INFORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.

2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.

4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.

5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University Microfilms International
300 N. ZEEB ROAD, ANN ARBOR, MI 48106
18 BEDFORD ROW, LONDON WC1R 4EJ, ENGLAND
PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark √.

1. Glossy photographs ______
2. Colored illustrations ______
3. Photographs with dark background ______
4. Illustrations are poor copy ______
5. Print shows through as there is text on both sides of page ______
6. Indistinct, broken or small print on several pages ______ throughout ______
7. Tightly bound copy with print lost in spine ______
8. Computer printout pages with indistinct print ______
9. Page(s) ______ lacking when material received, and not available from school or author ______
10. Page(s) ______ seem to be missing in numbering only as text follows ______
11. Poor carbon copy ______
12. Not original copy, several pages with blurred type ______
13. Appendix pages are poor copy ______
14. Original copy with light type ______
15. Curling and wrinkled pages ______
16. Other ____________________________________________
THE DEVELOPMENT AND IMPLEMENTATION OF
A PROCEDURAL MODEL DESIGNED TO FOLLOW-UP THE
HEALTH EDUCATION BACHELOR'S DEGREE LEVEL GRADUATES
OF THE OHIO STATE UNIVERSITY, 1970-1979

DISSERTATION

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

BY

Donald Earl Hawk

* * * * *

The Ohio State University

1980

Reading Committee:

Dr. Mary K. Beyrer
Dr. Philip Heit
Dr. Gary deVoss
Dr. Robert Kaplan

Approved By:

Mary K. Beyrer
Adviser
School of Health, Physical Education and Recreation
To Teresa for her years of encouragement, caring, and self-sacrifices.
ACKNOWLEDGMENTS

The completion of this study demanded more than time and effort. It required insightful input and involvement from numerous people. My sincere appreciation is extended to:

- my advisor, Dr Mary K. Beyrer, for her enriching ideas, high standards, and support for which I am eternally grateful;
- the members of my reading committee, Dr. Gary deVoss, Dr. Philip Heit, and Dr. Robert Kaplan, for their constructive criticism and time spent in reviewing the dissertation;
- my friend, Shirley Hansen, who was there to help from the start;
- Mrs. Brenda Brown, who typed the final draft of the dissertation;
- Mr. Bruce Wentworth, for his assistance in analyzing this study's data;
- and finally, to my family, my wife Teresa, my parents, and my in-laws, for never having any doubts.

Thanks to all.

iii

D.E.H.
VITA

April 16, 1952 . . . . .  Born - Celina, Ohio

1974 . . . . . . . . .  B.S., Health and Physical Education, Miami University, Oxford, Ohio

1974-1975 . . . . . .  Graduate Assistant, Department of Health and Physical Education, Miami University, Oxford, Ohio

1975 . . . . . . . . .  M.A., Health and Physical Education, Miami University, Oxford, Ohio

1975-1977 . . . . . .  Health Educator, Longmeadow Public Schools, Longmeadow, Massachusetts

1977-1979 . . . . . .  Graduate Teaching Associate, Division of Health Education, The Ohio State University, Columbus, Ohio

1979-Present . . . . .  Graduate Research Associate, College of Education Follow-Up Project, The Ohio State University, Columbus, Ohio

FIELDS OF STUDY

Major Field: Health Education.  Professor Mary K. Beyrer

Minor Field: Teacher Education.  Professor Donald Cruickshank
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>VITA</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xiii</td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>3</td>
</tr>
<tr>
<td>Rationale for the Study</td>
<td>5</td>
</tr>
<tr>
<td>Basic Assumptions</td>
<td>8</td>
</tr>
<tr>
<td>Limiting Factors</td>
<td>9</td>
</tr>
<tr>
<td>Terminology</td>
<td>10</td>
</tr>
<tr>
<td>II. REVIEW OF RELATED LITERATURE</td>
<td>16</td>
</tr>
<tr>
<td>Generic Teacher Education Follow-Up Models</td>
<td>17</td>
</tr>
<tr>
<td>Follow-Up Studies of Health Education Professional Preparation Program Graduates</td>
<td>34</td>
</tr>
<tr>
<td>The Follow-Up Study of Undergraduates and Graduates of Health Education at The Ohio State University: 1970-1976</td>
<td>50</td>
</tr>
<tr>
<td>Summary</td>
<td>56</td>
</tr>
<tr>
<td>III. PROCEDURES</td>
<td>57</td>
</tr>
<tr>
<td>Research Design and Rationale</td>
<td>57</td>
</tr>
<tr>
<td>Population and Sampling</td>
<td>58</td>
</tr>
<tr>
<td>Phase I: Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University</td>
<td>59</td>
</tr>
<tr>
<td>Phase II: Development of the Survey Instrument to Obtain Feedback From the 1970-1979 Bachelor's Degree Level Health Education Graduates</td>
<td>74</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Phase III: Collection of the Data</td>
<td>81</td>
</tr>
<tr>
<td>Phase IV: Presentation, Analysis and Interpretation of the Data</td>
<td>82</td>
</tr>
<tr>
<td>Phase V: Appraisal of the Procedural Model Process: Implications for Its Adaptation by Other Teacher Education Program Areas</td>
<td>86</td>
</tr>
<tr>
<td>Summary</td>
<td>88</td>
</tr>
<tr>
<td>IV. PRESENTATION AND ANALYSIS OF THE DATA</td>
<td>89</td>
</tr>
<tr>
<td>Treatment of the Data</td>
<td>90</td>
</tr>
<tr>
<td>Summary of the Response to Questionnaire A and Questionnaire B</td>
<td>92</td>
</tr>
<tr>
<td>Demographic Data About Questionnaire A Respondents</td>
<td>93</td>
</tr>
<tr>
<td>Presentation of Questionnaire A Data</td>
<td>98</td>
</tr>
<tr>
<td>Demographic Data About Questionnaire B Respondents</td>
<td>120</td>
</tr>
<tr>
<td>Presentation of Questionnaire B Data</td>
<td>126</td>
</tr>
<tr>
<td>Significance Differences Between the Grand Means of the Populations Identified From the Questionnaire A and B Respondents (Grouped According to Order of Mailing of the Survey Instrument)</td>
<td>155</td>
</tr>
<tr>
<td>Summary</td>
<td>157</td>
</tr>
<tr>
<td>V. INTERPRETATION AND IMPLICATIONS OF THE DESCRIPTIVE DATA BY SELECTED KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES</td>
<td>160</td>
</tr>
<tr>
<td>Discussion of Questionnaire A Descriptive Data</td>
<td>163</td>
</tr>
<tr>
<td>Summary of Questionnaire A Descriptive Data</td>
<td>175</td>
</tr>
<tr>
<td>Discussion of Questionnaire B Descriptive Data</td>
<td>188</td>
</tr>
<tr>
<td>Summary of Questionnaire B Descriptive Data</td>
<td>196</td>
</tr>
<tr>
<td>Implications of the Descriptive Data for Selected Knowledges, Skills, and Attitudes/Values</td>
<td>209</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>VI. APPRAISAL OF THE PROCEDURAL MODEL PROCESS: IMPLICATIONS FOR ITS ADAPTATION BY OTHER TEACHER EDUCATION PROGRAM AREAS</td>
<td>214</td>
</tr>
<tr>
<td>The Assets and Liabilities of Each of the Four Phases Which Comprise This Study</td>
<td>214</td>
</tr>
<tr>
<td>Implications For Adapting the Procedural Model by Other Teacher Education Program Areas</td>
<td>223</td>
</tr>
<tr>
<td>VII. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS</td>
<td>225</td>
</tr>
<tr>
<td>Summary of the Study's Problem</td>
<td>225</td>
</tr>
<tr>
<td>Summary of the Procedures Used in the Study</td>
<td>227</td>
</tr>
<tr>
<td>Summary of the Study's Results</td>
<td>231</td>
</tr>
<tr>
<td>Conclusions</td>
<td>238</td>
</tr>
<tr>
<td>Recommendations</td>
<td>239</td>
</tr>
<tr>
<td>APPENDIX</td>
<td></td>
</tr>
<tr>
<td>A. Current Address Request Form</td>
<td>242</td>
</tr>
<tr>
<td>B. Content Validation of Professional Functions Cover Letter</td>
<td>244</td>
</tr>
<tr>
<td>C. Instructions For Content Validation of the Professional Functions and List of Functions in a Response Format</td>
<td>246</td>
</tr>
<tr>
<td>D. Content Validation of Knowledges, Skills, and Attitudes/Values Cover Letter and List of Study Definitions</td>
<td>252</td>
</tr>
<tr>
<td>E. Instructions For the Content Validation of the Knowledge, Skill, and Attitude/Value Statements</td>
<td>259</td>
</tr>
<tr>
<td>F. List of Knowledge, Skill, and Attitude/Value Statements in a Response Format</td>
<td>262</td>
</tr>
<tr>
<td>G. The Initial Survey Instrument</td>
<td>283</td>
</tr>
<tr>
<td>H. Instructions For Pilot Study Questionnaire</td>
<td>293</td>
</tr>
<tr>
<td>I. Pilot Study Cover Letter</td>
<td>295</td>
</tr>
<tr>
<td>J. Survey Instrument: Form A</td>
<td>297</td>
</tr>
</tbody>
</table>
### Appendix

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>K. Survey Instrument: Format B</td>
<td>304</td>
</tr>
<tr>
<td>L. Cover Letter of First Questionnaire Mailing</td>
<td>311</td>
</tr>
<tr>
<td>M. Instruction Page For Survey Instrument</td>
<td>313</td>
</tr>
<tr>
<td>N. Cover Letter to Second Questionnaire Mailing</td>
<td>315</td>
</tr>
<tr>
<td>O. Cover Letter to Third Questionnaire Mailing</td>
<td>317</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>319</td>
</tr>
<tr>
<td>REFERENCE NOTES</td>
<td>321</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Summary of Survey Questionnaires Mailed, Received, and Used</td>
<td>93</td>
</tr>
<tr>
<td>2. Demographic Data About Questionnaire A Respondents</td>
<td>93</td>
</tr>
<tr>
<td>3. Teachers Employment Data About Questionnaire A Respondents</td>
<td>97</td>
</tr>
<tr>
<td>4. Descriptive Data for Questionnaire A Respondents</td>
<td>102</td>
</tr>
<tr>
<td>5. Correlational Relationships Between Questionnaire A Responses on the &quot;Importance&quot; and the &quot;Adequacy of Your Preparation&quot; Scales (Knowledge Items)</td>
<td>104</td>
</tr>
<tr>
<td>6. Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function X By Questionnaire A Respondents According to Graduate Degree Hours Completed (Importance Scale)</td>
<td>110</td>
</tr>
<tr>
<td>7. Analysis of Variance For Comparing Responses to the Knowledge Items For Function I By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)</td>
<td>112</td>
</tr>
<tr>
<td>8. Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function I By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)</td>
<td>113</td>
</tr>
<tr>
<td>9. Analysis of Variance For Comparing Responses to the Knowledge Item For Function II By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)</td>
<td>114</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>10. Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function II By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)</td>
<td>115</td>
</tr>
<tr>
<td>11. Analysis of Variance For Comparing Responses to the Knowledge Item For Function V By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)</td>
<td>116</td>
</tr>
<tr>
<td>12. Analysis of Variance For Comparing Responses to the Skill Items For Function VI By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)</td>
<td>117</td>
</tr>
<tr>
<td>13. Analysis of Variance For Comparing Responses to the Skill Item For Function IX By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Adequacy of Your Preparation Scale)</td>
<td>118</td>
</tr>
<tr>
<td>14. Demographic Data About Questionnaire B Respondents</td>
<td>121</td>
</tr>
<tr>
<td>15. Teaching Employment Data About Questionnaire B Respondents</td>
<td>125</td>
</tr>
<tr>
<td>16. Descriptive Data for Questionnaire B Respondents</td>
<td>128</td>
</tr>
<tr>
<td>17. Correlational Relationships Between Questionnaire B Responses on the &quot;Importance&quot; and the &quot;Adequacy of Your Preparation&quot; Scales (Knowledge Items)</td>
<td>131</td>
</tr>
<tr>
<td>18. Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function VI By Male and Female Questionnaire B Respondents (Adequacy of Your Preparation Scale)</td>
<td>136</td>
</tr>
<tr>
<td>19. Analysis of Variance For Comparing Responses to the Skill Item For Function I By Questionnaire B Respondents By Year of Graduation (Adequacy of Your Preparation Scale)</td>
<td>137</td>
</tr>
<tr>
<td>Table</td>
<td>Analysis of Variance For Comparing Responses to the Knowledge Item For Function II By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>20</td>
<td>Analysis of Variance For Comparing Responses to the Knowledge Item For Function II By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>21</td>
<td>Analysis of Variance For Comparing Responses to the Skill Items For Function II By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>22</td>
<td>Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function II By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>23</td>
<td>Analysis of Variance For Comparing Responses to the Skill Items For Function III By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>24</td>
<td>Analysis of Variance For Comparing Responses to the Skill Items For Function IV By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>25</td>
<td>Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function IV By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>26</td>
<td>Analysis of Variance For Comparing Responses to the Skill Item For Function V By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>27</td>
<td>Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function V By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>28</td>
<td>Analysis of Variance For Comparing Responses to the Skill Item For Function VIII By Questionnaire B Respondents By Year of Graduation (Importance Scale)</td>
</tr>
<tr>
<td>29</td>
<td>Analysis of Variance For Comparing Responses to the Knowledge Item For Function V By Questionnaire B Respondents According to Their Status as School Health Educators (Importance Scale)</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>30. Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function VII By Questionnaire B Respondents According to Their Status as School Health Educators (Importance Scale)</td>
<td>151</td>
</tr>
<tr>
<td>31. Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function IX By Questionnaire B Respondents According to Their Status as School Health Educators (Importance Scale)</td>
<td>152</td>
</tr>
<tr>
<td>32. Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function X By Questionnaire B Respondents According to Their Status as School Health Educators (Importance Scale)</td>
<td>153</td>
</tr>
<tr>
<td>33. Analysis of Variance For Comparing Responses to the Knowledge Items For Function I By Questionnaire B Respondents According to Graduate Degree Hours Completed (Adequacy of Your Preparation Scale)</td>
<td>154</td>
</tr>
<tr>
<td>34. Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function I By Questionnaire B Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Adequacy of Your Preparation Scale)</td>
<td>156</td>
</tr>
<tr>
<td>35. Summary of High and Low Group Means for the Questionnaire A Knowledge, Skill, and Attitude/Value Items (By Professional Function) on the &quot;Importance&quot; and &quot;Adequacy of Your Preparation&quot; Scales</td>
<td>176</td>
</tr>
<tr>
<td>36. Summary of High and Low Groups Means for the Questionnaire B Knowledge, Skill, and Attitude/Value Items (By Professional Function) on the &quot;Importance&quot; and &quot;Adequacy of Your Preparation&quot; Scales</td>
<td>197</td>
</tr>
</tbody>
</table>

xii
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fuller's Teacher Concern Questionnaire Format</td>
<td>32</td>
</tr>
<tr>
<td>2. Phase I: Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University</td>
<td>60</td>
</tr>
<tr>
<td>3. The Format of the Rating Scales of the Initial Instrument</td>
<td>75</td>
</tr>
<tr>
<td>4. The Format of the Two Rating Scales of the Modified Instrument</td>
<td>79</td>
</tr>
<tr>
<td>5. Phase II: Development of the Survey Instrument To Obtain Feedback From the 1970-1979 Bachelor's Degree Level Health Education Graduates</td>
<td>80</td>
</tr>
<tr>
<td>6. Phase IV: Presentation, Analysis and Interpretation of the Data</td>
<td>84</td>
</tr>
</tbody>
</table>
Chapter 1
INTRODUCTION

Schools, teachers, and students all change with time. Thus, the effort of promoting education in the United States is an ongoing, dynamic process. One very important facet in improving the education of this country's youth, and perhaps the most important facet, deals with preparing teachers to perform effectively in the classroom setting.

This responsibility for preparing teachers ultimately lies with the government of each state. In an effort to better meet this responsibility, the State of Ohio initiated a sweeping teacher education redesign plan in 1973. This plan followed approximately six years of on-site evaluations of teacher preparation institutions, long-range planning which reflected the improved supply of teachers within the state, and deliberations involving countless educators and citizens. The teacher education redesign effort in Ohio became a reality in the printed form entitled, Standards for Colleges or Universities Preparing Teachers. These standards were adopted on December 9, 1974, and will become effective on July 1, 1980.
The redesign standards are comprehensive in that they affect the following aspects of teacher education:
1) Organizational Structure of the Professional Preparation Programs, 2) Curriculum, 3) Instruction, 4) Faculty, 5) Teacher Education Student Services, 6) Facilities, 7) Financial Support, and 8) Evaluation. These standards affect each of the subject areas in which an Ohio institution is approved to prepare teachers.

This study focuses on the effect of these redesign standards on one of the 30 teacher education certification programs at The Ohio State University, namely, the Health Education Professional Preparation Program. The Health Education Program makes vital contributions to the general education of university students by providing courses which deal with such crucial health concerns as nutrition, first aid and personal safety, human sexuality, and health consumerism; most importantly, it prepares individuals for employment as health educators in secondary schools. Some of these individuals, however, are employed by official and non-official health agencies.

As personal wellness and health conscientiousness become ever more important in today's society, school administrators are turning to teacher preparation institutions for personnel who can assist students in reaching their potential. In an effort to prepare such personnel,
The Ohio State University offers curricula for those undergraduate students who wish to major or minor in health education. "Majors" who successfully complete the Program are eligible for certification for the teaching of health in grades 7-12 of Ohio's schools. The minor concentration in Health Education is usually taken by students who are pursuing the baccalaureate degree in related fields and wish to gain expertise in another secondary area of concentration.

The State of Ohio teacher education redesign effort requires those individuals in charge of professional preparation programs to start at "ground level" in determining what should be included in their particular teacher education curriculum. This is a refreshing and major departure from the more traditional practice of periodically adapting a preexisting course or introducing a new elective course in order to comply with existing state standards. This study is an attempt to analyze the problem of complying with two of the 1980 Standards which are vital to this overall redesign plan.

**Statement of the Problem**

The purpose of this study is to develop and implement a procedural model to follow-up the 1970-1979 Health Education Bachelor's Degree level graduates of the Ohio State University. This model incorporates the desired outcomes for the school health educators as validated by
the Health Education Selected Faculty; it is designed to obtain graduates' feedback concerning their professional preparation and what they view as important qualities of the school health educator.

To accomplish the task of developing the model, several major problems have to be solved. The first problem is to identify and describe comprehensively the professional functions of the undergraduate school health educator who has graduated from The Ohio State University. The second problem is to identify the body of knowledges, skills, attitudes, and values which are determined essential for the effective teaching of health. Finally, the procedural follow-up model must be designed to incorporate the previously identified generalized statements and knowledges, skills, attitudes, and values.

In addition to these major problems, there are five subproblems within this study. They are:

1. Content validate (judge the representativeness of) the professional functions of the school health educator.

2. Content validate the identified knowledge, skill, attitude, and value statements.

3. Develop and administer an instrument containing these knowledge, skill, attitude, and value statements to a population of Bachelor's Degree level graduates in order to assess their perceptions of:
a) the importance of the identified knowledge, skill, attitude, and value statements, and b) the adequacy of their preparation at The Ohio State University to achieve the stated knowledges, skills, attitudes, and values.

4. Analyze and interpret the data collected via the survey instrument.

5. Appraise the follow-up model and its potential for application by other teacher education subject areas.

Rationale for the Study

There are both legislative and programmatic reasons for following up the Health Education graduates who compose this study's population. The legislative reasons focus on the difficulties encountered when attempting to comply with two of the State of Ohio Standards for Colleges or Universities Preparing Teachers which become effective July 1, 1980.

One of the related Standards deals with the restructuring of the content and format of Bachelor's Degree Programs such as The Health Education Professional Preparation Curriculum at The Ohio State University. This Standard states:

The body of knowledge, skills, attitudes, and values determined essential for effective teaching shall be specified for each field in which the college or university is approved to prepare teacher education students. (EDb-303-02 Curriculum. 1975, p. 4).
Howsam, et al., (1976) supported this study's identification and validation of the "... body of knowledge, skills, attitudes, and values determined essential for teaching." In their report, Educating a Profession, Howsam, et al., stressed the need for the development "... of a common body of knowledge and repertoire of behaviors and skills needed in the practice of the (teaching) profession." Reporting on the research conducted by Lortie (1975), Howsam, et al. point out a lack of "... the collective knowledges, skills, behaviors, attitudes, and values that constitute the basis for professional expertise and decision making."

The second Standard of concern to this study refers to the follow-up of the graduates of teacher education programs; more specifically, the acquisition of the 1970-1979 Health Education Bachelor's Degree level graduates' responses to the body of knowledges, skills, attitudes, and values determined essential for the effective teaching of health. This standard states:

Continuous study, development, and improvement of teacher education shall be evidenced and supported by a well-defined plan of evaluation which shall provide for the follow-up of graduates. (EDb-303-08 Evaluation. 1975, p. 9).
The need to follow-up teacher education graduates, irrespective of the process used to evaluate such graduates, is made clear in the following introduction to the 1979 National Council for Accreditation of Teacher Education (NCATE) Standard 6.1: "The ultimate criterion for judging a teacher education program is whether it produces competent graduates who enter the profession and perform effectively." Sandefur (1970), in his report for the American Association of Colleges for Teacher Education (AACTE) entitled, An Illustrated Model for the Evaluation of Teacher Education Graduates, clarifies further the need for using graduate feedback information for improving teacher preparation in the following statement: "Teacher education is analogous to industry in that it needs to evaluate the 'product' and to feed that evaluative information back into the program of preparation in order to improve the quality of the teacher profession."

Finally, there are other, more specific programmatic reasons for this study. These are:

1. Data collected via a survey instrument may serve to clarify some of the strengths and weaknesses of the Bachelor's Degree level Professional Preparation Program in Health Education at The Ohio State University.
2. Demographic and employment data collected in this study may provide the Division of Health Education Faculty at The Ohio State University with a better understanding of the professional duties, working environments, and post graduate education experiences encountered by their Bachelor's Degree level program graduates.

3. Analysis of this study's data may serve, also, as a basis for planning in-service workshops and possible graduate level courses to meet the needs of The Ohio State University's Health Education Bachelor's Degree level graduate who is working in health education related areas.

Basic Assumptions

It is necessary to consider certain assumptions relative to this study. These are:

1. This study's subjects (those 1970-1979 Health Education Bachelor's Degree level graduates who responded to the survey instrument) are able to perceive accurately the importance of the desired knowledges, skills, attitudes, and values in relation to their present professional duties and responsibilities.

2. This study's subjects are able to perceive accurately the adequacy of their preparation at The Ohio State
University to enable them to achieve the stated knowledges, skills, attitudes, and values desired for the undergraduate school health educator.

3. The procedural model developed and implemented in this study can be used by professionals who prepare teachers in other subject areas to follow-up their program graduates.

Limiting Factors

A number of factors may have a limiting effect on this study. These limiting factors are:

1. The knowledges, skills, attitudes, and values for which the subjects feel best prepared or capable of performing may be perceived by some respondents as being the "most important" regardless of their actual value.

2. The instructional format and objectives used in the required Health Education Professional Preparation courses may have differed during the 1970-1979 time period.

3. The course objectives incorporated into the final list of statements reflecting the body of knowledges, skills, attitudes, and values determined essential for the effective teaching of health were developed by the Health Education Faculty for the 1978-1979 academic year, thus excluding the opinions of previous members of the faculty.
4. The population in this study will be limited to those subjects who received their Bachelor's Degree in Health Education and who graduated during the years 1970-1979 from The Ohio State University and for whom current addresses could be obtained.

**Terminology**

Knowledges, skills, attitudes, and values are terms which are incorporated into the 1980 Standards for Colleges or Universities Preparing Teachers (1975). These terms can be interpreted in a number of different ways, all of which are plausible. Since these terms are referred to repeatedly within this text, their meaning should be defined clearly. The interpretations of these terms as they are used in this study are discussed below.

Statements which represent knowledge fall within the first classification of the cognitive domain as developed by Bloom et al. (1956). This classification is:

1.00 **Knowledge**

Knowledge, as defined here, involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting (p. 201).

In this study, there are two classifications of skills desired for the school health educator. The first classification concerns **intellectual skills** while the second
classification denotes psychomotor skills. Intellectual skills "... refer to organized modes of operation and generalized techniques for dealing with materials and problems." (Bloom et. al., 1956, p. 204). Intellectual skills fall within the following five classifications of the cognitive domain (Bloom et. al., 1956):

2.00 Comprehension

This represents the lowest level of understanding. It refers to a type of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications (p. 204).

3.00 Application

The use of abstractions in particular and concrete situations. The abstractions may be in the form of general ideas, rules of procedures, or generalized methods. The abstractions may also be technical principles, ideas, and theories which must be remembered and applied (p. 205).

4.00 Analysis

The breakdown of a communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit. Such analyses are intended to clarify the communication, to indicate how it manages to convey its effects, as well as its basis and arrangement (p. 205).

5.00 Synthesis

The putting together of elements and parts so as to form a whole. This involves the process of working with pieces, parts, elements, etc., and arranging and combining them in such a way as to constitute a pattern or structure not clearly there before (p. 206).
6.00 Evaluation

Judgments about the value of material and methods for given purposes. Quantitative and qualitative judgments about the extent to which material and methods satisfy criteria. Use of a standard of appraisal. The criteria may be those determined by the student or those which are given to him (p. 207).

Psychomotor skills are defined as: "... a functional unit of learned motor behavior." (Hough 1970, p. 69). The psychomotor skills referred to in this study are complex in nature. That is, they are functional units of motor behavior that integrate two or more simple skills into one more sophisticated skill.

Statements which represent attitudes and values can be placed within one of the following five classifications of the affective domain as developed by Krathwohl et. al., 1956. These classifications are:

1.0 Receiving (Attending)

At this level we are concerned that the learner be sensitized to the existence of certain phenomena and stimuli; that is, that he be willing to receive or attend to them (p. 176).

2.0 Responding

At this level we are concerned with responses which go beyond merely attending to the phenomenon. The student is sufficiently motivated that he is not just willing to attend, but perhaps it is correct to say that he is actively attending (p. 178).
3.0 **Valuing**

Behavior categorized at this level is sufficiently consistent and stable to have taken on the characteristics of a belief or an attitude. The learner displays this behavior with sufficient consistency in appropriate situations that he comes to be perceived as holding a value (p. 180).

4.0 **Organization**

As the learner successively internalizes values, he encounters situations for which more than one value is relevant. Thus necessity arises for (a) the organization of the values into a system, (b) the determination of the interrelationships among them, and (c) the establishment of the dominant and pervasive ones. Such a system is built gradually, subject to change as new values are incorporated. This category is intended as the proper classification for objectives which describe the beginnings of the building of value system (p. 182).

5.0 **Characterization By A Value Or Value Complex**

At this level of internalization, the values already have a place in the individual's value hierarchy, are organized into some kind of internally consistent system, have controlled the behavior of the individual for a sufficient time that he has adapted to behaving this way; and an evocation of the behavior no longer arouses emotion or affect except when the individual is threatened or challenged (p. 184).

Statements representing attitudes and values are organized under the heading, Attitudes/Values and will be so designated in the remaining chapters of this study. This single heading is used in this study because of the close association between the attitudes and the values desired for the undergraduate school health educator who has graduated from The Ohio State University. While some statements tend to primarily represent desired values, there may be other
statements which clearly represent attitudes desired for the school health educator. But, in many cases, there is an area along the attitude--value continuum where attitudes and values overlap. Whether a statement represents a desired attitude or desired value is a question of degree. Grouping attitude and value statements under a single heading takes into account this overlapping; forcing a categorization of a statement under a separate attitude or value heading could present difficulties in reaching a validation conclusion.

Other phrases which exist in the study include:

Health Education Selected Faculty--the following tenured 1978-1979 faculty members: Ralph C. Bates, Ph.D., Mary K. Beyrer, Ph.D., Philip Heit, Ed.D., Robert Kaplan, Ph.D., and Linda Meeks, M.S.

Professional Functions--those major professional responsibilities and/or duties which are encountered by those who perform the role of the school health educator; these functions are broad in scope in order to be inclusive of the knowledges, skills, attitudes/values determined essential for the effective teaching of health.

Content Validation--the content of a single item is judged to be representative of a chosen universe of content; in this study the content relates to the professional functions of the Bachelor's Degree level
school health educator who has graduated from The Ohio State University and the knowledges, skills, and attitudes/values that are contained within these functions; the judgment of this content's validity is made by the Health Education Selected Faculty.

K,S,A/Vs -- abbreviation of the knowledges, skills, and attitudes/values determined essential for the effective teaching of health.
Chapter II

REVIEW OF RELATED LITERATURE

Follow-up of graduates in teacher education received attention as a result of the 1970 NCATE Standards. Standard 5.1 was the specific standard which related to graduate follow-up evaluation. It reads: "The institution conducts a well-defined plan for evaluating the teachers it prepares" (Sandefur, 1970). The rationale for this standard was made clear in the preface to Standard 5.1. It reads as follows:

The ultimate criterion for judging a teacher education program is whether it produces competent graduates who enter the profession and perform effectively. An institution committed to the preparation of teachers engages in systematic efforts to evaluate the quality of its graduates. . .when they complete their programs of study, and after they enter the teaching profession (NCATE, 1970, p. 12).

Since 1970 numerous follow-up programs have been implemented in an effort to evaluate graduates and the programs that prepared them. The follow-up literature which will be reviewed focuses on three different aspects of teacher education follow-up studies. The first section of this chapter is devoted to follow-up models used by teacher education institutions to evaluate their graduates. These models are generic; that is they are used to follow-up all types of teacher education graduates. These graduates
represent all major or subject matter areas. The second section will review those follow-up studies specific to health education graduates. These studies were conducted at seven universities or colleges across the United States that had programs preparing health educators. The third and final section of this chapter will summarize a follow-up study conducted by Adesso, et.al., at The Ohio State University. This 1978 study primarily gathered responses of the 1970-1976 Bachelor's Degree, Master's Degree, and Doctoral Degree level Health Education graduates of The Ohio State University to a series of general questions related to their professional preparation and their employment since graduation.

**Generic Teacher Education Follow-Up Models**

A number of generic follow-up models will be reviewed in this section. A representative overview of what models are in use today and how they have evolved will be presented.

**The Sandefur Model**

The dominant teacher education follow-up model was developed by Sandefur (1970). Its development was in response to the request by the American Association of Colleges for Teacher Education and National Council for Accreditation of Teacher Education to provide a model that appropriately applied the new national Standards for Accreditation of Teacher Education.
This illustrated model was primarily limited to measuring teacher behavior. Data collected using this model were divided in the four following main categories: 1) Career Line Data, 2) Direct Classroom Observation, c) Pupil, Peer, and Supervisory Evaluations, and d) Standardized Measures. These categories are discussed briefly in the following paragraphs.

Career Line Data focused on basic demographic and employment related information. Years of teaching experience, positions held, and furthering professional development were examples of variables that were of concern. As with most data collected using this model, Career Line Data was gathered on a longitudinal basis as teacher education graduates passed through their professional careers.

Direct Classroom Observation was the portion of Sandefur's Model that utilized observation systems such as Flander's System of Interaction Analysis in an effort to systematically assess teaching behaviors of graduates. Flander's System was developed to determine the amount of teacher talk behaviors, student talk behaviors, and other classroom behaviors defined as confusion or silence. Two other observation systems which were developed by Amidon and Hunter and Hough (Sandefur, 1970, p. 14 and 15) were discussed by Sandefur, and an alternate 14 category system was proposed which incorporated the strengths of Hough's 16 category system and Flander's 10 category system (Sandefur, 1970, p. 17). The Classroom Observation Record
was based on 7 point bi-polar scale used to assess four dimensions of pupil behaviors and 18 dimensions of teacher behavior. These dimensions were defined in a glossary which accompanied the "Record."

Pupil, Peer and Supervisory Evaluations used the subjective judgments of those who actually participate or can observe the in-service teacher in the classroom. Rating scales such as the Student Evaluation of Teaching (SET) developed by Veldman and Peck (Sandefur, 1970, p. 22) were suggested for use by Sandefur. SET's use was supported because it was short, easily scored, and shown to correlate with other data gathering instruments. However, lack of consistency of peer and supervisory and even intra-supervisory ratings led Sandefur to suggest the need for developing a systematic peer-supervisor rating scale which reliably and validly collects data on teaching effectiveness.

Standardized Measures were suggested for use as a part of the illustrated model with the warning that there are numerous variables that affect learning and instruments to be used can only collect very limited data in relation to pupil learning.

The instrument which received the most support for its use within the Sandefur model was the California F Scale. The F Scale measures a teacher's degree of authoritarianism.
Sandefur recommended that the relationship between this measure and specific teaching behavior be researched further. He did, however, express the fact that the instrument showed promise.

Sandefur also listed several recommendations concerning the implementation of a theoretical model. These included:
1) the evaluation of teacher education students should continue on a cycle which is at least 5 years in length,
2) information obtained through written questionnaires, observations, rating scales, and standard measures should be collected on randomly selected students both before and after graduation, 3) a minimum of 40 students should be evaluated every year, 4) all data should be analyzed and stored using computers, 5) all classroom observers should be trained properly, 6) generalizations of good teaching and good teachers should be restated as behavioral objectives against which all data collected using the model can be compared, and 7) revisions to teacher education programs should reflect the findings supported by the data collected.

Western Kentucky University Model

Sandefur was Dean of the Graduate College at Western Kentucky University when he developed the Illustrated Model for the Evaluation of Teacher Education Graduates (1970). As a result, Western Kentucky University adopted his model for use in evaluating their graduates. Western Kentucky University Teacher Preparation Evaluation Program (TPEP)
collected its first data on its graduates during the spring of 1972 (Adams, N°1). Since then, a number of modifications in TPEP have occurred. Some of these changes affected the instrumentation used to collect data. Instruments such as Francis Fuller's Teacher Concern Checklist and Rokeach's Dogmatism Scale as well as a Teacher Preparation Evaluation Inventory consisting of numerous Likert-type items and open-ended questions concerning graduates' professional preparation in relation to their teaching duties and concerns were added to those instruments suggested by Sandefur. In all, 15 instruments were used in TPEP. Some of the original instruments were modified to allow for computer scoring or provide more relevant data. In particular, a 19 category interaction analysis system replaced the 14 category system recommended by Sandefur. Finally, in 1977 and 1978 supervisors of student teachers were trained to collect data on selected samples of student teachers. Thus, supervisors became part of TPEP's systematic effort to gather data on teacher education students before their graduation.

Possible changes of the future to TPEP were outlined by Ronald D. Adams, Director of the Follow-Up at Western Kentucky University (Note 1). These anticipated changes were: 1) Data will be collected earlier, hopefully when teacher education students first enter their professional preparation programs, 2) Evaluation of graduates will take into account
a variety of contextual variables that affect teaching, and
3) Dissemination and communication of study findings to
teacher education program faculty will be emphasized.

With so much data collected on so many different variables,
the analysis of TPEP data was undertaken using a problem-
oriented approach. Some of the problems addressed by TPEP
dealt with 1) identifying factors related to the perceived
problems of first year teachers; 2) identifying factors
related to teachers' entry into the profession and their
retention after three years of teaching; and 3) determining
whether or not teacher behavior changes with teaching ex-
perience. Partial answers to these and other questions have
been found as more and more longitudinal data are analyzed.
For example, it was determined that "teaching disrespectful
students", "discipline", and "motivation of students" were
perceived as the most severe problems by both elementary
and secondary first year teachers.

Findings related to teacher attrition were dismal. As
teachers were followed through the 5 year follow-up cycle,
the percentage of those engaged in active teaching dropped
off consistently. After 5 years only 28 percent of the
elementary teachers and 18 percent of the secondary teachers
were still teaching. These findings were consistent with
those of Joyce (1977).
The findings related to the effect of teaching experience on teacher behavior were inconclusive. Analyzing data obtained using the *Classroom Observation Record* (COR) developed by Ryans (1960), it was determined that elementary teachers tend to demonstrate more desirable teaching behavior during their third year of teaching experience. This was not the case for secondary teachers. Data collected using interaction analysis, while not significant, did support the (COR) findings.

**Tennessee Technological University Model**

The mailing of follow-up questionnaires began in 1964 at Tennessee Technological University. The implementation of the follow-up model, however, did not occur until 1973 (Ayers, Note 2). The model was based on Sandefur's model also, and, like Sandefur's model, it was implemented on a 5 year cycle. Phase one of the model began with sending a questionnaire to all teacher education graduates of the previous academic year. This questionnaire requested demographic data, graduates' perceptions of their preparation, and evaluation of specific courses. In addition, all of those first year graduates who taught within a 100 mile radius were asked to participate in the longitudinal follow-up study over the next 5 years. Each year a new group of
first year graduates were requested to participate in the study. There were, however, two major differences in terms of instrumentation between the Western Kentucky and the Sandefur models. They were:

1) a 10 category interaction system replaced the original 14 category system; this system was described by Amidom and Flanders (1971).

2) The Tuckman Teacher Feedback Form was added to already existing instrumentation; this instrument was used to assess the following four aspects of teaching:
   a) creativity, b) dominance and energy, c) organization and control, and d) warmth and acceptance.

Findings regarding the effect of teaching experience on teaching behavior were contrary to those reported by Adams at Western Kentucky. Namely, there appeared to be no indication that teachers who participated in the Tennessee Technological Follow-up Program over a 4 year period changed their teaching behaviors to any significant degree. Therefore, Ayers (Note 2) suggested that a teacher's style may be developed early in one's professional career. Three other major findings were:

1) Less authoritarian graduates appeared to be overall better classroom teachers.

2) Classroom control, content knowledge of subject areas, knowledge of the characteristics of behavior, and
the effective use of community resources were areas in which graduates showed deficiencies.

3) The two best indicators of teacher success were the graduates' level of achievement on the Professional Education Test of the National Teacher Examination and their overall grade point average in professional education and psychology courses.

Oregon's Model

Extensive follow-up studies have been implemented at the Oregon College of Education. These studies have been coordinated by the Oregon State System of Higher Education Teaching Research Division (Schalock, Note 3). This state's commitment to competency-based teacher education has facilitated follow-up efforts which are based upon teacher effectiveness research findings. As such, data collected at four different levels using the Oregon model reflect certain teacher education commitments. Level I Data included basic background information, i.e., demographic data, job selection and attainment, and job description. Level II Data reflected program graduates' perceptions and the perceptions of those school districts who employed program graduates of the preparation program. The various divisions of the preparation program (foundations, methods/materials, content to be taught, and field experiences offered) were evaluated. Level III Data focused on evidence which documented the teaching effectiveness of program graduates. Data collected
at this level were categorized into five major categories. First, the graduate's performance as a member of the school faculty was evaluated. The graduate's ability to provide leadership and relate at a personal level were of primary importance. Second, data were gathered concerning the graduates' attitudes toward teaching and being a teacher and their perceptions of a variety of factors which may affect learning, e.g., students' perception of time spent on learning and/or students' perception of teacher response to work accomplished. Pupil attitudes toward their school and school subjects also were collected. Third, information regarding the actual time allocated by the graduates for pupil learning activities and the effect of the learning context on student learning was collected. In addition, data were gathered on the graduates' performance on eight designated teaching functions. These functions were: 1) Planning for Instruction, 2) Classroom Instruction, 3) Classroom Management, 4) Knowledge of Subject Matter, 5) Evaluation, 6) Communication Skills, 7) Interpersonal Relationships, and 8) Professional Conduct. Fourth, data were collected on the degree to which graduates' pupils were engaged in learning activities. Finally, information was obtained on the achievement levels of pupils taught by program graduates.
Level IV Data dealt with those factors which might influence the teaching effectiveness of the graduate. These factors include characteristics of the graduate, of the school, community, and more specifically the classroom in which the graduate teaches; of the pupils he/she teaches; and of the teaching resources available for use to the graduate.

The various forms of data mentioned previously were collected from a stratified-random sample of 32 first year secondary teachers who taught within a 100 mile radius of the Oregon College of Education campus. The sample was stratified according to subject matter areas within the teacher education program (Schalock, et al., Note 4). The data were collected via on-site and telephone-mail methodologies which included observation, ratings on graduates as perceived by OCE observers, building principals, pupils, teaching colleagues, and the graduates themselves, plus a series of interviews with similar personnel. Among the more significant study findings were:

1) All but one of the Oregon College of Education (OCE) Graduates were perceived to be competent teachers by both OCE observers and their principals.

2) Overall, OCE graduates perceived themselves to be less competent than did the OCE observers and building principals.
3) Few differences in teacher competence were attributable to the contextual variables of teaching assignment, school size, and school setting.

4) Generally, principals rated OCE graduates as being above average as compared to other teachers in terms of their interpersonal relationships with pupils, leadership ability within the school, and involvement in professional growth activities.

5) Graduates' responses to two questions concerning their performances as teachers and degree of satisfaction derived from teaching showed mixed results. Of the 32 graduates, 21 stated they were working up to their potential, while nine felt that they were not, and two were uncertain. However, all but two of the graduates reported that they derived satisfaction from teaching.

