[12]See, e.g. Perrin Strykes, "Can Executives Be Taught To Think," Fortune, May, 1953, p. 138, et. seq.

A Vocation," etc., take on a new vitality and meaningfulness. In the same way, one could expect that the courses offered by the professional philosopher of education would assume new meaning and usefulness. Certainly a course in the nature of philosophic mindedness and its bearing on school administration would be appropriate. Moreover, if the professors of administration courses continually engaged students in a reflective activity characterized by comprehensiveness, penetration and flexibility then students conceivably would progress to a point where they would "demand" that an additional course be devoted to a consideration of the philosophical aspects of educational problems. For when "P.M." is introduced, questions of "purpose" inevitably arise, and as the Educational Policies Commission has pointed out,

> Every statement of educational purpose . . . depends upon the judgment of some person or group as to what is good and what is bad, what is true and what is false, what is ugly and what is beautiful, what is valuable and what is worthless, in the conduct of human affairs.[13]

Wherever the intellectual curiosity of students is deeply aroused, there is no paucity of demand for the wares of the philosopher.

Conclusion

We have considered the nature of philosophy and have differentiated the conjoint roles of philosophic and scientific inquiry in the grounding of value judgments. Both the "Areas of Competency" study, made by the Ohio State University Committee, and the "identification of problems," made by the School-Community Development Study, indicate

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[13]Educational Policies Commission, Policies for Education in American Democracy, p. 157.

that school administrators must deal in value judgments. Moreover, our attempts to relate the degree of philosophic mindedness of school principals to such important aspects of the school situation as the morale of teachers and the ease of communication within the school has resulted in data which strongly suggest that the qualities of comprehensiveness, penetration, and flexibility in the thinking of the principal have a consistently salutary effect on the attitudes and opinions of teachers, and hence on the general atmosphere of the school.

We have carefully delineated twelve marks of the philosophic minded individual and have reported the considered judgment of a professor of education in a liberal arts college who has engaged in an attempt to enhance the philosophic mindedness of graduate students of education by employing these twelve marks as criteria for the practice and critical analyses of problem solving procedures.

Finally, we have suggested that the preparation program for students of educational administration be reconstructed in terms of <u>problems</u>, so that <u>every</u> teacher in the program may encourage the development of that philosophic disposition which we believe must be displayed by the school administrator if he is to provide leadership in creating the kind of school atmosphere which will nourish and develop the spirit of free, democratic inquiry.

If this study of "Philosophy and the School Administrator" is to contribute to the improvement of the preparation program for school administrators, then the concept of philosophic mindedness should be viewed as an abductively created, partial and tentative explanation

for the differences which obviously exist from school to school in "tone" or atmosphere. The role of such constructs or explanations is that of an instrument for further experimental activity. It should be expected that such instruments will be modified or continuously reconstructed through use. Any directive idea, though imperfectly conceived, is better than no idea at all. Freedom, inquiry, education, all await ideas. Without the direction of an idea, freedom is nothing more than the mere absence of restraint, inquiry results only in a conglomeration of information, and education becomes the acquisition of conditioned responses. The "idea" of philosophic mindedness is presented in the hope that it may serve as an initial guidepost for a preparation program calculated to develop students of school administration who are educational leaders, viewing freedom as the ability and desire to make intelligent choices, and education as growth in the use of sound procedures of free inquiry.

BIBLIOGRAPHY

Alberty, Harold, Reorganizing the High-School Curriculum. Revised edition; New York: The Macmillan Company, 1953.

"An Examination of Secondary Education," Life, Vol. 35, No. 24, December, 1953.

Brubacher, John S., editor, Electic Philosophy of Education. New York: Prentice Hall, Inc., 1951.

Curtis, Charles P., Jr., and Ferris Greenslet, editors, The Practical Cogitator. Boston: Houghton Mifflin Company, 1945.

Dale, Edgar, "The Effects of Mass Media," The News Letter, November, 1953. Bureau of Educational Research, The Ohio State University, Columbus, Ohio.

Dewey, John, "The Determination of Ultimate Values or Aims Through Antecedent or a Priori Speculation or Through Pragmatic or Empirical Inquiry," National Society for the Study of Education, Thirty-Seventh Yearbook, Part II.

_____, Human Nature and Conduct. New York: Henry Holt and Company, 1922.

_____, Logic. The Theory of Inquiry. New York: Henry Holt and Company, 1938.

_____, Problems of Men. New York: Philosophical Library, 1946.

_____, The Sources of a Science of Education. New York: Liveright Publishing Corporation, 1931.

Educational Policies Commission, Policies for Education in American Democracy, Book III. National Education Association, 1946.

Feigl, Herbert, "Logical Empiricism," in Twentieth Century Philosophy, edited by Runes. New York: Philosophical Library, 1943.

French, Will, J. Daniel Hull, and B. L. Dodds, American High School Administration. New York: Rinehart and Company, Inc., 1951.

General Education in a Free Society, Report of the Harvard Committee. Cambridge, Massachusetts: Harvard University Press, 1950.