6) Graduate's principals perceived that 30 of the 32 graduates were finding enjoyment in their teaching.

7) Graduates representing a variety of subject areas generally perceived the contribution of the OCE Secondary Program to the performance of the eight general teaching functions to be of "some" value. On a 1 (little contribution) to 7 (much contribution) rating scale all but three of the functions received a 4 (some contribution) score. The perceived
contribution of the OCE Secondary Program to the performance of the teaching functions of classroom management, interpersonal relationships, and professional conduct received these lower scores. The teaching function, that is, the knowledge of subject matter, received the highest overall rating of approximately 5.3 on the 1 to 7 scale.

8) The major strengths of the OCE Secondary Preparation Program as perceived by the graduates were: content information presented, "Junior Block" program, OCE faculty assistance to students, and student teaching.

9) Principals' perceptions of the Program's major strengths were: good subject knowledge, "Program well-rounded with good in-depth perceptions of what teaching is all about," and "graduates understand pupils and have realistic expectations" (Schalock, et al., Note 4).

10) Graduates perceived the lack of relevant materials in methodology classes, the need for more methodology classes, and the lack of information on classroom management and teachers' professional responsibilities as being the most significant weaknesses of their preparation programs.
11) Principals also perceived a need for more instruction related to classroom management and teaching methodology (specifically related to low achievers and problem learners). In addition, the need for more field experience was viewed as a program weakness.

12) Graduates' ratings of selected professional preparation were generally positive. The most helpful course in preparing them to teach was student teaching. A reading course and a developmental psychology course were perceived as least helpful.

The Ohio State University Model

The final generic follow-up model to be reviewed is the one currently being implemented at The Ohio State University (deVoss, Note 5). Data using this model was collected using mailed survey, on-site observation, and personal interview instrumentation. Each of the two mailed survey instruments were followed up once in an effort to obtain as high a response rate as possible.

Contrary to the practices of other follow-up models, the College of Education Follow-Up Project at The Ohio State University attempted to collect demographic and employment data on all 1978-1979 College of Education graduates. Graduates' perceptions of the College Placement Office, usefulness of selected courses, and a variety of other professional-related services also were collected. One major reason for collecting this general data on as many
graduates as possible was to determine the ratio of graduates who enter the teaching profession to those who find other employment which may or may not relate to their professional preparation. Such data, when communicated to those in charge of specific teacher education programs, may help shape future decisions concerning what types of educational opportunities should be offered to College of Education students.

A second mailed survey instrument was sent to all those graduates who responded to the demographic survey instrument and who were presently teaching. This instrument was based on Francis Fuller's Teacher Concern Checklist (Note 6). Fuller's Checklist consisted of 56 statements describing possible teacher concerns. Graduates were instructed to respond to each statement in three ways. First, they ranked on a 1 (not concerned) to 5 (extremely concerned) scale their degree of concern in regard to the statement. Following this initial response, the graduates read a second statement which described a teaching competency associated with the particular teacher concern. This statement was listed directly below its respective concern statement (see Figure 1).
### Sources of Preparation
- Coursework at OSU
- Teaching itself
- In-service training
- Independent study
- Don't know

### Concern
- Not concerned
- A little concerned
- Moderately concerned
- Very concerned
- Extremely concerned

### Preparation
- Extensively prepared
- More than adequate
- Adequately prepared
- Some preparation
- But not enough
- Unprepared

### Rating Scale
1. Selecting and teaching content well in my class.
2. I can select appropriate materials in my class.

![Figure 1, Fuller's Teacher Concern Questionnaire Format](image)

They then responded to each competency statement in the following two ways: 1) Graduates rated degree of their professional preparation relative to the competency statement. The rating scale ranged from 1 (unprepared) to 5 (extensively prepared), 2) Graduates indicated the source of their preparation. Five alternative sources of preparation were listed i.e., coursework completed at The Ohio State University, teaching itself, in-service training, independent study, and don't know. Graduates' responses to this Checklist will be presented to program faculty at the Ohio State University in an effort to communicate both the graduates' professional concerns and how they view their preparation relative to these concerns.
A stratified random sample of those graduates who were teaching within a 50 mile radius of The Ohio State University were selected for on-site observation visits and personal interviews. This sample was composed of 25 graduates representing a wide range of subject areas, instructional levels (K-12), and school type (urban, suburban, inner city). Two different procedures were used to observe first year graduates. The procedure to be used was dependent upon the ability of the observer. One group of observers wrote a descriptive narrative of the classroom event. They described the behaviors of the teacher (graduate) and his/her pupils, the nature of the teaching lesson (its content, method used to communicate the lesson, materials used), and how they felt the lesson was received by the pupils. The second group of observers used a rating type system which was composed of two separate sections. The first section consisted of three lists of words used to describe the teaching experience. The first list described the lesson, the second list described the teacher, and the third list described the student. The second section of the system consisted of seven open-ended questions which were to be completed by the observers. These questions were general in nature and focused upon the teacher's strengths and weaknesses as well as the pupils' reactions to the graduates' lesson.
The instrument used to interview the graduates consisted of 16 questions. The format of these questions varied from open-ended to scale-type items. In addition, some questions requested graduates to complete the stem of a statement. Regardless of their format, all questions were designed to determine graduates' perception of their teaching, their professional preparation, and their personal and professional needs. At the present time no detailed analysis of the follow-up data has been conducted. However, preliminary findings indicate that the graduates' main teaching concerns were related to classroom discipline and motivating pupils to learn.

Future follow-up plans at The Ohio State University include the continuation of longitudinal evaluation of College of Education graduates and developing a more complex observational system which provides for a comparison of a graduates' professional education objectives and their actual classroom teaching behaviors.

Follow-Up Studies of Health Education Professional Preparation Program Graduates

The studies which are reviewed in the following pages are specific to the health education field. These studies were conducted in an effort to follow-up graduates of selected colleges or universities.
Towson State University Study

A follow-up study of the 1971-1976 Health Science graduates of Towson State University was conducted by McMahon and Peregoy (1977). The study was designed to assess graduates' occupational status, employment record, salary, major area(s) of professional specialization, and their perceptions of the value of various professional preparation courses as they pertained to their present health education positions. The data showed that 23 of the 52 respondents were employed within six months of graduation and that one-half of the respondents were employed in health related jobs at the time of the survey. Those graduates who were dual majors (those receiving specialization in both school and community health education) were more likely to select teaching over non-teaching positions. Dual majors were also the most successful in obtaining both school and community health education positions. Single majors, who made up the minority of the respondents, had a more difficult time obtaining employment.

As could be expected, the graduates' area(s) of specialization affected their ratings of the most valuable professional preparation courses. "Those persons who were dual majors or school health majors and are currently teaching in the schools found the school health preparation courses to be most valuable." Basic content courses also were valued highly by this group. Those graduates with dual majors or majors in community health education and who
were currently working in community health rated the following three courses as the most valuable: "Principles and Practices of Community Health," "Preparation for Field Work," and "Ecological Aspects of Health." The courses, "Community Health Field Work" and/or "Student Teaching" were ranked as most valuable in relation to the graduates' present occupations regardless of the graduate's major or type of current employment. The basic science courses such as "General Biology," "Human Anatomy and Physiology I and II," "Medical Microbiology," and "General Chemistry" were perceived as valuable by graduates regardless of their job setting. The "Basic Statistics" course, however, was viewed as more valuable by those graduates working in the community setting as opposed to those working in the school health setting. Finally, the dual majors and school health majors who were required to take basic education courses in order to be certified in the State of Maryland rated such courses as of no value in preparing them for their present jobs.

University of Oregon Study

Davis (1972) conducted a study to determine the adequacy of the professional preparation of health education graduates from the University of Oregon from 1967-1971. The study focused on their general preparation as well as their school health and community health education preparation. A survey instrument was designed to gather data concerning the
graduates' evaluations of their coursework, self-evaluations by the graduates, and ratings of the importance of various competencies of health educators. All this information was to be used in revising the health education professional preparation curriculum.

Overall, the health education graduates representing both the undergraduate and graduate levels who responded to the questionnaire felt adequately prepared to be health educators. The school health educators, however, felt better about their preparation at all three degree levels than those graduates who were employed in community health. The school health education graduates expressed that "... they were competent to coordinate health education activities with other professionals, fulfill the tasks of a health education professional, and master the material the health educator will teach." They did not feel prepared to be competent administrators, train colleagues, utilize appropriate educational tools, and recognize the need for involvement of the community in health education programs. The respondents perceived the following courses to be of most value: personal health problems, community health problems, communicable and noncommunicable diseases, social health, health instruction, progress in disease control, mental and emotional adjustment, advanced health instruction, student teaching, and practicum. Courses which were viewed to be of questionable value included safety education, school health
services, evaluation of school health education, philosophical foundations of health education, and administration of school health. The composite findings of this follow-up study suggested that more attention should be given to the areas of community health and program administration and organization.

**Slippery Rock State College Study**

Wheaton designed a follow-up study of health and physical education graduates from Slippery Rock State College. The study evaluated the effectiveness of the undergraduate professional program based on graduates' self-perception ratings of competencies acquired at Slippery Rock for performing specific job-tasks. The study also collected the following data:

1. education and personal characteristic of graduates;
2. nature of graduates teaching position;
3. reasons why some graduates were not teaching;
4. the professional growth of graduates;
5. graduates' self-perception ratings of competencies acquired at Slippery Rock; and
6. graduates' opinions of the strengths and weaknesses of Slippery Rock's professional preparation.

The questionnaire used in this study identified job related functions which were viewed as necessary for success in performing the duties of a health and physical education teacher. The questionnaire was based on the one developed
by Lucke in 1963 for his evaluation of Lenoir Rhyne College's health and physical education department. Twenty-six items were added to the original questionnaire. This brought the total number of items to 108. Of the 108 items, 35 items were specifically related to the job-tasks of the health educator.

Nine hundred and fifty-nine health and physical education majors who graduated during the five year period from 1966 to 1971 were surveyed. Sixty-nine per cent of the graduates responded. Of the 659 respondents, 157 were selected for analyses. The major reasons for rejection were acceptance of employment other than teaching and lack of teaching experience because of marriage.

A number of comparison was made in this study between professional and personal characteristics of the graduates and their responses to the questionnaire. It was found that:

1) Graduates who did not pursue graduate work perceived themselves as being better prepared for their job-tasks than graduates who had went on with their studies.

2) The size of the community in which the graduates taught had an effect on the way in which the graduate responded to the job-tasks questionnaire. Graduates who taught in cities of 100,000 and over gave the highest ratings.
3) The self-perception scores on the job-tasks questions of graduates who taught at the junior high level were higher than graduates who taught on the elementary or senior high level. Graduates who taught classes of under 20 pupils were more satisfied with their professional preparation than graduates who had larger classes. Class sizes of 21-40 students were reported to be the ones most frequently taught by graduates.

4) A comparison of graduates' self-perception scores concerning their preparation for specific job-tasks showed that the most recent graduates who responded to the questionnaire rated their preparation higher than those respondents who graduated earlier. Of the ten categories ranked on the questionnaire by the graduates, the categories of health service, health instruction, and healthful school living were ranked the lowest. Even so, these three categories achieved mean scores equivalent to 'average' or 'above average' ratings. Of the 19 possible job-tasks listed on the questionnaire under the category of health instruction, teaching first aid and safety was the only one which received an 'excellent' rating. Another job-task that was ranked above 'average' was that of teaching personal health. A number of job-tasks was ranked low with teaching consumer health achieving only an "average" rating.
In the healthful school living category, eight job-tasks were identified. The job-tasks of: "providing health experience as part of teaching physical education," "interpreting to school personnel what contributions they can make to provide a healthful environment," and "assisting with planning surveys of the school environment" received "average" ratings.

In the job-tasks category concerning the area of health service, eight job-tasks were identified. The respondents reported that they were adequately prepared in all eight job-tasks. The two job-tasks in which they felt best prepared were "giving proper care and/or making proper referral concerning injuries and accidents" and "safeguarding the health of children through guidance in physical activities." The respondents perceived their preparation in performing the job-task of interpreting the objectives, values, and limitations of the health service program to the students, teachers, parents, and the public to be the least effective of the eight identified job-tasks in the health service category.

Wheaton also investigated the relationship between the respondents' grade point averages and their self-perception scores on the job tasks questionnaire. No significant relationship existed.

In an open-ended response section of the questionnaire, graduates had an opportunity to express their opinions
about the strengths and weaknesses of Slippery Rock's curriculum, quality of instruction, and student teaching program. A total of 168 critical comments concerning health education curriculum were made by 442 respondents. These comments were summarized according to need statements. Graduates expressed the following: a need for more required health courses; a need for more up-to-date information on drugs, sex education, and mental health, and a need for a methods course in health. Thirty-nine graduates responded favorably to the question concerning the curriculum. Most of their remarks were of a general nature.

One hundred and thirty-one favorable comments were made by graduates concerning the quality of instruction during their student teaching experience. The comment that student teaching was the most valuable, enlightening, enjoyable, and gratifying was representative. Despite these positive responses, 481 critical comments were reported. Approximately one-third of such comments concerned the lack of opportunity for the student teacher to teach at all levels. Criticism of the capabilities of the cooperating teacher also rated high on the list of weaknesses of the student teaching program while 62 comments were made regarding the need for having a student teaching experience earlier in the professional preparation program. Forty-four comments criticized the lack of feedback from the cooperating teacher concerning the graduate's teaching methods and techniques.
Other major criticisms included lack of visitations by the college supervisor and lack of opportunity to teach both health and physical education. Some graduates felt student teaching was a waste of time.

Wheaton reported a bias in terms of the response rate favoring female graduates (74%) over male graduates (60%). The females, however, did not perceive their professional preparation as highly as the males did. If was found also that the first response group, that group which responded to the initial questionnaire, perceived themselves to be better prepared for their job-tasks. One-third of the non-respondents responded to a short questionnaire concerning their undergraduate preparation. Their rating of their preparation was only slightly lower than that of the respondents. The one significant difference between the respondents and non-respondents reported in this study was their grade point average. The respondents grade point averages were found to be higher than those of the non-respondents.

**Austin Peay State University Study**

Baugh (1970) conducted a follow-up of Austin Peay State University health and physical graduates. Baugh identified and analyzed the duties of these graduates to determine the adequacy of their undergraduate professional preparation for health education. Graduates were asked also to evaluate selected health education courses to determine their contribution to the status of the professional preparation program.
Finally, the study focused on the ability of the graduates to perform their professional duties as rated by their supervisors and obtaining graduates' ratings of various methods used to strengthen professional weaknesses. Eighty-eight of the 193 identified health education duties were rated by 10 or more graduates as duties for which they were responsible. Thirty-four of these duties were rated by more than 90 percent of the graduates. These two duties were: 1) "discipline students" and 2) "administer first aid."

Other duties which were rated by a high percentage of graduates were: 1) "prepare daily and/or periodic written lesson plans," 2) "assist at extracurricular activities," 3) "determine academic grades by letter grades," 4) "operate audio-visual, education equipment," 5) "purchase supplies and equipment," 6) "prepare objective type examinations," 7) "prepare bulletin board material," and 8) "member of professional association" (viewed as a self-improvement duty).

Duties which are rated surprisingly low were: 1) "counsel students regarding social problems," 2) "counsel students regarding health problems," and 3) "health services duties."

The performance of duties by graduates on their jobs was rated by both the graduates and their supervisors. Of the 88 duties rated, the supervisors rated the graduates' competence higher than the graduates. There was, however, moderate agreement between the graduates and their supervisors on the
ratings of the duties for which the graduates were best prepared. The duties that were rated 3.00 or above (on a 4.0 scale; 0 = No undergraduate preparation; 1 = Inadequate preparation; 2 = Adequate preparation; 3 = Good preparation; and 4 = Excellent preparation) by the graduates were: 1) "Serve on health committee," 2) "Supervise or advise concerning diet of students," 3) "Prepare daily written lesson plans," 4) "Operate audio-visual education equipment," 5) "Prepare audio-visual material for class," 6) "Weigh students," 7) "Measure heights," and 8) "Render service outside of school for which paid." The graduates did not give themselves an "excellent" rating on any of these duties. The duties which were rated the lowest by the graduates were routine office type duties.

Graduates were asked also to rate the most effective means for improving professional preparation program weaknesses. The four methods to be rated for improving such weaknesses were: 1) graduate course, 2) consultations, 3) conferences, and 4) workshops. All four methods were viewed as valuable, but graduate course work was rated above the other three.

The health education duties rated as most important by the graduates were: 1) "teach health classes: boys," 2) teach health classes: girls," 3) "teach health classes: mixed," 4) "discipline students," and 5) "purchase supplies and equipment." All the duties received mean ratings of 2.00 or
higher on a 1 to 3 scale in which 1 equaled "unimportant," 
2 equaled "important," and 3 equaled "very important."

The health and physical education graduates rated the 
"Safety Education and First Aid" course as the most helpful 
health education course in terms of performing their 
professional duties. All but one of the other eight courses 
were valued as "very helpful" on the following scale:

<table>
<thead>
<tr>
<th>Value of course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No value</td>
</tr>
<tr>
<td>1</td>
<td>Limited value</td>
</tr>
<tr>
<td>2</td>
<td>Helpful</td>
</tr>
<tr>
<td>3</td>
<td>Very helpful</td>
</tr>
<tr>
<td>4</td>
<td>Extremely helpful</td>
</tr>
</tbody>
</table>

Student teaching, "Teaching Home Economics in the High 
School," and "Use of Materials in Instruction" were rated as 
the most helpful "undergraduate education courses" by the 
graduates. "Invertebrate and Vertebrate Zoology" and the 
"General Science" courses were the most valued undergraduate 
biology, chemistry, and science courses. Most of the under- 
graduate psychology and sociology courses were rated as 
"helpful." None of these courses obtained a rating of 
3.0 or better. The same findings were reported for the 
undergraduate geography, geology, history, and political 
science courses and the art, business administration, 
economics, English, music and mathematics courses.
Henderson's Study

Henderson (1976) developed a list of essential competencies of school and college health educators. Competencies were first identified through a search of pertinent literature. These competencies were ordered and a rating scale was developed in order to survey 126 institutions preparing health educators. Eighty professional health educators representing these institutions responded to the inventory. An analysis of the rankings showed that the competencies dealing with teaching skills were ranked the highest. These included: "Teaching Methods, Content or Concepts, and Curriculum Development." The lowest rankings were Scientific Foundations, Community Health Resources, and Research and Evaluation. One interesting finding of this study concerned the highest academic degree earned by a respondent and its relationship to his rating of the competency statements. There were significant differences on 41 of 111 competency statements when controlling for this variable. The respondent's educational degree was found to be significantly related to his rating of the competency statements. As a result of this survey, an inventory of competencies was identified, organized, and verified.

Weller's Study

Weller (1977) conducted a study to identify knowledge competencies in the following core areas: "...Curriculum Development and Evaluation, Programs in School Health, Programs
in Community Health, and Advanced Concepts of Health."
These competencies reflected the minimum standards for
teaching health education in the Illinois public secondary
schools. Other purposes of this study were to determine
the importance of the identified competencies and to
compare the "... competency ratings of health education
specialists with those of secondary school health educators."
The competencies were identified, refined and validated
by a panel of experts using the Delphi Technique. Further
validation of these competencies was obtained from a selected
group of secondary school health educators. In all, 84
competencies were agreed upon. These competencies were sent
to public school health educators to be rated. The re-
lationship of the panel of experts' mean ratings and the
school health educators' mean ratings were significant at
the .01 level. Using the t-test for independent samples,
significant differences between group ratings were found for
five of the 84 competencies. Significant differences at
the .05 and .01 level also existed for major areas within each
core component area with the exception of "Advanced Concepts
of Health." Overall, all the competencies were rated as
important by both the panel of experts and the school health
educators.
University of Chattanooga Study

A follow-up study of the health and physical education majors who graduated from the University of Chattanooga during the period of time from 1958 to 1967 was conducted by Stinnett (1969). The survey instrument used in this study was designed to obtain personal background and vocational information as well as the graduates' perceptions of school administrators, other faculty colleagues, students and community opinions toward the public school health and physical education programs. The data collected showed that almost 90 percent of the graduates had taught at some educational level and approximately three-fourths of the graduates were still teaching at the time of the study. The percentage of women graduates who entered teaching was greater than that of the men graduates. Most of the graduates taught at the secondary school level but approximately 10 percent of the graduates taught at the elementary level; slightly over one-fifth of the graduates taught at the college level. The perceptions of the graduates concerning the opinions of others toward their programs were mixed. The graduates felt that school administrators and other faculty members were supportive of their programs while students and the community were perceived as indecisive or in disagreement with the health and physical education programs in the schools.
Adesso, et. al. (Note 7) conducted a follow-up survey of Ohio State Health Education undergraduates and graduates; this study was designed to obtain the following information:

1. Graduates' evaluation of their professional preparation program. This evaluation was based on the graduates' rating of their professional courses. The ratings following each course title ranged from "Little or No Value" to "Extreme Value." Additional information was obtained by having graduates react to statements concerning the program. Possible reactions to these statements ranged from "strongly agree" to "strongly disagree."

2. Graduates' written suggestions for modifying and improving the professional preparation program based on their professional experiences since graduation.

3. Personal data and professional background information on graduates. Data collected included the following: a) biographic, b) demographic, c) professional coursework and educational experiences, d) degrees obtained, e) positions held and f) future professional plans.
4. Previous professional degrees obtained by graduated who are now in health education.

The subjects used in this follow-up study were graduates of the Division of Health Education at The Ohio State University for the school years 1970-76. All degree levels B.S., M.A. and Ph.D. were studied. Due to the relatively small population of subjects, 187 in all, it was decided to survey the entire population rather than take a random sample. Fifty-four percent or 101 of the 187 graduates responded. Sixty-one were Bachelor degree graduates, 28 were Master degree graduates, and 12 were Doctor of Philosophy Degree graduates. This represented a 49, 56, and 75 percent response rate for each of the graduate levels, respectively.

Bachelor degree level respondents rated their student teaching experience and a basic first aid course as being the most valuable in their professional development. Eighty percent or more of the respondents rated these two courses as "valuable." The following courses were also rated as "valuable" by a majority of the respondents: Education in Human Sexuality; The Teaching of Health; Health and Behavior; Personal Health Problems; and Current Concepts in Community Health. The only course rated as of "little value" to their professional development by a majority of respondents was School Health Services. Approximately 58 percent of the respondents rated this course unfavorably, 35.2 percent rated the course as "Valuable," while 7.0 percent didn't enroll in the course.
The Master degree graduates rated the course, Education for Human Sexuality, as the most valuable with 74 percent of the respondents rating this course as "Valuable." The following courses also received a "Valuable" rating by the majority of the respondents: Organizational Relationships in Health Education; The Teaching of Health; Current Progress in Disease Control; Personal Health Problems; Workshop; and Individual Studies in Health Education. None of the courses were rated as having "Little Value" by a majority of the respondents. But the course, School Health Services, again received the greatest response in this category with 28.5 percent of the Master's Degree level graduates indicating that this course was of "Little Value." It should be noted that the respondents at the Master's and Doctor of Philosophy Degree level were enrolled in far fewer courses than the Bachelor degree respondents who were required to take many of the courses listed on the questionnaire. Therefore, one would expect that the "Valuable" and/or "Little Value" ratings would be higher for the Bachelor's Degree respondents.

The respondents who graduated from the Doctor of Philosophy degree program rated Survey of Research, Research (relevant to their dissertation), Curriculum in Health Education, and Seminar in School Health as the four most valuable courses contributing to their professional preparation. In most cases the 12 Ph.D. level respondents rated
all graduate level courses in which they were enrolled as "Valuable." The major exception to this generalization concerned the course, Evaluation in Health Education. Fifty percent of respondents who enrolled in this course rated it as "Valuable." The other 50 percent, however, rated this course as contributing "Little Value" to their professional preparation.

A second question posed to graduates of the health education program at The Ohio State University concerned the types of experiences missing from their professional preparation. Almost 30 percent of the Bachelor's Degree graduates' criticisms focused on the need for more courses or content in the areas of "pharmacy, epidemiology, public and private health agencies, health education administration, research, counseling, and methods courses." Other criticisms were concerned with the lack of interaction between faculty and students and the need for better advisement from the faculty members. Seven of the 19 criticisms raised by the Master's Degree level graduates centered on the need for better advisement in respect to possible job opportunities. A like number of criticisms focused on the need for incorporating health related content into existing professional courses from the following areas: epidemiology, administration of school health services and other health programs, curriculum design, and relationships with health organizations. The remaining five comments pointed out the need for more research
and publishing experiences. Almost one-half of the Doctor of Philosophy Degree level graduates' criticisms called for more content into the following health areas: death and dying, administration and supervision, counseling, and community health. Another 35 percent of the comments focused on the need for more teaching experiences.

In response to the question, "What changes are needed to better prepare program graduates for employment at each academic level?" the most common responses were: 1) lack of field experiences in local agencies, and 2) the need for greater emphasis on community health. Five Master's Degree level graduates agreed with this concern for more community health emphasis. The Doctor of Philosophy Degree graduates felt that more research and statistics courses should be required.

Another question addressed in this study concerned graduates' previous majors. Of the 28 Master's Degree level graduates responding to this questionnaire, 12 received their undergraduate degree in health education while seven graduates previously majored in nursing and four in physical education. The remaining five graduates came from areas of education, dental hygiene, speech and hearing therapy, and English. Six of the 12 Doctor of Philosophy Degree level graduates received their Master's Degree in health education. Four of the remaining six graduates received their Master's in
physical education while two majored in biology. Interestingly enough, none of the Ph.D. level graduates obtained their Bachelor's Degree in health education. Seven of the 12 respondents originally majored in physical education.

The survey also collected information concerning the educational and/or professional experiences which graduates have had since obtaining their last degree. It was reported that nine of the 61 Bachelor degree level graduates went on to obtain their Master's Degrees and one went on to complete a Ph.D. Seven of the 28 Master's Degree level graduates went on to complete their Doctorates.

The final question for which data were collected dealt with the nature of the current positions and professional responsibilities of The Ohio State University Health Education graduates. At the Bachelor's level there was an almost equivalent number of graduates who went in health related positions as compared to those who did not. This was not the case for the Master's and Ph.D. level graduates. Twenty of the 28 Master's level graduates and all but one of the Ph.D. level graduates were involved in health education related positions. These findings may reflect the difficulties which Bachelor's Degree level graduates encounter when attempting to enter a crowded job market. Apparently, health education related jobs are more easily found for Master's and Ph.D. Degree level graduates.
Summary

The previous literature review was divided into three major sections. The first section focused on generic follow-up models used to evaluate teacher education graduates from selected colleges and/or universities. The second section was devoted to reviewing those studies specifically related to evaluating graduates of various health education programs. The final section summarized a study conducted by Adesso, et al., at The Ohio State University. This study collected general data on the 1970-1976 Bachelor's Degree, Master's Degree and Doctoral Degree level health education graduates.
Chapter III
PROCEDURES

This chapter explains the procedures to be used in collecting the data for this study. It includes a description of the Research Design and Rationale, Population and Sampling, Collection of the Data, and the five procedural phases of the study. These phases are:

Phase I: Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University

Phase II: Development of the Survey Instrument to Obtain Feedback from 1970-1979 Bachelor's Degree Level Health Education Graduates

Phase III: Collection of the Data

Phase IV: Presentation, Analysis and Interpretation of the Data

Phase V: Appraisal of the Procedural Model Process: Implications for Its Adaptation by Other Teacher Education Program Areas.

Research Design and Rationale

Survey research was chosen as the most appropriate design for use in this study. Due to the large number of subjects (132) to be contacted, the use of a mailed survey
instrument to collect the desired information was deemed most suitable. Its use also allowed the investigator to reach subjects from a wide geographical area at a minimum of cost and effort. Finally, the mailed instrument was an efficient means of collecting demographic and employment data for this study's population as well as the population's perceptions of numerous items contained in the instrument.

Population and Sampling

The population of this study consisted of 132 of the 135 Health Education Bachelor's Degree level students who graduated from The Ohio State University between the years 1970-1979. Three graduates were excluded from this study because their current addresses could not be confirmed. The names of the graduates were acquired from the College of Education Placement Office. Addresses for these graduates were obtained from The Ohio State University Alumni Information Office. These addresses were confirmed by the use of a Current Address Request Form (see Appendix A). The Current Address Request Forms were mailed to each 1970-1979 Bachelor's Degree level health education graduate with the request that they be completed and returned in enclosed, self-addressed, stamped return envelopes. The Current Address Request Forms asked for the graduates' present and permanent addresses as well as their
telephone numbers. Graduates who did not complete and return the initial Form received a second identical Form following a three week response interval. Telephone calls were used to confirm the remaining addresses of those graduates who did not respond to either mailed Form.

The population was divided into two representative sample groups of equal size. The randomly selected samples were stratified according to the subjects' year of graduation. Each sample consisted of 66 health education graduates who represented all of the years during the 1970-1979 time period. The reason for dividing the population will be explained on page 78 under the section entitled, Modifications to the Initial Survey Instrument.

Phase I: Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University

Phase I consisted of five steps. These steps were:
I(A) Identification of the Professional Functions of the Undergraduate School Health Education Graduate of The Ohio State University, 1970-1979; I(B) Content Validation of the Professional Functions by the 1978-1979 Ohio State University Division of Health Education Selected Faculty; I(C) Identification and Organization of Course Knowledges, Skills, and Attitudes/Values; I(D) Refinement of Course
Knowledges, Skills, and Attitudes/Values; and I(E) Content Validation (By Function) of the Knowledges, Skills, and Attitudes/Values by the 1978-1979 Ohio State University Division of Health Education Selected Faculty (see Figure 2).

Figure 2: Phase I: Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University.

I(A) Identification of the Professional Functions of the Undergraduate School Health Education Graduate of The Ohio State University, 1970-1979

The first step in specifying the desired outcomes of The Ohio State University teacher education program for under-
graduate school health educators involved identifying the Professional Functions to be performed. These Functions had to be broad in scope in order to be inclusive of all such knowledges, skills, and attitudes/values desired for the school health educator. They also had to be as mutually exclusive as possible to enable the placement of a knowledge, skill, or attitude/value within the most appropriate major function. Eleven Professional Functions identified by Brannan and Hawk (Note 8) served as the basis within which the knowledges, skills, and attitudes/values desired for the school health education graduates of The Ohio State University were organized. These Functions were:

1. Analyze, appraise, and prioritize a) health status, b) health interests and needs, and c) health education concerns, especially those amenable through education.

2. Design, write, and promote blueprints for instruction and curriculum.

3. Possess current content knowledge, e.g., terminology, factual information, concepts, and theories, for the teaching speciality of health.

4. Arrange human, material, and temporal resources with the intent of promoting learning, i.e., instructional methodology, (Hough, Note 8).
5. Coordinate the total school health program (health instruction, school health services, and healthful school environment) and assist other professionals in planning and administering the school health delivery system.

6. Refer to allied professionals, e.g., medical, legal, financial, and social work, those individuals whose concerns require supplementary intervention.

7. Guide individuals in personal decision-making and counsel when appropriate.

8. Evaluate total school health program (health instruction, school health services, and healthful school environment) effectiveness in promoting student cognitive, affective, and skill gain.

9. Peruse, critique, and use the latest literature reports, research findings, in-service and other opportunities to further professional growth.

10. Communicate with other professionals via such avenues as publications, speeches, association memberships, and committees.

11. Perform administrative and managerial tasks.

I(B) Content Validation of Professional Functions By the 1978-1979 Ohio State University Division of Health Education Selected Faculty

The eleven Functions were presented to the 1978-1979 tenured faculty members within the Division of Health Education at The Ohio State University. The members were: Ralph C. Bates,
Ph.D., Mary K. Beyrer, Ph.D., Philip Heit, Ed.D., Robert Kaplan, Ph.D., and Linda Meeks, M.A. These five faculty members were selected to validate the content of the Professional Functions compiled by Brannan and Hawk because of their understanding of and involvement in the desired outcomes of the School Health Education Undergraduate Program at The Ohio State University. Each Professional Function was validated according to the following criteria:

1. Do the eleven statements represent Professional Functions desired for a Bachelor's Degree level health education graduate of The Ohio State University?

2. Do the Professional Functions overlap in content? The eleven stated Functions are closely interrelated since they represent the professional responsibilities of the Bachelor's Degree level school health educator who has graduated from The Ohio State University. They were developed to avoid as much overlapping as possible.

3. Are the stated Professional Functions comprehensive in scope? There may be additional professional functions desired to the undergraduate school health educator who has graduated from The Ohio State University that have been omitted in the eleven Professional Functions.
Each tenured faculty member received a letter explaining the need for the content validation of the Professional Functions, instructions describing the procedures to be followed in the content validation process, and a list of the eleven (Hawk and Brannan) Professional Functions. The latter was organized in a format designed to facilitate the validation of the Functions (see Appendices B and C).

Content validation of the Professional Functions according to Criterion 1 was accomplished by having each of the five tenured faculty members respond to the representativeness of each function; each member was asked to circle one of the following responses: 1) "yes," 2) "yes--with reservations," and 3) "no." A "yes" response indicated the stated Function was judged to be a representative Professional Function desired for a Bachelor's Degree level school health education graduate of The Ohio State University. A "yes--with reservations" response indicated that the stated Function was in some respects representative of a current Professional Function but could not be accepted as representative until it was modified. A "no" response indicated that the stated Function was completely unacceptable in terms of its representativeness as a Professional Function desired for the undergraduate school health education graduate of The Ohio State University. Tenured faculty members responsible for the content validation of the eleven Professional Functions who responded in a "yes--with reservations" or "no" manner were requested to state their reasons for such responses.
Those Functions which received "yes" responses by all five tenured faculty members were accepted as representative Professional Functions. Those Functions which received "yes—with reservations" and/or "no" responses were modified according to the faculty for content validation using the initial validation process. All Function statements had to receive five "yes" responses before they were accepted as representative of the Professional Functions desired for the Bachelor's Degree School health education graduate of The Ohio State University.

Content validation of the Professional Functions of the undergraduate school health educator also involved meeting criteria 2 and 3, namely, the degree to which the Functions overlapped in content and whether they comprehensively described the professional responsibilities of the school health educator. These criteria were explained more fully on page 63. Recommendations resulting from the tenured faculty's review were implemented and the Functions were submitted a second time for content validation using the initial validation process. The process was repeated a third time until all five tenured faculty members were in agreement concerning the "overlappingness" and comprehensiveness of the Professional Functions desired for The Ohio State University Bachelor's Degree level school health educator. These revisions
included a number of modifications as well as the incorporation of additional facets. Finally, ten Professional Functions were derived from this validation process, as follows:

**FUNCTION I**: Possess a working foundation of (content) knowledge for the teaching speciality of health, e.g., terminology, factual information, concepts, and theories.

**FUNCTION II**: Analyze, appraise and prioritize a) the significance of health behavior, b) health status needs, c) health interests, and d) health education concerns.

**FUNCTION III**: Plan, write, and promote designs for instruction and curriculum relating them to the community where appropriate.

**FUNCTION IV**: Arrange material, temporal, and human, including personal, resources with the intent for promoting learning (this involves not only actual instruction, but also managing the classroom situation in order to facilitate such instruction), Hough, (Note 9)

**FUNCTION V**: Guide individuals in personal decision-making and serve in a health counseling role when appropriate.

**FUNCTION VI**: Refer to appropriate allied professionals, those individuals whose health concerns require supplementary intervention e.g., medical, legal, financial, and social work, etc.
FUNCTION VII: Assist other professionals in planning, coordinating, and administering the school health services, healthful school environment, and community facets of the total school health program.

FUNCTION VIII: Evaluate the effectiveness of health instruction in promoting gains in student cognitive, affective, and psychomotor behaviors and assist in evaluating the school health services, healthful school environment, and community facets of the total school health program.

FUNCTION IX: Read, critique, and utilize the latest literature, reports, and research findings and engage in continuing education, in-service, and other activities to further professional growth.

FUNCTION X: Communicate with other professionals via such avenues as association memberships and committees, speeches, and publications.

I(C) Identification and Organization of Course Knowledges, Skills, and Attitudes/Values

During the Spring Quarter, 1979, the Professional Preparation Committee of the Division of Health Education at The Ohio State University, consisting of Ralph C. Bates, Ph.D., Philip Heit, Ed.D., Robert Kaplan, Ph.D., Lynn Penland, Ph.D., Linda Meeks, M.S., and Donald Hawk, M.A., initiated a preliminary list of general objectives reflecting the knowledges, skills, attitudes/values desired for the school
Health educator. These objectives were written specifically for each of the following eleven courses required in the undergraduate Health Education Professional Preparation Program:

1. Health Education 102 - First Aid
2. Health Education 200 - Health and Behavior
3. Health Education 201 - Current Concepts in Community Health
4. Health Education 289 - Seminar and Field Experience in Health Education
5. Health Education 402 - Safety Education
6. Health Education 587 - Student Teaching in Secondary Schools
7. Health Education 602 - Personal Health Problems
8. Health Education 604 - Education for Human Sexuality
9. Health Education 621 - School Health Services
10. Health Education 622 - The Teaching of Health
11. Health Education 623 - Organizational Relationships in School Health Education.

The objectives specific to each of the eleven required courses were developed by the Health Education Faculty member(s) who had held the major responsibilities for developing and/or instructing the particular required professional course in the 1978-1979 academic year. As such, the objectives submitted for review to the Professional Preparation Committee reflected the biases and thinking of one individual and might be viewed as incomplete; thus, the objectives could be in need of further refinement.
I(D) Refinement of Course Knowledges, Skills, and Attitudes/Values

The objectives just described (I-C) were used as the basis for developing a more comprehensive packet of knowledges, skills, and attitudes/values. Additional objectives were suggested by the investigator reflecting the body of knowledges, skills, and attitudes/values desired for the Bachelor's Degree level school health educator. The suggested additions resulted from a review of selected related literature; the criteria used to select this literature included:

1. The literature focused on the curriculum, professional functions, or teaching competencies of the professional health educator.

2. The teacher education curriculum, professional functions, or teaching competencies suggested by the literature were a result of group consensus, e.g., a committee report supported by a professional association, responses to a questionnaire sent to professionals in the field of health education, or a curriculum endorsed by a state department of education.

3. The piece of literature was published during the 1970-1979 time period in which this study's subjects graduated from The Ohio State University.
The publications which were selected included:


Prior to its submission for content validation to the 1978-1979 tenured faculty within the Division of Health Education at The Ohio State University, the suggested list of knowledges, skills, and attitudes/values desired for the undergraduate school health educator who graduated from The
Ohio State University was reviewed by Lynn Penland, Ph.D., Joyce Brannan, M.A., and Darlene Pleszewicz, M.S. While not tenured faculty of The Ohio State University, these health educators were currently employed as Lecturers at The Ohio State University; their assessment of its written format and content was considered to be of value.

I(E) Content Validation (By Function) of the Knowledges, Skills, and Attitudes/Values By the 1978-1979 Ohio State University Division of Health Education Selected Faculty

This section consists of a description of the process implemented to validate the statements reflecting the knowledges, skills and attitudes/values desired for the Bachelor's Degree level school health educator. It details the instruments used in the validation process, the organization of the knowledge, skill, and attitude/value statements, and the procedures utilized by the Selected Health Education Faculty to respond to the statements.

Each tenured faculty member was sent a letter explaining the need for the content validation of the knowledge, skill, and attitude/value statements and containing: 1) a list of definitions for the terms: knowledge, skill, and attitude/value to be used in the study (see Appendix D); 2) a set of instructions describing the procedures to be followed in the content validation process (see Appendix E); and 3) a listing of the knowledge, skill, and attitude/value
statements in a written format that was designed to facilitate
the faculty members' validation efforts (see Appendix F).

These statements were organized according to the
Professional Functions previously validated, thus providing
the Selected Health Education Faculty with an overview of
the general context within which each specific statement
appeared.

Faculty members were first instructed to respond to
each knowledge, skill, or attitude/value statement according
to the following criterion:

Does the statement represent a knowledge, skill, or
attitude/value desired for a Bachelor's Degree level
Health Education Graduate of The Ohio State University?

They responded to this criterion by circling the most
appropriate of three responses. These three responses
were: 1) "yes", 2) "yes--with reservations", and 3) "no".

A "yes" response indicated that the knowledge, skill, or
attitude/value statement represented an appropriate knowledge,
skill, or attitude/value desired for the school
health education graduate of The Ohio State University.

A "yes--reservations" response indicated that the knowledge,
skill, or attitude/value statement was in some respects
representative of an appropriate knowledge, skill, or attitude/
value desired for the school health educator who
has graduated from The Ohio State University but cannot be
totally accepted as representative until it is modified.

A "no" response indicated that the statement did not represent
an appropriate knowledge, skill, or attitude/value. Each tenured faculty member responded in this manner to each statement. Following this written procedure, each faculty member considered the "overlappingness" and comprehensiveness of the statements.