Goodman, Nelson, The Structure of Appearance. Cambridge, Massachusetts: Harvard University Press, 1951.

Group Process in Supervision, Association for Supervision and Curriculum Development. Washington, D. C.: 1948.

Harris, Lewis E., "A Cooperating Center," Nation's Schools, March, 1954.

Hilgard, Ernest R., Theories of Learning. New York: D. Appleton-Century-Crofts, Inc., 1948.

Hinshaw, Virgil, Jr., "Levels of Analysis," Philosophy and Phenomenological Research, Vol. XI, No. 2, December, 1950.

Hook, Sidney, John Dewey, An Intellectual Portrait. New York: The John Day Company, 1939.

Hullfish, H. Gordon, Philosophy and Education in Interaction. Columbus, Ohio: The Ohio State University Press, 1944.

Kilpatrick, William H., "The Relations of Philosophy and Science in the Study of Education," School and Society, 30, July, 1929.

Langer, Susanne K., Philosophy in a New Key. Cambridge, Massachusetts: Harvard University Press, 1942.

Lewin, Kurt, Resolving Social Conflicts. New York: Harper and Brothers, 1948.

Lewis, Clarence Irving, An Analysis of Knowledge and Valuation. LaSalle, Illinois: The Open Court Publishing Company, 1946.

_____, Mind and the World Order. New York: Charles Scribner's Sons, 1929.

Mendenhall, C. B. and K. J. Arisman, Secondary Education. New York: William Sloane Associates, Inc., 1951.

Northrop, F. S. C., The Meeting of East and West. New York: The Macmillan Company, 1947.

Otto, Max, Things and Ideals. New York: Henry Holt and Company, 1924.

Peirce, Charles S., Chance, Love and Logic. Morris R. Cohen, editor. New York: Harcourt, Brace and Company, 1923.

Reeder, Ward G., The Fundamentals of Public School Administration. Third edition; New York: The Macmillan Company, 1951.

Russell, Bertrand, Human Knowledge. New York: Simon and Schuster, 1948.

Russell, Bertrand, A History of Western Philosophy. New York: Simon and Schuster, 1945.

Santayana, George, Persons and Places. New York: Charles Scribner's Sons, 1944.

Smith, Philip G., "Pons Asinorum in Pragmatic Epistemology," Educational Theory, Vol. III, No. 3, July, 1953.

Strykes, Perrin, "Can Executives Be Taught to Think?," Fortune, May, 1953.

Walter, W. Grey, The Living Brain. New York: W. W. Norton and Company, Inc., 1953.

Whitehead, A. N., Modes of Thought. New York: The Macmillan Company, 1938.

Wittgenstein, Ludwig, Tractatus Logico-Philosophicus. New York: Harcourt, Brace and Company, 1922.

APPENDIX A

EXHIBIT 1

SCDS 4A
6/52

TEST NO. _____

SENTENCE COMPLETION

CODE NO. _____

Finish these sentences as fast as you can. Write down the first idea that comes to your mind.

Work Rapidly

1. School heads should

2. When teachers take part in making administrative decisions

3. In planning the budget

4. When a school head appoints a teacher committee he is

5. I sometimes hesitate to try out new methods because

6. A school principal is successful when

7. Influential people in the community

8. A poor teacher

9. Faculty meetings are

EXHIBIT 1 (continued)

10. Persons who ignore lines of authority

11. When a teacher disagrees with his principal

12. In a good school

13. Discussion in a faculty meeting is likely to

14. Disrespect is

15. I dislike it when teachers

16. School administrators are often

17. Sometimes parent groups

EXHIBIT 2

SCDS 5A
6/52

TEST NO. _____

CODE NO. _____

CASE ANALYSIS

This inventory has been designed to find out how different people think about certain problems which arise in school situations. On the following pages are descriptions of situations in which a school administrator might find himself. Please place yourself in the position of the school head or principal in each case and respond to the questions which are given as you might respond in the actual situation.

Obviously, it is impossible to supply all of the information you might wish. In each case develop from your own experience the answers which seem to make the most sense to you. There are no right answers. Be selective in your responses--write only what you feel is important.

In each case, place yourself in the position of the school head, read the description carefully, and think about it before writing your responses to the various questions.

EXHIBIT 2 (continued)

SCDS 5A

Miss Jones, a seventh grade teacher, has been given the responsibility of assigning boys and girls to various class sections. Miss Newton teaches some of those sections. She comes to your office and says, "My history class the third period has too many dull students. There shouldn't be that many in my class. I just can't make progress with so many of them to handle. Some of them should be assigned to another class section."

1. Specifically, what would you be likely to say to Miss Newton?

2. What are some of the reasons why Miss Newton might raise this problem?

3. What action, if any, would you take?

4. What do you think is a fundamental problem in this situation?

Do you feel you have difficulty dealing with situations like this?	Feel no difficulty	Feel some difficulty	Feel considerable difficulty
How real does this kind of situation seem to you?	Very real, likely to happen	Plausible, might possibly happen	Artificial, never would happen

EXHIBIT 2 (continued)

SCDS 5A

At a faculty meeting, eight teachers of your staff of forty say that they object to releasing students from their classes so that the students might have religious instruction outside the school. Miss Arnold says, "If any student of mine misses class, he'll just have to make up the work. It doesn't matter whether it's religious instruction or football practice. Anyone who misses class will just have to catch up." The decision releasing time for religious instruction was made by the school board.

1. Specifically, what response would you likely make to Miss Arnold at the meeting?

2. What, if anything, would you be apt to say or do after the meeting?

3. What, if anything, might you do at the next meeting of the school board?

4. What important issues might underlie this situation?

Do you feel you have difficulty dealing with situations like this?	Feel no difficulty	Feel some difficulty	Feel considerable difficulty
How real does this kind of situation seem to you?	Very real, likely to happen	Plausible, might possibly happen	Artificial, never would happen

EXHIBIT 2 (continued)

SCDS 5A

You have just become principal of a school in which faculty meetings have been used to tell teachers about school policy. You would like to have the teachers begin to share in making some of the decisions about school policy. Some teachers have said to you, "One thing we liked about Mr. Yost (the former principal) was the way he made decisions. It saved a lot of time and prevented hard feelings among the faculty members to have him tell us what the school policies were." Other teachers have told you, "Mr. Yost didn't seem to trust us to make decisions. He always told us what should or should not be done. He didn't seem to realize that we are professional people."

1. What are the implications of this difference of opinion among your faculty about Mr. Yost?

2. What things might have to happen in this situation before there would be staff participation in policy-making?

3. What first steps would you take in a long-run course of action?

4. What policies, if any, would you feel the teachers should <u>not</u> participate in deciding?

Do you feel you have difficulty dealing with situations like this?	Feel no difficulty	Feel some difficulty	Feel considerable difficulty
How real does this kind of situation seem to you?	Very real, likely to happen	Plausible, might possibly happen	Artificial, never would happen

EXHIBIT 2 (continued)

SCDS 5A

Your school is in a rural community. One noon, over lunch, the science teacher remarks to you, "My students are getting excited about something they've been doing for class. Maybe you've heard about it already. For a project they've been testing water in a number of wells around here--at their own homes and at neighbors' farms. It looks as if a lot of the wells are contaminated. It's surprising whose wells they are, too."

1. Is there anything you would be likely to do about the results of the testing done by these students?

2. What reaction to this project, if any, would you expect from the community?

3. How do you think the students are likely to feel about their findings?

Do you feel you have difficulty dealing with situations like this?	Feel no difficulty	Feel some difficulty	Feel considerable difficulty
How real does this kind of situation seem to you?	Very real, likely to happen	Plausible, might possibly happen	Artificial, never would happen

EXHIBIT 3

Code _____ Date _____ SCDS AK 1-1

Time ____ to ____ 2/53

Principal Interview
(Winter)

"As you know, we are interested in how the curriculum study activities have developed in the _____ schools this year as well as in more general problems of school administration. I'd like to ask first about the particular activities which are being carried on in your school."

1a. "What are the problems which have been selected for study in your school?"
(get documents, if available, of topics and organization)

1b. "Has the faculty been organized in any particular way to work on these problems?"
(number of groups, number of teachers, and/or others in each group, and tasks assigned to each group; frequency and type of meetings)

(Probe if needed) "Are there some activities being carried on by individuals?"

EXHIBIT 3 (continued)

1c. "Are there any of the teachers who are not taking an active part in these activities?" (list names, probe for individual reasons) "Is there any particular reason why Miss _____ is not taking part?"

Names: Reasons:

2. "How did you go about making the selection of the particular problems to work on this year?" (Press for particular events)

(We - I):

"Who made the decision?" Principal _____ Principal and small group of teachers _____ Principal and teachers together _____ Teachers _____ Other _____

(Use either 2a or 2b below, whichever appropriate):

2a. (If group made decision): "Were there any teachers who were in disagreement with the selection which was made?"

"What did they do?"

2b. (If decision made by principal alone): "How did the teachers feel about the problems that were selected?"

EXHIBIT 3 (continued)

3a. "Who are the teachers who have been most interested in working on these problems?" (get name, reminding principal of impersonalness of study, etc.)

Names: Reasons for interest:

3b. "Who are the teachers who have not been particularly interested in working on these problems?"

Names: Reasons for lack of interest:

4a. "What sorts of things are you hoping to accomplish this year through the curriculum study activities?"

(We - I):

(Probe if we is used): "Have you, yourself, set up any specific goals or results you would like to see accomplished by the end of the year?"

Goals: (Check if process goal)

1.

2.

3.

4.

5.

"Are there any others?"

generally confused, vague ! ! ! ! ! clear, explicit

EXHIBIT 3 (continued)

4b. "What do you personally believe that your teachers are hoping, in general, to get from their participation in the curriculum activities?"