Those statements which received "yes--with reservations" or "no" responses were revised according to faculty members' comments. A summary of these revisions, including a review of the tenured faculty's comments, was given orally to each individual tenured faculty member. Responses to these "first round" revisions were recorded and further modifications to the knowledge, skill, and attitude/value statements were implemented accordingly. The resulting revised list of statements was submitted for evaluation to the Selected Health Education Faculty prior to the first group validation meeting. In all, there were three such meetings conducted to consider the statements for content validation. After a sum total of approximately 10 hours of concentrated group study, a consensus was reached and 148 statements reflecting the knowledges, skills, and attitudes/values desired for the school health educator who has graduated from The Ohio State University were validated. In addition, the order in which the Professional Functions and their respective knowledge, skill, and attitude/value statements would appear on the survey instrument was determined. This order reflected the general developmental flow of the Health Education Bachelor's Degree level program at The Ohio State University.
Phase II: Development of the Survey Instrument To Obtain Feedback From the 1970-1979 Bachelor's Degree Level Health Education Graduates

Phase II describes the A) construction of the initial instrument, B) pilot study using the initial instrument, and C) modifications to the initial survey instrument which were implemented as a result of pilot study findings.

II(A) Construction of the Initial Survey Instrument and Rationale for Contents

The initial survey instrument contained two distinct parts. Part I of the instrument requested information on a number of demographic and employment variables. These variables included: sex, age, marital status, ethnic background, year of graduation, current employment, previous employment, school enrollment, average classroom size, grade level taught, type of school where presently teaching (rural, urban, inner city, suburban), years of teaching experience, percent of professional duties related to health education, graduate degree hours beyond the Bachelor's Degree, advanced degree(s) obtained, and name of granting institution (see Appendix G).

Data were collected on these variables for the following two reasons: 1) to provide the Health Education faculty at The Ohio State University with an overview of the types of students who have graduated from their undergraduate program and the nature of their professional responsibilities since
graduation and 2) to determine whether there are any relationships between the subjects' responses to these variables and their perceptions of the "Importance" and "Adequacy of their Preparation" in respect to the validated knowledge, skill, and attitude/value statements that were contained in Part II of the survey instrument.

As stated previously, Part II of the survey instrument consisted of a list of statements reflecting the knowledges, skills, and attitudes/values desired for the Bachelor's Degree level school health educator who has graduated from The Ohio State University (see Appendix G). The statements were organized according to the ten Professional Functions previously validated. Each statement was considered separately by the respondents. Subjects were instructed to rate the statements on 3 scales (see Appendix H). Respondents first rated the "Importance" of each statement on a "1" (totally unimportant) to "6" (most important) scale (see Figure 3). Secondly, they rated the "Adequacy of their
Professional Preparation" to achieve each stated knowledge, skill, or attitude/value. This scale ranged on a continuum from "1" (poor preparation) to "6" (excellent preparation). An additional point of "0" (no preparation) was placed on this scale. The purpose of this additional point was to stress the differentiation between the quality of one's professional preparation and the possible lack of a specific facet of preparation. Finally, the third scale was designed to measure the degree of personal "Attainment of the Stated Knowledge, Skill, or Attitude/Value" as perceived by each respondent. This scale ranged from "1" (no attainment) to "6" (thorough attainment).

These three scales were designed to provide the Health Education Faculty at The Ohio State University with three different, but interrelated, pieces of information on which to base future professional program decisions. The first scale provided a measure of how important each knowledge, skill, and attitude/value was perceived to be. Differences in opinions between program graduates and program faculty concerning the "Importance" of certain items might furnish the impetus for program restructuring. The "Adequacy of Your Preparation" scale indicated the strengths and weaknesses of the professional program in preparing school health educators relative to specific items. Finally, the "Degree of Your Attainment" scale pointed out the current professional needs of program graduates; these could include needs that
were not met during the graduate's preservice teacher preparation or their professional experiences since graduation. This information may generate program suggestions for present in-service opportunities.

II(B) Pilot Study of Initial Instrument

A pilot study was conducted to detect any problems concerning the format and/or content of the survey instrument. Resolution of any such problems would facilitate the completion of the survey instrument by the study's population. More specifically, the pilot study was conducted in an effort to determine the following:

1. the clarity of the instructions included within the instrument,
2. the clarity of the instrument, per se,
3. general reactions of respondents to the instrument, and
4. the average time taken to complete the instrument.

A group of 18 students, enrolled in a graduate level Health Education course at The Ohio State University, served as the pilot study's population. They were orally informed about their role as a pilot group by the study's investigator. Their role was further clarified in a letter accompanying the mailed survey instrument (see Appendix I). Stamped, self-addressed envelopes were provided to facilitate their returning the completed instrument. Seventeen of the students responded to the initial survey instrument. Revisions to the survey instrument which were a result of the pilot study appear in the next section.
II(C) Modifications to the Initial Survey Instrument

A number of modifications to the questionnaire was suggested and implemented in light of pilot study findings. The three major changes were: 1) In order to reduce the time required to respond, the survey instrument was shortened by:

a) rearranging the instrument used in the pilot study into two shorter instruments by assigning every other item (i.e., every other knowledge, skill, or attitude/value statement) to each of two shorter forms. An exception to this odd-even item selection process was made if a knowledge, skill, or attitude/value category had only one item within any of the ten Professional Functions. When this occurred the item was included on both forms. This was done in order to provide respondents with a representative overview of the knowledges, skills, and attitudes/values desired for the school health educator who has graduated from The Ohio State University. One form of this instrument will be given to one sample group while the other form will be administered to the second group (see Phase III); and b) Eliminating the scale that measured respondents' perceptions of their "Attainment of the Stated Knowledges, Skills, and Attitudes/Values."

2) Statements which were viewed as lengthy and/or unclear were shortened to facilitate respondents' understanding; in some cases a single statement was converted into two more simplified questionnaire items. 3) A number of slight modifications were made to the written format. Such revisions included enlarging the size of the type-written items to facilitate respondent's reading; providing a greater variety of responses to the demographic items to accommodate the characteristics of this study's population; and placing the
two remaining scales, i.e., the "Importance" scale and the "Adequacy of Your Preparation" scale, on the margins of the written page rather than side by side to facilitate ease in responding (see Figure 4).

The school health educator:

<table>
<thead>
<tr>
<th>IMPORTANCE of the Statement</th>
<th>A. demonstrates appropriate first aid techniques and skills.</th>
<th>ADEQUACY of YOUR PREPARATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  2  3  4  5  6</td>
<td></td>
<td>0  1  2  3  4  5  6</td>
</tr>
</tbody>
</table>

Figure 4: The Format of the Two Rating Scales of the Modified Instrument

Thus, Part I (demographic and employment section) of the two survey instruments to be used in this study was identical. Part II of the two instruments, however, consisted of different knowledge, skill, and attitude/value statements organized within the same common ten Professional Functions (see Appendices J and K and Figure 5).
Demographic and Employment Data

Information Which May Affect Program Graduates' Perceptions of K,S,A/Vs

Program Graduates' Perceptions Of:

"Importance" of K,S,A/Vs

Their "Preparation" To Achieve the K,S,A/Vs

Figure 5: Phase II: Development of the Survey Instrument To Obtain Feedback From the 1970-1979 Bachelor's Degree Level Health Education Graduates
Phase III: Collection of the Data

The survey instrument used to collect the data for this study was developed by the investigator. It incorporated the Professional Functions and knowledges, skills, and attitudes/values which were identified and validated in Phase I of this study. The instrument was further modified as described in Phase II.

After the final two forms of the instrument (see Appendices J and K) were developed, the instruments were prepared for mailing to each of the respective stratified samples. Each subject received an addressed business size envelope which contained the following items:

1) cover letter (see Appendix L).
2) instructions for completing the instrument (see Appendix M).
3) coded instrument Form A or Form B (the specific form was dependent upon the sample group in which the subject was placed).
4) self-addressed, stamped, business size return envelope.

The cover letter informing the subjects of the need for the study accompanied the initial instrument as well as the two follow-up instruments which were sent to those subjects who did not initially respond (see Appendices N and O). Respondent confidentiality was stressed also in the cover letters. Three weeks after the initial instruments were mailed, a "second round" of instruments was sent to all non-respondents. A period of two weeks was allowed for these
follow-up instruments to be returned. Thereafter, telephone calls were made to all nonrespondents requesting their input. If they agreed to participate in the study, a copy of the instrument was mailed to them immediately.

Each instrument was coded using a 3 digit number to enable the investigator to keep a record of those graduates who responded and those who did not.

Phase IV: Presentation, Analysis and Interpretation of the Data

Data analysis of this study provided descriptive information concerning which knowledges, skills, and attitudes/values were viewed as most important and whether subjects felt they were adequately prepared to achieve these knowledges, skills, and attitudes/values. Ascertaining the degree to which they were prepared to achieve the knowledge, skills, and attitude/values could provide a probable mechanism for determining the present professional needs of the subjects. Knowledges, skills, and attitudes/values which were rated "most important" on the "Importance" rating criterion and for which subjects perceived their "Adequacy of Preparation" to be "poor" could point out weaknesses of the professional preparation program. Likewise, those knowledges, skills and attitudes/values rated "most important" on the "Importance" rating criterion and for which subjects perceive their "Adequacy of Preparation" to be "excellent" could emphasize strengths of the professional preparation program.
The responses to the two survey instruments developed in this study were analyzed separately. Grand means were obtained for each of the two rating scales ("Importance" scale and "Adequacy of Your Preparation" scale), for the specific knowledge items, skill items, and attitude/value items within each of the ten Professional Functions. Standard deviations and ranges of the respondents' ratings for the Professional Function also were presented for both scales. Correlational analyses were conducted to determine the degree of the relationship between respondents' grand means for each knowledge, skill, and attitude/value category for the ten Professional Functions on the "Importance" scale and their grand means for these same items on the "Adequacy of Your Preparation" scale.

The inferential statistic, analysis of variance, was used to determine any significant differences (when grouped according to specific demographic variables) between those populations present in this study in terms of their "Importance" and "Adequacy of Your Preparation" ratings for the specific knowledge items, skill items, and attitude/value items within each of the ten Professional Functions. All data collected for this evaluation were analyzed using the Statistical Analysis System (SAS) (See Figure 6). The .05 level of significance was used in this study.
Phase IV: Presentation, Analysis and Interpretation of the Data

- Descriptive and Correlational Statistics
  - "Importance" of K,S,A/Vs
  - Grand Means by Knowledge, Skill, and Attitude/Value Categories Within Professional Functions
  - Relationships Between the Grand Means For the Knowledge, Skill, and Attitude/Value Items Within Each Professional Function
  - High and Low Group Means for Selected Knowledge, Skill, and Attitude/Value Items

- Inferential Statistics
  - Significant Differences Among Respondents' Ratings When Grouped According to Demographic and Employment Variables

"Preparation" to Achieve K,S,A/Vs

Figure 6: Phase IV: Presentation, Analysis and Interpretation of the Data
The final step of Phase IV dealt with interpreting the grand means for the knowledge, skill, and attitude/value categories for each of the 10 Professional Functions. Those specific knowledge, skill, and attitude/value items which were assigned the highest and lowest group means on both the "Importance" scale and "Adequacy of Your Preparation" scale will be presented and discussed in Chapter V of this study. The latter portion of Chapter V will focus upon the implications which were made based on the respondents' perceptions of the specific knowledge, skill, and attitude/value items.
Phase V: Appraisal of the Procedural Model Process: Implications for its Adaptation by Other Teacher Education Program Areas

The procedural model developed and implemented in this study will be appraised to determine its usefulness with other teachers education subject areas. Assets and liabilities for Phase I: Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University; Phase II: Development of the Survey Instrument to Obtain Feedback from 1979-1980 Bachelor's Degree Level Health Education Graduates; Phase III: Collection of the Data; and Phase IV: Presentation, Analysis and Interpretation of the Data will be presented. Implications for further use of the model in following-up Bachelor's Degree level graduates of other teacher education programs will be provided. This review of the model and its implications appear in a chapter entitled "Appraisal of the Model: Implications for Its Adaptation by Other Teacher Education Program Areas" (see Figure 7).
Figure 7: Phase V: Appraisal of the Procedural Model Process: Study Implications
Summary

This chapter focused on the research design of the study and how relevant information would be collected from the population via a survey instrument. A large portion of this chapter presented the development of this instrument in a step by step manner. This was followed by an explanation of how the data collected would be presented, analyzed and interpreted. Finally, the method for appraising the procedural model used in the study was discussed.
Chapter IV
PRESENTATION AND ANALYSIS OF THE DATA

Data collected in this study will be presented in this chapter. The questionnaire used to collect these data was composed of the validated knowledge, skill, and attitude/value items identified by this study's investigator and validated by the Selected Health Education Faculty.

A pilot study was conducted to evaluate the clarity and appropriateness of the initial questionnaire. Pilot study subjects were requested to respond to these items according to the following three scales: 1) "Importance," 2) "Adequacy of Your Preparation," and 3) "Attainment of the Stated Knowledge, Skill, or Attitude/Value." As a result of the pilot study, it was determined that the time required to complete the questionnaire was prohibitive. Thus, the initial questionnaire was shortened by dividing randomly the majority of the items to form two questionnaires and by eliminating the third scale mentioned previously.

This study's population was divided into two representative sample groups on a stratified random basis according to the year the subjects graduated. One sample group received Form A of the revised questionnaire while the other group
received Form B of the questionnaire. The demographic information requested was identical on both forms of the questionnaire.

This chapter is divided into the following major sections: 1) Treatment of the Data, 2) Summary of the Response to Questionnaire A and Questionnaire B, 3) Demographic Data about Questionnaire A Respondents, 4) Presentation of Questionnaire A Data, 5) Demographic Data about Questionnaire B Respondents, 6) Presentation of Questionnaire B Data, and 7) Summary. The major section, Presentation of Questionnaire A Data, is further divided into the following three subsections: 1) Questionnaire A Descriptive Data 2) Correlational Relationships Between Questionnaire A Respondents' Ratings on the "Importance" Scale and the "Adequacy of Your Preparation" Scale, and 3) Significant Differences Between the Grand Means of the Populations Identified From the Questionnaire A Respondents (Grouped According to Selected Demographic Variables). The major section, Presentation of Questionnaire B Data, is divided on a similar basis.

**Treatment of the Data**

Analysis of this study's data was conducted using descriptive (percentages, grand means, ranges, standard deviations), correlational (Pearson product-moment correlation coefficient), and inferential (analysis of variance) statistics. The descriptive statistics were used to provide the reader
with an overview of how the subjects responded to the various items which composed Questionnaire A and Questionnaire B. The grand means presented in this study were calculated by summing all the respondents' rating scores for each particular knowledge, skill, or attitude/value category within each Professional Function and then dividing this total by the number of respondents. This procedure was conducted for the 8 knowledge categories, 10 skill categories, and 10 attitude/value categories which composed both Questionnaire A and Questionnaire B. The procedure was performed on both the "Importance" scale and "Adequacy of Your Preparation" scale.

The correlational statistic was used to compare the relationships between respondents' grand means for each of the respective knowledge, skill, and attitude/value categories on the "Importance" scale and their grand means on the identical categories on the "Adequacy of Your Preparation" scale. The strength and direction of the correlation, the degree of significance of this correlation, and the number of subjects who responded to the particular knowledge, skill, or attitude/value items are presented in table form.

The inferential statistic, analysis of variance, was used to determine any significant differences between the grand means of respondents when grouped according to selected demographic and employment-related variables. Descriptive data (sample size, grand means, and standard deviations) are
presented in table form along with the Analysis of Variance data (degrees of freedom, sum of squares, mean squares, \( F \) Value, and level of significance of the \( F \) value).

The "procedure means," "procedure correlation," and "general linear models procedure" (which included the inferential statistic, one-way analysis of variance) programs of the Statistical Analysis System (SAS) (Barr, et.al., 1979) were used to analyze the data collected in this study. The .05 level of significance was used in this study.

Summary of the Response to Questionnaire A and Questionnaire B

Ninety-seven (73%) of this study's 132 subjects returned questionnaires. Of the total, 47 subjects completed Questionnaire A and 50 completed Questionnaire B. A total of eight questionnaires were unusable for this analysis (four Form A Questionnaires and four Form B Questionnaires) because the respondents did not complete the questionnaire as instructed or they failed to respond to all the items on the questionnaire. The usable response rate for Questionnaire A was 43 (65% of the total 66 subjects in sample 1) and 46 (70% of the total 66 subjects in sample group 2). Table 1 indicates the number of total questionnaires received in the initial mailing, follow-up mailings, and after telephone calls were made to all subjects who did not respond to the first two questionnaire mailings.
Table 1—Summary of Survey Questionnaires Mailed, Received, and Used

<table>
<thead>
<tr>
<th>Explanation</th>
<th>Frequency</th>
<th>Percent of Mailed Received, and Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total questionnaires mailed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 18, 1980</td>
<td>132</td>
<td>100</td>
</tr>
<tr>
<td>Questionnaires Received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>after initial mailing (January 18 - February 12)</td>
<td>55</td>
<td>41.7</td>
</tr>
<tr>
<td>after first follow-up (February 12 - February 28)</td>
<td>24</td>
<td>18.2</td>
</tr>
<tr>
<td>after follow-up telephone call (February 29 - March 12)</td>
<td>18</td>
<td>13.6</td>
</tr>
<tr>
<td>Total questionnaires received</td>
<td>97</td>
<td>73.5</td>
</tr>
<tr>
<td>Usable questionnaires received</td>
<td>8</td>
<td>6.0</td>
</tr>
<tr>
<td>Total number of usable questionnaires</td>
<td>89</td>
<td>67.4</td>
</tr>
</tbody>
</table>

Demographic Data About Questionnaire A Respondents

This section summarizes the demographic information collected about the 43 subjects who responded to Questionnaire A. Table 2 indicates the demographic variables and their various categories as well as the number of respondents within each category.

Table 2— Demographic Data About Questionnaire A Respondents

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex: male</td>
<td>16</td>
<td>37.2</td>
</tr>
<tr>
<td>female</td>
<td>27</td>
<td>62.8</td>
</tr>
<tr>
<td>Demographic Variable</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-25</td>
<td>12</td>
<td>27.9</td>
</tr>
<tr>
<td>26-30</td>
<td>23</td>
<td>53.5</td>
</tr>
<tr>
<td>31-35</td>
<td>6</td>
<td>14.0</td>
</tr>
<tr>
<td>36-40</td>
<td>2</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Marital Status:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>single</td>
<td>12</td>
<td>27.9</td>
</tr>
<tr>
<td>married</td>
<td>29</td>
<td>67.4</td>
</tr>
<tr>
<td>divorced</td>
<td>2</td>
<td>4.7</td>
</tr>
<tr>
<td><strong>Ethnic Background:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>black</td>
<td>2</td>
<td>4.7</td>
</tr>
<tr>
<td>white</td>
<td>41</td>
<td>95.3</td>
</tr>
<tr>
<td><strong>Year of Graduation:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970-1974</td>
<td>20</td>
<td>46.5</td>
</tr>
<tr>
<td>1975-1979</td>
<td>23</td>
<td>53.5</td>
</tr>
<tr>
<td><strong>Current Employment:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School health educator</td>
<td>1</td>
<td>2.3</td>
</tr>
<tr>
<td>Teacher but not health educator</td>
<td>4</td>
<td>9.3</td>
</tr>
<tr>
<td>Employed in another facet of education</td>
<td>6</td>
<td>14.0</td>
</tr>
<tr>
<td>Employed outside of education</td>
<td>28</td>
<td>65.1</td>
</tr>
<tr>
<td>Unemployed</td>
<td>4</td>
<td>9.3</td>
</tr>
<tr>
<td><strong>Prior Employment:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School health educator</td>
<td>10</td>
<td>23.3</td>
</tr>
<tr>
<td>Teacher, but not health educator</td>
<td>8</td>
<td>18.6</td>
</tr>
<tr>
<td>Employed in another facet of education</td>
<td>12</td>
<td>27.9</td>
</tr>
<tr>
<td>Employed outside of education</td>
<td>22</td>
<td>51.2</td>
</tr>
<tr>
<td>Unemployed</td>
<td>3b</td>
<td>7.0</td>
</tr>
</tbody>
</table>
### Table 2 (cont'd)

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Degree Hours:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>none</td>
<td>21</td>
<td>48.8</td>
<td>48.8</td>
</tr>
<tr>
<td>1-10</td>
<td>6</td>
<td>13.9</td>
<td>62.7</td>
</tr>
<tr>
<td>11-20</td>
<td>3</td>
<td>7.0</td>
<td>69.7</td>
</tr>
<tr>
<td>21-30</td>
<td>0</td>
<td>0.0</td>
<td>69.7</td>
</tr>
<tr>
<td>over 30</td>
<td>3</td>
<td>7.0</td>
<td>76.7</td>
</tr>
<tr>
<td>Graduate degree received</td>
<td>10</td>
<td>23.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a - total number of respondents equalled 43
b - the total frequency does not equal 43 because some respondents held more than one position
c - the total percentage does not equal 100 because some respondents held more than one position.

Approximately two-thirds of all the respondents to Questionnaire A were female. This ratio of male to female was consistent with the male-female ratio of the entire population. Over 80 percent of the respondents were 30 years or less in age. This was to be expected when surveying graduates who have received their degrees within the last ten years. All but two respondents were white and approximately 70 percent currently were married. An almost equal number of respondents received their degree during the 1970-1974 time period as compared to those who received their diploma during the 1975-1979 time period. While over 90 percent of these graduates currently were employed, only one responding graduate currently was employed as a school health educator. The clear majority of the respondents (65%) were employed outside of education. There was, however, approxi-
mately one-fourth of the respondents still holding educational positions. A similar percentage of graduates who responded once was employed as school health educators at some time following their graduation. Over two-thirds of the respondents (69.8%) were at some time employed in the educational field, while just over half of these same respondents were holding positions outside of the field of education. Clearly, it was evident that some respondents were employed in both educational and non-educational positions. Finally, approximately one-half of the respondents have not engaged in graduate level course work. Of the remaining 50 percent of the respondents who have furthered their education, almost one-half have completed their graduate degrees.

Sixteen of the 43 respondents (37%) were teaching presently or had previously taught. Data concerning their employment responsibilities and teaching setting are presented in Table 3. Over 60 percent of these educators taught at the 7-12 level. Most of them (82.3%) taught classes composed of 21 or more pupils. Three-fourths of these teaching respondents were employed by educational institutions (public schools or colleges/universities) who had enrollments of 500 students or more. Five of the institutions were located in the inner city. Four respondents reported that they were teaching in a suburban setting while a like number were employed in a rural setting. Of the 14 teaching graduates who responded to the questionnaire concerning the number of years they have been
involved in full-time teaching, approximately 80% of the respondents reported that they had taught for 5 years or less. The final employment variable requested the respondents who had taught to indicate the percentage of their professional duties which were related to health instruction. Four of the 16 graduates who were teaching or had previously taught had no professional duties related to health instruction. A like number of such graduates was totally involved in health instruction. Six of the remaining respondents had only 25 percent of their duties related to health instruction.

Table 3—Teachers Employment Data About Questionnaire A Respondents

<table>
<thead>
<tr>
<th>Employment variable</th>
<th>Frequencya</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>School enrollment:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>under 500</td>
<td>4</td>
<td>25.0</td>
<td>25.0</td>
</tr>
<tr>
<td>501-1000</td>
<td>7</td>
<td>43.7</td>
<td>68.7</td>
</tr>
<tr>
<td>over 1000</td>
<td>5</td>
<td>31.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Average student-teacher ratio:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/1-20</td>
<td>3</td>
<td>18.7</td>
<td>18.7</td>
</tr>
<tr>
<td>1/21-30</td>
<td>9</td>
<td>56.3</td>
<td>75.0</td>
</tr>
<tr>
<td>1/over 30</td>
<td>4</td>
<td>25.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Level of Instruction:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-6</td>
<td>2</td>
<td>15.4</td>
<td>15.4</td>
</tr>
<tr>
<td>7-12</td>
<td>8</td>
<td>61.5</td>
<td>76.9</td>
</tr>
<tr>
<td>college</td>
<td>3b</td>
<td>23.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Type of School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rural</td>
<td>4</td>
<td>25.0</td>
<td></td>
</tr>
<tr>
<td>urban</td>
<td>1</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>inner city</td>
<td>5</td>
<td>31.3</td>
<td></td>
</tr>
<tr>
<td>suburban</td>
<td>4</td>
<td>25.0</td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>2</td>
<td>12.5</td>
<td></td>
</tr>
</tbody>
</table>
Table 3 (cont'd)

<table>
<thead>
<tr>
<th>Employment variable</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Full-time Teaching Experience:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>11</td>
<td>78.6</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>3</td>
<td>21.4</td>
<td></td>
</tr>
<tr>
<td>Percent of Duties Related to Health Instruction:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>4</td>
<td>25.0</td>
<td>25.0</td>
</tr>
<tr>
<td>25%</td>
<td>6</td>
<td>37.5</td>
<td>65.5</td>
</tr>
<tr>
<td>50%</td>
<td>1</td>
<td>6.3</td>
<td>68.8</td>
</tr>
<tr>
<td>75%</td>
<td>1</td>
<td>6.3</td>
<td>75.0</td>
</tr>
<tr>
<td>100%</td>
<td>4</td>
<td>25.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a - total number of respondents equalled 16
b - 3 responses were missing.

Presentation of Questionnaire A Data

This section of the chapter has been sub-divided into three subsections. Each subsection presents a major portion of the data obtained by Questionnaire A. The first section reports the grand means for both the "Importance" scale and the "Adequacy of Your Preparation" scale for each group of knowledge, skill, and attitude/value statements within each Function. These means will be presented in table form. The sample size, range, and standard deviation for each grand mean also will be reported in table form. The "procedure means" program of the Statistical Analysis System (SAS) computer program was used to analyze the data reported in this section.
The second section will report the correlations between the grand means for the "Importance" scale and the grand means for "Adequacy of Your Preparation" scale for the identical groups of knowledge, skill, and attitude/value statements within each of the 10 Professional Functions. The "procedure correlation" program of SAS was used to analyze the data. The Pearson product-moment correlation coefficient was the descriptive statistic used in this program.

The third section will focus on the demographic variables and whether or not respondents who were grouped differently on these variables responded differently to the knowledge, skill, and attitude/value items. The "general linear models procedure" program of SAS was used to analyze the data. The inferential statistics, one-way analysis of variance, was included in this program. It should be noted that the .05 level of significance was used in both sections 2 and 3.

**Questionnaire A Descriptive Data**

For the convenience of the reader the 10 Professional Functions and their abbreviations are listed. When these Functions are discussed in the sections of this chapter, their abbreviations will be included to help inform the reader. These Professional Functions and their abbreviations are:

**FUNCTION I: Possess a working foundation of (content) knowledge for the teaching speciality of health, e.g. terminology, factual information, concepts, and theories.**

Function I Abbreviation: **Content**
FUNCTION II: Analyze, appraise, and prioritize a) the significance of health behavior, b) health status needs, c) health interests, and d) health education concerns.
Function II Abbreviation: Behavior/Status Appraisal

FUNCTION III: Plan, write, and promote designs for instruction and curriculum relating them to the community where appropriate.
Function III Abbreviation: Instructional Design

FUNCTION IV: Arrange material, temporal, and human, including personal, resources with the intent for promoting learning (this involves not only actual instruction, but also managing the classroom situation in order to facilitate such instruction), Hough, 1979 (Note 9).
Function IV Abbreviation: Classroom Instruction

FUNCTION V: Guide individuals in personal decision-making and serve in health counseling role when appropriate.
Function V Abbreviation: Guidance and Counseling

FUNCTION VI: Refer to appropriate allied professionals, those individuals whose health concerns require supplementary intervention e.g., medical, legal, financial, and social work, etc.
Function VI Abbreviation: Referral

FUNCTION VII: Assist other professionals in planning, coordinating, and administering the school health services, healthful school environment, and community facets of the total school health program.
Function VII Abbreviation: Program Planning

FUNCTION VIII: Evaluate the effectiveness of health instruction in promoting gains in student cognitive, affective, and psychomotor behaviors and assist in evaluating the school health services, healthful school environment, and community facets of the total school health program.
Function VIII Abbreviation: Program Evaluation

FUNCTION IX: Read, critique, and utilize the latest literature, reports, and research findings and engage in continuing education, in-service, and other activities to further professional growth.
Function IX Abbreviation: Professional Growth

FUNCTION X: Communicate with other professionals via such avenues as association membership and committees, speeches, and publications.
Function X Abbreviation: Professional Communications
Table 4 presents the sample size, grand mean, range, and standard deviation for each scale for each knowledge, skill, and attitude/value category within each Professional Function. Since there were no knowledge items for the sixth and tenth Professional Functions, no data were reported.

The grand means for the "Importance" scale for the knowledge items for Professional Functions 1 to 5 and 7 to 9 ranged from 4.61 (Function I—Content) to 5.33 (Function IX—Professional Growth) based on a scale of 1 to 6. The grand means for the "Adequacy of Your Preparation" scale for the same items were all lower and ranged from 3.14 (Function V—Guidance and Counseling) based on a scale of 0 to 6 to 4.58 (Function IX—Professional Growth). The range of the scores for the knowledge items for the "Adequacy of Your Preparation" Scale was greater than the scores for the "Importance" scale. In other words, the respondents rated the "Importance" of the knowledge items higher than their "Preparation" to achieve these items. There also was greater variance in their responses to the "Adequacy of Your Preparation scale than there was in responding to the "Importance" scale.

The grand means for the "Importance" scale for the skill items ranged from 4.70 (Function VIII—Program Evaluation) to 5.36 (Function II—Behavior/Status Appraisal). The grand means for the "Adequacy of Your Preparation" scale for the skill items ranged from 3.60 (Function VII—Program Planning and
Table 4—Descriptive Data for Questionnaire A Respondents

<table>
<thead>
<tr>
<th>Professional Function</th>
<th>Frequency</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>by knowledge, skill and attitude/value perceptions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Knowledge Items

<table>
<thead>
<tr>
<th>Function</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>4.61</td>
<td>1.57</td>
</tr>
<tr>
<td>II</td>
<td>4.08</td>
<td>1.79</td>
</tr>
<tr>
<td>III</td>
<td>5.07</td>
<td>3.01</td>
</tr>
<tr>
<td>IV</td>
<td>5.00</td>
<td>3.33</td>
</tr>
<tr>
<td>V</td>
<td>5.91</td>
<td>3.14</td>
</tr>
<tr>
<td>VII</td>
<td>4.73</td>
<td>4.12</td>
</tr>
<tr>
<td>VIII</td>
<td>5.00</td>
<td>3.71</td>
</tr>
<tr>
<td>IX</td>
<td>5.33</td>
<td>4.58</td>
</tr>
</tbody>
</table>

### Skill Items

<table>
<thead>
<tr>
<th>Function</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>5.12</td>
<td>4.40</td>
</tr>
<tr>
<td>II</td>
<td>5.36</td>
<td>4.06</td>
</tr>
<tr>
<td>III</td>
<td>4.78</td>
<td>3.76</td>
</tr>
<tr>
<td>IV</td>
<td>5.23</td>
<td>4.08</td>
</tr>
<tr>
<td>V</td>
<td>5.33</td>
<td>3.67</td>
</tr>
<tr>
<td>VI</td>
<td>5.33</td>
<td>3.03</td>
</tr>
<tr>
<td>VII</td>
<td>4.76</td>
<td>3.50</td>
</tr>
<tr>
<td>VIII</td>
<td>4.70</td>
<td>3.60</td>
</tr>
<tr>
<td>IX</td>
<td>5.07</td>
<td>4.02</td>
</tr>
<tr>
<td>X</td>
<td>5.06</td>
<td>3.93</td>
</tr>
</tbody>
</table>

### Attitude/Value Items

<table>
<thead>
<tr>
<th>Function</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>5.60</td>
<td>4.92</td>
</tr>
<tr>
<td>II</td>
<td>5.24</td>
<td>4.23</td>
</tr>
<tr>
<td>III</td>
<td>5.49</td>
<td>4.07</td>
</tr>
<tr>
<td>IV</td>
<td>5.22</td>
<td>4.26</td>
</tr>
<tr>
<td>V</td>
<td>5.45</td>
<td>3.97</td>
</tr>
<tr>
<td>VI</td>
<td>5.35</td>
<td>3.88</td>
</tr>
<tr>
<td>VII</td>
<td>4.86</td>
<td>3.54</td>
</tr>
<tr>
<td>VIII</td>
<td>5.26</td>
<td>3.84</td>
</tr>
<tr>
<td>IX</td>
<td>5.12</td>
<td>3.79</td>
</tr>
<tr>
<td>X</td>
<td>4.88</td>
<td>3.70</td>
</tr>
</tbody>
</table>

a—One response was missing
Function VIII—Program Evaluation) to 4.40 (Function I—Content). As with the knowledge items, all the "Adequacy of Your Preparation" means were lower than the "Importance" means. Also, the variance of the respondents' scores for the skill items within each Function was greater for the "Adequacy" scale than the "Importance" scale.

The grand means for the "Importance" scale for the attitude/value items ranged from 4.86 (Function VII—Program Planning) to 5.60 (Function I—Content). The grand means for the "Adequacy of Your Preparation" scale for these items ranged from 3.54 (Function VII—Program Planning) to 4.92 (Function I—Content). The lower grand means and the greater variability of respondents' scores for the "Adequacy" scale were consistent with the responses analyzed for the knowledge and skill items. Functions I (Content) and VII (Program Planning) received the lowest and highest ratings respectively, on both scales.

Correlational Relationships Between Questionnaire A Respondents' Ratings on the "Importance" Scale and the "Adequacy of Your Preparation" Scale

Table 5 shows the correlational relationships between Questionnaire A respondents' ratings on the "Importance" scale and their ratings on the "Adequacy of Your Preparation" scale for each knowledge, skill, and attitude/value category for each of the 10 Professional Functions. Only one correlation was non-significant at the .05 level. This non-significant correlation was between the respondents'
Table 5—Correlational Relationships Between Questionnaire A Responses on the "Importance" and the "Adequacy of Your Preparation" Scales (Knowledge Items)

<table>
<thead>
<tr>
<th>Importance Scale</th>
<th>Function I</th>
<th>Function II</th>
<th>Function III</th>
<th>Function IV</th>
<th>Function V</th>
<th>Function VII</th>
<th>Function VIII</th>
<th>Function IX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function I (Content)</td>
<td>.22^a</td>
<td>.1632^b</td>
<td>.1632^c</td>
<td>.0052</td>
<td>.0010</td>
<td>.70</td>
<td>.0001</td>
<td>.71</td>
</tr>
<tr>
<td>Function II (Behavior/Status Appraisal)</td>
<td>.42</td>
<td>.0010</td>
<td>.49</td>
<td>.0004</td>
<td>.52</td>
<td>.0015</td>
<td>.0001</td>
<td>.47</td>
</tr>
<tr>
<td>Function III (Instructional Design)</td>
<td>.0052</td>
<td>.0010</td>
<td>.49</td>
<td>.0004</td>
<td>.52</td>
<td>.0015</td>
<td>.0001</td>
<td>.47</td>
</tr>
<tr>
<td>Function IV (Classroom Instruction)</td>
<td>.0010</td>
<td>.0004</td>
<td>.52</td>
<td>.0015</td>
<td>.0001</td>
<td>.71</td>
<td>.0001</td>
<td>.71</td>
</tr>
<tr>
<td>Function V (Guidance &amp; Counseling)</td>
<td>.0052</td>
<td>.0010</td>
<td>.52</td>
<td>.0015</td>
<td>.0001</td>
<td>.71</td>
<td>.0001</td>
<td>.71</td>
</tr>
<tr>
<td>Function VII (Program Planning)</td>
<td>.0010</td>
<td>.0004</td>
<td>.52</td>
<td>.0015</td>
<td>.0001</td>
<td>.71</td>
<td>.0001</td>
<td>.71</td>
</tr>
<tr>
<td>Function VIII (Program Evaluation)</td>
<td>.0052</td>
<td>.0010</td>
<td>.52</td>
<td>.0015</td>
<td>.0001</td>
<td>.71</td>
<td>.0001</td>
<td>.71</td>
</tr>
<tr>
<td>Function IX (Professional Growth)</td>
<td>.0010</td>
<td>.0004</td>
<td>.52</td>
<td>.0015</td>
<td>.0001</td>
<td>.71</td>
<td>.0001</td>
<td>.71</td>
</tr>
</tbody>
</table>
### Table 5—(cont'd)

(Skill Items)

<table>
<thead>
<tr>
<th>Function</th>
<th>Importance Scale</th>
<th>(Skill Items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function I</td>
<td>.52</td>
<td>(Content) .0003 (43)</td>
</tr>
<tr>
<td>Function II</td>
<td>.60</td>
<td>(Behavior/Status .0001 (Apaisal) (43)</td>
</tr>
<tr>
<td>Function III</td>
<td>.38</td>
<td>(Instructional Design) .0125 (43)</td>
</tr>
<tr>
<td>Function IV</td>
<td>.55</td>
<td>(Classroom Instruction) .0001 (43)</td>
</tr>
<tr>
<td>Function V</td>
<td>.42</td>
<td>(Guidance &amp; Counseling) .0048 (43)</td>
</tr>
<tr>
<td>Function VI</td>
<td>.41</td>
<td>(Referral) .0068 (43)</td>
</tr>
<tr>
<td>Function VII</td>
<td>.64</td>
<td>(Program Planning) .0001 (43)</td>
</tr>
<tr>
<td>Function VIII</td>
<td>.55</td>
<td>(Program Evaluation) .0001 (43)</td>
</tr>
<tr>
<td>Function IX</td>
<td>.40</td>
<td>(Professional Growth) .0073 (43)</td>
</tr>
<tr>
<td>Function X</td>
<td>.66</td>
<td>(Professional Communications) .0001 (43)</td>
</tr>
</tbody>
</table>
Table 5—(cont'd)

(Attitude/Value Items)

<table>
<thead>
<tr>
<th>Importance Scale</th>
<th>Function I</th>
<th>Function II</th>
<th>Function III</th>
<th>Function IV</th>
<th>Function V</th>
<th>Function VI</th>
<th>Function VII</th>
<th>Function VIII</th>
<th>Function IX</th>
<th>Function X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function I</td>
<td>.48</td>
<td>.40</td>
<td>.56</td>
<td>.58</td>
<td>.58</td>
<td>.54</td>
<td>.51</td>
<td>.50</td>
<td>.74</td>
<td>.74</td>
</tr>
<tr>
<td>(Content)</td>
<td>.0012</td>
<td>.0074</td>
<td>.0001</td>
<td>.0012</td>
<td>.0001</td>
<td>.0030</td>
<td>.0030</td>
<td>.0001</td>
<td>.0001</td>
<td>.0001</td>
</tr>
<tr>
<td>(Behavior/Status)</td>
<td>.48</td>
<td>.40</td>
<td>.40</td>
<td>.54</td>
<td>.58</td>
<td>.51</td>
<td>.50</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
</tr>
<tr>
<td>(Appraisal)</td>
<td>(43)</td>
<td>(43)</td>
<td>(43)</td>
<td>(43)</td>
<td>(43)</td>
<td>(43)</td>
<td>(43)</td>
<td>(43)</td>
<td>(43)</td>
<td>(43)</td>
</tr>
<tr>
<td>(Instructional Design)</td>
<td>.48</td>
<td>.40</td>
<td>.54</td>
<td>.51</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
</tr>
<tr>
<td>(Classroom Instruction)</td>
<td>.0012</td>
<td>.0074</td>
<td>.0001</td>
<td>.0030</td>
<td>.0001</td>
<td>.0030</td>
<td>.0030</td>
<td>.0001</td>
<td>.0001</td>
<td>.0001</td>
</tr>
<tr>
<td>(Guidance &amp; Counseling)</td>
<td>.56</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
</tr>
<tr>
<td>(Referral)</td>
<td>.56</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
</tr>
<tr>
<td>(Program Planning)</td>
<td>.56</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
</tr>
<tr>
<td>(Program Evaluation)</td>
<td>.48</td>
<td>.40</td>
<td>.54</td>
<td>.51</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
<td>.74</td>
</tr>
<tr>
<td>(Professional Growth)</td>
<td>.0012</td>
<td>.0074</td>
<td>.0001</td>
<td>.0030</td>
<td>.0001</td>
<td>.0030</td>
<td>.0030</td>
<td>.0001</td>
<td>.0001</td>
<td>.0001</td>
</tr>
<tr>
<td>(Professional Communications)</td>
<td>.56</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
<td>.58</td>
</tr>
</tbody>
</table>

a—the Pearson product-moment correlation coefficient  
b—the degree of significance of the Pearson product-moment correlation coefficient  
c—the number of subjects responding to the items which compose each Professional Function
rating on each of the two scales of the knowledge items for Function I (Content). One possible explanation for this might be related to the format of the knowledge items which compose Function I. Instead of being detailed statements like those which composed the other 10 Professional functions, the Function I knowledge items consisted of two statements which served as stems for numerous written phrases describing general health content areas and allied health fields. These phrases which describe the content areas and allied health fields were already quite familiar to this study's subjects and thus it was probably less demanding for them to respond to these items. Since these items required less conceptualization on the part of the respondents, their grand means on the "Importance" scale probably reflected long established commitments whereas their grand means on the "Adequacy of Your Preparation" scale were not affected by such commitments.