Goals:	(Check if process goal)
1.	
2.	
3.	
4.	

"Are there any others?"

generally confused, vague ' ' ' ' ' clear, explicit

5. "After the study problems were selected, what did you see as the problems you faced in getting the curriculum study under way?"

"Are there any others?"

(Analyze free responses and rate while P completes morale scales)

a. Comprehensiveness (concern with long range goals, sees 'big picture,' tolerance for theoretical considerations) L ' ' ' ' ' H

b. Penetration (questions what teachers take for granted, recognizes fundamental ideas, assumptions, looks beneath surface) L ' ' ' ' ' H

c. Flexibility (sees issues as many-sided, tentative, lack of "set" in attacking problems, judges ideas apart from source) L ' ' ' ' ' H

EXHIBIT 3 (continued)

6. (Morale measure: Hand the principal the morale sheet (SCDS AK 1-1a) checked P and say):

"We know that in working in activities such as these there are times when things seem to click better than others. Would you check on these four scales indicating how you, as principal, feel about them as of this week."

(When finished, take back that sheet and THEN hand them sheet marked T and say):

"Now would you estimate as best you can how you think the teachers in your school, on the average, would make these ratings this week?"

7. "What things do you think are important to consider in determining whether the curriculum activities have been worthwhile?"

1.

2.

3.

4.

"Now let me turn to two or three general questions, and then I'll be finished:"

8a. "Generally speaking, as you see it, what really are the main jobs of an elementary principal in curriculum development in his school?"

8b. "What do you see as the responsibilities of the teachers in curriculum development in the school?"

EXHIBIT 3 (continued)

9. "How might the central office be of more help to you in furthering curriculum development?"

10a. "In what ways do you think a study such as we are conducting can be of most help to the _____ _____ principals?"

10b. "What questions or problems should we pay particular attention to in developing our findings?"

(Request P not to discuss this interview with any other principals until all have been interviewed)

EXHIBIT 3 (continued)

Code _____

SCDS
AK 1-1a
2/53

P T

On each of the scales below please check at any place which represents your feelings:

6a. Do you have a feeling you know where you are going in these activities?

Confused, see no direction for myself as yet	Some idea, but not very definite yet	I feel a definite direction for myself

6b. Do you feel you are getting any place?

"Bogged down" see little progress	Making fairly satisfactory progress	Making excellent progress

6c. How well do you feel that you and others in your faculty are able to contribute to curriculum improvement in your school?

Need considerable outside help, staff has limited resources	Able to make much of the needed contribution with little outside help	Able to make all the contribution required for our school

6d. How close a working relationship do you feel you have with others on the faculty?

Each going his own way	Rather casual but generally cooperative	Very close, everybody pulling together

EXHIBIT 3 (continued)

Code _____

SCDS
AK i-1b
2/53

Rate on following scales immediately following the interview:

Atmosphere of the interview situation itself: hostile defensive 8 7 6 5 4 3 2 1 warm friendly

Comments:

From your total observations, rate the principal's relations with the teachers on the following:

										Rank*
Atmosphere:	hostile defensive	8	7	6	5	4	3	2	1	warm friendly	_____
Focus of effort:	task or product	8	7	6	5	4	3	2	1	teacher growth	_____
Focus of field:	self-centered	8	7	6	5	4	3	2	1	non-self-centered	_____
Use of power:	controls situation	8	7	6	5	4	3	2	1	releases situation	_____

*(At end of week rank your entire set of interviews on each of these four scales indicating for each interview its relative standing (e.g. 6/9) in this column.)

Building: old modern new; dirty clean; well-managed poorly-managed

Neighborhood: Upper Middle Lower Depressed

Student body: White _____% Negro _____%

Protestant _____% Catholic _____% Jewish _____%

EXHIBIT 4

Code _____ Date _____ SCDS AK 1-4

Time ____ to ____ 5/53

Principal Interview #2
(Spring)

"We are interested this time in getting an overall picture of the curriculum study activities for the entire year. First, I'd like to bring our general information up to date."

1a. "What kinds of curriculum study activities have been carried on in your school since we were here in February?" (get new documents, if available, of topics and organization)
(Probe if necessary: Have changes occurred in the problem(s) selected?)

1b. Last time you gave us some information about how your staff was organized for these curriculum study activities this year. Do you recall how much attention was given to the problem of getting organized for these activities?

EXHIBIT 4 (continued)

1c. "In order to get a clear picture of the general organizational pattern for this year let me check a few things with you. Was your school usually organized as a total staff, or in small groups?"

Total Group _____ Small Groups _____

Size _____ No. _____ Size _____

(Probe if both are indicated: "What kinds of activities go on in each?") (Interviewer check following questions with X or O)

	Total Group	Small Groups
1. Is the group used for:		
Making decisions	_____	_____
Making recommendations	_____	_____
or learning	_____	_____
2. Is the principal a participating member of	_____	_____
3. Are outsiders used as resource persons?		
(regularly)	_____	_____
(occasionally)	_____	_____

4. Are the small groups - (check)? grade level _____,

grade groups _____, interest or problem group ___.

5. Did the small groups report their activities? Yes ___ No ___

To whom: to each other _____, to principal _____

to total staff _____, to (other) _____

6. Is there a coordinating or planning committee? Yes ___ No ___

EXHIBIT 4 (continued)

2. What sorts of things have been accomplished this year through the curriculum study activities?

   1.

   2.

   3.

   generally confused, vague ' ' ' ' ' clear, explicit

3. "What do you believe that your teachers, as individuals, have gained from their participation in the curriculum activities?"

   (List gains)

   1.

   2.

   3.

   generally confused, vague ' ' ' ' ' clear, explicit

EXHIBIT 4 (continued)

4a. "As you look back over the year's curriculum study activities, what, if anything, do you wish you had done differently?" (Probe for free discussion concerning both what and why)

4b. (If not already discussed) "Have you gotten any ideas or plans about what you would like to see happen in your school next year?"

(Note for 4a and 4b: new knowledge, procedure, or insights secured; clearer diagnosis or analysis of conditions, etc. Rate responses on scales below while P completes items 5 and 6)

a. Comprehension: L ——— H

Low: Sees particulars in isolation; concerned chiefly with immediate accomplishments and the "practical" aspects of the activities.

High: Sees year's work as a whole; shows concern for long range and enduring goals or values; considers the theoretical aspects of the activities

b. Penetration: L ——— H

Low: Does not examine basic assumptions; attributes success or failure to superficial causes; fails to grasp the meaning of what has happened for future planning.

High: Questions what was taken for granted or assumed; recognizes the fundamental or underlying factors; sensitive to implications and relevance among factors and to future planning.

c. Flexibility: L ——— H

Low: Does not consider what was not done; has a "pat" or dogmatic explanation of what happened; discusses "personalities" rather than issues or ideas.

High: Sees other ways in which things could have been done; suggests alternate explanations and meanings for what happened and welcomes counter suggestions.

EXHIBIT 4 (continued)

5. (Hand the principal the morale sheet (SCDS AK 1-4a) checked P and say): "Looking at the year's curriculum study activities as a whole, would you check on these four scales indicating how you, as principal, feel about them?"

(When finished, take back that sheet and THEN hand them sheet marked T and say):

"Now would you estimate as best you can how you think the teachers in your school on the average would make these ratings?"

6. (Hand him AK 1-4b)
"From the impressions gathered in February there seemed to be a variety of opinion about what both teachers and principals felt were important outcomes of curriculum study activities. Would you check on this sheet the two phrases which you think most important to consider in determining if curriculum study activities have been worthwhile?"

(When finished marking both parts of that sheet (6a and 6b): "Could you also indicate by checking in the margin the two phrases in this list which you believe to be of least importance in evaluating curriculum activities?"

7. "We also got the impression that there were a variety of opinions about the responsibilities of teachers and principals in these activities. Would you help us clarify this impression by checking this sheet?"
(Hand him AK 1-4c)

8. "As you know the major report of our findings will come at the _____ principals' conference in the fall. Thinking ahead to that time, what questions do you think the principals' group might want this study to give major attention to?"

EXHIBIT 4 (continued)

Code _____

SCDS
AK 1-4a
5/53

P T

On each of the scales below please check at any place which represents your feelings:

5a. Did you have a feeling you knew where you were going in these activities?

Confused, saw no direction for myself	Had some idea, but not very definite	I felt a definite direction for myself

5b. Did you feel you were getting any place in these activities this spring?

"Bogged down" saw little progress	Made fairly satisfactory progress	Made excellent progress

5c. How well do you feel that you and others in your faculty were able to contribute to curriculum improvement in your school?

Needed considerable outside help, staff had limited resources	Were able to make much of the needed contribution with little outside help	Were able to make all the contribution required for our school

5d. How close a working relationship have you felt you had with others on the faculty?

Each has gone his own way	Rather casual but generally cooperative	Very close, everybody pulling together

EXHIBIT 4 (continued)

Code No. _____

SCDS
AK 1-4b
5/53

6a. Please check from the list below the two (2) phrases which, in your opinion, best complete this sentence:

"Curriculum study activities are most worthwhile when they result in . . .

1. _____ better selection of textbooks and teaching materials."

2. _____ greater personal satisfaction of the teachers in doing their job."

3. _____ changes in the teachers' day-to-day behavior in the classrooms."

4. _____ agreements and decisions about curriculum problems in the school."

5. _____ more satisfactory working relationships among the entire staff."

6. _____ greater community participation in curriculum planning."

7. _____ greater willingness to really try out ideas in the classroom."

8. _____ general agreement that the study activities have been worthwhile."

6b. Please circle the number of any of the areas above in which you feel significant improvement has been made in your own school this past year as a result of the curriculum study activities.