The significant Pearson produce-moment correlation coefficients ranged from .42 (Function II—Behavior/Status Appraisal) to .71 (Function IX—Professional Growth) for the knowledge items; .38 (Function III—Instructional Design) to .66 (Function X—Professional Communications) for the skill items; and .31 (Function VIII—Program Evaluation) to .74 (Function X—Professional Communications) for the attitude/value items. Over one-third of these correlations were significant at the .001 level. Overall, 23 of the 30 correlations (77%) were significant at the .01 level.
Clearly, it was evident that there were strong relationships between respondents' ratings on the "Importance" scale and their ratings on the "Adequacy of Your Preparation" scale. In other words, the higher the rating the respondents assigned to an item on one scale, the higher the rating they assigned that same item on the other scale. Conversely, the lower the rating the respondents gave an item on the "Importance" scale, the lower the rating they gave the identical item on the "Adequacy of Your Preparation" scale.

Significant Differences Between the Grand Means of the Populations Identified from the Questionnaire A Respondents (Grouped According to Selected Demographic Variables)

One major goal of this study was to determine whether or not sample groups of graduates and the populations they represent differed significantly in their responses to questionnaire items when they were compared on certain demographic and employment variables. Using the inferential statistic, one-way analysis of variance, it was found that few such differences existed. Respondents' grand mean ratings for each knowledge, skill and attitude/value category for each Professional Function were analyzed according to five demographic and employment related variables. These were "sex," "year of graduation," "school health education or status," "graduate degree hours completed," and "percentage of professional duties related to health instruction."
Only eight of the possible 140 relationships were significant at the .05 level. These are discussed in the following paragraphs.

The grand means ("Importance" scale) for the attitude/value items for Function X (Professional Communications) were analyzed according to the four categories (no hours completed, 1-10 hours completed, 11-over 30 hours completed, but no degree granted, and graduate degree granted) of the demographic variable, "graduate degree hours completed." Table 6 presents data which summarize the nature of the significant differences between Questionnaire A respondents' mean scores. The grand mean for the Questionnaire A respondents who completed 1-10 graduate degree hours was significantly different from the grand means for those respondents who had completed no graduate degree hours; those who completed 11 to over 30 graduate degree hours; and those who received their graduate degrees.

Table 7 through 13 present summary data on Questionnaire A respondents' grand mean scores on specific knowledge, skill, and attitude/value items when grouped according to the percentage of their professional duties related to health instruction. These 16 respondents were divided into two groups. The first group consisted of 10 respondents who reported that 0-25 percent of their professional duties was related to health instruction; the second group was composed of six respondents who reported that 50-100 percent of their duties was related to health instruction.
Table 6.—Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function X* By Questionnaire A Respondents According to Graduate Degree Hours Completed (Importance Scale)

Summary Data

<table>
<thead>
<tr>
<th></th>
<th>No Hours Completed</th>
<th>1-10 Hours Completed</th>
<th>ll-Over 30 Hours Completed, But No Degree Granted</th>
<th>Graduate Degree Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>21 a</td>
<td>6 b</td>
<td>6 a</td>
<td>10 ab</td>
</tr>
<tr>
<td>Mean</td>
<td>5.14</td>
<td>3.83</td>
<td>5.67</td>
<td>4.50</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.28</td>
<td>1.17</td>
<td>.52</td>
<td>1.43</td>
</tr>
</tbody>
</table>

* Means with common superscripts do not differ significantly at the .05 level.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>13.18</td>
<td>4.39</td>
<td>2.89</td>
<td>.0474</td>
</tr>
<tr>
<td>Within Groups</td>
<td>39</td>
<td>59.24</td>
<td>1.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>72.42</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function X: Communicate with other professionals via such avenues as association memberships and committees, speeches, and publications.
Tables 7 and 8 show that those 10 respondents who reported a lower degree of involvement in health instruction perceived the knowledge and attitude/value items for Function I (Content) to be more important than did those respondents who reported a greater degree of involvement in health instruction. The difference between the grand means of these two groups on the knowledge items was significant at the .01 level while the difference between the grand means on the attitude/value items was significant at the .05 level.

As was the case for the knowledge and attitude/value items for Function I, the knowledge and attitude/value items for Function II (Behavior/Status Appraisal) were perceived differently by the two groups of respondents on the "Importance" scale. Once again, the respondents who reported that a lower percentage of their duties was related to health instruction viewed these items to be more important. The differences between the grand means for the knowledge and attitude/value items were significant at the .01 and .05 levels, respectively (see Tables 9 and 10).

Table 11 presents the summary data on the respondents' grand means on the "Importance" scale for the Function V—Guidance and Counseling) knowledge item; Table 12 reports the data on the respondents' grand means on the "Importance" scale for the Function VI—Referral) skill items; Table 13 shows the data on the respondents' grand means on the "Adequacy of Your Preparation" scale for the Function IX
Table 7.—Analysis of Variance For Comparing Responses to the Knowledge Items For Function I* By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)

Summary Data

<table>
<thead>
<tr>
<th></th>
<th>0-25% of Duties Related to Health Instruction</th>
<th>50-100% of Duties Related to Health Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Mean</td>
<td>4.72</td>
<td>4.09</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.37</td>
<td>.46</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>1.48</td>
<td>1.48</td>
<td>9.16</td>
<td>.0091</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14</td>
<td>2.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>3.74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function I: Possess a working foundation of (content) knowledge for the teaching speciality of health, e.g., terminology, factual information, concepts, and theories.
Table 8.—Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function I By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>1.20</td>
<td>1.20</td>
<td>5.21</td>
<td>.0385</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14</td>
<td>3.23</td>
<td>.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>4.43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function I: Possess a working foundation of (content) knowledge for the teaching speciality of health, e.g., terminology, factual information, concepts, and theories.
Table 9.—Analysis of Variance For Comparing Responses to the Knowledge Item For Function II* By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)

### Summary Data

<table>
<thead>
<tr>
<th></th>
<th>0-25% of Duties Related to Health Instruction</th>
<th>50-100% of Duties Related to Health Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Mean</td>
<td>5.30</td>
<td>4.00</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.67</td>
<td>.63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>6.34</td>
<td>6.34</td>
<td>14.55</td>
<td>.0019</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14</td>
<td>6.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>12.44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function II: Analyze, appraise, and prioritize a) the significance of health behavior, b) health status needs, c) health interests, and d) health education concerns.
Table 10.—Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function II* By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>2.84</td>
<td>2.84</td>
<td>5.37</td>
<td>.0375</td>
</tr>
<tr>
<td>Within Groups</td>
<td>13</td>
<td>6.89</td>
<td>.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>9.73</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a—Denotes a missing value.

* Function II: Analyze, appraise, and prioritize a) the significance of health behavior, b) health status needs, c) health interests, and d) health education concerns.
Table 11.—Analysis of Variance For Comparing Responses to the Knowledge Item For Function V*By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>8.07</td>
<td>8.07</td>
<td>5.39</td>
<td>.0358</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14</td>
<td>20.93</td>
<td>1.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>29.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function V: Guide individuals in personal decision-making and serve in a health counseling role when appropriate.
Table 12.—Analysis of Variance For Comparing Responses to the Skill Items For Function VI By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Importance Scale)

Summary Data

<table>
<thead>
<tr>
<th></th>
<th>0-25% of Duties Related to Health Instruction</th>
<th>50-100% of Duties Related to Health Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Mean</td>
<td>5.65</td>
<td>4.83</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.47</td>
<td>.93</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>2.50</td>
<td>2.50</td>
<td>5.51</td>
<td>.0342</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14</td>
<td>6.36</td>
<td>.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>8.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function VI: Refer to appropriate allied professionals, those individuals whose health concerns require supplementary intervention, e.g., medical, legal, financial, and social work, etc.
Table 13.--Analysis of Variance For Comparing Responses to the Skill Item For Function IX By Questionnaire A Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Adequacy of Your Preparation Scale)

<table>
<thead>
<tr>
<th>Summary Data</th>
<th>0-25% of Duties Related to Health Instruction</th>
<th>50-100% of Duties Related to Health Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Mean</td>
<td>4.50</td>
<td>3.17</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.97</td>
<td>1.47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>6.67</td>
<td>6.67</td>
<td>4.83</td>
<td>.0453</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14</td>
<td>19.33</td>
<td>1.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>26.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function IX: Read, critique, and utilize the latest literature, reports, and research findings and engage in continuing education, in-service, and other activities to further professional growth.*
(Professional Growth) skill item. The summary data presented in Tables, 11, 12, and 13 were consistent with the data reported in Tables 7 through 10 in that the respondents who were less involved in health instruction rated the Questionnaire A items significantly higher (at the .05 level) than did the respondents who reported that the majority of their professional duties were related to instructing health.
Demographic Data About Questionnaire B Respondents

This section summarizes the demographic data collected about the 46 Bachelor's Degree level Health Education graduates of The Ohio State University who responded to Questionnaire B. These respondents represent approximately 70 percent of the 66 graduates who composed the second sample group. This group was selected randomly and stratified according to subjects' year of graduation. Table 14 indicates the categories for each of the various demographic variables and the number of respondents within each category.

The respondents to Questionnaire B were very similar to those graduates who responded to Questionnaire A when they were compared in terms of their answers to the demographic variables. Like Questionnaire A respondents, the graduates who responded to Questionnaire B were mostly female (67.4%), 30 years old or less (84.8%), married (71.7%), and white (97.8%).

The two groups of respondents did differ in their responses to two demographic variables. The first variable on which their responses differed was "current employment." A slightly greater percentage of Questionnaire B respondents presently were employed as school health educators. A much larger difference existed between the two groups in respect
to those who were employed outside of education. Approximately, one-half of the Questionnaire B respondents were employed outside of education as compared to almost two-thirds of the Questionnaire A respondents.

Prior employment data revealed that Questionnaire B respondents had three fewer graduates who reported that they had once been employed as school health educators. These respondents also reported that they held fewer positions.

Table 14--Demographic Data About Questionnaire B Respondents

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>15</td>
<td>32.6</td>
<td>32.6</td>
</tr>
<tr>
<td>female</td>
<td>31</td>
<td>67.4</td>
<td></td>
</tr>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-25</td>
<td>15</td>
<td>32.6</td>
<td>32.6</td>
</tr>
<tr>
<td>26-30</td>
<td>24</td>
<td>52.2</td>
<td>84.8</td>
</tr>
<tr>
<td>31-35</td>
<td>6</td>
<td>13.0</td>
<td>97.8</td>
</tr>
<tr>
<td>36-40</td>
<td>1</td>
<td>2.2</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Marital Status:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>single</td>
<td>12</td>
<td>26.1</td>
<td></td>
</tr>
<tr>
<td>married</td>
<td>33</td>
<td>71.7</td>
<td></td>
</tr>
<tr>
<td>divorced</td>
<td>1</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnic Background:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>black</td>
<td>1</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>white</td>
<td>45</td>
<td>97.8</td>
<td></td>
</tr>
<tr>
<td><strong>Year of Graduation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970-1974</td>
<td>25</td>
<td>54.3</td>
<td></td>
</tr>
<tr>
<td>1975-1979</td>
<td>21</td>
<td>45.7</td>
<td></td>
</tr>
<tr>
<td><strong>Current employment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>school health teacher, but not school health educator</td>
<td>3</td>
<td>6.5</td>
<td>6.5</td>
</tr>
<tr>
<td>employed in another facet of education</td>
<td>6</td>
<td>13.0</td>
<td>19.6</td>
</tr>
<tr>
<td>employed in another facet of education</td>
<td>7</td>
<td>15.2</td>
<td>34.8</td>
</tr>
</tbody>
</table>
Table 14 (cont'd)

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current employment (cont'd)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>employed outside of education</td>
<td>24</td>
<td>52.2</td>
<td>87.0</td>
</tr>
<tr>
<td>unemployed</td>
<td>6</td>
<td>13.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Prior employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>school health educator</td>
<td>7</td>
<td>15.2</td>
<td>15.2</td>
</tr>
<tr>
<td>teacher but not school health educator</td>
<td>7</td>
<td>15.2</td>
<td>30.4</td>
</tr>
<tr>
<td>employed in another facet of education</td>
<td>10</td>
<td>21.7</td>
<td>52.1</td>
</tr>
<tr>
<td>employed outside of education</td>
<td>29</td>
<td>63.0</td>
<td>115.1</td>
</tr>
<tr>
<td>unemployed</td>
<td>5b</td>
<td>10.9</td>
<td>126.0c</td>
</tr>
<tr>
<td>Graduate Degree Hours:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>24</td>
<td>52.2</td>
<td>52.2</td>
</tr>
<tr>
<td>1-10</td>
<td>9</td>
<td>19.6</td>
<td>71.8</td>
</tr>
<tr>
<td>11-20</td>
<td>2</td>
<td>4.3</td>
<td>76.1</td>
</tr>
<tr>
<td>21-30</td>
<td>3</td>
<td>6.5</td>
<td>82.6</td>
</tr>
<tr>
<td>over 30</td>
<td>3</td>
<td>6.5</td>
<td>89.1</td>
</tr>
<tr>
<td>graduate degree received</td>
<td>5</td>
<td>10.9</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a - total number of respondents equalled 46
b - the total frequency does not total 46 because some respondents held more than one position
c - the total percent does not equal 100 because some respondents held more than one position

(52.1% to 69.8%) in the field of education. The opposite was true of those who were employed outside of education. Approximately two-thirds (63%) of the Questionnaire B respondents were employed outside of education as compared to 51.2 percent of the Questionnaire A respondents.
The Questionnaire B respondents also were distributed differently on the demographic variable, "graduate degree hours completed." Five of the graduates had received their advanced degrees as compared to 10 of the Questionnaire A respondents. There were, however, a greater percentage of Questionnaire B respondents (36.9% to 27.9%) who had completed a portion of their graduate level coursework. The percentage of those respondents who have not completed any hours of graduate level coursework was similar for both groups.

Fifteen of the 46 Questionnaire B respondents (33%) had been employed in the teaching profession. Employment data about these 15 respondents were presented in Table 15. There were many similarities between Questionnaire B and Questionnaire A respondents on a number of employment variables. As with Questionnaire A respondents, Questionnaire B respondents taught in institutions with enrollments of 500 pupils or more (80%); most respondents (86.7%) have been teaching five years or less, and 80 percent of the respondents were responsible for some percentage of professional duties related to health instruction.

There were, however, a few minor differences which should be mentioned. These included: 1) Questionnaire B respondents were equally distributed over the three categories of the variable, "teacher-student ratio," whereas the majority of Questionnaire A respondents reported "ratios" of one teacher
Table 15.—Teaching Employment Data About Questionnaire B Respondents

<table>
<thead>
<tr>
<th>Employment Variable</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>School enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>under 500</td>
<td>3</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>501-1000</td>
<td>4</td>
<td>26.7</td>
<td>46.7</td>
</tr>
<tr>
<td>over 1000</td>
<td>8</td>
<td>53.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Average Student-Teacher Ratio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/1-20</td>
<td>5</td>
<td>33.3</td>
<td>33.3</td>
</tr>
<tr>
<td>1/21-30</td>
<td>5</td>
<td>33.3</td>
<td>66.7</td>
</tr>
<tr>
<td>1/over 30</td>
<td>5</td>
<td>33.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Level of Instruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7-12</td>
<td>11</td>
<td>78.6</td>
<td>78.6</td>
</tr>
<tr>
<td>College</td>
<td>3³</td>
<td>21.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Type of School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rural</td>
<td>1</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>urban</td>
<td>4</td>
<td>26.7</td>
<td></td>
</tr>
<tr>
<td>inner-city</td>
<td>1</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>suburban</td>
<td>3</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>6</td>
<td>40.0</td>
<td></td>
</tr>
<tr>
<td>Years of Full-time Teaching Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>13</td>
<td>86.7</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>2</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td>Percent of Duties Related to Health Instruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>none</td>
<td>3</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>25%</td>
<td>4</td>
<td>26.7</td>
<td>46.7</td>
</tr>
<tr>
<td>50%</td>
<td>2</td>
<td>13.3</td>
<td>60.0</td>
</tr>
<tr>
<td>75%</td>
<td>1</td>
<td>6.7</td>
<td>66.7</td>
</tr>
<tr>
<td>100%</td>
<td>5</td>
<td>33.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a—total number of respondents equalled 15
b—1 response was missing
to 21-30 pupils; 2) the clear majority (approximately 75%) of both Questionnaire A and B respondents taught at the 7-12 grade level, but two of the Questionnaire A respondents taught at the K-6 grade level while none of the Questionnaire B respondents represented this grade level; and 3) the types of teaching settings in which Questionnaire B respondents taught were quite different from those of Questionnaire A respondents; that is, while the majority of Questionnaire A respondents were employed in rural, inner-city, and suburban settings, 10 of the 15 Questionnaire B respondents were teaching in urban or "other" settings. Those who responded "other" were employed in either college/university or private institutional settings.
Presentation of Questionnaire B Data

This section of the chapter has been sub-divided into three subsections. Each subsection presents and analyzes a major portion of the data obtained by Questionnaire B. The first section reports the grand means for both the "Importance" scale and the "Adequacy of Your Preparation" scale for each group of knowledge, skill, and attitude/value statements within each Function. These means will be presented in table form. The sample size, range, and standard deviation for each grand mean also will be reported in table form. The "procedure means" program of the Statistical Analysis System (SAS) computer Program was used to analyze the data reported in this section.

The second section will report the correlations between the grand means for the "Importance" scale and the grand means for "Adequacy of Your Preparation" scale for the identical groups of knowledge, skill, and attitude/value statements within each of the 10 Professional Functions. The "procedure correlation" program of SAS was used to analyze the data. The Pearson product-moment correlation coefficient was the descriptive statistic used in this program.

The third section will focus on the demographic variables and whether or not respondents who were grouped differently on these variables responded differently to the knowledge, skill, attitude/value items. The "general linear model procedure" program of SAS was used to analyze the data. The
inferential statistic, one-way analysis of variance, was included in this program. Duncan's Multiple Range Test was used to indicate any significant differences which existed among ratings for demographic groups which were divided into three or more categories. It should be noted that the .05 level of significance was used in both sections 2 and 3.

Questionnaire B Descriptive Data

The sample size, grand mean, range, and standard deviation for both the "Importance" scale and the "Adequacy of Your Preparation" scale for each knowledge, skill, or attitude/value category within each Professional Function are presented in Table 16.

The grand means for the "Importance" scale for the eight knowledge categories within the Professional Functions (two of the Functions had no knowledge categories) ranged from 4.50 (Function II--Behavioral/Status Appraisal) to 5.22 (Function IX--Professional Growth). The grand means for these same items for the "Adequacy of Your Preparation" scale ranged from 3.65 (Function II--Behavior/Status Appraisal) to 4.63 (Function IX--Professional Growth). Overall, the grand means for the knowledge categories were lower consistently on the "Adequacy of Your Preparation" scale then on the "Importance" scale. The variance of the "Adequacy of Your Preparation" scores also was greater than the variance of the "Importance" scores with the exception of the variance of the scores.
Table 16 - Descriptive Data for Questionnaire B Respondents

<table>
<thead>
<tr>
<th>Professional Function (by knowledge, skill and attitude/value categories)</th>
<th>Grand Mean</th>
<th>Adequacy of your Preparation scale</th>
<th>Respondents Range</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge Items</strong></td>
<td>Frequency</td>
<td>&quot;Importance&quot; scale</td>
<td>Minimum value</td>
<td>Maximum value</td>
</tr>
<tr>
<td>Function I</td>
<td>46</td>
<td>4.79</td>
<td>3.72</td>
<td>2.00</td>
</tr>
<tr>
<td>Function II</td>
<td>46</td>
<td>4.50</td>
<td>3.65</td>
<td>2.00</td>
</tr>
<tr>
<td>Function III</td>
<td>46</td>
<td>4.76</td>
<td>3.93</td>
<td>1.00</td>
</tr>
<tr>
<td>Function IV</td>
<td>46</td>
<td>4.78</td>
<td>3.78</td>
<td>1.00</td>
</tr>
<tr>
<td>Function V</td>
<td>46</td>
<td>5.00</td>
<td>3.67</td>
<td>1.00</td>
</tr>
<tr>
<td>Function VII</td>
<td>46</td>
<td>4.87</td>
<td>4.09</td>
<td>1.00</td>
</tr>
<tr>
<td>Function VIII</td>
<td>46</td>
<td>4.54</td>
<td>3.93</td>
<td>1.00</td>
</tr>
<tr>
<td>Function IX</td>
<td>46</td>
<td>5.22</td>
<td>4.63</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>Skill Items</strong></td>
<td>Frequency</td>
<td>&quot;Importance&quot; scale</td>
<td>Minimum value</td>
<td>Maximum value</td>
</tr>
<tr>
<td>Function I</td>
<td>16</td>
<td>4.91</td>
<td>3.98</td>
<td>2.00</td>
</tr>
<tr>
<td>Function II</td>
<td>16</td>
<td>4.85</td>
<td>3.88</td>
<td>2.00</td>
</tr>
<tr>
<td>Function III</td>
<td>16</td>
<td>4.67</td>
<td>3.66</td>
<td>1.00</td>
</tr>
<tr>
<td>Function IV</td>
<td>16</td>
<td>5.05</td>
<td>4.05</td>
<td>2.56</td>
</tr>
<tr>
<td>Function V</td>
<td>16</td>
<td>5.07</td>
<td>3.50</td>
<td>1.00</td>
</tr>
<tr>
<td>Function VI</td>
<td>16</td>
<td>5.07</td>
<td>3.89</td>
<td>3.00</td>
</tr>
<tr>
<td>Function VII</td>
<td>16</td>
<td>4.65</td>
<td>3.89</td>
<td>1.00</td>
</tr>
<tr>
<td>Function VIII</td>
<td>16</td>
<td>4.78</td>
<td>3.70</td>
<td>1.00</td>
</tr>
<tr>
<td>Function IX</td>
<td>16</td>
<td>5.22</td>
<td>4.63</td>
<td>3.00</td>
</tr>
<tr>
<td>Function X</td>
<td>16</td>
<td>4.97</td>
<td>4.04</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>Attitude/Value Items</strong></td>
<td>Frequency</td>
<td>&quot;Importance&quot; scale</td>
<td>Minimum value</td>
<td>Maximum value</td>
</tr>
<tr>
<td>Function I</td>
<td>45a</td>
<td>4.99</td>
<td>3.95</td>
<td>3.00</td>
</tr>
<tr>
<td>Function II</td>
<td>46</td>
<td>4.87</td>
<td>3.87</td>
<td>1.00</td>
</tr>
<tr>
<td>Function III</td>
<td>45a</td>
<td>4.49</td>
<td>3.82</td>
<td>1.00</td>
</tr>
<tr>
<td>Function IV</td>
<td>46</td>
<td>5.17</td>
<td>4.26</td>
<td>3.00</td>
</tr>
<tr>
<td>Function V</td>
<td>45a</td>
<td>5.16</td>
<td>4.11</td>
<td>1.00</td>
</tr>
<tr>
<td>Function VI</td>
<td>46</td>
<td>5.17</td>
<td>4.24</td>
<td>1.00</td>
</tr>
<tr>
<td>Function VII</td>
<td>46</td>
<td>4.98</td>
<td>4.54</td>
<td>1.00</td>
</tr>
<tr>
<td>Function VIII</td>
<td>46</td>
<td>4.93</td>
<td>3.78</td>
<td>1.00</td>
</tr>
<tr>
<td>Function IX</td>
<td>46</td>
<td>5.46</td>
<td>4.99</td>
<td>3.00</td>
</tr>
<tr>
<td>Function X</td>
<td>45a</td>
<td>5.04</td>
<td>4.74</td>
<td>2.00</td>
</tr>
</tbody>
</table>

a—1 response was missing
for the knowledge items within Function VII (Program Planning).
The variance of the scores for these items was almost identical for
both scales.

The grand means for the skill items for the 10
Professional Functions ranged from 4.65 (Function VII--
Program Planning) to 5.22 Function IX (Professional Growth)
and from 3.50 (Function V--Guidance and Counseling) to
4.61 (Function IX--Professional Growth) for the "Importance"
scale and the "Adequacy of Your Preparation" scale, respectively.

The grand means for the attitude/value items for the Profes­
sional Functions ranged from 4.49 (Function III--Instructional
Design) to 5.46 (Function IX--Professional Growth) on the
"Importance" scale and 3.78 (Function VIII--Program
Evaluation) to 4.89 (Function IX--Professional Growth) on
the "Adequacy of Your Preparation" scale. These ranges were
consistent with the ranges for the two scales for both the
knowledge and skill items previously discussed. The attitude/
value items for Function IX (Professional Growth) also were
rated highest on both scales. Thus, the knowledge, skill,
and attitude/value items for Function IX (Professional Growth)
were unanimously rated the highest on both scales. The
attitude/value items which were rated the lowest on the two
scales belonged to Functions other than those which were
rated lowest for the knowledge and skill items.
Correlational Relationships Between Questionnaire B Respondents' Ratings on the "Importance" Scale and the "Adequacy of Your Preparation" Scale

Table 17 shows the correlational relationships between Questionnaire B respondents' ratings on the "Importance" scale and their ratings on the "Adequacy of Your Preparation" scale for each knowledge, skill, and attitude/value category for each of the Professional Functions. Twenty-three of the 28 relationships were significant at the .05 level. Seven of the 23 relationships were significant at the .0001 level while 18 were significant at the .01 level.

Two of the five non-significant relationships were between respondents' ratings on the two scales for the knowledge items for Functions IV (Classroom Instruction) and V (Guidance and Counseling). A third non-significant relationship involved the ratings on the skill items for Function X (Professional Communications). The relationship between the two scales for the attitude/value items for Functions VI (Referral) and IX (Professional Growth) were the final two non-significant relationships. Overall, it was quite obvious that there was a clear relationship between the respondents' ratings on the two scales for the majority of the knowledge, skill, and attitude/value items for the 10 Professional Functions, i.e., the more important the respondents perceived a knowledge, skill, or attitude/value item to be, the more adequate they perceived their preparation in relation to the same item.
Table 17—Correlational Relationships Between Questionnaire B Responses on the "Importance" and the "Adequacy of Your Preparation" Scales (Knowledge Items)

<table>
<thead>
<tr>
<th>Importance Scale</th>
<th>Function</th>
<th>Function</th>
<th>Function</th>
<th>Function</th>
<th>Function</th>
<th>Function</th>
<th>Function</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
<td>IV</td>
<td>V</td>
<td>VII</td>
<td>VIII</td>
<td>IX</td>
</tr>
<tr>
<td>Function I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Content)</td>
<td>.33\textsuperscript{a}</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>.0275\textsuperscript{b}</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function II</td>
<td></td>
<td>.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Behavior/Status Appraisal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.0034</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Behavior/Status Appraisal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function III</td>
<td></td>
<td></td>
<td></td>
<td>.38</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Instructional Design)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.0089</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Instructional Design)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function IV</td>
<td></td>
<td></td>
<td>.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Classroom Instruction)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.4006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Classroom Instruction)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function V</td>
<td></td>
<td></td>
<td>.27</td>
<td></td>
<td>.0753</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Guidance &amp; Counseling)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function VII</td>
<td></td>
<td></td>
<td>.33</td>
<td></td>
<td>.0230</td>
<td></td>
<td>.0001</td>
<td>.58</td>
</tr>
<tr>
<td>(Program Planning)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function VIII</td>
<td></td>
<td></td>
<td>.57</td>
<td></td>
<td>.0001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Program Evaluation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function IX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.58</td>
</tr>
<tr>
<td>(Professional Growth)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.0001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 17 (cont'd)

<table>
<thead>
<tr>
<th>Function (Skill Items)</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function I (Content)</td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function II (Behavior/Status Appraisal)</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function III (Instructional Design)</td>
<td>.43</td>
<td>.0006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function IV (Classroom Instruction)</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function V (Guidance &amp; Counseling)</td>
<td>.19</td>
<td>.0001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function VI (Referral)</td>
<td>.61</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function VII (Program Planning)</td>
<td>.46</td>
<td>.0012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function VIII (Program Evaluation)</td>
<td>.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function IX (Professional Growth)</td>
<td>.52</td>
<td>.0002</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function X (Professional Communications)</td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(46)
### Table 17 (cont'd)
(Attitude/Value Items)

<table>
<thead>
<tr>
<th>Importance Scale</th>
<th>Function I</th>
<th>Function II</th>
<th>Function III</th>
<th>Function IV</th>
<th>Function V</th>
<th>Function VI</th>
<th>Function VII</th>
<th>Function VIII</th>
<th>Function IX</th>
<th>Function X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function I: (Content)</td>
<td>.32</td>
<td>.0305</td>
<td>(45)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function II: (Behavior/Status Appraisal)</td>
<td>.44</td>
<td>.0024</td>
<td>(46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function III: (Instructional Design)</td>
<td>.65</td>
<td>.0001</td>
<td>(45)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function IV: (Classroom Instruction)</td>
<td>.57</td>
<td>.0001</td>
<td>(46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function V: (Guidance &amp; Counseling)</td>
<td>.30</td>
<td>.0451</td>
<td>(45)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function VI: (Referral)</td>
<td>-.01</td>
<td>.9784</td>
<td>(45)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function VII: (Program Planning)</td>
<td>.45</td>
<td>.0019</td>
<td>(46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function VIII: (Program Evaluation)</td>
<td>.32</td>
<td>.0322</td>
<td>(46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function IX: (Professional Growth)</td>
<td>.21</td>
<td>.1613</td>
<td>(46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function X: (Professional Communications)</td>
<td>.51</td>
<td>.0003</td>
<td>(45)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a—the Pearson product-moment correlation coefficient
b—the degree of significance of the Pearson product-moment correlation coefficient
c—the number of subjects responding to the items which compose each Professional Function
Significant Differences Between the Grand Means of the Populations Identified From the Questionnaire B Respondents (Grouped According to Selected Demographic Variables)

Questionnaire B respondents' grand means for each knowledge, skill, and attitude/value category for each Professional Function were analyzed according to five demographic and employment-related variables. These were "sex," "year of graduation," "school health educator status," "graduate degree hours completed," and "percentage of professional duties related to health instruction." There were 17 significant differences found among grand means of the respondents when they were grouped according to these variables. Grand means for groups divided according to all five demographic and employment-related variables were found to be significantly different. Thirteen of the 17 significant differences were related to the respondents' grand means on the "Importance" scale. Ten of the significant differences among the grand means occurred on the variable, "year of graduation."

Of the remaining seven significant differences among the grand means, four of them occurred on the variable, "school health educator status." The variable "sex," "graduate degree hours completed," and "percentage of professional duties related to health instruction" accounted for the three remaining significant differences among the grand means. Respondents' grand means for attitude/value items accounted for eight of the 17 significant differences, while their grand means for skill items and knowledge items accounted for six and
three significant differences, respectively. Significant differences among respondents' grand means were found relative to all 10 Professional Functions.

Tables 18 to 34 present the descriptive and inferential statistics for these significant differences among respondents' grand means when grouped according to the demographic and employment-related variables.

Table 18 shows the female respondents rated the adequacy of their preparation to attain the Function VI (Referral) attitude/value, "accepts professional limitations and utilizes the appropriate referral process to meet individual needs," lower than male counterparts. The difference between these two grand means was significant at the .02 level.

The Function I (Content) skill item, "recognizes the relationship between health education and allied health fields that contribute to the health education knowledge base," received significantly different grand means ratings on the "Adequacy of Your Preparation" scale. As shown in Table 19, respondents who graduated between 1975-1979 perceived themselves to be better prepared to perform this skill than those respondents who graduated during the 1970-1974 time period. The difference between these grand means was significant at the .01 level.

Tables 20, 21, and 22 show that 1975-1979 graduates who responded to Questionnaire B perceived the Function II (Behavior/Status Appraisal) knowledge, skill, and attitude/
Table 18.—Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function VI* By Male and Female Questionnaire B Respondents (Adequacy of Your Preparation Scale)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td></td>
<td>7.63</td>
<td>7.63</td>
<td>6.74</td>
<td>.0129</td>
</tr>
<tr>
<td>Within Groups</td>
<td>43</td>
<td>48.68</td>
<td>1.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>56.31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function VI: Refer to appropriate allied professionals, those individuals whose health concerns require supplementary intervention, e.g., medical, legal, financial, and social work, etc.
Table 19.—Analysis of Variance For Comparing Responses to the Skill Item For Function I* By Questionnaire B Respondents By Year of Graduation (Adequacy of Your Preparation Scale)

<table>
<thead>
<tr>
<th>Summary Data</th>
<th>Year of Graduation</th>
<th>Year of Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Mean</td>
<td>4.68</td>
<td>5.19</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.14</td>
<td>.81</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>11.50</td>
<td>11.50</td>
<td>7.50</td>
<td>.0089</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>67.48</td>
<td>1.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>78.98</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function I: Possess a working foundation of (content) knowledge for the teaching speciality of health, e.g., terminology, factual information, concepts, and theories.
Table 20.—Analysis of Variance For Comparing Responses to the Knowledge Item For Function II* By Questionnaire B Respondents By Year of Graduation (Importance Scale)

### Summary Data

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Year of Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>25</td>
</tr>
<tr>
<td>Mean</td>
<td>4.12</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.93</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>7.91</td>
<td>7.91</td>
<td>11.01</td>
<td>.0018</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>31.59</td>
<td>.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>39.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function II: Analyze, appraise, and prioritize a) the significance of health behavior, b) health status needs, c) health interests, and d) health education concerns.
Table 21. — Analysis of Variance for Comparing Responses to the Skill Items for Function II By Questionnaire B Respondents By Year of Graduation (Importance Scale)

Summary Data

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Sample Size</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975-1979</td>
<td>21</td>
<td>5.22</td>
<td>.62</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>5.42</td>
<td>5.42</td>
<td>6.26</td>
<td>.0161</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>38.07</td>
<td>.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>43.49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function II: Analyze, appraise, and prioritize a) the significance of health behavior, b) health status needs, c) health interests, and d) health education concerns.
Table 22.—Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function II By Questionnaire B Respondents By Year of Graduation (Importance Scale)

Summary Data

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Sample Size</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-1974</td>
<td>25</td>
<td>4.24</td>
<td>1.20</td>
</tr>
<tr>
<td>1975-1979</td>
<td>21</td>
<td>5.19</td>
<td>.75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>10.31</td>
<td>10.31</td>
<td>9.91</td>
<td>.0030</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>45.80</td>
<td>1.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>56.11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function II: Analyze, appraise, and prioritize a) the significance of health behavior, b) health status needs, c) health interests, and d) health education concerns.
value items to be more important than those respondents who graduated during the 1970-1974 time period. The differences between the knowledge and attitude/value grand means for the two groups of respondents were significant at the .01 level while the difference between the grand means for the skill item was significant at the .02 level.

The respondent who graduated during the 1975-1979 time period perceived the seven skill items for Function III (Instructional Design) to be more important than did their 1970-1974 counterparts (see Table 23).

Tables 24 and 25 present data that were consistent with the data presented in Table 23. Once again, the respondents who graduated during the 1975-1979 time period scored significantly higher on the "Importance" scale than did the 1970-1974 graduates. As indicated in these two tables, the more recent graduates perceived the skill and attitude/value items for Function IV (Classroom Instruction) to be more important. The difference between the two groups' grand means for the skill items was significant at the .05 level while the difference between the grand means for the attitude/value items was significant at the .01 level.

The more recent graduates who responded to Questionnaire B rated the skill and attitude/value items for Function V (Guidance and Counseling) and the skill and attitude/value items for Function IV (Classroom Instruction) congruently on the "Importance" scale (see Tables 26 and 27). The grand
Table 23.—Analysis of Variance For Comparing Responses to the Skill Items For Function III* By Questionnaire B Respondents By Year of Graduation (Importance Scale)

Summary Data

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Year of Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>25</td>
</tr>
<tr>
<td>Mean</td>
<td>4.39</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>4.27</td>
<td>4.27</td>
<td>6.10</td>
<td>.0174</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>30.76</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>35.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function III: Plan, write, and promote designs for instruction and curriculum relating them to the community where appropriate.
Table 24.—Analysis of Variance For Comparing Responses to the Skill Items For Function IV By Questionnaire B Respondents By Year of Graduation (Importance Scale)

Summary Data

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Sample Size</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-1974</td>
<td>25</td>
<td>4.86</td>
<td>.75</td>
</tr>
<tr>
<td>1975-1979</td>
<td>21</td>
<td>5.27</td>
<td>.56</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>1.90</td>
<td>1.90</td>
<td>4.23</td>
<td>.0457</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>19.72</td>
<td>.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>21.62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function IV: Arrange material, temporal, and human, including personal, resources with the intent for promoting learning (this involves not only actual instruction, but also managing the classroom situation in order to facilitate such instruction), Hough, 1979.
Table 25—Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function IV* By Questionnaire B Respondents By Year of Graduation (Importance Scale)

### Summary Data

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Year of Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>25</td>
</tr>
<tr>
<td>Mean</td>
<td>4.87</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.82</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>5.05</td>
<td>5.05</td>
<td>10.82</td>
<td>.0020</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>20.53</td>
<td>.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>25.58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function IV: Arrange material, temporal, and human, including personal, resources with the intent for promoting learning (this involves not only actual instruction, but also managing the classroom situation in order to facilitate such instruction), Hough, 1979.
Table 26.—Analysis of Variance For Comparing Responses to the Skill Item For Function V* By Questionnaire B Respondents By Year of Graduation (Importance Scale)

| Summary Data | | |
|--------------|---------------------------------|---|---|---|---|
| | **Year of Graduation** | **1970-1974** | **1975-1979** | |
| Sample Size  | 25 | 21 | |
| Mean         | 4.68 | 5.52 | |
| Standard Deviation | 1.25 | 0.60 | |

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>8.13</td>
<td>8.13</td>
<td>8.00</td>
<td>.0070</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>44.68</td>
<td>1.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>52.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function V: Guide individuals in personal decision-making and serve in a health counseling role when appropriate.
Table 27.—Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function V By Questionnaire B Respondents By Year of Graduation (Importance Scale)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>3.32</td>
<td>3.32</td>
<td>4.77</td>
<td>.0344</td>
</tr>
<tr>
<td>Within Groups</td>
<td>43</td>
<td>29.93</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>33.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a—Denotes missing value.

* Function V: Guide individuals in personal decision-making and serve in a health counseling role when appropriate.
means for the 1975-1979 group on these items were significantly higher than the grand means for the respondents who graduated during 1970-1974 time period.

The final significant difference between the grand means of respondents divided according to their year of graduation is presented in Table 28. The 21 respondents who graduated during 1975-1979 time period scored significantly higher on five skill items for Function VIII (School Health Program Evaluation) than those 25 respondents who graduated during the 1970-1974 time period.

Tables 29, 30, 31, and 32 provide data on respondents' mean scores to specific knowledge and attitude/value items when grouped according to their status as school health educators. The first group used in these analyses consisted of those respondents who are currently school health educators or who were school health educators. The second group was composed of those respondents who were never school health educators. The difference between these two groups' grand mean scores were all significant at the .05 level. All four of these significant differences between the grand means occurred on the "Importance" scale. In each case the grand means of the school health educator group was lower than the grand means for the non-school health educator group.
Table 28.—Analysis of Variance for Comparing Responses to the Skill Item for Function VIII by Questionnaire B Respondents by Year of Graduation (Importance Scale)

Summary Data

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Sample Size</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-1974</td>
<td>25</td>
<td>4.51</td>
<td>1.09</td>
</tr>
<tr>
<td>1975-1979</td>
<td>21</td>
<td>5.10</td>
<td>.64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>3.88</td>
<td>3.88</td>
<td>4.66</td>
<td>.0365</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>36.70</td>
<td>.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>40.58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function VIII:* Evaluate the effectiveness of health instruction in promoting gains in student cognitive, affective, and psychomotor behaviors and assist in evaluating the school health services, healthful school environment, and community facets of the total school health program.
The summary data for the two groups (school health educators and non-school health educators) for the Function V (Guidance and Counseling) knowledge items are presented in Table 29. Similar data are reported in Tables 30, 31, and 32 for the attitude/value items for Functions VII (Program Planning), IX (Professional Growth), and X (Professional Communications), respectively. The school health educators' perceptions of the importance of the knowledge and attitude/value items for the four Professional Functions were apparently affected by their professional experiences.