EXHIBIT 4 (continued)

Code No. _____

SCDS
AK 1-4c
5/53

7. There is a wide range of opinion about how effective curriculum development work gets done, and where the responsibilities rest for its accomplishment. Please rate <u>each</u> of the statements below by marking <u>each of them</u> according to the following scale:

   1.- This is <u>entirely</u> a responsibility of the <u>administration</u> of the school.

   2.- This is <u>predominately</u> a responsibility of the <u>administration</u> with active teacher participation.

   3.- This is <u>equally</u> a responsibility of the <u>administration</u> and the <u>teachers</u>.

   4.- This is <u>predominately</u> a responsibility of the <u>teachers</u> with active administration participation.

   5.- This is <u>entirely</u> a responsibility of the <u>teachers</u>.

   6.- This is <u>not</u> an <u>important</u> responsibility of <u>either</u> the teachers or the administration.

a. _____ To attend the curriculum meetings and workshops which are held.

b. _____ To apply or carry out the decisions reached in curriculum meetings.

c. _____ To experiment with new ideas and procedures.

d. _____ To suggest changes in the present curriculum.

e. _____ To make decisions about changes in the curriculum of the school.

f. _____ To work with parents on curriculum problems.

g. _____ To select textbooks and teaching materials.

EXHIBIT 4 (continued)

h. _____ To examine the total school curriculum and its effectiveness.

i. _____ To improve the teaching activities within the individual classroom.

EXHIBIT 5

Questionnaire No. _____

SCDS
AK 1-2
2/53

COOPERATIVE PROGRAM IN EDUCATIONAL ADMINISTRATION
THE OHIO STATE UNIVERSITY

Teacher Questionnaire
(Winter)

This questionnaire is a part of the study of the curriculum activities being conducted in _____ this year. Data from this study will be used by the _____ schools in planning future curriculum work. All data are confidential to the research program, and no individual or school will be identified in the reports. Your frank responses are needed if the general findings are to be most useful to your schools.

On each of the scales below please check at any place which represents your feelings. Write any comments you wish which would help make your rating clearer or help describe the particular activities being carried on in your school.

* * *

Part A: The questions in this first section refer to the particular curriculum study activities which have been developed in your school this year.

1. In what ways do you believe your participation in the activities of the curriculum study is being of help to you in your own teaching?

2. How did you personally feel about the curriculum study problems when they were selected by your building group?

Well thought out, good selection			Rather well thought out, but other problems not sufficiently considered			None of the problems given sufficient consideration		

Comments:

EXHIBIT 5 (continued)

3. Who did you feel made the actual selection of the problems which were to be studied in your building?

_____ the principal

_____ the principal and a select group of teachers

_____ the teachers themselves

_____ (other) _____

4. What is your reaction to the way the teachers in your building are organized for the curriculum study?

Not an effective use of time and energy	Fairly satisfactory but could be improved	Very effective use of time and energy

Comments:

5. Do you have a feeling you know where you are going in these activities?

Confused, see no direction for myself as yet	Some idea, but not very definite yet	I feel a definite direction for myself

Comments:

6. Do you feel you are getting any place?

"Bogged down," see little progress	Making fairly satisfactory progress	Making excellent progress

Comments:

EXHIBIT 5 (continued)

7a. What things do you think are important to consider in determining whether the curriculum study activities have been worthwhile?

1.

2.

3.

7b. In general, how would you rate the curriculum study activities so far this year?

Seem unprofitable to me	Quite valuable to me	Extremely helpful to me

Comments or suggestions for improvement:

Part B: The questions in this section refer to the more general aspects of the school which are often included in a broad definition of curriculum development.

8. How well do you feel that you and others in your faculty are able to contribute to curriculum improvement in your school?

Need considerable outside help, staff has limited resources	Able to make much of the needed contribution with little outside help	Able to make all the contribution required for our school

Comments:

9. How close a working relationship do you feel you have with others on the faculty?

Each going his own way	Rather casual, but generally cooperative	Very close, everybody pulling together

Comments:

EXHIBIT 5 (continued)

10a. How often do you find yourself talking informally with other teachers in the building about important curriculum problems?

Infrequently				Rather frequently				Every day

Comments:

10b. With whom do you usually talk about these problems?

Only one or two others				Several others in the building				Anyone in the building I meet

Comments:

11. Do you find it easy to talk with the principal about your ideas and suggestions for the school?

Difficult, hard to find an opportunity				Rather easy, if I have a very good idea				Easy for me at any time

Comments:

12a. How could your principal be of more help to you in furthering curriculum development?

1.

2.

3.

EXHIBIT 5 (continued)

12b. How could the central office staff be of more help to you in furthering curriculum development?

1.

2.

3.

13. What do you see as the particular responsibilities of teachers like yourself in curriculum development?

1.

2.

3.