Questionnaire B respondents who were grouped according to the number of "graduate degree hours completed" rated the knowledge items for Function I (Content) differently on the "Adequacy of Your Preparation" scale. Those respondents who received their graduate degrees rated their preparation to attain the knowledges reflected in these items the lowest (2.90 on the 6-point scale). This grand mean was significantly different from the grand means reported by the respondents who had completed 1-10 hours of graduate degree hours (4.04) and those who completed 11 - and over 30 graduate degree hours (4.14) (see Table 33). Before any conclusions can be drawn about these significant differences among grand means, more data concerning the nature of respondents' graduate studies will have to be collected and analyzed.
Table 29.—Analysis of Variance For Comparing Responses to the Knowledge Item For Function V* By Questionnaire B Respondents According to Their Status as School Health Educators (Importance Scale)

<table>
<thead>
<tr>
<th>Summary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Sample Size</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Standard Deviation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>3.45</td>
<td>3.45</td>
<td>4.40</td>
<td>.0418</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>34.55</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>38.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function V: Guide individuals in personal decision-making and serve in a health counseling role when appropriate.
Table 30.—Analysis of Variance For Comparing Responses to the Attitude/Value Items For Function VII By Questionnaire B Respondents According to Their Status as School Health Educators (Importance Scale)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>6.40</td>
<td>6.40</td>
<td>7.20</td>
<td>.0102</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>39.08</td>
<td>.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>45.48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function VII: Assist other professionals in planning, coordinating and administering the school health services, healthful school environment, and community facets of the total school health program.
Table 31.—Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function IX* By Questionnaire B Respondents According to Their Status as School Health Educators (Importance Scale)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>2.33</td>
<td>2.33</td>
<td>4.87</td>
<td>.0326</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44</td>
<td>21.08</td>
<td>.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>23.41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function IX: Read, critique, and utilize the latest literature, reports, and research findings and engage in continuing education, in-service, and other activities to further professional growth.
Table 32.—Analysis of Variance For Comparing Responses to the Attitude/Value Item For Function X* By Questionnaire B Respondents According to Their Status as School Health Educators (Importance Scale)

### Summary Data

<table>
<thead>
<tr>
<th></th>
<th>School Health Educators</th>
<th>Non-School Health Educators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>10</td>
<td>36</td>
</tr>
<tr>
<td>Mean</td>
<td>4.33</td>
<td>5.22</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.32</td>
<td>.90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>5.69</td>
<td>5.69</td>
<td>5.79</td>
<td>.0204</td>
</tr>
<tr>
<td>Within Groups</td>
<td>43</td>
<td>42.22</td>
<td>.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>47.91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Function X*: Communicate with other professionals via such avenues as association memberships and committees, speeches, and publications.
Table 33.—Analysis of Variance For Comparing Responses to the Knowledge Items For Function I* By Questionnaire B Respondents According to Graduate Degree Hours Completed (Adequacy of Your Preparation Scale)

Summary Data

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>No Hours Completed</th>
<th>1-10 Hours Completed</th>
<th>11-Over 30 Hours Completed, But No Degree Granted</th>
<th>Graduate Degree Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
<td>9</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Mean</td>
<td>3.63</td>
<td>4.04</td>
<td>4.14</td>
<td>2.90</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.79</td>
<td>.73</td>
<td>.86</td>
<td>.58</td>
</tr>
</tbody>
</table>

* Means with common superscripts do not differ significantly at the .05 level.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>5.90</td>
<td>1.97</td>
<td>3.29</td>
<td>.0296</td>
</tr>
<tr>
<td>Within Groups</td>
<td>42</td>
<td>25.10</td>
<td>.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>31.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function I: Possess a working foundation of (content) knowledge for the teaching speciality of health, e.g., terminology, factual information, concepts, and theories.
The final significant difference between the grand means of Questionnaire B respondents occurred on the employment related variable, "percentage of professional duties related to health instruction" (see Table 34). Those respondents who reported that 50-100 percent of their professional duties were related to health instruction perceived that they were prepared more adequately to attain the attitude/value items for Function I (Content Knowledge) than were the respondents who reported that they had less involvement (0-25%) in health instruction. Function I (Content) attitude/value items focused on clarifying one's personal attitude and values in relation to and developing an awareness of the various aspects of health.

Significance Differences Between the Grand Means of the Populations Identified From the Questionnaire A and B Respondents (Grouped According to Order of Mailing of the Survey Instrument)

Significant differences in respondents' grand means according to the order in which they completed and returned the questionnaire, i.e., they returned the first copy of the questionnaire they received, the second one, or the one that was sent after the follow-up telephone calls were made, were analyzed using the statistic, one-way analysis of variance. Responses to each of the 28 knowledge, skill, and attitude/value categories composing both Questionnaire A and Questionnaire B were analyzed for possible significant differences. Mean scores on both the "Importance" and "Adequacy of Your Preparation" scales were analyzed for significant differences.
Table 34. Analysis of Variance for Comparing Responses to the Attitude/Value Items for Function I by Questionnaire B Respondents According to the Percentage of Their Professional Duties Related to Health Instruction (Adequacy of Your Preparation Scale)

Summary Data

<table>
<thead>
<tr>
<th>0-25% of Duties Related to Health Instruction</th>
<th>50-100% of Duties Related to Health Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>7</td>
</tr>
<tr>
<td>Mean</td>
<td>3.48</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.77</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>4.93</td>
<td>4.93</td>
<td>5.51</td>
<td>.0354</td>
</tr>
<tr>
<td>Within Groups</td>
<td>13</td>
<td>11.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>16.55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Function I: Possess a working foundation of (content) knowledge for the teaching speciality of health, e.g., terminology, factual information, concepts, and theories.
One significant difference among the three mailing groups was found for the Questionnaire A respondents while 12 significant differences among the three groups were found for Questionnaire B respondents. An alpha level of .05 was used in these analyses. Eight of these 13 significant differences were linear in nature. That is, the mean scores for the first mailing group respondents were consistently higher than those mean scores for the second and third mailing group respondents. Likewise, the mean scores were higher for the second mailing group than the mean scores for the third mailing group. The mean scores on the "Adequacy of Your Preparation" scale accounted for 10 of the 13 significant differences.

Summary

Data presented and analyzed in Chapter IV were organized in six major sections. These were 1) Treatment of the Data, 2) Summary of the Response to Questionnaire A, and Questionnaire B, 3) Demographic Data about Questionnaire A Respondents, 4) Presentation of Questionnaire A Data, 5) Demographic Data about Questionnaire B Respondents, and 6) Presentation of Questionnaire B Data. Sections 4 and 6 were further divided into sub-sections where descriptive, correlational, and inferential statistics were reported.

An overall usable response rate of 67.4 percent was obtained. Overall, 60 percent of these respondents were female and the clear majority was between 21 and 30 years old (81.4% of the
Questionnaire A respondents and 84.8% of the Questionnaire B respondents). Approximately 70 percent of the respondents were married and all but three were white. Finally, approximately 50 percent of the total respondents reported that they have not completed any graduate degree hours. The two groups of respondents did, however, differ when compared on the following employment-related variables: 1) current employment, 2) prior employment, 3) average student-teacher ratio, 4) level of instruction and 5) type of school.

Descriptive statistics (percentages, grand means, ranges, and standard deviations) for the knowledge items, skill items, and attitude/value items for all of the 10 Professional Functions showed that both Questionnaire A and B respondents rated items consistently higher on the "Importance" scale than on the "Adequacy of Your Preparation" scale. In addition, it was shown that there was a greater variance in respondents' ratings on the "Adequacy of Your Preparation" scale than in their ratings on the "Importance" scale.

The majority of the correlational relationships between respondents' ratings of items on the "Importance" scale and their ratings of the same items on the "Adequacy of Your Preparation" scale was significant at the .05 level. More specifically, 27 of the 28 relationships between the grand means on the two scales for the Questionnaire A knowledge, skill, and attitude/values item and 23 of the 28
relationships between the grand means on the two scales for the Questionnaire B knowledge, skill, and attitude/value items were significant at the .05 level.

The final analysis of the study's data was conducted to determine whether or not respondents, grouped according to selected demographic and employment related variables, differed significantly in their responses to the knowledge, skill, and attitude/value items.

Such differences between group means on Questionnaire A were present when the respondents were grouped according to the categories of two variables: "graduate degree hours completed" and "percentage of professional duties related to health instruction." There was a greater number of significant differences between the group means on Questionnaire B. In addition to the two variables mentioned previously, there were significant differences between the grand means of respondents who were grouped according to the categories of the variables: "sex," year of graduation," and "school health educator status." Twenty of the 25 significant differences between the group means occurred on the "Importance" scale.
Chapter V

INTERPRETATION AND IMPLICATIONS
OF THE DESCRIPTIVE DATA BY SELECTED
KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES

The descriptive data presented in the Chapter IV were expressed in terms of grand means. These means were calculated by summing all the respondents' rating scores for each particular knowledge, skill, or attitude/value category within each Professional Function and then dividing this total by the number of respondents. This procedure was conducted for the eight knowledge categories, 10 skill categories, and 10 attitude/value categories which composed both Questionnaire A and Questionnaire B. This procedure was utilized with both the "Importance" scale and "Adequacy of Your Preparation" scale. Grouping the study's descriptive data in this manner served to summarize the subjects' responses to the knowledge, skill, and attitude/value items on both survey instruments. This summary did not, however, provide the reader with the subjects' responses to selected specific questionnaire items within each knowledge, skill, and attitude/value category. Providing such information is the task of the chapter.

160
The specific knowledge, skill, or attitude/value items which received the highest and lowest group means will be discussed for each Professional Function which was composed of more than one item. The group means for the knowledge, skill and attitude/value items not discussed in the following section can be assumed to be in the median range. Group means for those Functions composed of a single knowledge, skill, or attitude/value item will not be discussed but will be presented in Table 35 with the group means for the other items. The group means discussed in this chapter are calculated by summing the subjects' responses to each specific knowledge, skill, or attitude/value item and dividing the total by the number of subjects.

The knowledge, skill, and attitude/value items for each Professional Function which received the highest and lowest group means on Questionnaire A will be discussed first. Similar data will be reported for the Questionnaire B group means.

The Professional Functions and the abbreviations by which they will be referred to in this chapter are stated as follows:

**FUNCTION I:** Possess a working foundation of (content) knowledge for the teaching speciality of health, e.g., terminology, factual information, concepts, and theories.

Function I Abbreviation: Content
FUNCTION II: Analyze, appraise, and prioritize a) the significance of health behavior, b) health status needs, c) health interests, and d) health education concerns.

FUNCTION II Abbreviation: Behavior/Status Appraisal

FUNCTION III: Plan, write, and promote designs for instruction and curriculum relating them to the community where appropriate.

Function III Abbreviation: Instructional Design

FUNCTION IV: Arrange materials, temporal, and human, including personal, resources with the intent for promoting learning (this involves not only actual instruction, but also managing the classroom situation in order to facilitate such instruction), Hough (Note 9)

Function IV Abbreviation: Classroom Instruction

FUNCTION V: Guide individuals in personal decision-making and serve in a health counseling role when appropriate.

Function V Abbreviation: Guidance and Counseling

FUNCTION VI: Refer to appropriate allied professionals, those individuals whose health concerns require supplementary intervention, e.g., medical, legal, financial, and social work, etc.

Function VI Abbreviation: Referral
FUNCTION VII: Assist other professionals in planning, coordinating, and administering the school health services, healthful school environment, and community facets of the total school health program.

Function VII Abbreviation: Program Planning

FUNCTION VIII: Evaluate the effectiveness of health instruction in promoting gains in student cognitive, affective, and psychomotor behaviors and assist in evaluating the school health services, healthful school environment, and community facets of the total school health program.

Function VIII Abbreviation: Program Evaluation

FUNCTION IX: Read, critique, and utilize the latest literature, reports, and research findings and engage in continuing education, in-service, and other activities to further professional growth.

Function IX Abbreviation: Professional Growth

FUNCTION X: Communicate with other professionals via such avenues as association memberships and committees, speeches, and publications.

Function X Abbreviation: Professional Communications

Discussion of Questionnaire A Descriptive Data

Before the group means of the various Questionnaire A items are discussed, it is necessary to cite the knowledge, skill, and attitude/value categories which were composed of a single item and thus will not be focused on in this section. Single item knowledge categories existed for the Function II
(Appraisal), Function III (Instructional Design), Function IV (Classroom Instruction), Function V (Guidance and Counseling), Function VIII (Program Evaluation), and Function IX (Professional Growth). Function I (Content) and Function IX (Professional Growth) contained single item skill categories. Function II (Appraisal), Function III (Instructional Design) Function VI (Referral) Function VIII (Program Evaluation), Function IX (Professional Growth), and Function X (Professional Communications) contained single item attitude/value categories.

The knowledge, skill, and attitude/value categories which had more than one questionnaire item will be discussed in a systematic manner. That is, the knowledge items which received the highest and lowest "Importance" scale (1-6) and "Adequacy of Your Preparation" scale (0-6) ratings within each knowledge category will be identified and compared to items from other knowledge categories. The group means for the various skill and attitude/value categories will be discussed in a similar manner.

Knowledge Items

The Function I (Content) knowledge item which was rated the highest on the "Importance" scale was the item which referred to the content area, "Drugs, alcohol, and tobacco." The group mean for this item was 5.49 on the "1" (totally unimportant) to "6" (most important) scale. This group mean was the highest rating assigned to any of the knowledge items for all 10 Functions.
The Function I (Content) content area, "philosophy" was assigned the lowest group mean by the Questionnaire A respondents. The group mean for this content area was 3.67. This group mean was the lowest rating assigned to any knowledge item on the "Importance" scale for all Functions. The Function I (Content) content area, "aging" and the allied health fields which were grouped under the phrase, "miscellaneous sciences," were assigned identical group ratings of 4.02 on the "Importance" scale. These group means were the second lowest among all knowledge items for all 10 Professional Functions.

Questionnaire A respondents rated the adequacy of their preparation highest on the Function I (Content) item, "first aid and accident prevention." The group mean for this content area was 4.95 on the "0" (no preparation) to "6" (excellent preparation) scale. This rating was the highest assigned to any knowledge item for all Functions on the "Adequacy of Your Preparation" scale.

The Function I (Content) knowledge item which was assigned the lowest group rating (1.98) by the Questionnaire A respondents was the content area, "death and dying." This group mean was the lowest rating assigned to any specific item (knowledge, skill, or attitude/value) for all Functions and was only the group mean which fell below the 2.00 on the "0" to "6" "Adequacy of Your Preparation" scale. Other content areas within the Function I (Content) knowledge
category also received low group ratings on the "Adequacy of Your Preparation" scale, e.g. "aging" and "philosophy" were assigned group means of 2.23 and 2.67, respectively.

The only other knowledge category which was composed of more than one item was Function VII (Program Planning). The knowledge item, "identifies the services that community health agencies and personnel who are qualified to provide follow-up evaluation and professional care to students," was assigned a group mean of 5.26 on the "Importance" scale. The only other item in this knowledge category which was assigned a group mean of 4.21 on the "1" to "6" scale focused on recognizing "... the historical and philosophical basis of public and private health organizations."

The group means assigned to the two Function VII knowledge items on the "Adequacy of Your Preparation" scale were consistent with the values assigned by the respondents on the "Importance" scale. That is, the item which received the higher group rating on the "Importance" scale received the higher group rating on the "Adequacy of Your Preparation" scale. The group mean for the knowledge item, "identifies the services that community health agencies and personnel provide in promoting the effectiveness of the total school health program," was assigned a group mean of 4.63 while the item, "recognizes the historical and philosophical basis of public and private health organizations" received a group mean of 3.60 on the "0" to "6" scale.
Skill Items

The Function II (Behavior/Status Appraisal) skill item, "identified student behaviors which indicate health problems or potential problems," was assigned the highest group mean (5.47) of all Function II (Behavior/Status Appraisal) skill items on the "Importance" scale. This group mean was comparable to those ratings which represented the highest group means for the skill items for each Professional Function. The range of these "highest" grand means on the "Importance" scale was from 5.07 (Function IX -- Professional Growth) to 5.60 (Function IV -- Classroom Instruction).

The other three Function II (Behavior/Status Appraisal) skill items were assigned group means ranging in value from 5.23 to 5.42. Thus, all four of the Function II (Behavior/Status Appraisal) skill items were rated similarly.

The Function II (Behavior/Status Appraisal) skill item, "identified the interactions influencing individual, family, school, and 'community' health problems," was assigned the highest group mean (4.26) of all the Function II (Behavior/Status Appraisal) skill items on the "Adequacy of Your Preparation" scale. The skill item, "identifies student behaviors which indicate health problems or potential problems," received the lowest group rating of 3.98 of all Function II (Behavior/Status Appraisal) skill items.
This low rating is emphasized because this same skill item was rated the highest of all Function II (Behavior/Status Appraisal) skill items on the "Importance" scale.

The Function III (Instructional Design) skill item, "develops lesson plans and teaching units relevant to students' needs and interests," was assigned a group mean of 5.33 on the "Importance" scale. This was the highest group rating assigned to any Function III (Instructional Design) skill item. The skill item, "analyzes historical and philosophical developments in the field of health education and their implications for today's health education programs," received a group rating of 3.91. This rating was not only the lowest rated Function III (Instructional Design) skill item but also was the lowest rated skill item for all 10 Professional Functions.

The skill item, "develops instructional objectives relevant to the goals of the health education program to serve as a basis for its evaluation," was assigned the highest group rating (4.52) of all Function III (Instructional Design) skill items on the "Adequacy of Your Preparation" scale. The skill item, "analyzes historical and philosophical developments in the field of health education and their implications for today's health education programs," which received the lowest group mean (2.93) on the "Adequacy of Your Preparation" scale for Function III (Instructional Design) was the same item that received the lowest group rating on the "Importance" scale.
The highest group mean assigned to a skill item for all 10 Functions on the "Importance" scale by Questionnaire A respondents was assigned to the Function IV (Classroom Instructional) item, "facilitates students' understanding of controversial health issues in a professional manner." This skill item received a group rating of 5.60 on the "1" to "6" scale. The Function IV (Classroom Instruction) skill item, "assists in preparing budget items for the school health instruction program," was assigned a group means of 4.47. This was the lowest group mean assigned to any of the 10 skills in Function IV (Classroom Instruction).

The grand means assigned to the Function IV (Classroom Instruction) skill items on the "Adequacy of Your Preparation" scale ranged from 5.30 for the skill item, "demonstrates appropriate first aid techniques and skills," to 2.05 for the skill item, "assists in preparing budget items for the school health instruction program." These respective values represent the overall high and low group means for all skill items, Function I through X. The high rating assigned to the skill items pertaining to first aid techniques and skills was consistent with the high "Adequacy of Your Preparation" rating assigned to the Function I (Content) knowledge item, "first aid and accident prevention."

There were only two Function V (Guidance and Counseling) skill items. The item, "recognizes those specific problem situations which may warrant counseling," was assigned a
group mean of 5.47 while the item, "promotes students' understanding of the potential of personal behavior change through decision making to affect individual well-being, the well-being of others, and the quality of the surrounding environment," received a rating of 5.19 on the "1" to "6" "Importance" scale. A group mean of 3.74 was assigned to the latter item while a mean of 3.60 was assigned to the former item on the "Adequacy of Your Preparation" scale. Thus, these two skill items were rated inversely on the "Importance" and "Adequacy of Your Preparation" scales.

As was the case in Function V (Guidance and Counseling), there were only two Function VI (Referral) skill items. The item, "identifies school and other professional personnel who are qualified to provide follow-up evaluation and professional care to students," was assigned a group mean of 5.40 while the item, "follows through to determine if individuals' health needs have been met through professional referrals," received a grand mean of 5.26 on the "Importance" scale. These two skill items were rated similarly on the "Adequacy of Your Preparation" scale since the former item was rated higher (4.12 on the "0" to "6" scale) than the latter (3.53 on the "0" to "6" scale).

The Function VII (Program Planning) skill item, "identifies the school health educator's role and responsibilities as well as those of other school personnel in preventing and/or resolving pertinent health problems," was assigned a grand
mean of 5.31 on the "Importance" scale. This was the highest rating assigned to any of the six Function VII (Program Planning) skill items. The lowest rating assigned to any of these items was 3.95; this was the second lowest group mean assigned to all of the skill items (Functions I through X). This group mean was assigned to the skill item, "implements the historical and philosophical basis of public and private health organizations into the planning, coordinating, and administering of the total school health program." Two of the Function VII (Program Planning) skill items were assigned identical group means of 4.11 on the "Adequacy of Your Preparation" scale. One of these skill items was rated the highest of all Function VII (Program Planning) skill items on the "Importance" scale; this item is stated at the beginning of this paragraph. The second item pertained to "promoting... the reciprocal relationships which should exist between the health responsibilities of the home, school, and community." The Function VII (Program Planning) skill item which was assigned the lowest grand mean (2.81) on the "Adequacy of Your Preparation" scale dealt with "assisting... in planning for the purchase, care, and utilization of equipment, materials, and supplies." The assigned rating for this item was consistent with the rating assigned to a Function IV (Classroom Instruction) skill item. This item also dealt with preparing budget items.
The group means for the Function VIII (Program Evaluation) skill items ranged from 5.14 for the skill item, "writes and utilizes a variety of reliable and valid objective and subjective tests," to 4.26 for the skill item, "uses various techniques to analyze evaluation data, e.g., means, medians, modes, frequency distributions," on the "Importance" scale. The Questionnaire A respondents indicated that they were "most adequately prepared" to perform the former Function VIII (Program Evaluation) skill item stated at the beginning of this paragraph. They rated their preparation relative to this item to be 4.28 on the "0" to "6" scale. The Function VIII (Program Evaluation) assigned the lowest group mean was the latter item stated earlier in this paragraph. They rated their preparation relative to this item to be 3.26 on the "Adequacy of Your Preparation" scale.

The Function X (Professional Communications) skill item, "seeks and utilizes the contributions of professionals in related disciplines which are significant to health education," was rated slightly higher on the "Importance" scale than the skill item, "Communicates the contributions of health education to professionals in related disciplines, (5.19 to 4.93 on the "1" to "6" scale). Likewise, the former skill item was rated higher on the "Adequacy of Your Preparation" scale than the latter item (4.07 to 3.79 on the "0" to "6" scale).
Attitude/Value Items

The Function I (Content) attitude/value item, "advocates health and health education as important, integral means for obtaining a personally satisfying life," was assigned a higher group mean on the "Importance" scale than the attitude/value item, "recognizes the decisions that students make are based upon the knowledges, skills, and attitudes/values they possess," (5.72 to 5.44 on the 6-point scale). These two items were rated similarly on the "Adequacy of Your Preparation" scale (5.12 to 4.72 on the "0" to "6" scale). The "Adequacy of Your Preparation" rating for the former attitude/value was the highest such rating for all the attitude/value items (Functions I through X).

The group means for the five Function IV (Classroom Instruction) attitude/value items ranged from 5.51 for the attitude/value items, "supports the appropriate use of praise and encouragement in the instructional setting" and "recognizes the importance of one's own optimal mental, emotional, social and physical well being for teaching and the influence on student behavior and appearance," to 4.50 for the attitude/value item, "expresses a philosophy of education and clarifies its relationship to school health education." The group mean assigned to the latter attitude/value item was the lowest group mean assigned to all attitude/value items for Functions I through X. The Function IV (Classroom Instruction) attitude/value item, "supports the active role of individuals in promoting their health and the
health of others," was assigned a group mean of 4.51 on the "Adequacy of Your Preparation" scale. This value was the highest for the five attitude/value items. The lowest group mean (3.70) was assigned to attitude/value item which pertained to expressing a philosophy of education and clarifying its relationship to school health education. This same item received the lowest group mean of all Function IV (Classroom Instruction) attitude/value items on the "Importance" scale. The low rating for this item on both scales is consistent with the low ratings which were assigned to the Function I (Content) knowledge item pertaining to the content area of "philosophy" and the Function III (Instructional Design) skill item pertaining to analyzing the philosophical developments in the field of health education.

The Function V (Guidance and Counseling) attitude/value item, "demonstrates a concern for students," was assigned a group mean of 5.79 on the 6-point "Importance" scale. This rating was higher than any other group mean for any knowledge, skill, or attitude/value which composed the 10 Professional Functions. The second Function V (Guidance and Counseling) attitude/value item, "supports the need for teachers to function in a counseling relationship," was assigned a rating of 5.11 on the "Importance" scale. The attitude/value item which pertained to "demonstrating a concern for students" received a rating of 4.49 while the latter
Function V (Guidance and Counseling) attitude/value item received a 3.44 rating on the "0" to "6" "Adequacy of Your Preparation" scale.

The final attitude/value items to be discussed in this section compose Professional Function VII (Program Planning). The group means for these three items ranged from 5.07 for the attitude/value item, "supports the need for cooperation between school and community health personnel in meeting individual and community health needs," to 4.64 for the attitude/value item, "demonstrates support for health oriented activities by assuming related supervisory responsibilities, e.g., chairs school health council meetings." These two items were assigned group means of 4.16 and 3.02 on the "Adequacy of Your Preparation" scale, respectively. The group mean of 3.02 for the latter attitude/value item represented the lowest rating on the "Adequacy of Your Preparation" scale of all the attitude/value items for the 10 Professional Functions.

**Summary of Questionnaire A Descriptive Data**

Table 35 provides a summary of the high and low group means for each knowledge, skill, and attitude/value category for the 10 Professional Functions. A single group mean is reported for those categories composed of a single knowledge, skill, or attitude/value item.
Table 35 — Summary of High and Low Group Means for the Questionnaire A Knowledge, Skill, and Attitude/Value Items (By Professional Function) on the "Importance" and "Adequacy of Your Preparation" Scales

<table>
<thead>
<tr>
<th>&quot;Importance&quot; Scale</th>
<th>&quot;Adequacy of Your Preparation&quot; Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Function I: (Content)</strong></td>
<td><strong>Function II: (Behavior/Status Appraisal)</strong></td>
</tr>
<tr>
<td>Knowledge Items</td>
<td>The school health educator recalls and applies a framework of information in the following health content areas, including:</td>
</tr>
<tr>
<td>High</td>
<td>The school health educator:</td>
</tr>
<tr>
<td>&quot;drugs, alcohol, and tobacco&quot; (5.49)</td>
<td>Single Item</td>
</tr>
<tr>
<td>Low</td>
<td>Single Item</td>
</tr>
<tr>
<td>&quot;philosophy” (3.67)</td>
<td>identifies a framework of information related to analyzing health needs and interests. (4.88)</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td><strong>Low</strong></td>
</tr>
<tr>
<td>&quot;first aid and accident prevention&quot; (4.95)</td>
<td>&quot;death and dying&quot; (1.98)</td>
</tr>
<tr>
<td><strong>Function III: (Instructional Design)</strong></td>
<td>The school health educator:</td>
</tr>
<tr>
<td>Single Item</td>
<td>Single Item</td>
</tr>
<tr>
<td>identifies a framework of information related to instruction and curriculum development. (5.07)</td>
<td>identifies a framework of information related to analyzing health needs and interests. (3.79)</td>
</tr>
<tr>
<td><strong>Single Item</strong></td>
<td><strong>Single Item</strong></td>
</tr>
<tr>
<td>identifies a framework of information related to instruction and curriculum development. (3.79)</td>
<td>identifies a framework of information related to instruction and curriculum development. (3.79)</td>
</tr>
</tbody>
</table>
Table 35 (cont'd)

Function IV: (Classroom Instruction)

The school health educator:

Single Item

identifies various equipment and facilities that contribute to school health instruction. (5.00)

Function V: (Guidance and Counseling)

The school health educator:

Single Item

identifies a framework of information related to health counseling. (4.91)

Function VII: (Program Planning)

The school health educator:

High

identifies the services that community health agencies and personnel provide in promoting the effectiveness of the total school health program. (5.26)

Low

recognizes the historical and philosophical basis of public and private health organizations. (4.21)
Table 35 (cont'd)

<table>
<thead>
<tr>
<th>Function VIII: (Program Evaluation)</th>
<th>Function IX: (Professional Growth)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The school health educator:</strong></td>
<td><strong>The school health educator:</strong></td>
</tr>
<tr>
<td>Single Item</td>
<td>Single Item</td>
</tr>
<tr>
<td>recognizes professional recommended standards and procedures used in evaluating the total school health program. (5.00)</td>
<td>recognizes professional recommended standards and procedures used in evaluating the total school health program. (3.81)</td>
</tr>
<tr>
<td><strong>Function I:</strong> (Content)</td>
<td><strong>Function I:</strong> (Content)</td>
</tr>
<tr>
<td><strong>Skill Items</strong></td>
<td><strong>Skill Items</strong></td>
</tr>
<tr>
<td>interprets the meaning of health and wellness as well as disease and illness and uses these interpretations as a philosophical basis for teaching. (5.12)</td>
<td>interprets the meaning of health and wellness as well as disease and illness and uses these interpretations as a philosophical basis for teaching. (4.40)</td>
</tr>
</tbody>
</table>
Table 35 (cont'd)

Function II: (Behavior/Status Appraisal)

The school health educator:

- **High** identifies student behaviors which indicate health problems or potential problems. (5.47)

- **Low** recognizes the impact of such factors as culture, environment, and technology on student health and educational needs. (5.23)

Function III: (Instructional Design)

The school health educator:

- **High** develops lesson plans and teaching units relevant to students' needs and interests. (5.33)

- **Low** analyzes historical and philosophical developments in the field of health education and their implications for today's health education programs. (3.91)
Table 35 (cont'd)

**Function IV: (Classroom Instruction)**

The school health educator:

- **High**
  - facilitates students' understanding of controversial health issues in a professional manner (5.60)

- **Low**
  - assists in preparing budget items for the school health instruction program (4.47)

**Function V: (Guidance and Counseling)**

The school health educator:

- **High**
  - recognizes those specific problem situations which may warrant health counseling (5.47)
  
  - demonstrates appropriate first aid techniques and skills (5.30)
    
  - promotes students' understanding of the potential of personal behavior change through decision-making to affect individual well-being, the well-being of others, and the quality of the surrounding environment (3.74)
  
  - assists in preparing budget items for the school health instruction program (2.05)

- **Low**
  - promotes students' understanding of the potential of personal behavior change through decision-making to affect individual well-being, the well-being of others, and the quality of the surrounding environment (5.19)
  
  - recognizes those specific problem situations which may warrant health counseling (3.60)
Table 35 (cont'd)

Function VII: (Referral)

The school health educator:

High

identifies school and other professional personnel who are qualified to provide follow-up evaluation and professional care to students. (5.40)

Low

follows through to determine if individuals' health needs have been met through professional referrals. (5.26)

Function VII: (Program Planning)

The school health educator:

High

identifies the school health educator's role and responsibilities as well as those of other school personnel in preventing and/or resolving pertinent health problems (5.31)

Low

implements the historical and philosophical basis of public and private health organizations into the planning, coordinating, and administering of the total school health program. (5.95)

High

identifies school and other professional personnel who are qualified to provide follow-up evaluation and professional care to students. (4.12)

Low

follows through to determine if individuals' health needs have been met through professional referrals. (3.53)

High

identifies the school health educator's role and responsibilities as well as those of other school personnel in preventing and/or resolving pertinent health problems. (4.11)

Low

assists in planning for the purchase, care and utilization and equipment, materials, and supplies (2.81)
Table 35 (cont'd)

<table>
<thead>
<tr>
<th>Function VIII (Program Evaluation)</th>
<th>Function IX: (Professional Growth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>writes and utilizes a variety of reliable and valid objective and subjective tests, (5.14)</td>
<td>writes and utilizes a variety of reliable and valid objective and subjective tests, (4.28)</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>uses various techniques to analyze evaluation data, e.g., means, medians, modes, frequency distributions. (4.26)</td>
<td>adapts, develops, and implements instruments to evaluate the status of the components of the total school health program. (3.23) and uses various techniques to analyze evaluation data, e.g., means, medians, modes, frequency distributions. (3.26)</td>
</tr>
<tr>
<td>Single Item</td>
<td>Single Item</td>
</tr>
<tr>
<td>works cooperatively with teacher education institutions in providing field experience as well as practicum and inservice activities. (5.07)</td>
<td>works cooperatively with teacher education institutions in providing field experience as well as practicum and inservice activities. (4.02)</td>
</tr>
</tbody>
</table>
### Table 35 (cont'd)

**Function X: (Professional Communications)**

The school health educator:

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>seeks and utilizes the contributions of professionals in related disciplines which are significant to health education. (5.19)</td>
<td>communicates the contributions of health education to professionals in related disciplines. (4.93)</td>
</tr>
</tbody>
</table>

**"Importance" Scale**

**Function X: (Content)**

The school health educator:

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>advocates health and health education as important, integral means for obtaining a personally satisfying life. (5.27)</td>
<td>recognizes the decisions that students make are based upon the knowledges, skills, and attitudes/values they possess. (5.44)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>seeks and utilizes the contributions of professionals in related disciplines which are significant to health education. (4.07)</td>
<td>communicates the contributions of health education to professionals in related disciplines. (3.79)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>recognizes the decisions that students make are based upon the knowledges, skills, and attitudes/values they possess. (4.72)</td>
<td></td>
</tr>
</tbody>
</table>
Table 35 (cont'd)

<table>
<thead>
<tr>
<th>Function II: (Behavior/Status Appraisal)</th>
<th>Function III: (Instructional Design)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The school health educator:</strong></td>
<td><strong>The school health educator:</strong></td>
</tr>
<tr>
<td><strong>Single Item</strong></td>
<td><strong>Single Item</strong></td>
</tr>
<tr>
<td>acknowledges the importance of identifying factors which influence student health behaviors, health status needs and health interests. (5.24)</td>
<td>acknowledges the importance of identifying factors which influence student health behaviors, health status needs, and health interests. (4.23)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function IV: (Classroom Instruction)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The school health educator:</strong></td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>supports the appropriate use of praise and encouragement in the instructional setting. (5.51)</td>
<td>supports the active role of individuals in promoting their health and the health of others. (4.51)</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td><strong>Low</strong></td>
</tr>
<tr>
<td>expresses a philosophy of education and clarifies its relationship to school health education. (4.50)</td>
<td>expresses a philosophy of education and clarifies its relationship to school health education. (3.70)</td>
</tr>
</tbody>
</table>
Table 35 (cont'd)

Function V: (Guidance and Counseling)

The school health educator:

High

demonstrates a concern for students, (5.79)

Low

supports the need for teachers to function in a counseling relationship, (5.11)

Function VI: (Referral)

The school health educator:

High

demonstrates a concern for students, (4.49)

Low

supports the need for teachers to function in a counseling relationship, (3.44)

Function VII: (Program Planning)

The school health educator:

Single Item

accepts professional limitations and utilizes the appropriate referral process to meet individual needs, (5.35)

High

supports the need for cooperation between school and community health personnel in meeting individual and community health needs, (5.07)

High

supports the need for cooperation between school and community health personnel in meeting individual and community health needs, (4.16)
Table 35 (cont'd)

**Low**

demonstrates support for health oriented activities by assuming related supervisory responsibilities, e.g., chairs school health council meetings. (4.64)

**Function VIII: (Program Evaluation)**

The school health educator:

**Single Item**

supports the needs for ongoing evaluation and possible restructuring of the school health program. (5.26)

**Function IX: (Professional Growth)**

The school health educator:

**Single Item**

advocates the need for unbiased research in the health, health education, and other related fields. (5.12)

**Function X: (Professional Communications)**

The school health educator:

**Single Item**

advocates a commitment to health education by contributing responsibly and providing leadership in professional organizations promoting health education. (4.88)
The group means for the knowledge items for the 10 Professional Functions ranged from 3.67 to 5.49 on the "Importance" scale and 1.98 to 4.95 on the "Adequacy of Your Preparation" scale. The Function I (Content) item, "philosophy," was assigned the lowest of all ratings on the "Importance" scale. The content area, "death and dying" was the only item assigned a group mean of less than 2.00 on the "0" to "6" "Adequacy of Your Preparation" scale.

The group means for the skill items ranged from 3.91 to 5.60 on the "Importance" scale and 2.05 to 5.30 on the "Adequacy of Your Preparation" scale. The Function IV (Classroom Instruction) skill item, "demonstrates appropriate first aid techniques and skills," was assigned the highest of all group means (5.30) on the "Adequacy of Your Preparation" scale.

Finally, the group means for the attitude/value items ranged from 4.50 to 5.79 on the "Importance" scale and 3.02 to 5.12 on the "Adequacy of Your Preparation" scale. The Function V (Guidance and Counseling) attitude/value item, "demonstrates a concern for students" received the highest of all ratings (5.79) on the "Importance" scale.
Discussion of Questionnaire B Descriptive Data

The specific knowledge, skill, or attitude/value items which received the highest and lowest group means on both the "Importance" scale and "Adequacy of Your Preparation" scale will be discussed for each Professional Function which was composed of more than one item. The group means for the knowledge, skill, and attitude/value items not discussed in the following section can be assumed to be in the median range.

Those knowledge, skill, and attitude/value categories which were composed of a single item will not be focused upon in this section with the exception of those categories which were responsible for one of the highest or lowest group means for a specific category. These single item categories existed for the Function II (Behavior/Status Appraisal), Function III (Instructional Design), Function IV (Classroom Instruction), Function V (Guidance and Counseling), Function VIII (Program Evaluation) and Function IX (Professional Growth) knowledge categories; for the Function I (Content), Function V (Guidance & Counseling), Function VI (Referral), and Function IX (Professional Growth) skill categories; and for the Function II (Behavior/Status appraisal), Function III (Instructional Design), Function VI (Referral), Function VIII (Program Evaluation), Function IX (Professional Growth), and Function X (Professional Communications) attitude/value categories.
The group means for the knowledge items for the Professional Functions will be discussed in the first portion of this section. This discussion will be followed by similar discussions for the skill and attitude/value items.

Knowledge Items

The group means for the Function I (Content) knowledge items ranged from 5.37 for the content area, "human sexuality and family life," to 4.41 for the information inherent in the allied health fields termed "Life Sciences" on Questionnaire B. The ratings on these two items represented the highest and lowest group means assigned to any knowledge item on the 6-point "Importance" scale. The Function I (Content) knowledge item, "dental health," was assigned a group mean of 4.46 by Questionnaire B respondents. This was the second lowest rating assigned to any knowledge item on the "Importance" scale.

The group means for the Function I (Content) knowledge items ranged from 4.87 for the item, "human sexuality and family life," to 3.07 for the item, "dental health," on the "Adequacy of Your Preparation" scale. Thus, the item, "human sexuality and family life," received the highest ratings on both scales. In addition to the content item, "dental health," Questionnaire B respondents indicated that they were "least adequately prepared" in the content areas of "consumer health," "ecological and environmental health concerns," and "personal
health (rest, sleep, posture, skin care, etc.)." The group means for these content areas on the "Adequacy of Your Preparation" scale were 3.16, 3.46, and 3.61, respectively.

The other Professional Function which was composed of more than one knowledge item was Function VII (Program Planning). The two knowledge items within this Function were assigned group means of approximately the same value on both the "Importance" scale and the "Adequacy of Your Preparation" scale. The item, "recognizes the contributions of the many facets of the total school health program to the general aims of education and quality of life to students," received a rating of 4.80 on the "Importance" scale and 4.15 on the "Adequacy of Your Preparation" scale. The other item, "identifies a framework of information related to planning, coordinating, and administering the many facets of the total school health program," received a rating of 4.74 on the "Importance" scale and 4.02 on the "Adequacy of Your Preparation" scale.

Skill Items

The group means for the Function II (Behavior/Status Appraisal) skill items ranged from 5.22 for the item, "analyzes the interrelationships between values (perceptions, attitudes, beliefs) and health problems (individual, family, school, and community)," on the "Importance" scale. The group means for these two items on the "Adequacy of Your
Preparation" scale were 4.07 and 3.70, respectively. These ratings represented the highest and lowest group means on this scale of any of the Function II (Behavior/Status Appraisal) knowledge items.

The group means for the Function III (Instructional Design) knowledge items ranged from 4.98 for the item, "adapt available health education curricula as well as instructional materials to improve the health education program," to 4.26 for the item, "allows for cultural differences in program planning and implementation," on the "Importance" scale. The former item along with the item, "utilizes community members, local resources, and health professionals in the curriculum development process," both received a group mean of 4.35 on the "Adequacy of Your Preparation" scale. This rating was the highest for all the Function III (Instructional Design) skill items. The lowest group mean on this scale was 2.89. This rating was assigned to the skill item, "allows for cultural differences in program planning and implementation." This was the lowest overall rating for any knowledge, skill, and attitude/value item (Functions I through X) on the "Adequacy of Your Preparation" scale. An identical rating of 2.89 on this scale was assigned to the Function IV (Classroom Instruction) skill item, "utilizes effective disciplinary strategies in managing the classroom."
The group means for the Function IV (Classroom Instruction) skill items ranged from 5.48 for the item, "presents health related information in an organized and clear manner," to 4.74 for the item, "conducts routine classroom administrative and managerial duties in an effective manner," on the "Importance" scale. The rating for the former item was the highest group mean assigned to any knowledge, skill, or attitude/value item on the "Importance" scale. The group means on the "Adequacy of Your Preparation" scale for the Function IV (Classroom Instruction) skill items ranged from 4.76 for the item "operates a wide range of audiovisual equipment," to 2.89 for the item, "utilizes effective disciplinary strategies in managing the classroom." As mentioned at the beginning of this paragraph, this latter item also received the lowest rating of all knowledge, skill, or attitude/value items on the "Importance" scale. The former item received the highest rating of all skill items (Function I through X) on this scale.

The group means for the Function VII (Program Planning) skill items on the "Importance" scale ranged from 5.11 for the item, "work cooperatively with colleagues, school administrators, parents, students, and others in the school community health program," to 3.98 for the item, "assists in maintaining appropriate health and safety records." This second item was rated lower than any other knowledge, skill, or attitude/value on the "Importance" scale. The
group means of the Function VII (Program Planning) skill items on the "Adequacy of Your Preparation" scale ranged from 4.76 for the item, "utilizes the services that community health agencies and personnel provide in promoting the effectiveness of the total school health program" to 3.13 for the item, "assists in maintaining appropriate health and safety records." The former item was assigned the highest rating of any of the skill items on this scale.

The group means for the Function VIII (Program Evaluation) skill items ranged from 5.35 for the item, "evaluates his/her teaching effectiveness using a variety of data, i.e., student achievement scores, informal student feedback, student behavior, attitudes expressed in class," to 4.15 for the item, "applies the basic methods of evaluating the three components of the total school health program, i.e., checklists, inventories, review of accident and disease records, etc.," on the "Importance" scale. The group means for these same two items on the "Adequacy of Your Preparation" scale were 4.41 and 3.37, respectively. These ratings represented the highest and lowest group means on this scale of any of the Function VIII (Program Evaluation) skill items.

The group means for the two Function X (Professional Communications) skill items ranged from 5.26 for the item, "recognizes the current and developing trends in the field
of health education," to 4.67 for the item, "presents educational research findings, teaching strategies, curriculum materials, etc., to fellow professionals via written reports and/or oral presentations," on the "Importance" scale. The group means for these two items on the "Adequacy of Your Preparation" scale ranged from 4.46 to 3.63, respectively.

**Attitude/Value Items**

The highest group mean (5.46) for any attitude/value item (Functions I through X) on the "Importance" scale was assigned to the single Function IX (Professional Growth) attitude/value item, "accepts personal responsibility to stay up-to-date in the fields of health and health education by reading the professional literature and participating in education opportunities." The lowest group mean (Functions I through X) on this scale (4.40) also was assigned to a single item attitude/value category. This attitude/value category item was categorized within Function III (Instructional Design) and reads, "supports the planned comprehensive sequential approach to curriculum design in preference to the crisis-oriented approach."

The group means on the "Importance" scale for the Function I (Content) attitude/value items ranged from 5.33 for the item, "develops an awareness and appreciation of the interrelationships of the physical, emotional, social, and spiritual aspects of health," to 4.78 for the item,
"supports an ecological perspective of health and wellness."
The group means for these two items on the "Adequacy of Preparation" scale were 4.54 and 3.46, respectively. These two ratings represented the highest and lowest group means for the Function I (Content) attitude/value items. In addition, the group mean (3.46) for the latter item was the lowest rating for any of the attitude/value items on the "Adequacy of Your Preparation" scale.

The group means for the Function IV (Classroom Instruction) attitude/value items ranged from 5.43 for the item, "recognizes the value of expressing enthusiasm in teaching," to 4.80 for the item, "acknowledges the impact of environmental factors (classroom cleanliness, ventilation, heating) on the students' well being," on the 6-point "Importance" scale. The group means on the "Adequacy of Your Preparation" scale for the six Function IV (Classroom Instruction) attitude/value items ranged from 4.59 for the item, "advocates health as a means for attaining one's potential for effective living;" to 4.07 for the item, "advocates the need for students and other school personnel to accept progressive responsibility for their own health."

The group means for the Function V (Guidance and Counseling) attitude/value items ranged from 5.43 for the item, "respects and defends the need for confidentiality in teacher-student counseling situations," to 4.72 for the item, "acknowledges the relationship between the educational
process and health counseling," on the "Importance" scale. These same two items were assigned the highest and lowest group means for the Function V (Guidance and Counseling) attitude/value items on the "Adequacy of Your Preparation" scale. These ratings were 4.43 and 3.76, respectively.

The Function VII (Program Planning) attitude/value item, "realizes the importance of possessing first aid skills," was assigned a group mean of 5.39 while the item, "advocates the importance of safety in the life of the student through written statements of policies and procedures for handling emergencies and illness," received a group rating of 4.57 on the "Importance" scale. The group means for these two items on the "Adequacy of Your Preparation" scale were 5.28 and 3.80, respectively. The former group mean on this scale was the highest group rating assigned any knowledge, skill, or attitude/value for the 10 Professional Functions.

Summary of Questionnaire B Descriptive Data

Table 36 provides a summary of the high and low group means for each knowledge, skill, and attitude/value category for the 10 Professional Functions.

The group means for the knowledge items ranged from 4.41 to 5.37 on the "Importance" scale and 3.07 to 4.87 on the "Adequacy of Your Preparation" scale.
<table>
<thead>
<tr>
<th>Knowledge Items</th>
<th>Function I: (Content)</th>
<th>Function II: (Behavior/Status Appraisal)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;human sexuality and family life&quot; (5.37)</td>
<td>The school health educator recalls and applies a framework of information in the following health content areas, including:</td>
<td></td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;dental health&quot; (3.07)</td>
<td>The school health educator recalls and applies a framework of information in the following sciences related to health and health education including: &quot;Life Sciences (biology, physiology, microbiology, parasitology, and bacteriology&quot; (4.41)</td>
<td>identifies a framework of information related to appraising the significance of health behavior, (4.50)</td>
</tr>
<tr>
<td>&quot;human sexuality and family life&quot; (4.87)</td>
<td>identifies a framework of information related to appraising the significance of health behavior, (3.65)</td>
<td></td>
</tr>
</tbody>
</table>
Table 36 (cont'd)

**Function III: (Instructional Design)**  
The school health educator:

*Single Item*
identifies a framework of information related to instruction and curriculum development, (4.76)

**Function IV: (Classroom Instruction)**  
The school health educator:

*Single Item*
identifies a framework of information related to instructional methodology and classroom management, (4.78)

**Function V: (Guidance and Counseling)**  
The school health educator:

*Single Item*
identifies a framework of information related to health counseling, (5.00)

**Function VII: (Program Planning)**  
The school health educator:

*High*
recognizes the contributions of the many facets of the total school health program to the general aims of education and quality of life of students, (4.80)
identifies a framework of information related to planning, coordinating, and administering the many facets of the total school health program, (4.74)

Function VIII: (Program Evaluation)
The school health educator:

Single Item
identifies a framework of information related to the evaluation of the total health program, (4.54)

Function IX: (Professional Growth)
The school health educator:

Single Item
identifies sources of information that promote professional growth and development, (5.22)
<table>
<thead>
<tr>
<th>Skill Item</th>
<th>Function I: (Content)</th>
<th>Function II: (Behavior/Status Appraisal)</th>
<th>Function III: (Instructional Design)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Item</td>
<td>The school health educator: recognizes the relationship between health education and allied health fields that contribute to the health education knowledge base. (4.91)</td>
<td>The school health educator: analyze the interrelationships between values (perceptions, attitudes, beliefs) and health problems (individual, family, school, and community). (5.22)</td>
<td>The school health educator: adapts available health education curricula as well as instructional materials to improve the health education program. (4.98) and utilizes community members, local resources, and health professionals in the curriculum development process. (4.96)</td>
</tr>
<tr>
<td>Low</td>
<td>Low identifies community health needs and interests through participation in community organizations and functions. (4.46)</td>
<td>Low identifies community health needs and interests through participation in community organizations and functions. (3.70)</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>High analyzes the interrelationships between values (perceptions, attitudes, beliefs) and health problems (individual, family, school, and community). (4.07)</td>
<td>High adapts available health education curricula as well as instructional materials to improve the health education program. (4.35) and utilizes community members, local resources, and health professionals in the curriculum development process. (4.35)</td>
<td></td>
</tr>
</tbody>
</table>
Table 36 (cont'd)

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>allows for cultural differences in program planning and implementation. (4.26)</td>
<td>allows for cultural differences in program planning and implementation. (2.89)</td>
<td>operates a wide range of audio-visual equipment. (4.76)</td>
<td>utilizes effective disciplinary strategies in managing the classroom. (2.89)</td>
</tr>
</tbody>
</table>

**Function IV: (Classroom Instruction)**

The school health educator:

- High: presents health related information in an organized and clear manner. (5.48)
- Low: conducts routine classroom administrative and managerial duties in an effective manner. (4.74)

**Function V: (Guidance and Counseling)**

The school health educator:

- Single Item: utilizes counseling skills to help resolve student health related problems, i.e., active listening, clarifying responses, paraphrasing. (5.07)

**Function VI: (Referral)**

The school health educator:

- Single Item: identifies and encourages those individuals whose health needs require supplementary intervention to seek professional help. (5.07)
Table 36 (cont'd)

Function VII: (Program Planning)

The school health educator:

**High**
works cooperatively with colleagues, school administrators, parents, students, and others in the school-community health program. (5.11)

**Low**
assists in maintaining appropriate health and safety records. (3.98)

Function VIII: (Program Evaluation)

The school health educator:

**High**
utilizes the services that community health agencies and personnel provide in promoting the effectiveness of the total school health program. (4.76)

**Low**
assists in maintaining appropriate health and safety records. (3.13)

**High**
evaluates his/her own teaching effectiveness using a variety of data, i.e., student achievement scores, informal student feedback, student behavior, attitudes expressed in class. (5.35)

**Low**
applies the basic methods of evaluating the three components of the total school health program, i.e., checklists, inventories, review of accident and disease records, etc. (4.15)

**High**
evaluates his/her own teaching effectiveness using a variety of data, i.e., student achievement scores, informal student feedback, student behavior, attitudes expressed in class. (4.41)

**Low**
applies the basic methods of evaluating the three components of the total school health program, i.e., checklists, inventories, review of accident and disease records, etc. (3.37)
Table 36 (cont'd)

**Function IX: (Professional Growth)**

The school health educator:

<table>
<thead>
<tr>
<th>Single Item</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>evaluates health and health education related literature and uses this information to implement an effective school health program. (4.61)</td>
<td></td>
</tr>
</tbody>
</table>

**Function X: (Professional Communications)**

The school health educator:

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>recognizes the current and developing trends in the field of health education. (5.26)</td>
<td>presents educational research findings, teaching strategies, curriculum materials, etc., to fellow professionals via written reports and/or oral presentations. (4.67)</td>
</tr>
</tbody>
</table>

"Importance" Scale

<table>
<thead>
<tr>
<th>Attitude/Value Items</th>
<th>Function I: (Content)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>develops an awareness and appreciation of the interrelationships of the physical, emotional, social, and spiritual aspects of health. (5.33)</td>
</tr>
</tbody>
</table>

"Adequacy of Your Preparation" Scale

<table>
<thead>
<tr>
<th>High</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>develops an awareness and appreciation of the interrelationships of the physical, emotional, social, and spiritual aspects of health. (3.87)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>presents educational research findings, teaching strategies, curriculum materials, etc., to fellow professionals via written reports and/or oral presentations. (3.63)</td>
<td></td>
</tr>
</tbody>
</table>
supports an ecological perspective of health and wellness. (4.78)

Function II: (Behavior/Status Appraisal)

The school health educator:

Single Item

supports the need for continuous evaluation of students' health status and behavior utilizing information from all aspects of the total school health program. (4.67)

Function III: (Instructional Design)

The school health educator:

Single Item

supports the planned comprehensive, sequential approach to curriculum design in preference to the crisis-oriented approach. (4.49)

Function IV: (Classroom Instruction)

The school health educator:

High

recognizes the value of expressing enthusiasm in teaching. (5.43)

High

advocates health as a means for attaining one's potential for effective living. (4.59)
Table 36 (cont'd)

**Low**

acknowledges the impact of environmental factors (classroom cleanliness, ventilation, heating) on the students' well-being. (4.80)

**Low**

advocates the need for students and other school personnel to accept progressive responsibility for their own health. (4.07)

**High**

respects and defends the need for confidentiality in teacher-student counseling situations. (5.43)

**High**

respects and defends the need for confidentiality in teacher-student counseling situations. (4.43)

**Low**

acknowledges the relationship between the educational process and health counseling. (4.72)

**Low**

acknowledges the relationship between the educational process and health counseling. (3.76)

**Function VI: (Referral)**

The school health educator:

**Single Item**

accepts professional limitations and utilizes the appropriate referral process to meet individual needs. (5.17)

**Single Item**

accepts professional limitations and utilizes the appropriate referral process to meet individual needs. (4.24)
Table 36 (cont'd)

Function VII: (Program Planning)

The school health educator:

High
realizes the importance of possessing first aid skills. (5.39)

Low
advocates the importance of safety in the life of the student through written statements of policies and procedures for handling emergencies and illness. (4.57)

Function VIII: (Program Evaluation)

The school health educator:

Single Item
advocates the need for evaluating teacher effectiveness in relation to student status and/or behavior. (4.93)

Function IX: (Professional Growth)

The school health educator:

Single Item
accepts personal responsibility to stay up-to-date in the fields of health and health education by reading the professional literature and participating in educational opportunities. (5.46)
Table 36 (cont'd)

Function X: (Professional Communications)
The school health educator:

**Single Item**
develops a professional identity
derived from the beliefs and
values which underlie professional
health education, (5,04)

**Single Item**
develops a professional identity
derived from the beliefs and
values which underlie professional
health education, (4,44)
The group mean for the skill items ranged from 3.98 to 5.48 on the "Importance" scale and 2.89 to 4.76 on the "Adequacy of Your Preparation" scale. The Function IV (Classroom Instruction) skill item, "presents health related information in an organized and clear manner," was assigned the highest of all group means (5.48) on the "Importance" scale. The group mean (3.98) for the Function VII (Program Planning) skill item, (assists in maintaining appropriate health and safety records," received the lowest rating of any knowledge, skill, or attitude/value on the "Importance" scale. Two skill items were assigned a group mean of 2.89 on the "Adequacy of Your Preparation" scale. This group rating was the lowest value assigned to any knowledge, skill, or attitude/value item on this scale. These two skill items were: 1) Function III (Instructional Design)--"allows for cultural differences in program planning and implementation," and 2) Function IV (Classroom Instruction) --"utilizes effective disciplinary strategies in managing the classroom."

Finally, the group means for the attitude/value items ranged from 4.49 to 5.46 on the "Importance" scale and 3.46 to 5.28 on the "Adequacy of Your Preparation" scale. The Function VII (Program Planning) attitude/value item, "realizes the importance of possessing first aid skills" received the highest of all ratings (5.28) on the "Adequacy of Your Preparation" scale.
Implications of the Descriptive Data for Selected Knowledges, Skills, and Attitudes/Values

On the basis of the interpretation of the descriptive data for the selected Questionnaire A and Questionnaire B knowledge, skill and attitude/value items, implications may be drawn. These implications will be discussed in the following paragraphs.

The first implication is related to the group means for the knowledge, skill, and attitude/value items on the "Adequacy of Your Preparation" scale. Those items which were rated low on this scale indicate possible Health Education Professional Preparation Program weaknesses. These weaknesses can be expressed in terms of specific knowledges, skills, or attitudes/values, and thus pertinent measures to strengthen them can be undertaken. For example, the program areas dealing with the knowledge item, "death and dying," the skill items "assists in planning for the purchase, care, and utilization of equipment, materials, and supplies," and "utilizes effective disciplinary strategies in managing the classroom," and the attitude/value item, "clarifies his/her own personal attitudes and values in relation to relevant health issues," should be evaluated to determine the overall quality of the Professional Preparation Program.
A second implication concerns those items rated high on the "Adequacy of Your Preparation" scale. These items indicate possible program strengths. Those highly rated knowledge, skill, and attitude/value items should be noted in order to preserve the strong points of the program. Examples of such items include: the knowledge item, "first aid and accident prevention;" the skill items, "incorporate into health instruction audio-visual materials appropriate for the learner and the teaching situation" and "utilizes the services that community health agencies and personnel provide in promoting the effectiveness of the total school health program," and the attitude/value item, "advocates health as a means for attaining one's potential for effective living."

A third implication stems from the group ratings of knowledge, skill, and attitude/value items on the "Importance" scale. Items rated high on this scale indicate those knowledges, skills and attitudes/values which the program graduates perceived to be important. Examples of these items include: the knowledge item, "drugs, alcohol, and tobacco," the skill items, "facilitates students' understanding of controversial health issues in a professional manner," and "presents health related information in an organized and clear manner," and the attitude/value, "recognizes the value of expressing enthusiasm in teaching."
A fourth implication concerns those items which were assigned low group means on the "Importance" scale. Before any action is taken on these items, they should be evaluated to determine if they are unimportant in terms of their utility to school health educators. It is possible that some of the items which were assigned low ratings on the "Importance" scale are crucial for school health educators in terms of their performing effectively in their professional roles. Examples of items which were rated low on the "Importance" scale include: the knowledge item, "Philosophy," the skill items, "implements the historical and philosophical basics of public and private health organizations into the planning, coordinating, and administering of the total school health program" and "conducts routine classroom administrative and managerial duties in an effective manner," and the attitude/value item "acknowledges the impact of environmental factors (classroom cleanliness, ventilation, heating) on the students' well-being."

A final implication is related to the interaction between the ratings of an item on the two scales. If an item is rated low on the "Importance" scale but high on the "Adequacy of Your Preparation" scale, this may indicate that the Health Education Program is concentrating on possibly unimportant objectives. An example of this interaction occurred on the skill item, "promotes students' under-
standing of the potential of personal behavior change through decision-making to affect individual well-being, the well-being of others, and the quality of the surrounding environment."

Another type of interaction occurs when an item is rated high on the "Importance" scale and low on the "Adequacy of Your Preparation" scale. This interaction may indicate that there are "important" knowledges, skills, and attitudes/values which are desirable for the school health educator that are being overlooked in the professional preparation program. Examples of this interaction are: the skill items, "identifies student behaviors which indicate health problems or potential problems" and "recognizes those specific problem situations which may warrant health counseling."

Summary

This chapter served two major purposes. The first purpose was to interpret the descriptive data presented in Chapter IV. This interpretation for these data consisted of a discussion of those specific knowledge, skill, and attitude/value items which were assigned the highest and lowest means on both the "Importance" and "Adequacy of Your Preparation" scales.
The second purpose was to specify the implications of the descriptive data discussed in the first section of this chapter. These implications were expressed in terms of how specific knowledge, skill, and attitude/value items were rated on the "Importance" scale and "Adequacy of Your Preparation" scale.
Chapter VI

APPRAISAL OF THE PROCEDURAL MODEL PROCESS: IMPLICATIONS FOR ITS ADAPTATION BY OTHER TEACHER EDUCATION PROGRAMS AREAS

After reviewing the four phases of this study which were identified at the beginning of Chapter 3, the procedural model developed and implemented in these four phases will be appraised to determine whether or not it can be adapted for use by other educational program areas in an effort to follow-up their graduates. Figure 7, as initially presented on page 87, is reproduced on page 215 for the reader's convenience; it diagrams this appraisal procedure. As shown in Figure 6 the assets and liabilities of each phase will be described briefly. Following this appraisal, a summary of the implications of the model for other teacher education subject areas will be presented.

**The Assets and Liabilities of Each of The Four Phases Which Comprise This Study**

The four phases around which this study was conducted were:

**Phase I:** Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University
Figure 7: Phase V: Appraisal of the Procedural Model Process: Study Implications
Phase II: Development of the Survey Instrument To Obtain Feedback from the 1970-1979 Bachelor's Degree Level Health Education Graduates

Phase III: Collection of the Data

Phase IV: Presentation, Analysis and Interpretation of the Data

In the following sections the assets and liabilities of each phase will be considered.

Phase I: Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University.

The process of identifying the desired outcomes of the undergraduate School Health Education Program was a positive and rewarding venture for a variety of reasons. One of these reasons involved identifying the Professional Functions of the school health educator. This conceptual process provided not only a structure under which the more specifically stated knowledges, skills and attitudes/values were categorized, but it also presented a broad overview of the professional duties and responsibilities of the school health educator who has graduated from The Ohio State University. The validation of these Functions by the Selected Health Education Faculty enabled a common sharing of professional beliefs and values. It also provided an opportunity for the Faculty to clarify the major priorities of their preparation program in terms of what they desire for their graduates.
The development of a comprehensive list of knowledges, skills, and attitude/values determined essential for the effective teaching of health was a further reason why this initial process was a positive one. Much of this developmental stage involved reviewing what teacher education institutions, state education programs, professional health education organizations, etc. are contributing to the professional knowledge base. Combining one's own ideas and those garnered from other sources enabled the investigator and the Selected Health Education Faculty to synthesize the extensive literature into the most appropriate document which served to describe the desired outcomes of the Bachelor's Degree level School Health Education Program at The Ohio State University. As was the case with the validation of the Professional Functions, the validation of the knowledges, skills, and attitude/values provided for an intellectual and philosophical sharing. In addition, this validation process will allow faculty members to compare the goals and objectives of their present professional program to those knowledges, skills, and attitudes/values which were validated. Future program decisions also may reflect these validated items. The possible end result might be the incorporation of these items into the professional health education curriculum.
The major liability in Phase I was a broad-based conceptual one which could undermine the entire procedural model. Simply put, the liability involves identifying irrelevant or even counter-productive Professional Functions and/or knowledges, skills, and attitudes/values. The desired outcomes identified in this study are based primarily on professional commitments. Since there is a scarcity of teacher effectiveness research that support these commitments, professional health educators must consider carefully the appropriateness of the stated desired outcomes. It should be clear that these stated outcomes are subject to change as more is learned about what makes a teacher effective.

A third liability might be manifested if the stated desired outcomes were to be made prescriptive for all school health educators in all types of educational settings.

**Phase II: Development of the Survey Instrument To Obtain Feedback From the 1970-1979 Bachelor's Degree Level Health Education Graduates**

The major asset of Phase II was a fundamental one and dealt with the content and format of the survey instrument. Unlike the case with generic follow-up instruments where numerous compromises have to be made in order to satisfy the desires of all the program areas involved, this study's instrument was constructed with the follow-up of graduates of a specific program in mind. Thus, it has been tailored to meet this program faculty's needs and desires. The demo-
graphic information to be collected as well as the specification of the "Importance" scale and the "Adequacy of Your Preparation" scale all reflected the commitments of the Selected Health Education Faculty.

Developing a written survey instrument to collect this study's data was a second asset; a great variety of items could be included in such an instrument. This provided for a broad base of feedback.

The use of a pilot study to check the clarity of the instrument's instructions, the instrument itself, and to determine the time required to complete the initial instrument was a positive and necessary developmental step. The modifications made to the instrument as a result of this pilot study were vital to the success of this study.

Finally, the instrument format which requested graduates to respond to how important they perceived an item to be and then to how adequately they felt they were prepared to achieve the knowledge, skill, or attitude/value described in the item provided valuable feedback for the Health Education faculty. Much of this feedback may inform faculty of the relevance of the items they validated and how certain aspects of their Professional Preparation Program prepares graduates to do their jobs.

One liability which was probably unavoidable involved the extensive number of knowledges, skills, and attitudes/values identified and validated in Phase I. Incorporating all these items into a single questionnaire format would
have placed a burden on this study's population in terms of completing the instrument. This was the reason why two similar instruments were devised. Likewise, the study's population had to be divided into two random stratified samples. This was unfortunate because it would have been preferable to have had the entire population respond to all the knowledges, skills, and attitudes/values. This would have allowed this study's investigator to present and analyze the data collected as a whole rather than treating the collected data as two separate bodies of information. Separation of these items also made it difficult to determine their overall reliability.

When a large number of items must be included on a written survey instrument to collect various feedback information, there is an inherent liability of not providing for subjects an opportunity to respond to issues which are overlooked and, thus, not addressed by the written instrument.

These items also do not take into account the many contextual variables which would probably affect the subject's responses. Some examples of these variables include: socio-economic status of the pupils which respondents teach; grade level at which they teach; and degree to which their professional duties are related to health instruction.

Phase III: Collection of the Data

The use of the mailed survey instrument to collect this study's data proved to be both appropriate and efficient.
The method of following up the initial mailing of the instrument with a second mailing and, if necessary, a telephone call, obtained a very acceptable usable response rate of 67.4 percent. Thus, it was possible to obtain a large percentage of the populations' response to the instrument at a minimum of financial expense.

However, validity of respondent's ratings is always an issue when data are collected via a mailed survey instrument. Subjects' responses to the items were based on self-report which may or may not reflect their actual behaviors. The effect of having subjects respond to items that they had possibly not thought about for some period of time also may be a cause for instrument invalidity. Ideally, data collected via mailed survey instruments should be compared to data obtained through personal interviews as well as classroom observations of those subjects who are teaching. Unfortunately, the efforts of the study's investigator were limited by both time and monetary factors.

Phase IV: Presentation, Analysis and Interpretation of the Data

Reporting data in table form provided readers with a reference in which they could base their own conclusions. Summaries which accompanied these tables communicated to the reader what the investigator viewed as most important.

The presentation of the grand means for the knowledge items, skill items, and attitude/value items within each Professional Function served to summarize the data. The
interpretation of the grand means for these data consisted of a discussion of the specific knowledge, skill, and attitude/value items which were assigned the highest and lowest group means on both the "Importance" scale and "Adequacy of Your Preparation" scale. These group means were calculated by summing the subjects' responses to each specific knowledge, skill, or attitude/value item for each of the 10 Professional Functions and dividing the total by the number of subjects.

The decision to point out the significant differences between populations (grouped according to demographic characteristics) based on subjects' responses to questionnaire items was made in an effort to inform the Health Education faculty at The Ohio State University of the professional priorities, strengths, and weaknesses of various groups of their graduates. For example, what might be the result if it was determined that respondents who graduated between 1970-1974 responded significantly differently to the skill items for Function IV when compared to those respondents who graduated during the 1975-1979 time period. Program faculty may react to this finding in a number of ways. They may, for example, develop in-service opportunities for select groups of their graduates to help meet specific needs. Regardless of their reaction to these significant findings, the Health Education program faculty will have greater insight into the problems, priorities, and interests of their graduates.
There were no major liabilities in Phase IV. After the appropriate descriptive and inferential statistics were selected for use, the presentation, analysis and interpretation of the data were accomplished in a fairly straightforward process.

**Implications For Adapting the Procedural Model by Other Teacher Education Program Areas**

The assets of implementing this procedural model far outweighed the liabilities. This model could be easily adapted for use by most subject areas within teacher education. It is a flexible model which provides teacher educators with broad guidelines to follow. It is not a prescriptive model because each phase is structured to reflect the input of those professionals involved in the follow-up process. The use of a procedural model is more than a means to an end, i.e., obtaining data about program graduates. In fact, one of its greatest strengths is that it encourages a sharing of professional commitments and philosophies. This sharing could serve to revitalize a program as well as clarify its goals and objectives.

The issue of program accountability is intertwined throughout this model in the form of identifying the knowledges, skills, and attitudes/values determined essential for effective teaching and then having the products of the preparation program (graduates) respond to these K,S,A/V's.
This procedure is more refined than having graduates evaluate an entire course that they completed during their preservice careers. Course evaluations tend to be so broadly based that they limit graduates' potential feedback.

Finally, this model is viewed as one important component of an overall follow-up program. This component is meant to be supplemented by other data collection procedures such as personal interviews and classroom observations. The model does, however, provide a basic framework around which the outcomes of the professional preparation program are identified and graduates are given an opportunity to express their perceptions of the relevancy and adequacy of their preparation.
Chapter VII

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the study's problem, the procedures used in this study, and the study's results; it also includes a listing of the conclusions generated by the study and recommendation for further action.

Summary of the Study's Problem

The purpose of this study was to develop and implement a procedural model to follow-up the 1970-1979 Health Education Bachelor's Degree level graduates of The Ohio State University. The model incorporated the desired outcomes for the school health educator as validated by the Health Education Selected Faculty; it was designed to obtain graduates' feedback concerning their professional preparation and what they viewed as important qualities of the school health educator. To accomplish this task, three major problems had to be solved. The first problem was to identify and comprehensively describe the professional functions of the undergraduate school health educator who has graduated from The Ohio State University. The second problem was to identify the body of knowledges, skills, and attitudes/values which were determined essential for the effective
teaching of health. Finally, a third problem was to design the procedural follow-up model that incorporated the previously identified generalized statements and knowledges, skills, and attitudes/values.

In addition to these major problems, there were five subproblems within this study. They were:

1. Content validate (judge the representativeness of) the professional functions of the school health educator.

2. Content validate the identified knowledge, skill, and attitude/value statements.

3. Develop and administer an instrument containing these knowledge, skill, and attitude/value statements to a population of Bachelor's Degree level graduates in order to assess their perceptions of: 1) the importance of the identified knowledge, skill, and attitude/value statements,and 2) the adequacy of their preparation at The Ohio State University to achieve the stated knowledges, skills, and attitudes/values.

4. Analyze and interpret the data collected via the survey instrument.

5. Appraise the follow-up model and its potential for application by other teacher education subject areas.
Three basic assumptions were considered in this study. Two of these assumptions were related to this study's respondents perceiving accurately (in terms of their responses on both the "Importance" and "Adequacy of Your Preparation" scales) the knowledge, skill, and attitude/value items which composed both forms of the survey instrument. The specific level at which these items were stated helped ensure the accuracy of the subjects' perceptions. The third assumption focused on the procedural model as developed and implemented in this study to follow-up graduates from other program areas. The flexibility of this model facilitates its adaptation by other professionals; thus, it is plausible that the model could be utilized to follow-up graduates from a wide variety of teacher education program areas.

Summary of the Procedures Used in the Study

The study was divided into five procedural phases. These phases were:

Phase I: Identifying the Desired Outcomes of the Undergraduate School Health Education Program at The Ohio State University

Phase II: Development of the Survey Instrument to Obtain Feedback From the 1970-1979 Bachelor's Degree Level Health Education Graduates

Phase III: Collection of the Data
Phase IV: Presentation, Analysis and Interpretation of the Data

Phase V: Appraisal of the Procedural Model Process: Implications For Its Adaptation by Other Teacher Education Programs Areas.

The identification of the 10 Professional Functions of the Bachelor's Degree level school health education graduate of The Ohio State University, 1970-1979, was the first step of Phase I. After this step was completed the Selected Health Education faculty validated the Professional Functions. The identification and organization of the knowledges, skills, and attitudes/values which were determined essential for the effective teaching of health was the third step in Phase I. These initial knowledges, skills, and attitudes/values reflected the objectives of the required Health Education courses offered at The Ohio State University. These knowledges, skills, and attitudes/values were used as the basis for developing a more comprehensive packet of K,S,A/V's. Knowledges, skills, and attitudes/values which were added to this initial list were gleaned from a review of selected related literature. The final step of Phase I was the validation of the comprehensive list of knowledges, skills, and attitudes/values identified in steps 3 and 4.
Phase II dealt with the construction of the survey instrument; the pilot study of the instrument; and modifications to the instrument as a result of the pilot study.

The final instrument was composed of the validated knowledge, skills, and attitudes/values organized according to the previously validated Professional Functions. Each knowledge, skill, and attitude/value statement was responded to by the 1970-1979 Bachelor's Degree level school Health education graduates according to two scales. One of these two scales requested the graduates to rate the "Importance" of each knowledge, skill, or attitude/value statement on a "1" (totally unimportant) to "6" (most important) scale. The other scale requested the respondents to rate the "Adequacy of Your Preparation" to achieve each stated knowledge, skill, or attitude/value on a "1" (poor preparation) to "6" (excellent preparation) scale. An additional point of "0" (no preparation) was placed on this scale to stress the differentiation between the quality of one's professional preparation and the possible lack of a specific facet of preparation.

It was determined from the pilot study that the time required to complete the initial instrument was prohibitive and would adversely affect an acceptable response rate. Thus, the items composing the initial instrument were equally divided and two instruments were constructed. These instruments shared a common introductory section that requested demographic data.
The second section of each instrument consisted of different items, but the previously described scales were common to both instruments. The population of 132 graduates was randomly divided into two stratified samples. One instrument was administered to a sample of 66 graduates while the other instrument was administered to the remaining sample.

The "Collection of the Data Phase" was a three step process. The first step was the initial mailing of the two forms of the instrument to their respective samples. This "first round" mailing was followed by a second mailing in an attempt to obtain completed instruments from those graduates who did not initially respond. A final attempt to obtain completed instruments was in the form of placing telephone calls to all graduates who did not respond to the mailed instrument.

Analysis of the study data was conducted using descriptive (percentages, means, ranges, and standard deviations), correlational (Pearson product-moment correlation coefficient) and inferential (analysis of variance) statistics. Grand means were presented for the knowledge items, skill items, and attitude/value items for each Professional Function. The items were grouped in this manner in order to summarize the respondents' ratings. The interpretation of the grand means for these data consisted of a discussion of the specific knowledge, skill, and attitude/value items which
were assigned the highest and lowest group means on the "Importance" scale and the "Adequacy of Your Preparation" scale.

The final phase of the study was an appraisal of the Phases I through IV as a means of determining whether or not the study's procedural model could be adapted for use by other teacher education program areas in an effort to follow-up their graduates. The assets and liabilities of each phase were presented in summary form. This was followed by a brief section which discussed the possible implications of the procedural model used in this study for other teacher education subject areas.

Summary of the Study's Results

The analyses of this study's data using descriptive, correlational, and inferential statistics provided a wealth of information. The major results which were derived from these analyses were:

1. Both Questionnaire A and Questionnaire B respondents perceived the knowledge, skill, and attitude/value items to be relatively important. On a scale of 1-6, the grand means of these items ranged from 4.61 to 5.60 on the Questionnaire A "Importance" scale and from 4.49 to 5.46 on the Questionnaire B "Importance" scale.

2. The "Adequacy of Your Preparation" grand means on both Questionnaire A and Questionnaire B were lower than the "Importance" grand means; there also was more variance
in the "Adequacy" grand means. On a scale of 0-6, the grand means for the knowledge, skill, and attitude/value items on Questionnaire A ranged from 3.14 to 4.92 and from 3.50 to 4.89 on Questionnaire B.

3. The Questionnaire A Function I (Content) knowledge item, "drugs, alcohol, and tobacco," was assigned the highest group mean (5.49) of any knowledge item for all 10 Professional Functions on the "Importance" scale.

4. The Questionnaire A Function I (Content) knowledge item, "philosophy," was assigned the lowest group mean (3.67) of any knowledge item for all 10 Professional Functions on the "Importance" scale.

5. The Questionnaire A Function IV (Classroom Instruction) skill item, "facilitates students' understanding of controversial health issues in a professional manner," was assigned the highest group mean (5.60) of any skill item for all 10 Professional Functions on the "Importance" scale.

6. The Questionnaire A Function III (Instructional Design) skill item, "analyzes historical and philosophical developments in the field of health education and their implications for today's health education programs," was assigned the lowest group mean (3.91) of any skill item for all 10 Professional Functions on the "Importance" scale.
7. The Questionnaire A Function V (Guidance and Counseling) attitude/value item, "demonstrates a concern for students," was assigned the highest mean (5.79) of any attitude/value item for all 10 Professional Functions on the "Importance" scale.

8. The Questionnaire A Function IV (Classroom Instruction) attitude/value item, "expresses a philosophy of education and clarifies its relationship to school health education," was assigned the lowest group mean (4.50) of any attitude/value item for all 10 Professional Functions on the "Importance" scale.

9. The Questionnaire A Function I (Content) knowledge item, "first aid and accident prevention," was assigned the highest group mean (4.95) of any knowledge item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

10. The Questionnaire A Function I (Content) knowledge item, "death and dying," was assigned the lowest group mean (1.98) of any knowledge item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

11. The Questionnaire A Function IV (Classroom Instruction) skill item, "demonstrates appropriate first aid techniques and skills," was assigned the highest group mean (5.30) of any skill item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.
12. The Questionnaire A Function IV (Classroom Instruction) skill item, "assists in preparing budget items for the school health instruction program," was assigned the lowest group mean (2.05) of any skill item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

13. The Questionnaire A Function I (Content) attitude/value item, "advocates health and health education as an important, integral means for obtaining a personally satisfying life," was assigned the highest group mean (5.12) of any attitude/value item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

14. The Questionnaire A Function VII (Program Planning) attitude/value item, "demonstrates support for health oriented activities by assuming related supervisory responsibilities, e.g., chairs school health council meetings," was assigned the lowest group mean (3.02) of any attitude/value item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

15. The Questionnaire B Function I (Content) knowledge item, "human sexuality and family life," was assigned the highest group mean (5.7) of any knowledge item for all 10 Professional Functions on the "Importance" scale.

16. The Questionnaire B Function I (Content) knowledge item, "Life Sciences" was assigned the lowest group mean (4.41) of any knowledge item for all 10 Professional Functions on the "Importance" scale.
17. The Questionnaire B Function IV (Classroom Instruction) skill item, "presents health related information in an organized and clear manner," was assigned the highest group mean (5.48) of any skill item for all 10 Professional Functions on the "Importance" scale.

18. The Questionnaire B Function VII (Program Planning) skill item, "assists in maintaining appropriate health and safety records," was assigned the lowest group mean (3.98) of any skill item for all 10 Professional Functions on the "Importance" scale.

19. The Questionnaire B Function IX (Professional Growth) attitude/value item, "accepts personal responsibility to stay up-to-date in the fields of health and health education by reading the professional literature and participating in educational opportunities," was assigned the highest group mean (5.46) of any attitude/value item for all 10 Professional Functions on the "Importance" scale.

20. The Questionnaire B Function III (Instructional Design) attitude/value item, "supports the planned comprehensive, sequential approach to curriculum design in preference to the crisis-oriented approach," was assigned the lowest group mean (4.49) of any attitude/value item for all 10 Professional Functions on the "Importance" scale.

21. The Questionnaire B Function I (Content) knowledge item, "human sexuality and family life," was assigned the highest group mean (4.87) of any knowledge item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.
22. The Questionnaire B Function I (Content) knowledge item, "dental health," was assigned the lowest group mean (3.07) of any knowledge item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

23. The Questionnaire B Function IV (Classroom Instruction) skill item, "operates a wide range of audiovisual equipment," and Function VII (Program Planning) skill item, "utilizes the services that community health agencies and personnel provide in promoting the effectiveness of the total school health program," were assigned the highest group mean (4.76) of any skill item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

24. The Questionnaire B Function III (Instructional Design) skill item, "allows for cultural differences in program planning and implementation," and Function IV (Classroom Instruction) skill item, "utilizes effective disciplinary strategies in managing the classroom," were assigned the lowest group mean (2.09) of any skill item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

25. The Questionnaire B Function VII (Program Planning) attitude/value item, "realizes the importance of possessing first aid skills," was assigned the highest group mean (5.28) of any attitude/value item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.
26. The Questionnaire B Function I (Content) attitude/value item, "supports an ecological perspective of health and wellness," was assigned the lowest group mean (3.46) of any attitude/value item for all 10 Professional Functions on the "Adequacy of Your Preparation" scale.

27. Fifty of the possible 56 correlational relationships between respondents' "Importance" grand means on the knowledge items, skill items, and attitude/value items and their "Adequacy of Your Preparation" grand means on the same items were significant at an alpha level of .05.

28. There were significant differences at the .05 level between the grand means of respondents who were grouped by selected demographic and employment related variables; these variables included "graduate degree hours completed," "percentages of professional duties related to health instruction," "sex," "year of graduation," and "school health educator status." Although significant differences occurred between the grand means of Questionnaire A respondents on only the first two variables mentioned previously, there were significant differences between the grand means of Questionnaire B respondents on all five of the previously mentioned variables.
Conclusions

On the basis of the procedures used, analysis, and interpretation of the data and within the limitations of the study, the following conclusions were made:

1. The assumption that a procedural model could be developed and implemented by professionals who prepare teachers in other subject areas to follow-up their program graduates was valid.

2. Phase I of this study's procedural model which requested the Health Education Selected Faculty to validate the desired outcomes of the undergraduate School Health Education Program at The Ohio State University provided an opportunity for the Selected Faculty to share their professional philosophies and concerns.

3. Identification and validation of the Professional Functions and the knowledges, skills, and attitudes/values determined essential for the effective teaching of health enabled the Selected Health Education Faculty to clarify the goals and objectives of their undergraduate Professional Preparation Program.

4. The component of the procedural model which required a review of selected literature related to school health educator competencies and curricula may serve as a standard against which the present Health Education Professional Preparation Program at The Ohio State University could be compared.
5. The procedural model developed and implemented in this study may serve as a means to comply with two of the State of Ohio Standards for Colleges or Universities Preparing Teachers. These standards were:

a. The body of knowledge, skills, attitudes, and values determined essential for effective teaching shall be specified for each field in which the college or university is approved to prepare teacher education students. (EDb-303-02 Curriculum. 1975, p.4)

b. Continuous study, development, and improvement of teacher education shall be evidence and supported by a well-defined plan of evaluation which shall provide for the follow-up of graduates. (EDb-303-08 Evaluation. 1975. p.9)

6. The incorporation of the "Importance" scale and the "Adequacy of Your Preparation" scale into this study's survey instrument served as a measure of the relevancy and adequacy of The Ohio State University's Health Education Professional Program as perceived by its Bachelor's Degree level graduates.

Recommendations

The following recommendations are made based upon the results of the study:

1. The procedural model may be adapted and implemented by other teacher education program areas.

2. The Professional Functions identified and validated in this study may serve as guidelines to other Bachelor's Degree level school health education professional preparation programs.
3. The data collected by the survey instrument may be supplemented by other follow-up procedures such as classroom observations and personal interviews in an effort to gather additional data and to validate data collected on the survey instrument; the logical first step in this process would be to contact the graduates who responded to this study's survey instrument.

4. The Professional Functions and knowledges, skills, and attitude/values identified and validated in this study should be reviewed, evaluated, and revised on a continuous basis to reflect the changes that occur in the public schools, the health field, and society as a whole; input from both health education students and program graduates should be a vital part of this process.