EXHIBIT 6

Questionnaire No. _____

SCDS
AK 1-5
5/53

COOPERATIVE PROGRAM IN EDUCATIONAL ADMINISTRATION
THE OHIO STATE UNIVERSITY

Teacher Questionnaire #2
(Spring)

This questionnaire is a part of the study of the curriculum activities being conducted in _____ this year. Data from this study will be used by the _____ schools in planning future curriculum work. All data are confidential to the research program, and no individual or school will be identified in the reports. Your frank responses are needed if the general findings are to be most useful to your schools.

On each of the scales below please check at any place which represents your feelings. Write any comments you wish which would help make your rating clearer or help describe the particular activities being carried on in your school.

* * *

Part A: The questions in this first section refer to the particular curriculum study activities which have been developed in your school this year.

1. In what ways do you believe your participation in the activities of the curriculum study has been of help to you in your own teaching?

   (1)

   (2)

   (3)

EXHIBIT 6 (continued)

2. What has been your reaction to the way the teachers in your building have been organized for the curriculum study?

Not an effective use of time and energy			Fairly satisfactory but could have been improved			Very effective use of time and energy		

Comments:

3. Did you have a feeling you knew where you were going in these activities?

Confused, saw no direction for myself			Had some idea, but not very definite			I felt a definite direction for myself		

Comments:

4. Did you feel you were getting any place in these activities this spring?

"Bogged down," saw little progress			Made fairly satisfactory progress			Made excellent progress		

Comments:

5a. Please check from the list below the <u>two</u> (2) phrases which, in your opinion, best complete this sentence:

"Curriculum study activities are <u>most</u> <u>worthwhile</u> when they result in . . .

1. _____ better selection of textbooks and teaching materials."

2. _____ greater personal satisfaction of the teachers in doing their job."

EXHIBIT 6 (continued)

3. _____ changes in the teachers' day-to-day behavior in the classrooms."

4. _____ agreements and decisions about curriculum problems in the school."

5. _____ more satisfactory working relationships among the entire staff."

6. _____ greater community participation in curriculum planning."

7. _____ greater willingness to really try out ideas in the classroom."

8. _____ general agreement that the study activities have been worthwhile."

5b. Please circle the number of any of the areas above in which you feel significant improvement has been made in your own school this past year as a result of the curriculum study activities.

6. In general, how would you rate the curriculum study activities for this year?

Seem unprofitable to me				Quite valuable to me				Extremely helpful to me

Comments:

Part B: The questions in this section refer to the more general aspects of the school which are often included in a broad definition of curriculum development.

7. How well do you feel that you and others in your faculty were able to contribute to curriculum improvement in your school?

Needed considerable outside help, staff had limited resources				Were able to make much of the needed contribution with little outside help				Were able to make all the contribution required for school

EXHIBIT 6 (continued)

8. How close a working relationship have you felt you had with others on the faculty?

Each has gone his own way			Rather casual but generally cooperative				Very close, everybody pulling together

9. There is a wide range of opinion about how effective curriculum development work gets done, and where the responsibilities rest for its accomplishment. Please rate each of the statements below by marking each of them according to the following scale:

1.- This is entirely a responsibility of the administration of the school.
2.- This is predominately a responsibility of the administration with active teacher participation.
3.- This is equally a responsibility of the administration and the teachers.
4.- This is predominately a responsibility of the teachers with active administration participation.
5.- This is entirely a responsibility of the teachers.
6.- This is not an important responsibility of either the teachers or the administration.

a. _____ To attend the curriculum meetings and workshops which are held.

b. _____ To apply or carry out the decisions reached in curriculum meetings.

c. _____ To experiment with new ideas and procedures.

d. _____ To suggest changes in the present curriculum.

e. _____ To make decisions about changes in the curriculum of the school.

f. _____ To work with parents on curriculum problems.

g. _____ To select textbooks and teaching materials.

EXHIBIT 6 (continued)

h. _____ To examine the total school curriculum and its effectiveness.

i. _____ To improve the teaching activities within the individual classroom.

Please use the back of this sheet for your comments.

EXHIBIT 6 (continued)

School No _____

SCDS
AK 1-5a
5/53

On the questionnaire which you filled out at the time of our previous visit the teachers suggested a variety of ways in which principals could be of more help to them. The scales below were suggested by these comments. Please check each of the scales at any place which best represents your feelings at the present.

10. How helpful is the principal's office in getting needed materials and supplies for you?

Does not give supply problems the attention I would like	Handles regular supply routines satisfactorily	Makes special efforts to get materials I need

11. How well are you kept informed about the things which affect your work and your school?

Often not notified of information affecting my work	Usually notified of information directly affecting my work	Kept up-to-date on all information related to my work and the school

12. When considering problems in the school, how clearly and consistently do you believe the respective responsibilities of the teachers and the principal have been defined?