5. Future Bachelor's Degree level health education graduates of The Ohio State University may complete this study's survey instrument on two occasions, namely, when they enter the Health Education Professional Preparation Program and after they graduate; such feedback from students would serve to communicate to Health Education faculty the effects of their program on students. When the instrument is used with students just entering the Professional Program, it should be modified to measure current proficiencies related to specific knowledge, skill, and attitude/value items.
6. The section common to both survey instruments which requests demographic and employment related data should be revised to provide for more detailed data on the following variables: current employment, prior employment, and graduate degree hours; in addition, questions should be constructed which request: a) data on the relationship between the graduates' college degrees and their obtainment of and functioning in their current employment, and b) information concerning whether the program graduate completed all four years of his degree at The Ohio State University or transferred into the program at some interim period.

7. Those knowledges, skills, and attitudes/values which were rated low on the "Importance" scale may be reviewed and steps may be taken to determine their inclusion in or elimination from the Health Education Professional Preparation Program at The Ohio State University.

8. Those knowledge, skill, and attitude/value items which were rated low on the "Adequacy of Your Preparation" scale may be reviewed, and steps may be taken to improve the preparation of both present Health Education students and Bachelor's Degree level graduates of The Ohio State University.
APPENDIX A
CURRENT ADDRESS REQUEST FORM
Dear Health Education Undergraduate:

The Division of Health Education, School of Health, Physical Education and Recreation, is attempting to obtain the most current mailing addresses of its undergraduates. Please complete the information form below and return it in the enclosed return envelope by October 21. If this letter is delayed due to forwarding difficulties, please return the information form immediately. Also, please inform me of any address changes as they occur. Thank you for your assistance.

Sincerely,

Mary K. Beyrer
Director, School of Health, Physical Education and Recreation

NAME

PRESENT STREET ADDRESS

CITY, STATE & ZIP CODE

PHONE NUMBER ( )

PERMANENT STREET ADDRESS

CITY, STATE & ZIP CODE

PHONE NUMBER ( )

College of Education
APPENDIX B
CONTENT VALIDATION OF PROFESSIONAL FUNCTIONS
COVER LETTER
September 25, 1979

Dr. Robert Kaplan
Chairman, Division of Health Education
The Ohio State University
215 Panorama Hall
1760 Neil Avenue
Columbus, Ohio 43210

Dear Dr. Kaplan:

The 1980 State Standards for Teacher Education Institutions within the State of Ohio state:

The body of knowledge, skills, attitudes, and values determined essential for effective teaching shall be specified for each field in which the college or university is approved to prepare teacher education students. (EDB-303-02 Curriculum. 1975, p. 4).

One way of complying with this standard involves identifying a list of current professional functions of the teacher, in this case the school health educator, under which the desired knowledges, skills, attitudes, and values can be organized. My colleague, Joyce Brannan, and I have developed a list of eleven professional functions which we feel an individual needs to perform in order to be a school health educator. These functions were developed to be broad in scope in order to be inclusive of all such knowledges, skills, attitudes, and values currently desired of the school health educator. But they also had to be as mutually exclusive as possible to enable the placement of a knowledge, skill, attitude, or value under the most appropriate function.

As a Division of Health Education tenured faculty member, please consider the following eleven functions for validation by completing the enclosed questionnaire according to the stated instructions. Please place the completed questionnaire in my mailbox by October 2. Thank you for taking the time to complete the enclosed questionnaire.

Sincerely,

Don Hawk
Research Associate
The Ohio State University
APPENDIX C

INSTRUCTIONS FOR CONTENT VALIDATION OF THE PROFESSIONAL FUNCTIONS AND LIST OF FUNCTIONS IN A RESPONSE FORMAT
The 1980 State Standards for Teacher Education Institutions within
the State of Ohio state:

The body of knowledge, skills, attitudes, and values
determined essential for effective teaching shall be
specified for each field in which the college or uni-
versity is approved to prepare teacher education students.
(EMB-303-02 Curriculum. 1975, p. 4).

One way of complying with this standard involves identifying a list
of current professional functions of the teacher, in this case the
school health educator, under which the desired knowledges, skills,
attitudes, and values can be organized. My colleague, Joyce Brannan,
and I have developed a list of eleven professional functions which
we feel an individual needs to perform in order to be a school health
educator. These functions were developed to be broad in scope in order
to be inclusive of all such knowledges, skills, attitudes, and values
currently desired of the school health educator. But they also had to
be as mutually exclusive as possible to enable the placement of a know-
ledge, skill, attitude, or value under the most appropriate function.

As a Division of Health Education tenured faculty member, please
consider the following eleven functions for validation using your pro-
fessional expertise as a standard when completing the enclosed question-
aire. Please follow the stated instructions and place the completed
questionnaire in my mailbox by October 16, 1979. Thank you for taking
the time to complete the enclosed questionnaire.

Sincerely,

Don Hawk
Research Associate
The Ohio State Univ.
1. Does the statement represent a current professional function desired of a Bachelor's Degree level Health Education Graduate of The Ohio State University?

Please respond to each of the eleven professional functions by circling one of the following responses:

"Yes" the stated function is a representative current professional function desired of a school health educator graduated from The Ohio State University.

"Yes - with reservations" the stated function is in some respects representative of a current professional function desired of a school health educator graduated from The Ohio State University, but can not be accepted totally as representative until it is modified.

"No" the stated function is completely unacceptable in terms of its representativeness as a current professional function desired of a school health educator graduated from The Ohio State University.

If you respond in a "yes - with reservations" or "No" manner, please state your reasons(s) for such a response in the space provided.

1. Analyze, appraise, and prioritize 1) health status, 2) health interests and needs and 3) health education concerns, especially those amenable through education.

Yes Yes-with reservations No

2. Design, write, and promote blueprints for instruction and curriculum.

Yes Yes-with reservations No
3. Possess current content knowledge, e.g., terminology, factual information, concepts, and theories for the teaching speciality of health.
   Yes No

   Yes - with reservations

4. Arrange human, material, and temporal resources with the intent of promoting learning, i.e., instructional methodology, (Hough, 1979).
   Yes No

   Yes - with reservations

5. Coordinate the total school health program (health instruction, school health services, and healthful school environment) and assist other professionals in planning and administering the school health delivery system.
   Yes No

   Yes - with reservations

6. Refer to allied professionals, e.g., medical, legal, financial, and social work, those individuals whose concerns require supplementary intervention.
   Yes No

   Yes - with reservations

7. Guide individuals in personal decision-making and counsel when appropriate.
   Yes No

   Yes - with reservations
8. Evaluate total school health program (health instruction, school health services, and healthful school environment) effectiveness in promoting student cognitive, affective, and skill gain.

Yes

Yes - with reservations

No

9. Peruse, critique, and use the latest literature reports, research findings, in-service and other opportunities to further professional growth.

Yes

Yes - with reservations

No

10. Communicate with other professionals via such avenues as publications, speeches, association memberships and committees.

Yes

Yes - with reservations

No

11. Perform administrative and managerial tasks.

Yes

Yes - with reservations

No

2. Does one or more major function overlap with another function to a large extent? The eleven stated functions are closely interrelated because they represent the professional responsibilities of the Bachelor's degree level school health educator graduated from The Ohio State University. They were developed, however, to provide for a minimum of overlap in meaning. Keeping this in mind, does one or more of the stated functions overlap to a large degree? If you feel that one or more major functions overlap with another to a large extent please list the functions which are overlapping. Also, please state why you view these functions as overlapping.
3. Are the functions comprehensive in scope? That is, the knowledge, skills, and attitudes/values currently desired of the Bachelor's degree-level school health educator graduated from The Ohio State University can be listed under the professional functions. If you feel that one or more major functions has been omitted, please list it.
APPENDIX D

CONTENT VALIDATION OF KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES COVER LETTER AND LIST FOR STUDY DEFINITIONS
Subject: Content Validation of KSA/V's
Date: 11/20/79
From: Don Hawk
To: Dr. Mary K. Beyrer, Dr. Robert Kaplan-Bates, Dr. Phil Heit, Dr. Cory deVoss,
Ms. Linda Meeks, Dr. Gary deVoss

In an attempt to comply with the following 1980 State of Ohio Teacher Education Standard:

The body of knowledges, skills, attitudes, and values determined essential for effective teaching shall be specified for each field in which the college or university is approved to prepare teacher education students (EDb-303-02 Curriculum, 1975, p. 4).

I have developed a list of statements which reflect the current knowledges, skills, attitudes, and values desired of the school health educator who has graduated from The Ohio State University.

The definitions of the terms: 1) knowledge, 2) skill, and 3) attitude/value which follow will serve to clarify their intended meaning as used in this study. Statements which represent knowledges fall within the first classification of the cognitive domain as developed by Bloom et al., 1956. This classification is:

1.00 Knowledge

"Knowledge, as defined here, involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting." (p. 201).

In this study, there are two classifications of skills desired for the school health educator. The first classification concerns intellectual skills while the second classification defines psychomotor skills. Intellectual skills "... refer to organized modes of operation and
generalized techniques for dealing with materials and problems." (Bloom et. al., 1956, p. 204). Intellectual skills fall within the following five classifications of the cognitive domain (Bloom et. al., 1956):

2.00 Comprehension

"This represents the lowest level of understanding. It refers to a type of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications." (p. 204).

3.00 Application

"The use of abstractions in particular and concrete situations. The abstractions may be in the form of general ideas, rules of procedures, or generalized methods. The abstractions may also be technical principles, ideas, and theories which must be remembered and applied." (p. 205).

4.00 Analysis

"The breakdown of a communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit. Such analyses are intended to clarify the communication, to indicate how the communication is organized, and the way in which it manages to convey its effects, as well as its basis and arrangement." (p. 205).

5.00 Synthesis

"The putting together of elements and parts so as to form a whole. This involves the process of working with pieces, parts, elements, etc., and arranging and combining them in such a way as to constitute a pattern or structure not clearly there before." (p. 206).

6.00 Evaluation

"Judgments about the value of material and methods for given purposes. Quantitative and qualitative judgments about the extent to which material and methods satisfy criteria. Use of a standard of appraisal. The criteria may be those determined by the student or those which are given to him." (p. 207).
Psychomotor skills are defined as follows: "... a functional unit of learned motor behavior." (Hough, 1970, p. 69). The psychomotor skills referred to in this study are complex in nature, that is, they are functional units of motor behavior that integrate two or more simple skills into one more sophisticated.

Statements which represent attitudes and values can be categorized within one of the five classifications of the affective domain as developed by Krathwohl et al., 1956. These classifications are:

1.0 Receiving (Attending)
"At this level we are concerned that the learner be sensitized to the existence of certain phenomena and stimuli; that is, that he be willing to receive or attend to them." (p. 176).

2.0 Responding
"At this level we are concerned with responses which go beyond merely attending to the phenomenon. The student is sufficiently motivated that he is not just willing to attend, but perhaps it is correct to say that he is actively attending." (p. 178).

3.0 Valuing
"Behavior categorized at this level is sufficiently consistent and stable to have taken on the characteristics of a belief or an attitude. The learner displays this behavior with sufficient consistency in appropriate situations that he comes to be perceived as holding a value." (p. 180).

4.0 Organization
"As the learner successively internalizes values, he encounters situations for which more than one value is relevant. Thus necessity arises for (a) the organization of the values into a system, (b) the determination of the interrelationships among them, and (c) the establishment of the dominant and pervasive ones. Such a system is built gradually, subject to change as new values are incorporated. This category is intended as the proper classification for objectives which describe the beginnings of the building of value systems." (p. 182).
Characterization By A Value Or Value Complex

"At this level of internalization the values already have a place in the individual's value hierarchy, are organized into some kind of internally consistent system, have controlled the behavior of the individual for a sufficient time that he has adapted to behaving this way; and an evocation of the behavior no longer arouses emotion or affect except when the individual is threatened or challenged." (p. 184).

Statements representing attitudes and values have been organized under the heading, Attitudes/Values. This single heading is appropriate because there is a close association between the attitudes and values desired of the school health educator who has graduated from The Ohio State University. Granted, there may be statements which clearly represent attitudes desired of the school health educator while other statements tend to primarily represent desired values. But in many cases, there is an area along the attitude-value continuum where attitudes and values overlap. Whether a statement represents a desired attitude or a desired value is a question of degree. Grouping attitude and value statements under a single heading takes into account this overlapping; forcing a categorization of a statement under a separate attitude or value heading could present difficulties in reaching a validation conclusion.

The accompanying suggested list of current knowledges, skills, and attitudes/values was initiated during the Spring Quarter, 1979, by the Professional Preparation Committee of the Division of Health Education. This committee consisted of Ralph C. Bates, Ph.D., Philip Heit, Ed.D., Robert Kaplan, Ph.D., Lynn Penland, Ph.D., Linda Meeks, M.S., and Donald Hawk, M.A. The resulting list of knowledge, skill, and attitude/value statements was written specifically for each of the eleven courses required in the Undergraduate Health Education Professional Preparation Program at
The Ohio State University. These statements were developed by Health Education faculty members who had held the major responsibilities for developing and/or instructing the required professional courses in the 1978-1979 academic year. As such, the lists of knowledge, skill, and attitude/value statements submitted for review to the Professional Preparation Committee reflected the biases and thinking of the individuals associated with the eleven required courses and were viewed as incomplete; thus, these lists were in need of further refinement.

The list initiated by the Professional Preparation Committee represented the core around which a more comprehensive packet of knowledges, skills, and attitudes/values were developed. Additional knowledges, skills, and attitudes/values desired for the school health educator who has graduated from The Ohio State University were suggested by the investigator. These suggested additions resulted from a review of selected related literature. The criteria for selecting the literature to be reviewed were:

1) The literature primarily referred to teacher education curricula, professional functions, or teaching competencies of the professional health educator.

2) The teacher education curricula, professional functions, or teaching competencies suggested were a result of a group consensus, e.g., a professional association; a questionnaire sent to professionals in the field of health education; a state department of education.

3) The piece of literature was published during the 1970-1979 time period in which this study's subjects graduated from The Ohio State University.

The suggested list of current knowledges, skills, and attitudes/values desired of the school health educator who has graduated from The Ohio State University which resulted from this literature review was organized according to the ten Professional Functions which were validated by the
Division of Health Education tenured faculty members. The statements in this list of Professional Functions were expressed at a general level of specificity rather than a behavioral level of specificity. To develop a list of knowledge, skill, and attitude/value statements at a greater level of specificity would be prohibitive in terms of length.

Now that you have some background information concerning its development, please consider the attached suggested list of current knowledges, skills, and attitudes/values desired for the school health educator who has graduated from The Ohio State University for content validation. Please complete the attached questionnaire according to the stated instruction and place it in my mailbox by November 29, 1979.

Thank you for your assistance.

Sincerely,

Donald Hawk
Graduate Research Assoc.
APPENDIX E

INSTRUCTIONS FOR THE CONTENT VALIDATION
OF THE KNOWLEDGE, SKILL, AND ATTITUDE/VALUE STATEMENTS
CONTENT VALIDATION OF THE CURRENT KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES DESIRED OF THE SCHOOL HEALTH EDUCATOR WHO HAS GRADUATED FROM THE OHIO STATE UNIVERSITY

INSTRUCTIONS:

Part I: Does the statement represent a current knowledge, skill, or attitude/value desired for a Bachelor's Degree level Health Education Graduate of The Ohio State University?

Please respond to each statement by circling the appropriate "yes", "yes — with reservations", or "no" response on the attached answer sheet.

A "yes" response indicates that the knowledge, skill, or attitude/value statement represents an appropriate knowledge, skill, or attitude/value currently desired for the school health educator who has graduated from The Ohio State University.

A "yes — with reservations" response means the knowledge, skill, or attitude/value statement is in some respects representative of an appropriate knowledge, skill, or attitude/value currently desired for the school health educator who has graduated from The Ohio State University but can not be totally accepted as representative until it is modified.

A "no" response indicates that the statement does not represent an appropriate knowledge, skill, or attitude/value.

If you respond with a "yes — with reservations" or a "no" to any of the knowledge, skill, or attitude/value statements, please state briefly your rationale in the space provided immediately following the statement. Repeat this procedure for each statement receiving a "yes — with reservations" or a "no" response.

Part II: Please evaluate the clarity of each knowledge, skill, and attitude/value statement. If you feel a statement is difficult to understand, please indicate by listing your rationale in the space provided immediately following the statement in question.

Part III: Do the knowledge, skill, and attitude/value statements overlap in content? If you feel a statement overlaps a statement previously listed please list the number (1-10) of the Professional Function under which the preceding statement appears. Also, please list the letter (A-Z) of the former statement in the space provided immediately following the statement which you feel is overlapping.
Part IV: Do you have any comments concerning the format of the questionnaire? If you have any such comments or any other general reflections on the questionnaire, please state them on the final page of this questionnaire in the space provided.
APPENDIX F

LIST OF THE KNOWLEDGE, SKILL, AND ATTITUDE/VALUE STATEMENTS IN A RESPONSE FORMAT
CURRENT KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES DESIRED OF THE SCHOOL HEALTH EDUCATOR WHO HAS GRADUATED FROM THE OHIO STATE UNIVERSITY, ORGANIZED ACCORDING TO THE TEN PROFESSIONAL FUNCTIONS OF THE SCHOOL HEALTH EDUCATOR

FUNCTION I. ANALYZE, APPRAISE, AND PRIORITIZE A) HEALTH STATUS, B) HEALTH INTERESTS AND NEEDS, AND C) HEALTH EDUCATION CONCERNS, ESPECIALLY THOSE AMENABLE THROUGH EDUCATION.

Skills

(circle one) The school health educator:

yes no A. identifies the impact of cultural, economic, environmental, political, psychological, and technological factors on student health and educational needs.

yes no B. conceptualizes the interrelationships among perceptions and values and emotional, physical, and social factors as they relate to the cause, prevention, and solution of personal, family, school, and community health problems.

yes no C. identifies interrelationships among individual, family, school, and community health problems.

yes no D. identifies student behaviors which indicate possible health problems or potential problems.

yes no E. evaluates on a regular basis the health knowledges, skills and attitudes of students.

yes no F. utilizes a variety of valid and reliable techniques to determine student health needs and interests.
Attitudes/Values
The school health educator:

yes no  A. supports the need for continuous evaluation of students' health status and behaviors utilizing information from all aspects of the school health program (health instruction, healthful school environment, and school health services).

yes no  B. appreciates the effects of cultural, economic, environmental, physical, political, psychological, sociological, and technological factors upon the health problems, needs, and interests of students.

FUNCTION II.  PLAN, WRITE, AND PROMOTE DESIGNS FOR INSTRUCTION AND CURRICULUM RELATING THEM TO THE COMMUNITY WHERE APPROPRIATE.

Skills
The school health educator:

yes no  A. defines the major health related concepts and uses these interpretations as a philosophical basis for teaching.

yes no  B. involves students in the health education planning process.

yes no  C. develops plans for action which individuals might adapt in order to move toward personal well-being and promote the health of the community as a whole.
D. selects, organizes, and structures health education content relevant to students' needs.

E. develops relevant instructional objectives that are related to the general goals of the health education program and serve as a basis for its evaluation.

F. plans for cultural differences in program planning and implementation.

G. develops short term lesson plans and long range teaching units relevant to students' health needs and interests.

H. applies principles of human growth and development to health education curriculum development and implementation.

I. organizes the health curriculum in a sequential manner with an awareness of the importance of scope and continuity of content.

J. utilizes community members, resources, and professionals within the field of health in the curriculum development process.

K. implements three patterns of health education curricula, i.e., direct, correlation, and integration.
L. reviews new curricular patterns in an effort to distinguish fad from innovation in health education curriculum design.

M. adapts available health education curricula and instructional materials to improve the health education program.

N. analyzes the historical and philosophical developments in the field of health education and their implications for today's health education programs.

O. develops and implements strategies for encouraging individual and community support for, and understanding of, the school health program, especially school health instruction.

P. provides inservice education to educational and administrative personnel concerning pertinent health education concerns and health interests and needs.

Attitudes/Values

The school health educator:

A. supports the comprehensive, sequential approach to curriculum design rather than the crisis-oriented approach.

B. recognizes that curriculum development is a dynamic, ongoing process that must reflect student needs and social changes.
FUNCTION III. POSSESS A WORKING FOUNDATIONS OF CONTENT KNOWLEDGE FOR THE TEACHING SPECIALTY OF HEALTH, e.g., TERMINOLOGY, FACTUAL INFORMATION, CONCEPTS, AND THEORIES.

Skills

The school health educator:

A. possesses an understanding of the following health education content areas:

   a. aging
   b. communicable and non-communicable disease
   c. community health
   d. consumer health
   e. death and dying
   f. dental health
   g. drugs, alcohol, and tobacco
   h. ecological and environmental health concerns
   i. emotional well-being
   j. first aid and accident prevention
   k. fitness for living
   l. health careers
   m. human sexuality
   n. nutrition
   o. personal health (rest, sleep, posture, skin care, etc.)
   p. philosophy of health and health education
B. possesses an understanding of the following areas related to health education:

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Life Sciences (biology, anatomy, physiology, microbiology, parasitology, and bacteriology)</td>
</tr>
<tr>
<td>Yes</td>
<td>Behavioral Sciences (humanities, psychology, sociology, anthropology, political science, and economics)</td>
</tr>
<tr>
<td>Yes</td>
<td>Health Sciences (preventative medicine, preventative dentistry, and epidemiology)</td>
</tr>
<tr>
<td>Yes</td>
<td>Miscellaneous Sciences (biostatistics, educational statistics, chemistry, and speech communication)</td>
</tr>
</tbody>
</table>

C. recognizes the relationship between health education and the allied health fields that contribute to the health education knowledge base.

D. interprets the meaning of health and wellness, disease and illness and uses these interpretations as a philosophical basis for his/her teaching.

**Attitudes/Values**

The school health educator:

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Attitude/Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>A. advocates health and health education as important, integral means for obtaining a personally satisfying life.</td>
</tr>
<tr>
<td>Yes</td>
<td>B. accepts an ecological perspective of life and health.</td>
</tr>
<tr>
<td>Yes</td>
<td>C. accepts safety and &quot;prudent&quot; risk-taking behavior as conducive to health and well-being.</td>
</tr>
</tbody>
</table>
D. develops an awareness and appreciation of the interrelationships of the physical, emotional, social, and spiritual aspects of health.

E. clarifies his/her own personal attitudes and values in relation to relevant health issues.

F. realizes that the relationships among the knowledges, skills and attitudes/values students possess affect the decisions they make relative to health problems and issues.

**FUNCTION IV. ARRANGE MATERIAL, TEMPORAL AND HUMAN, INCLUDING PERSONAL, RESOURCES WITH THE INTENT OF PROMOTING LEARNING (THIS INVOLVES NOT ONLY ACTUAL INSTRUCTION, BUT ALSO MANAGING THE CLASSROOM SITUATION IN ORDER TO FACILITATE SUCH INSTRUCTION), HUGH, 1979.**

**Knowledges**

The school health educator:

A. identifies various equipment and facilities that contribute to the school health instruction.

B. identifies potential scheduling patterns for health instruction.

**Skills**

The school health educator:

A. teaches toward modern concepts of health and health education.
B. selects and applies the appropriate teaching technique or method for a desired teaching objective and level of student learning ability.

C. provides opportunities to positively change student behaviors.

D. provides alternative instructional opportunities to meet the individual needs of students.

E. conducts routine classroom administrative and managerial duties in an effective manner.

F. applies theories of behavior and behavior change to classroom situations.

G. identifies the advantages and disadvantages of different disciplinary alternatives.

H. puts learning and developmental theory into practice, i.e., teaching techniques reflect learning and developmental theories.

I. demonstrates effective communication skills (verbal and nonverbal).
yes no  J. facilitates students' use of values clarification, problem-solving, and decision-making techniques in solving health related problems and promoting a quality of life for self and others.

yes no  K. introduces and facilitates students' understanding of controversial health issues in a professional manner.

yes no  L. establishes and maintains the classroom, school, and community environment to optimize student learning and well-being.

yes no  M. focuses the attention of learners on criteria for evaluation and strategies of monitoring progress and achievement.

yes no  N. peruses those available resources which are pertinent to the needs and interest of his/her students.

yes no  O. presents health related information in an organized and clear manner.

yes no  P. incorporates into health instruction audio-visual materials appropriate for the learner and the teaching situation.

yes no  Q. summarizes the evolution of health education methodology.
yes no  R. demonstrates proper personal health care techniques, i.e., brushing teeth, yes - with flossing, hair and skin care, etc. reservations

yes no  S. demonstrates appropriate first aid techniques and skills. yes - with reservations

yes no  T. operates a wide range of audio-visual equipment. yes - with reservations

Attitudes/Values

The school health educator:

yes no  A. values "quality of life" as the ultimate goal of health education. yes - with reservations

yes no  B. expresses a philosophy of education and clarifies its relationship to yes - with school health education. reservations

yes no  C. values the active role of individuals in promoting their health and the yes - with health of others. reservations

yes no  D. accepts individuals who may differ in their appearance, customs, ideas, yes - with attitudes, and values. reservations

yes no  E. accepts effective communication among individuals and groups of individuals yes - with as an absolute prerequisite to health and health education. reservations
yes no  F. advocates values clarification and decision-making techniques as essential
yes - with
instructional processes which are well suited to health education.
reservations

yes no  G. recognizes the value of expressing enthusiasm in teaching.
yes - with
reservations

yes no  H. supports the appropriate use of praise and encouragement in the instruction-
yes - with
al setting.
reservations

yes no  I. advocates the need for students and co-workers to accept progressive re-
yes - with
sponsibility for their own health.
reservations

yes no  J. recognizes the importance of his/her optimal mental, emotional, social
yes - with
and physical well-being for teaching and the influence of his/her be-
reservations
havior and appearance on students.

FUNCTION V. ASSIST OTHER PROFESSIONALS IN PLANNING, COORDINATING, AND ADMINISTERING
THE SCHOOL HEALTH SERVICES, HEALTHFUL SCHOOL ENVIRONMENT, AND COMMUNITY
FACETS OF THE TOTAL SCHOOL HEALTH PROGRAM.

Knowledges

The school health educator:

yes no  A. identifies the contributions of the school health services, healthful
yes - with
school environment, and community facets of the total school health program
reservations
to the general aims of education and quality of life of students.

yes no  B. describes the administrative structure of community health programs.
yes - with
reservations
Skills

The school health educator:

yes no A. identifies the school health educator's role and responsibilities as well as those of other school personnel in preventing and/or resolving pertinent health problems.

yes no B. identifies community health agencies and personnel and utilizes the services they provide in promoting the effectiveness of the school health program.

yes no C. interprets the components of the total school health program and their interrelationships.

yes no D. applies health education knowledge and skills to promote the school health services, healthful school environment and community facets of the total school health program.

yes no E. assists in making school health services part of the educational program through participation with members of the school health team.

yes no F. assists the school health team in meeting such school health responsibilities as health screening, school emergencies, and student immunizations.

yes no G. promotes the reciprocal relationships which should exist between the health programs of the home, school, and community.
H. communicates and works cooperatively with colleagues, school administrators, parents, students, and others in the school-community health program.

I. recognizes the historical and philosophical basis of public and private health organizations.

J. applies problem-solving and decision-making skills to administrative duties, tasks, and assignments.

K. assists in preparing an annual budget for the school health program.

L. maintains appropriate health and safety records.

M. plans for the purchase, care, and utilization of equipment, materials and supplies.

N. recognizes and implements local, state, and federal policies and regulations relating to the school health services, healthful school environment, and community facets of the total school health program, i.e., drug use and abuse, disease control, school meals.
Attitudes/Values

The school health educator:

yes no A. supports the need for cooperation between school and community health personnel in meeting individual and community health needs.

yes no B. realizes the importance of safety in the life of the student and the need for school policies and procedures for handling emergencies and illness.

yes no C. realizes the potential of a first aider in emergency situations.

yes no D. demonstrates support for health related activities by assuming health education and health related supervisory responsibilities, e.g., supervises school health council meetings.

yes no E. defends the need for maintaining pertinent school health and safety records.

FUNCTION VI: REFER TO APPROPRIATE ALLIED PROFESSIONALS, THOSE INDIVIDUALS WHOSE HEALTH CONCERNS REQUIRE SUPPLEMENTARY INTERVENTION, E.G., MEDICAL, LEGAL, FINANCIAL, AND SOCIAL WORK, ETC.

Skills

The school health educator:

yes no A. identifies school and other professional personnel who are qualified to provide follow-up evaluation and professional care to students.
yes no  B. identifies and encourages those individuals whose health needs require
yes - with supplementary intervention to seek professional help.
reservations

yes no  C. follows through to determine whether individuals' health needs have been
yes - with met through professional referrals.
reservations

Attitudes/Values
The school health educator:

yes no  A. accepts professional limitations.
yes - with reservations

FUNCTION VII: GUIDE INDIVIDUALS IN PERSONAL DECISION-MAKING AND SERVE IN A HEALTH COUNSEL-
ING ROLE WHEN APPROPRIATE.

Knowledges
The school health educator:

yes no  A. acknowledges the relationship between the educational process and health
counseling.
yes - with reservations

Skills
The school health educator:

yes no  A. recognizes those specific problem situations which warrant health counseling
yes - with and acquires the appropriate information to facilitate his counseling role.
reservations

yes no  B. utilizes selected counseling skills to resolve student health related problems,
yes - with e.g., active listening, clarifying responses, paraphrasing.
reservations
yes no C. promotes students' understanding of the potential of personal behavior change to affect individual well-being, the well-being of others, and the quality of the surrounding environment.

Attitudes/Values

The school health educator:

yes no A. supports the need for teachers to function in a counseling relationship.
yes - with reservations

yes no B. respects and defends the need for confidentiality in teacher-student counseling situations.
yes - with reservations

yes no C. demonstrates a concern for students.
yes - with reservations

FUNCTION VIII: EVALUATE THE EFFECTIVENESS OF HEALTH INSTRUCTION IN PROMOTING GAINS IN STUDENT COGNITIVE, AFFECTIVE, AND PSYCHOMOTOR BEHAVIORS AND ASSIST IN EVALUATING THE SCHOOL HEALTH SERVICES, HEALTHFUL SCHOOL ENVIRONMENT AND COMMUNITY FACETS OF THE TOTAL SCHOOL HEALTH PROGRAM.

Knowledges

The school health educator:

yes no A. recognizes professionally recommended standards and is familiar with procedures used for evaluating the total school health program, i.e., health instruction, school health services, and healthful school environment.
Skills

The school health educator:

yes  no  A. applies the basic methods of evaluating the three components of the total school health program, i.e., health instruction, school health services, and the healthful school environment.

yes  no  B. adapts, develops and implements instruments to evaluate the status of the school health program.

yes  no  C. identifies and utilizes available technological and personnel resources to facilitate evaluation of the school health program.

yes  no  D. utilizes accepted research methods in evaluating the school health program, i.e., gathering evaluation data, data analysis, etc.

yes  no  E. uses statistical methods to synthesize evaluation data in the form of means, medians, modes, frequency distribution variables.

yes  no  F. interprets and utilizes evaluation findings to recommend modifications in the existing school health program.

yes  no  G. evaluates the qualifications of various health care practitioners for educational programs.
H. evaluates teaching ability using a variety of criteria, i.e., student achievement scores, informal student feedback, student behavior, attitudes expressed in class, classroom observation.

I. writes appropriate essay, true-false, multiple choice, and matching test items.

J. evaluates appropriateness of textbooks and resources for classroom use.

K. analyzes contemporary philosophies of health instruction and the degree of emphasis given to evaluation.

Attitudes/Values

The school health educator:

A. advocates the need for evaluating teacher effectiveness in obtaining established instructional objectives.

B. supports the needs for ongoing evaluation and possible restructuring of the school health program (health instruction, school health services, healthful school environment).

FUNCTION IX: READ, CRITIQUE, AND UTILIZE THE LATEST LITERATURE, REPORTS, AND RESEARCH FINDINGS AND ENGAGE IN CONTINUING EDUCATION, IN-SERVICE, AND OTHER ACTIVITIES TO FURTHER PROFESSIONAL GROWTH.
Knowledges
The school health educator:

yes no A. identifies sources of information that aid him/her to better serve in
yes - with reservations
his/her professional role.

Skills
The school health educator:

yes no A. synthesizes and evaluates information on specific health problems and
yes - with reservations
uses this information to implement an effective school health program.

yes no B. works cooperatively with teacher education institutions.
yes - with reservations

yes no C. analyzes the history of health education for its implications for modern
yes - with reservations
practice.

Attitudes/Values
The school health educator:

yes no A. accepts personal responsibility to stay up-to-date in the field of health education by reading the professional literature and particip-
yes - with reservations
ating in educational opportunities.

yes no B. supports the need for unbiased research in the field of health education and allied health fields.
yes - with reservations
FUNCTION X: COMMUNICATE WITH OTHER PROFESSIONALS VIA SUCH AVENUES AS ASSOCIATION MEMBERSHIPS AND COMMITTEES, SPEECHES AND PUBLICATIONS.

Skills
The school health educator:

yes no A. recognizes the current and developing trends in the field of health education.

yes no B. expresses the contributions of health education to health maintenance and disease prevention to professionals from related disciplines, i.e., medicine, dentistry, genetics, etc.

yes no C. presents educational research findings, teaching strategies, curriculum materials, etc. to fellow professionals via written reports and/or oral presentations.

yes no D. seeks and utilizes appropriately the contributions of professionals from related disciplines, i.e., medicine, dentistry, genetics, etc.

Attitudes/Values
The school health educator:

yes no A. develops a professional identity derived from the values which underlie professional health education.

yes no B. advocates a commitment to health education by contributing responsibly and providing leadership in the professional organizations promoting health education.
APPENDIX G

THE INITIAL SURVEY INSTRUMENT
DIVISION OF HEALTH EDUCATION
FOLLOW-UP QUESTIONNAIRE

PART I: PERSONAL DATA

Directions: Please circle the letter immediately preceding the appropriate answer or fill in the appropriate blank.

1. Sex: a. male b. female
2. Age: a. 21-25 b. 26-30 c. 31-35 d. 36-40
3. Marital status: a. single b. married c. divorced d. widowed e. other (specify)
5. Year of graduation: __________
6. Current employment: a. school health educator b. teacher, but not health educator c. employed in another facet of education (counselor, administrator, curriculum supervisor, etc.) d. employed outside of education (specify your position) e. unemployed
7. Employment prior to current position but after graduation: (circle all that apply) a. school health educator b. teacher, but not health educator c. employed in another facet of education (counselor, administrator, curriculum supervisor, etc.) d. employed outside of education (specify your position) e. unemployed
8. Graduate degree hours beyond the Bachelor's degree: a. 1-10 b. 11-20 c. 21-30 d. over 30 e. graduate degree(s) received (specify type of degree and name of granting institution)
9. Questions 9-14 are for graduates who are now teaching or have previously taught; answer according to your most recent teaching experience.
9. School enrollment: a. under 500 b. 501-1000 c. over 1000
10. Average student-teacher ratio: a. 1-20 b. 21-30 c. over 31
11. Current level of instruction: a. K-3 b. 4-6 c. 7-9 d. 10-12 e. college f. other (specify)
12. Type of school: a. rural b. urban c. inner city d. suburban e. other (specify)
13. Years of full-time teaching experience, including this year: _________
14. Percent of professional duties related to health instruction: a. 25% b. 50% c. 75% d. 100%

PART II - GRADUATE FOLLOW-UP FORM

CURRENT KNOWLEDGE, SKILLS, AND ATTITUDES/VALUES DESIRED OF THE SCHOOL HEALTH EDUCATOR WHO HAS GRADUATED FROM THE SCHOOL OF HEALTH EDUCATION OR WHO HAS GRADUATED FROM THE SCHOOL OF HEALTH EDUCATION, ORGANIZED ACCORDING TO THE TEN PROFESSIONAL FUNCTIONS OF THE SCHOOL HEALTH EDUCATOR

FUNCTION I: POSSESS A WORKING KNOWLEDGE OF CURRENT KNOWLEDGE FOR THE TEACHING SPECIALTY OF HEALTH, E.G., TERMINOLOGY, FACTUAL INFORMATION, CONCEPTS, AND IDEAS.

Knowledge/Skills
The school health educator
A. recalls and applies a framework of information in the following health content areas, including:

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Importance of Your Knowledge</th>
<th>Accuracy of Your Recall</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. aging</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>b. communicable diseases</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>c. community health</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>d. consumer health</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>e. death and dying</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>f. dental health</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>g. drugs, alcohol, and tobacco</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>h. ecological and environmental health concerns</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>
B. recalls and applies a framework of information in the following sciences related to health and health education, including:

- **Science (Biology/Physiology, Microbiology, Parasitology, and Bacteriology)**
- **Behavioral Sciences (Anthropology, Psychology, Sociology, Political Science, and Economics)**
- **Health Sciences (Preventive Medicine, Preventive Dentistry, and Epidemiology)**
- **Miscellaneous Sciences (Statistics, Mathematics, Chemistry, and Speech Communication)**

Skills

The school health educator:

**A.** recognizes the relationship between health education and allied health fields that contribute to the health education knowledge base.

**B.** interprets the meaning of health and wellness as well as disease and illness and uses these interpretations as a philosophical basis for teaching.

Attitudes/Values

The school health educator:

**A.** clarifies his/her own personal attitudes and values in relation to relevant health issues.

**B.** recognizes the decisions that students make are based upon the knowledge, skills, and attitudes/values they possess.

**C.** develops an awareness and appreciation of the interrelationships of the physical, emotional, social, and spiritual aspects of health.

**D.** advocates health and health education as important, integral means for obtaining a personally satisfying life.

**E.** supports an ecological perspective of health and wellness.

FUNCTION III: ANALYZE, APPRAISAL, AND PROPOSE AS THE SIGNIFICANCE OF HEALTH EDUCATION, OR HEALTH STATUS NEEDS, OR HEALTH INTERESTS, AND OR HEALTH EDUCATION OUTCOMES.

**A.** identifies a framework of information related to analyzing, appraising, and prioritizing at the significance of health behavior, to health status needs, or health interests, and or health education outcomes.

**B.** identifies student behaviors which indicate health problems or potential problems.
B. utilizes a variety of valid and reliable techniques to determine student health needs and interests.

C. evaluates on a continuous basis the health behaviors, knowledge, skills, and attitudes of students.

D. identifies community health needs and interests through participation in community organizations and functions.

E. identifies the interventions influencing individual, family, school, and "community" health problems.

F. analyzes the interrelationships between values (perceptions, attitudes, beliefs) and health problems (individual, family, school, and community).

G. recognizes the impact of such factors as culture, environment, and technology on students' health and educational needs.

Attitudes/Values

The school health educator:

A. supports the need for continuous evaluation of students' health status and behavior utilizing information from all aspects of the school health program (health instruction, healthful school environment, and school health services).

B. acknowledges the importance of identifying factors which influence student health behaviors, health status needs, and health interests.

SECTION XII: PLAN, WRITE, AND PROMOTE DESIGN FOR INSTRUCTION AND CURRICULUM RELATING THEM TO THE CAPABILITY MORE APPROPRIATE.

Knowledge

The school health educator:

A. identifies a framework of information related to instruction and curriculum development.

Skills

The school health educator:

A. defines major health and health education concepts, e.g., health theory, wellness, health belief model, conceptual approach to curriculum development, and develops them as a philosophical basis for teaching.

B. involves students in the health instruction planning process.

C. facilitates student development of individual plans for action which will allow them to move toward personal well-being.

D. develops relevant instructional objectives related to the goals of the health education program and serve as a basis for its evaluation.

E. allows for cultural differences in program planning and implementation.

F. develops lesson plans and teaching units relevant to students' needs and interests.

G. applies principles of human growth and development to the planning and implementation of the health education curriculum.

H. organizes the health curriculum to an encouraged awareness of the importance of sequence, scope, and continuity of content.

I. utilizes community resources, local resources, and health professionals in the instructional development process.
J. Facilitates where appropriate the implementation of the various patterns of health education curriculum, i.e., direct, correlational, and integrative.

K. Adapts available health education curricula as well as instructional materials to improve the health education program.

L. Reviews historical and philosophical developments in the field of health education and their implications for today's health education programs.

M. Develops and implements strategies for encouraging individual and community support for the school health program, especially school health instruction.

N. Provides inservice opportunities to colleagues and other school personnel concerning pertinent health education concerns and student health issues and needs.

**Attributes/Values**

- The school health educator:
  A. Supports the planned comprehensive, sequential approach to curriculum design in preference to the crisis-oriented approach.
  B. Recognizes that curriculum development is a dynamic, continuous process that reflects student needs and social changes.

**FUNCTION IV: ARRANGE MATERIAL, TEACHING, AND HOME, INCLUDING PERSONAL, MATERIAL, AND SOCIAL RESOURCES WITH THE OBJECT FOR PROVIDING LEARNING FIELDS DESIGNED NOT ONLY ACTUAL DISPLACEMENT, BUT ALSO MANAGING THE CLASSROOM SITUATION IN ORDER TO FACILITATE SUCH INSTRUCTION, ROBIN, 1979.**

**Categories**

- The school health educator:
  A. Identifies a framework of information related to instructional methodology and classroom management.
  B. Identifies various equipment and facilities that contribute to the school health instruction.