Confused, never sure when I should take the initiative	Usually clear, but get principal's OK before taking initiative	Clear, feel free to take initiative in definite areas

13. How frequently do you find yourself being given encouragement and approval by the principal?

Rarely get any encouragement or approval	Get encouragement and approval occasionally	Get encouragement and approval frequently

EXHIBIT 6 (continued)

14. Do you find it easy to talk with the principal about your ideas and suggestions for the school?

Difficult, hard to find an opportunity	Rather easy, if I have a very good idea	Easy for me at any time

APPENDIX B

EXCERPTS FROM FIELD NOTES

1. Another example was brought up by _____ about tardiness of students to class, and the established policy that if students come late to class they were sent to the principal's office for a slip. Some of the men commented that he was just making work for himself. I raised the question of what the purpose was of requiring slips and _____ assured me that it was important that students learn punctuality now. I then commented that he made the assumption that this was the way to teach punctuality. Some others in the group commented "if we let the students get away with this sort of thing where will it end? They'll be throwing footballs through the windows and everything." I raised the question about the assumptions which we make when we make these kinds of decisions and whether we are aware of them or not. _____'s reply was that everything we do is on the basis of assumptions. I expressed wonder as to whether or not we should sometimes be more explicit about the assumptions we do make. I later put the question about the bases on which they make these policy decisions and criteria they use. _____'s response was "We don't have time to work out our philosophy we are so busy making immediate decisions." I felt that this was pushing them too fast and therefore did not follow up these comments.

2. Along with this discussion I expressed my concern that much of what we had been talking about suggested that the role of administrator was that of policeman and although there was resistance to this expression there were several comments to the effect, "Who else is going to do it if we don't?"

3. He indicated that the greatest need in building was for areas for vocational training and teacher stations for more of the practical arts. He said that he regretted that certain people seemed to feel the vocational program was for only the sub-standard students and he hoped that if they got a vocational program that it would be one which would appeal to students at all levels. When I asked him if he had any program of on the job training of students while they were in high school as part of their course work, he stated that it had been considered at one time but that the students who were interested in mechanical work were not accepted by the plants because at that time there was a lay-off of people in this field and the staff apparently felt that they posed an economic threat to people who were out of work.

4. He stated that if the school board next Tuesday decides to go ahead and try to promote the bond issue for next spring for the building, that the staff and he will be working three-quarters time trying to get that sold to the community.

5. The Citizens' Committee will establish a rest tent at the County Fair as a means of meeting people and discussing the purposes of the organization, and sampling public opinion on school issues.

6. He states that he is very much aware of the activities in the neighboring school and constantly evaluates what they're doing in an attempt to find what could fit into his own program. "We're really in a competitive business. Everyone knows what everyone else is doing and we all try to out-do the other guy. And this is just like everything else I've been in; I want to win."

7. _____ acknowledged a change in his problem solving approach. He said that he feels more free to contact teachers and other administrators when problems come up which need immediate attention. He says that he has to be selective in deciding which problems he can work on alone and which he should take for consideration with other people.

8. He showed me all around the building. With regard to planning for the new space requirements _____ said "The architect took care of that. That's his business." Later on we looked at prints of the old building. Curiosity about what lay in a certain unmarked area of the print led to knocking out a few bricks and discovery of an 8 x 12 space which had lain hidden for thirty-five years. It will now be made into a dressing room or supply room. I tried to use this as an example of the advantage of closer examination of all things relating to the school.

9. It is a common thought among the executive heads that they should do things in whatever order they happen to get to them. They do not appear to differentiate concerning what should be first in terms of effective educational administration.

10. Beginning this year, _____ has dispensed with the position of guidance director and has made _____ Chairman of Guidance, with the job of working with teachers to develop guidance practices.

11. One of the problems seemed to be the lack of professional attitudes among teachers, and the unwillingness of some teachers

to follow school policies. There also seemed to be a component of how to get teachers to help make decisions.

12. The problem arose when _____ found a teacher who was still allowing talking in study hall. He called her to his office and talked to her about this deviation from policy. I raised a question about his role as disciplinarian with the teachers. He preferred to call it enforcement of policy. There was general agreement that the job of the administrator is to enforce policy of the school.

13. _____ _____ and _____ suggested that press relations with boards of education had not been constructive and that they were making an effort to get the educational news of real concern to the public.

14. He indicated that the community resisted change and that he was not sure as to how to go about making changes without creating problems in the community. . . . In reference to the guidance workshop which was conducted by Dr. _____, he stated that the recommendations apparently made no difference in the school but that they had all been carefully filed away.

AUTOBIOGRAPHY

I, Philip G. Smith, was born in New Philadelphia, Ohio, on April 28, 1917. I received my secondary school education in the public schools of that city. My undergraduate education was obtained at Ohio University, Athens, Ohio, from which I received the degree Bachelor of Arts in 1941. In 1950 I was admitted to the Graduate School, The Ohio State University. While in residence I acted in the capacity of graduate assistant to Drs. D. H. Eikenberry, H. B. Alberty, and H. G. Hullfish. I was then appointed research assistant in the Department of Education and served with the School-Community Development Study, a Kellogg Foundation project located on campus. For the school year 1953-54, I accepted the position of Instructor, Department of Education, Western Reserve University, Cleveland, Ohio, and held this off-campus position while completing the requirements for the degree Doctor of Philosophy.