**Skills**

- The school health educator:
  A. Teaches toward contemporary concepts of health and health education.
  B. Selects and applies the appropriate teaching method which reflects learning and developmental theory for students.
  C. Provides opportunities with the potential for students to positively change behaviors while maintaining established desirable behaviors.
  D. Provides alternative instructional opportunities to meet the individual needs of students.
  E. Conducts routine classroom administrative and management duties in an effective manner.
  F. Applies theories of behavior and behavior change to classroom situations.
  G. Utilizes effective disciplinary strategies in managing the classroom.
  H. Demonstrates effective verbal and nonverbal communication skills.
  I. Facilitates student involvement in the processes of problem-solving and decision-making in order to resolve health-related problems and promote a quality of life for self and others.

**IMPORTANCE OF THE STATEMENT**

<table>
<thead>
<tr>
<th>Importance of Statement</th>
<th>Preparation</th>
<th>Intralution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1 1 1 1 1 0 1 1 1 1 1</td>
<td>1 1 1 1 1 1 1</td>
<td>1 1 1 1 1 1</td>
</tr>
</tbody>
</table>

**DEGREE OF YOUR**

<table>
<thead>
<tr>
<th>Degree of Your</th>
<th>1 1 1 1 1 1</th>
<th>0 1 1 1 1 1</th>
<th>1 1 1 1 1 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1 1 1 1 1 1 1 1</td>
<td>1 1 1 1 1 1</td>
<td>1 1 1 1 1 1</td>
<td>1 1 1 1 1 1</td>
</tr>
</tbody>
</table>
J. Facilitates students’ understanding of controversial health issues in a professional manner.

K. Establishes and maintains a healthy classroom environment and contributes to the development of an appropriate school and community environment to optimize student learning and well-being.

L. Stresses criteria on learners that will be used to evaluate their progress as well as strategies for monitoring their achievement.

M. Uses those available resources which are pertinent to the needs and interests of students.

N. Presents health-related information in an organized and clear manner.

N. Incorporates into health instruction audio-visual materials appropriate for the learner and the teaching situation.

P. Demonstrates proper personal health care techniques, e.g., brushing and flossing teeth, caring for hair and skin, etc.

Q. Demonstrates appropriate first aid techniques and skills.

R. Operates a wide range of audio-visual equipment.

S. Assists in preparing budget items for the school health instruction program.

Attitudes/Values

The school health educator:

A. Advocates health as a means for attaining one’s potential for effective living.

B. Expresses a philosophy of education and clarifies its relationship to school health education.

C. Respects individuals who may differ in their appearance, customs, ideas, attitudes, and values.

D. Supports the active role of individuals in promoting their health and the health of others.

E. Emphasizes the significance of the decision-making and problem-solving processes as pertinent and suitable to health instruction.

F. Stresses effective communication among individuals and groups of individuals as a vital prerequisite in promoting health and health education.

G. Recognizes the value of expressing enthusiasm in teaching.

H. Supports the appropriate use of praise and encouragement in the instructional setting.

I. Advocates the need for students and other school personnel to accept progressive responsibility for their own health.

J. Recognizes the importance of one’s own optimal mental, emotional, social, and physical well-being for teaching and the influence on student behavior and appearance.

K. Acknowledges the impact of environmental factors (classroom cleanliness, ventilation, heating) on the students’ well-being.

FUNCTION VI: GUIDE INDIVIDUALS IN PERSONAL DECISION-MAKING AND DECIDE ON A HEALTH CONSULTING ROLE WHEN APPROPRIATE.

Guidelines

The school health educator:

A. Identifies a framework of information related to health counseling.

<table>
<thead>
<tr>
<th>Importance of the Statement</th>
<th>Ability of Your Preparation</th>
<th>Degree of Your Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Importance of the Statement</th>
<th>Ability of Your Preparation</th>
<th>Degree of Your Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Importance of the Statement</th>
<th>Ability of Your Preparation</th>
<th>Degree of Your Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Importance of the Statement</th>
<th>Ability of Your Preparation</th>
<th>Degree of Your Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Importance of the Statement</th>
<th>Ability of Your Preparation</th>
<th>Degree of Your Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Importance of the Statement</th>
<th>Ability of Your Preparation</th>
<th>Degree of Your Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>
MORNO of Sfcatanantt Skills

The school health educator:

A. recognizes those specific problem situations which may warrant health counseling and acquires the appropriate information to facilitate his counseling role.

B. utilizes counseling skills to help resolve student health related problems, i.e., active listening, clarifying responses, paraphrasing.

C. promotes students' understanding of the potential of personal behavior change through decision-making to affect individual well-being, the well-being of others, and the quality of the surrounding environment.

Attitudes/Values

The school health educator:

A. acknowledges the relationship between the educational process and health counseling.

B. supports the need for teachers to function in a counseling relationship.

C. respects and defends the need in teacher-student counseling situations.

D. demonstrates a concern for students.

E. acknowledges the influence of personal beliefs and values of all concerned parties in the counseling situation.

FUNCTION VII: REFER TO APPROPRIATE PROFESSIONAL, THESE INDIVIDUALS WHOSE HEALTH CONSIDERS SERVICE SUBJUGATORY INVESTIGATION, E.G., MEDICAL, LEGAL, FINANCIAL, AND SOCIAL WORK, ETC.

Skills

The school health educator:

A. identifies school and other professional personal who are qualified to provide follow-up evaluation and professional care to students.

B. identifies and encourages those individuals whose health needs require supplementary intervention to seek professional help.

C. follows through to determine if individuals' health needs have been met through professional referrals.

Attitudes/Values

The school health educator:

A. accepts professional limitations and utilizes the appropriate referral process to meet individual needs.

FUNCTION VIII: ASSIST OTHER PROFESSIONALS IN PLANNING, COORDINATING, AND ADMINISTERING THE SCHOOL HEALTH SERVICES, INSTRUCTING SCHOOL ENVIRONMENT, AND CARRYING OUT SCHEDULE ACTIVITIES OF THE TOTAL SCHOOL HEALTH PROGRAM.

Knowledge

The school health educator:

A. identifies a framework of information related to planning, coordinating, and administering the school health services, instructional school environment, and community facets of the total school health program.
recognizes the contributions of the school health services,
healthful school environments, and community facets of the total
school health program to the general aims of education and quality of
life of students.

C. recognizes the historical and philosophical basis
of public and private health organizations.

Skills
The school health educator:

A. interprets the interrelationships of the components of
the total school health program.

B. identifies the school health educator's role
and responsibilities as well as those of other
school personnel in preventing and/or resolving
pertinent health problems.

C. identifies community health agencies and personnel
and utilizes the services they provide in promoting
the effectiveness of the school health program.

D. promotes the reciprocal relationships which should
exist between the health responsibilities of the
school, school, and community.

E. communicates and works cooperatively with colla-
agues, school administrators, parents, students,
and others in the school-community health program.

F. assists in making school health services part of
the educational program through participation with
members of the school health team.

G. assists the school health team in meeting such
school health responsibilities as health screening,
school emergencies, and student immuniza-
tions.

H. applies problem-solving and decision-making skills
in administrative duties, tasks, and assignments.

J. utilizes and helps to maintain appropriate health
and safety records.

K. assists in planning for the purchase, care, and
utilization of equipment, materials, and supplies.

L. identifies and implements local, state, and federal
policies and regulations relating to the school
health services, healthful school environments, and
community facets of the total school health program.

Institute/Values
The school health educator:

A. supports the need for cooperation between school
and community health personnel in meeting in-
dividual and community health needs.

B. advocates the importance of safety in the life
of the student through written statements of
policies and procedures for handling emergencies and
illnesses.

C. defends the need for maintaining pertinent school
health and safety records and summary reports.

D. realizes the importance of possessing first aid
skills.

E. demonstrates support for health oriented activities
by assuming related supervisory responsibilities, e.g.,
chairs school health council meetings.
FUNCTION VII: EVALUATE THE EFFECTIVENESS OF HEALTH INSTRUCTION
IN PROMOTING GAINS IN STUDENT COGNITIVE, AFFECTIVE, AND INTELLIGENT BEHAVIOR AND ASSESSMENT OF THE SCHOOL'S HEALTH SERVICES, BEHAVIORAL SCHOOL ENVIRONMENT, AND COMPLIANCE FACTORS OF THE TOTAL SCHOOL HEALTH PROGRAM.

Knowledges

The school health educator:
A. identifies a framework of information related to the evaluation of the school health program. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
B. recognizes professionally recommended standards and is familiar with procedures used for evaluating the school health program. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6

Skills

The school health educator:
A. evaluates teaching effectiveness using a variety of data, i.e., student achievement scores, informal student feedback, student behavior, attitudes expressed in class, classroom observation. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
B. writes and utilizes a variety of reliable and valid objective and subjective tests. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
C. evaluates appropriateness of textbooks and other resources for instructional use. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
D. analyzes contemporary evaluation trends for their relevancy to health instruction. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
E. applies the basic methods of evaluating the three components of the school health program, i.e., checklists, inventories, review of accident and disease records, etc. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
F. adopts, develops, and implements instruments to evaluate the status of the components of the school health program. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
G. identifies and utilizes available technological resources and community expertise to facilitate evaluation of the school health program. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
H. uses various techniques to analyze evaluation data, e.g., means, medians, modes, frequency distributions. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
I. interprets and utilizes evaluation findings to recommend modifications in the existing school health program. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
J. evaluates the contributions of various health care practitioners for participating in health instruction programs. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6

Attitudes/Values

The school health educator:
A. advocates the need for evaluating teacher effectiveness in relation to student names and/or behavior. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
B. supports the need for ongoing evaluation and possible restructuring of the school health program. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6

FUNCTION VIII: READ, CRITICIZE, AND UTILIZE THE LATEST LITERATURE, REPORTS, AND RESEARCH FINDINGS AND ENVOY IN CONTINUING EDUCATION, IN Service, AND OTHER ACTIVITIES TO FURTHER PROFESSIONAL GROWTH.

Knowledges

The school health educator:
A. identifies sources of information that promotes professional growth and development. 1 2 3 4 5 6 0 1 2 3 4 5 6 1 2 3 4 5 6
Skills

The school health educator:

A. synthesizes and evaluates health and health education related literature and uses this information to implement an effective school health program.

B. works cooperatively with teacher education institutions in providing field experiences as well as practicums and inservice activities.

Attitudes/Values

The school health educator:

A. accepts personal responsibility to stay up-to-date in the fields of health and health education by reading the professional literature and participating in educational opportunities.

B. advocates the need for unbiased research in the health, health education, and other related fields.

FUNCTION XI

COMMUNICATE WITH OTHER PROFESSIONALS VIA SUCH MEDIA AS ASSOCIATION DEVELOPMENTS AND CONTRIBUTIONS, SPEECHES, AND PUBLICATIONS.

Skills

The school health educator:

A. recognizes the current and developing trends in the field of health education.

B. communicates the contributions of health education to professionals in related disciplines.

C. presents educational research findings, teaching strategies, curriculum materials, etc., to fellow professionals via written reports and/or oral presentations.

D. sees and utilizes the contributions of professionals in related disciplines which are significant to health education.

Attitudes/Values

The school health educator:

A. develops a professional identity derived from the beliefs and values which underlie professional health education.

B. advocates a commitment to health education by contributing responsibly and providing leadership in professional organizations promoting health education.

*PLEASE STATE BELOW IN THE SPACE PROVIDED ANY GENERAL COMMENTS CONCERNING THE ABOVE LIST OF KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES DESIGNED FOR THE SCHOOL HEALTH EDUCATOR. ALSO, IF YOU FEEL SOME KNOWLEDGE, SKILLS, OR ATTITUDES/VALUES WERE OMITTED, PLEASE INCLUDE SUCH OMISSIONS IN YOUR COMMENTS BELOW. FEEL FREE TO USE THE SPACE OF THIS PAGE.*
APPENDIX H

INSTRUCTIONS FOR PILOT STUDY QUESTIONNAIRE
The questionnaire which follows consists of a number of statements that reflect the knowledge, skills, and attitudes/values determined essential for the effective teaching of health. Please respond to these statements in the following three ways:

1) How important is each stated knowledge, skill, or attitude/value to the school health educator in performing his/her present-day health education responsibilities?

2) How adequate was your professional preparation at The Ohio State University in helping you achieve each stated knowledge, skill, or attitude/value? Rate only the professional preparation that led to your Bachelor's Degree in Health Education.

3) To what degree have you attained each stated knowledge, skill, or attitude/value? Your degree of attainment will be affected by not only your past professional preparation at the Ohio State University but also by such factors as inservice education you have received since graduation, graduate studies at a college or university, and other professional experiences. Thus, your responses should reflect all these factors which have influenced your degree of attainment of each knowledge, skill, or attitude/value.

Keeping this review in mind, please complete the attached questionnaire according to the instructions stated below. When done, place it in the stamped envelope and return.

INSTRUCTIONS:
For each statement, please indicate, in as fair and unbiased manner as possible your judgment of the following three criteria:

A) Importance of the stated knowledge, skill, or attitude/value as you perceive it.

B) Adequacy of your professional preparation at The Ohio State University to achieve the stated knowledge, skill, or attitude/value.

C) Degree of your attainment of the stated knowledge, skill, or attitude/value.

Please circle the number which represents the most appropriate response. Circle one number for each of the three criteria stated above.

An example of this "circling" procedure follows:

The school health educator:
A. demonstrates appropriate first aid techniques and skills.

Refer to the above three rating scales when completing the questionnaire.
APPENDIX I

PILOT STUDY COVER LETTER
Dear Colleague:

Enclosed is a copy of an instrument that will be sent to the 1970-1979 Bachelor's Degree level Health Education graduates of The Ohio State University. As per our conversation on November 27, 1979 at Dr. Beyrer's home, your assistance is being requested as a part of a "pilot" effort to ascertain possible ambiguities in this instrument.

Please read the instructions and complete the questionnaire. If you have any questions or difficulties in completing the questionnaire (for example, lack of clarity in the stated instructions), please list your concerns on the questionnaire. Feel free to write in the margins or on the back of the questionnaire.

The last page of this document is reserved for your general comments. Please jot down any thoughts or ideas concerning the questionnaire or ways in which it could be improved.

Please return the completed questionnaire by December 31, 1979; a return envelope has been provided.

Thanks again for helping me in this research effort.

Sincerely,

Don Hawk
Research Associate
460A Ramseyer Hall
422-1280
(614) 436-4189
APPENDIX J

SURVEY INSTRUMENT: FORM A
PART I: Personal Data

Directions: Please circle the letter immediately preceding the appropriate answer or fill in the appropriate blank.

1. Sex: a. male b. female

2. Age: a. 21-25 b. 26-30 c. 31-35 d. 36-40

3. Marital status: a. single b. married c. divorced d. widowed e. other (specify)


5. Year of graduation: ______

6. Current employment: a. school health educator b. teacher, but not health educator c. employed in another facet of education (counselor, administrator, curriculum supervisor, etc.) d. employed outside of education (specify your position) e. unemployed

7. Employment prior to current position but after graduation: (circle all that apply) a. school health educator b. teacher, but not health educator c. employed in another facet of education (counselor, administrator, curriculum supervisor, etc.) d. employed outside of education (specify your position) e. unemployed

Questions 9-14 are for graduates who are now teaching or have previously taught; answer according to your most recent teaching experience.

9. School enrollment: a. under 500 b. 501-1000 c. over 1000

10. Average student-teacher ratio: a. 1-20 b. 21-30 c. over 30

11. Current level of instruction: a. K-12 (specify your grade level(s)) b. college c. other (specify)

12. Type of school: a. rural b. urban c. inner city d. suburban e. other (specify)

13. Years of full-time teaching experience, including this year: ______

14. Percent of professional duties related to health instruction: a. 0% b. 25% c. 50% d. 75% e. 100%

PART II - GRADUATE FOLLOW-UP FORM

CURRENT KNOWLEDGE, SKILLS, AND ATTITUDES/VALUES DESIRED OF THE SCHOOL HEALTH EDUCATOR WHO HAS GRADUATED FROM THE OHIO STATE UNIVERSITY, ORGANIZED ACCORDING TO THE TEN PROFESSIONAL FUNCTIONS OF THE SCHOOL HEALTH EDUCATOR

FUNCTION 2: POSSESS A WORKING FOUNDATION OF (CONTENT) KNOWLEDGE FOR THE TEACHING SPECIALTY OF HEALTH, E.G., TERMINOLOGY, FACTUAL INFORMATION, CONCEPTS, AND THEORIES.

IMPORTANCE of the Statement

Knowledge/Skills

The school health educator:

A. recalls and applies a framework of information in the following health content areas, including:

1 2 3 4 5 6 a. aging 0 1 2 3 4 5 6
1 2 3 4 5 6 b. community health 0 1 2 3 4 5 6
1 2 3 4 5 6 c. death and dying 0 1 2 3 4 5 6
1 2 3 4 5 6 d. drugs, alcohol, and tobacco 0 1 2 3 4 5 6
1 2 3 4 5 6 e. first aid and accident prevention 0 1 2 3 4 5 6
1 2 3 4 5 6 f. health careers 0 1 2 3 4 5 6
1 2 3 4 5 6 g. mental health 0 1 2 3 4 5 6
1 2 3 4 5 6 h. nutrition 0 1 2 3 4 5 6
1 2 3 4 5 6 i. philosophy 0 1 2 3 4 5 6
The school health educator:  

**FUNCTION I:**  
ANALYZE, APPRAISE, AND PRIORITIZE A) THE SIGNIFICANCE OF HEALTH BEHAVIOR, B) HEALTH STATUS NEEDS, C) HEALTH INTERESTS, AND D) HEALTH EDUCATION CONCERNS.

**Knowledge:**

A. identifies a framework of information related to analyzing health needs and interests.

**Skills:**  
A. involves students in the health instruction planning process.
B. develops instructional objectives relevant to the goals of the health education program to serve as a basis for its evaluation.
C. develops lesson plans and teaching units relevant to students' needs and interests.

The school health educator:  

**FUNCTION II:**  
PLAN, WRITE, AND PROMOTE DESIGNS FOR INSTRUCTION AND CURRICULUM RELATING THEM TO THE COMMUNITY WHERE APPROPRIATE.

Knowledge:

A. identifies a framework of information related to instruction and curriculum development.

Skills:

The school health educator:  

**FUNCTION III:**  
B. recalls and applies a framework of information in the following sciences related to health and health education, including:

1. Behavioral Sciences (humanities, psychology, sociology, anthropology, political science, and economics)
2. Miscellaneous Sciences (biostatistics, educational statistics, chemistry, and speech communication)

Skills:

The school health educator:  

**FUNCTION IV:**  
INTERPRET THE MEANING OF HEALTH AND WELLNESS AS WELL AS DISEASE AND ILLNESS AND USE THESE INTERPRETATIONS AS A PHILOSOPHICAL BASIS FOR TEACHING.

**Attitudes/Values:**

The school health educator:

A. advocates health and health education as important, integral means for obtaining a personally satisfying life.

The school health educator:  

**FUNCTION V:**  
RECOGNIZE THE DECISIONS THAT STUDENTS MAKE ARE BASED UPON THE KNOWLEDGE, SKILLS, AND ATTITUDES/VALUES THEY POSSESS.

**Attitudes/Values:**

The school health educator:

A. recognizes the importance of factors which influence student health behaviors, health status needs, and health interests.
The school health educator:

- D. organizes the health curriculum with an awareness of the importance of sequence, scope, and continuity of content.
- E. facilitates where appropriate the implementation of the various patterns of health education curricula, i.e., direct, correlation, and integration.
- F. analyzes historical and philosophical developments in the field of health education and their implications for today's health education programs.
- G. provides inservice opportunities to colleagues and other school personnel concerning pertinent health education concerns and student health interests and needs.

Attitudes/Values

The school health educator:

- A. recognizes that curriculum development is a dynamic, continuous process that reflect student needs and social changes.
- B. supports the active role of individuals in promoting their health and the health of others.
- C. stresses effective communication among individuals and groups of individuals as a vital prerequisite in promoting health and health education.
- D. supports the appropriate use of praise and encouragement in the instructional setting.
IMPORTANCE of

The school health educator:
123456
S. recognizes the importance of one's own optimal mental, emotional, social, and physical well-being for teaching and the influence on student behavior and appearance.

FUNCTION V:
GUIDE INDIVIDUALS IN PERSONAL DECISION-MAKING AND SERVE IN A HEALTH COUNSELING ROLE WHEN APPROPRIATE.

Knowledge:
The school health educator:
123456
A. identifies a framework of information related to health counseling.

Skills:
The school health educator:
123456
A. recognizes those specific problem situations which may warrant health counseling.

B. promotes students' understanding of the potential of personal behavior change through decision-making to affect individual well-being, the well-being of others, and the quality of the surrounding environment.

Attitudes/Values:
The school health educator:
123456
A. supports the need for teachers to function in a counseling relationship.

B. demonstrates a concern for students.

FUNCTION VI:
REFER TO APPROPRIATE ALLIED PROFESSIONALS, THOSE INDIVIDUALS WHOSE HEALTH CONCERNS REQUIRE SUPPLEMENTARY INTERVENTIONS, E.G., MENTAL, LEGAL, FINANCIAL, AND SOCIAL WORK, ETC.

Skills:
The school health educator:
123456
A. identifies school and other professional personnel who are qualified to provide follow-up evaluation and professional care to students.

B. follows through to determine if individuals' health needs have been met through professional referrals.

Attitudes/Values:
The school health educator:
123456
A. accepts professional limitations and utilizes the appropriate referral process to meet individual needs.

FUNCTION VII:
ASSIST OTHER PROFESSIONALS IN PLANNING, COORDINATING, AND ADMINISTERING THE SCHOOL HEALTH SERVICES, HEALTHFUL SCHOOL ENVIRONMENT, AND COMMUNITY FACETS OF THE TOTAL SCHOOL HEALTH PROGRAM.

Knowledge:
The school health educator:
123456
A. identifies the services that community health agencies and personnel provide in promoting the effectiveness of the total school health program.

B. recognizes the historical and philosophical basis of public and private health organizations.
<table>
<thead>
<tr>
<th>IMPORTANCE of the Statement</th>
<th>SKILLS</th>
<th>ADEQUACY OF YOUR PREPARATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 A. identifies the school health educator's role and responsibilities as well as those of other school personnel in preventing and/or resolving pertinent health problems.</td>
<td>0 1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>1 2 3 4 5 6 B. promotes the reciprocal relationships which should exist between the health responsibilities of the home, school, and community.</td>
<td>0 1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>1 2 3 4 5 6 C. assists in making school health services part of the educational program through participation with members of the school health team.</td>
<td>0 1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>1 2 3 4 5 6 D. implements the historical and philosophical basis of public and private health organizations into the planning, coordinating, and administering of the total school health program.</td>
<td>0 1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>1 2 3 4 5 6 E. utilizes appropriate health and safety records to promote student well-being.</td>
<td>0 1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td>1 2 3 4 5 6 F. assists in planning for the purchase, care, and utilization of equipment, materials, and supplies.</td>
<td>0 1 2 3 4 5 6</td>
<td>0 1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

**Attitudes/Values**

| 1 2 3 4 5 6 A. supports the need for cooperation between school and community health personnel in meeting individual and community health needs. | 0 1 2 3 4 5 6 |
| 1 2 3 4 5 6 B. defends the need for maintaining pertinent school health and safety records and summary reports. | 0 1 2 3 4 5 6 |
| 1 2 3 4 5 6 C. demonstrates support for health oriented activities by assuming related supervisory responsibilities, e.g., chairs school health council meetings. | 0 1 2 3 4 5 6 |

**FUNCTION VIII:**

EVALUATE THE EFFECTIVENESS OF HEALTH INSTRUCTION IN PREVENTING GAINS IN STUDENT COGNITIVE, AFFECTIVE, AND PSYCHOMOTOR BEHAVIORS AND ASSIST IN EVALUATING THE SCHOOL HEALTH SERVICES, HEALTHFUL SCHOOL ENVIRONMENT, AND COMMUNITY FACTS OF THE TOTAL SCHOOL HEALTH PROGRAM.

**Knowledges**

| 1 2 3 4 5 6 A. recognizes professionally recommended standards and procedures used in evaluating the total school health program. | 0 1 2 3 4 5 6 |

**Skills**

| 1 2 3 4 5 6 A. writes and utilizes a variety of reliable and valid objective and subjective tests. | 0 1 2 3 4 5 6 |
| 1 2 3 4 5 6 B. analyzes contemporary evaluation trends for their relevance to health instruction. | 0 1 2 3 4 5 6 |
| 1 2 3 4 5 6 C. adapts, develops, and implements instruments to evaluate the status of the components of the total school health program. | 0 1 2 3 4 5 6 |
| 1 2 3 4 5 6 D. uses various techniques to analyze evaluation data, e.g., means, medians, modes, frequency distributions. | 0 1 2 3 4 5 6 |
| 1 2 3 4 5 6 E. evaluates the contributions of various health care practitioners for participating in health instruction programs. | 0 1 2 3 4 5 6 |

**Attitudes/Values**

| 1 2 3 4 5 6 A. supports the needs for ongoing evaluation and possible restructuring of the school health program. | 0 1 2 3 4 5 6 |
**Importance of the Statement**

Read, critique, and utilize the latest literature, reports, and research findings and engage in continuing education, in-service, and other activities to further professional growth.

**Knowledge**

The school health educator:

1. A. Identifies sources of information that promote professional growth and development.

2. A. Works cooperatively with teacher education institutions in providing field experiences as well as practicum and in-service activities.

3. A. Advocates the need for unbiased research in the health, health education, and other related fields.

**Skills**

The school health educator:

4. A. Communicates the contributions of health education to professionals in related disciplines.

5. A. Seeks and utilizes the contributions of professionals in related disciplines which are significant to health education.

**Attitudes/Values**

The school health educator:

6. A. Advocates a commitment to health education by contributing responsibly and providing leadership in professional organizations promoting health education.

**ADJUDGY OF YOUR PREPARATION**

1 2 3 4 5 6

**PLEASE STATE BELOW IN THE SPACE PROVIDED ANY GENERAL COMMENTS CONCERNING THE ABOVE LIST OF KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES DESIGNED FOR THE SCHOOL HEALTH EDUCATOR.**
APPENDIX K

SURVEY INSTRUMENT: FORM B
DIVISION OF HEALTH EDUCATION
Follow-Up Questionnaire

PART I: Personal Data

Directions: Please circle the letter immediately preceding the appropriate answer or fill in the appropriate blank.

1. Sex: a. male b. female
2. Age: a. 21-25 b. 26-30 c. 31-35 d. 36-40
3. Marital status: a. single b. married c. divorced d. widowed e. other (specify)
5. Year of graduation: 19
6. Current employment: a. school health educator b. teacher, but not health educator c. employed in another facet of education (counselor, administrator, curriculum supervisor, etc.) d. employed outside of education (specify your position)
7. Employment prior to current position but after graduation: (circle all that apply) a. school health educator b. teacher, but not health educator c. employed in another facet of education (counselor, administrator, curriculum supervisor, etc.) d. employed outside of education (specify your position)
8. Graduate degree hours beyond the Bachelor's degree: a. none b. 1-10 c. 11-20 d. 21-30 e. over 30, but no degree granted f. Graduate degree(s) received (specify type of degree and name of granting institution)

Questions 9-14 are for graduates who are now teaching or have previously taught; answer according to your most recent teaching experience.

9. School enrollment: a. under 500 b. 501-1000 c. over 1000
10. Average student-teacher ratio: a. 1-10 b. 11-30 c. over 30
11. Current level of instruction: a. K-12 (specify your grade level(s) b. college c. other (specify)
12. Type of school: a. rural b. urban c. inner city d. suburban e. other (specify)
13. Years of full-time teaching experience, including this year: (specify)
14. Percent of professional duties related to health instruction: a. 0% b. 25% c. 50% d. 75% e. 100%

PART II - GRADUATE FOLLOW-UP FORM

CURRENT KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES DESIRED OF THE SCHOOL HEALTH EDUCATOR WHO HAS GRADUATED FROM THE OHIO STATE UNIVERSITY, ORGANIZED ACCORDING TO THE TEN PROFESSIONAL FUNCTIONS OF THE SCHOOL HEALTH EDUCATOR

FUNCTION I:
PROMOTE A WORKING FOUNDATION OF CONTENT KNOWLEDGE FOR THE TEACHING SPECIALTY OF HEALTH, e.g., TERMINOLOGY, FACTUAL INFORMATION, CONCEPTS, AND THEORIES.

Knowledge/Skills

DEPENDENCE of
the Statement

The school health educator:
A. recalls and applies a framework of information in the following health concept areas, including:

1 2 3 4 5 6
1 2 3 4 5 6
1 2 3 4 5 6
1 2 3 4 5 6
1 2 3 4 5 6
1 2 3 4 5 6
1 2 3 4 5 6
1 2 3 4 5 6
1 2 3 4 5 6

a. communicable diseases
b. consumer health
c. dental health
d. ecological and environmental health concerns
e. fitness for living
f. human sexuality and family life
g. non-communicable diseases and disorders
h. personal health (rest, sleep, posture, skin care, etc.)

ADAPTABILITY OF YOUR PREPARATION

0 1 2 3 4 5 6
0 1 2 3 4 5 6
0 1 2 3 4 5 6
0 1 2 3 4 5 6
0 1 2 3 4 5 6
0 1 2 3 4 5 6
0 1 2 3 4 5 6
0 1 2 3 4 5 6

(over)
The school health educator:
B. recalls and applies a framework of information in the following sciences related to health and health education, including:

1. Life Sciences (biology, physiology, microbiology, parasitology, and epidemiology)
2. Health Sciences (preventive medicine, preventive dentistry, and epidemiology)

Skills
The school health educator:
A. recognizes the relationship between health education and allied health fields that contributes to the health education knowledge base.

Attitudes/Values
The school health educator:
A. clarifies his/her own personal attitudes and values in relation to relevant health issues.
B. develops an awareness and appreciation of the interrelationships of the physical, emotional, social, and spiritual aspects of health.
C. supports an ecological perspective of health and wellness.

FUNCTION II:
ANALYZE, APPRAISE, AND PRIORITIZE A) THE SIGNIFICANCE OF HEALTH BEHAVIOR, B) HEALTH STRESS NEEDS, C) HEALTH INTERESTS, AND D) HEALTH EDUCATION CONCERNS.

Knowledges
The school health educator:
A. identifies a framework of information related to appraising the significance of health behavior.

Skills
The school health educator:
A. utilizes a variety of valid and reliable techniques to determine student health needs and interests.
B. identifies community health needs and interests through participation in community organizations and functions.
C. analyzes the interrelationships between values (perceptions, attitudes, beliefs) and health problems (individual, family, school, and community.)

Attitudes/Values
The school health educator:
A. supports the need for continuous evaluation of students' health status and behavior utilizing information from all aspects of the total school health program.

FUNCTION III:
PLAN, WRITE, AND PROMOTE DESIGNS FOR INSTRUCTION AND CURRICULUM RELATING THEM TO THE COMMUNITY WHERE APPROPRIATE.

Knowledges
The school health educator:
A. identifies a framework of information related to instruction and curriculum development.

Skills
The school health educator:
A. interprets major health and health education concepts, e.g., germ theory, high level wellness, and uses these interpretations as a philosophical basis for teaching.
<table>
<thead>
<tr>
<th>Importance of the Statement</th>
<th>The School Health Educator:</th>
<th>Adequacy of Your Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>123456 B. facilitates student development of individual plans for action which will allow them to move toward personal well-being.</td>
<td>0123456</td>
<td>0123456</td>
</tr>
<tr>
<td>123456 C. allows for cultural differences in program planning and implementation.</td>
<td>0123456</td>
<td>0123456</td>
</tr>
<tr>
<td>123456 D. applies principles of human growth and development to the planning and implementation of the health education curriculum.</td>
<td>0123456</td>
<td>0123456</td>
</tr>
<tr>
<td>123456 E. utilizes community members, local resources, and health professionals in the curriculum development process.</td>
<td>0123456</td>
<td>0123456</td>
</tr>
<tr>
<td>123456 F. adapts available health education curricula as well as instructional materials to improve the health education program.</td>
<td>0123456</td>
<td>0123456</td>
</tr>
<tr>
<td>123456 G. develops and implements strategies for encouraging individual and community support for the school health program, especially school health instruction.</td>
<td>0123456</td>
<td>0123456</td>
</tr>
</tbody>
</table>

**Attitudes/Values**

The School Health Educator:

123456 A. supports the planned comprehensive, sequential approach to curriculum design in preference to the crisis-oriented approach. | 0123456 |

**Function IV:**

ARRANGE MATERIAL, TEMPORAL, AND HUMAN, INCLUDING PERSONAL RESOURCES WITH THE INTENT FOR PROMOTING LEARNING (THIS INCLUDES NOT ONLY ACTUAL INSTRUCTION, BUT ALSO MAINTAINING THE CLASSROOM ENVIRONMENT IN ORDER TO FACILITATE SUCH INSTRUCTION), 1979.

**Knowledges**

The School Health Educator:

123456 A. identifies a framework of information related to instructional methodology and classroom management. | 0123456 |

**Skills**

The School Health Educator:

123456 A. teaches toward contemporary concepts of health and health education. | 0123456 |

123456 B. provides opportunities with the potential for students to positively change behaviors while maintaining established desirable behaviors. | 0123456 |

123456 C. conducts routine classroom administrative and managerial duties in an effective manner. | 0123456 |

123456 D. utilizes effective disciplinary strategies in managing the classroom. | 0123456 |

123456 E. facilitates student involvement in the processes of problem-solving and decision-making in order to resolve health-related problems and promote a quality of life for self and others. | 0123456 |

123456 G. stresses criteria to learners that will be used to evaluate their progress as well as strategies for monitoring their achievement. | 0123456 |

123456 H. presents health-related information in an organized and clear manner. | 0123456 |

123456 J. operates a wide range of audio-visual equipment. | 0123456 |

**Attitudes/Values**

The School Health Educator:

123456 A. advocates health as a means for attaining one's potential for effective living. | 0123456 |

123456 B. respects individuals who may differ in their appearance, customs, ideas, attitudes, and values. | 0123456 |

123456 C. emphasizes the significance of the decision-making and problem-solving procedures as permanent and suitable to health instruction. | 0123456 |

(over)
Mandatory Statement:

1. Recognizes the value of expressing enthusiasm in teaching.

2. Advocates the need for students and other school personnel to assume progressive responsibility for their own health.

3. Acknowledges the impact of environmental factors (classroom cleanliness, ventilation, heating) on the students' well-being.

FUNCTION VI: GUIDE INDIVIDUALS IN PERSONAL DECISION-MAKING AND SERVE IN A HEALTH COUNSELING ROLE WHEN APPROPRIATE.

KNOWLEDGES

The school health educator:

A. Identifies a framework of information related to health counseling.
B. Utilizes counseling skills to help resolve student health-related problems, i.e., active listening, clarifying responses, paraphrasing.

ATTITUDES/VALUES

The school health educator:

A. Acknowledges the relationship between the educational process and health counseling.
B. Respects and defends the need for confidentiality in teacher-student counseling situations.
C. Acknowledges the influence of personal beliefs and values of all concerned parties in the counseling situation.

FUNCTION VII: REFER TO APPROPRIATE ALLIED PROFESSIONALS, THOSE INDIVIDUALS WHOSE HEALTH CONCERNS REQUIRE SUPPLEMENTARY INTERVENTION, e.g., MEDICAL, LEGAL, FINANCIAL, AND SOCIAL WORK, ETC.

KNOWLEDGES

The school health educator:

A. Identifies and encourages those individuals whose health needs require supplementary intervention to seek professional help.

FUNCTION VIII: ASSIST OTHER PROFESSIONALS IN PLANNING, COORDINATING, AND ADMINISTERING THE SCHOOL HEALTH SERVICES, HEALTHFUL SCHOOL ENVIRONMENT, AND COMMUNITY FACETS OF THE TOTAL SCHOOL HEALTH PROGRAM.

KNOWLEDGES

The school health educator:

A. Identifies a framework of information related to planning, coordinating, and administering the many facets of the total school health program.
B. Recognizes the contributions of the many facets of the total school health program to the general aims of education and quality of life of students.
The school health educator:

1. interprets the interrelationships of the components of the total school health program.
2. utilizes the services that community health agencies and personnel provide in promoting the effectiveness of the total school health program.
3. works cooperatively with colleagues, school administrators, parents, students, and others in the school-community health program.
4. assists the school health team in meeting such school health responsibilities as health screening, school emergencies, and student immunizations.
5. applies problem-solving and decision-making skills to administrative duties, tasks, and assignments.
6. assists in maintaining appropriate health and safety records.
7. identifies and implements policies and regulations relating to the many facets of the total school health program, i.e., use and abuse of drugs, communicable disease control, school meals.

Attitudes/Values

The school health educator:

1. advocates the importance of safety in the life of the student through written statements of policies and procedures for handling emergencies and illness.
2. realizes the importance of possessing first aid skills.

FUNCTION VIII:
EVALUATE THE EFFECTIVENESS OF HEALTH INSTRUCTION IN PROMOTS GAINS IN STUDENT COGNITIVE, AFFECTIVE, AND PROBLEM-SOLVING BEHAVIOR AND ASIST IN EVALUATING THE SCHOOL HEALTH SERVICES, HEALTHFUL SCHOOL ENVIRONMENT, AND CERTAIN FACETS OF THE TOTAL SCHOOL HEALTH PROGRAM.

Knowledges

The school health educator:

1. identifies a framework of information related to the evaluation of the total school health program.

Skills

The school health educator:

1. evaluates his/her own teaching effectiveness using a variety of data, i.e., student achievement scores, informal student feedback, student behavior, attitudes expressed in class.
2. evaluates appropriateness of textbooks and other resources for instructional use.
3. applies the basic methods of evaluating the three components of the total school health program, i.e., checklists, inventories, review of accident and disease records, etc.
4. utilizes available technological resources and community expertise to facilitate evaluation of the total school health program.
5. interprets and utilizes evaluation findings to recommend modifications in the existing school health program.

Attitudes/Values

The school health educator:

1. advocates the need for evaluating teacher effectiveness in relation to student status and/or behavior.
<table>
<thead>
<tr>
<th>DISPOSITION of the Statement</th>
<th>FUNCTION IX: Read, critique, and utilize the latest literature, reports, and research findings and engage in Continuing Education, in-service, and other activities to further professional growth.</th>
<th>ADEQUACY of YOUR PREPARATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Knowledge&lt;br&gt;The school health educator: &lt;br&gt;1 2 3 4 5 6 A. identifies sources of information that promote professional growth and development.</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td></td>
<td>Skills&lt;br&gt;The school health educator: &lt;br&gt;1 2 3 4 5 6 A. evaluates health and health education related literature and uses this information to implement an effective school health program.</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td></td>
<td>Attitudes/Values&lt;br&gt;The school health educator: &lt;br&gt;1 2 3 4 5 6 A. accepts personal responsibility to stay up-to-date in the fields of health and health education by reading the professional literature and participating in educational opportunities.</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td></td>
<td>FUNCTION X: Communicate with other professionals via such avenues as association memberships and committees, speeches, and publications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skills&lt;br&gt;The school health educator: &lt;br&gt;1 2 3 4 5 6 A. recognizes the current and developing trends in the field of health education</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 B. presents educational research findings, teaching strategies, curriculum materials, etc., to fellow professionals via written reports and/or oral presentations.</td>
<td>0 1 2 3 4 5 6</td>
</tr>
<tr>
<td></td>
<td>Attitudes/Values&lt;br&gt;The school health educator: &lt;br&gt;1 2 3 4 5 6 A. develops a professional identity derived from the beliefs and values which underline professional health education.</td>
<td>0 1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

*PLEASE STATE BELOW IN THE SPACE PROVIDED ANY GENERAL COMMENTS CONCERNING THE ABOVE LIST OF KNOWLEDGES, SKILLS, AND ATTITUDES/VALUES DESIGNED FOR THE SCHOOL HEALTH EDUCATOR.
APPENDIX L

COVER LETTER TO FIRST QUESTIONNAIRE MAILING
January 18, 1980

Dear Health Education Graduate:

Your input is needed! The Division of Health Education Faculty at The Ohio State University has recently validated a list of current knowledges, skills, attitudes, and values desired of the school health educator. This list was developed to comply with the 1980 State of Ohio Teacher Education Standards. Your input is vital and needed since:

1. As a graduate of the Health Education Professional Preparation Program, you are aware of its strengths and weaknesses.

2. The knowledges, skills, attitudes, and values determined essential for the school health educator will be used to structure the Health Education Professional Preparation Program in the 1980's at The Ohio State University. It is vitally important that these knowledges, skills, attitudes, and values are relevant to the needs of future Ohio State Health Education graduates.

3. These data will help the Health Education Faculty at The Ohio State University determine which knowledges, skills, attitudes, and values are of prime importance and thus should be emphasized or deleted in the Professional Preparation Programs of the future.

In order to conserve your time in replying, approximately one-half of the validated knowledge, skill, attitude, and value statements are contained in the attached questionnaire. These items are organized according to ten generalized statements; they have been placed in a questionnaire format in order to secure your opinions and reactions. The questionnaire has been coded only to keep track of those who do not respond. Your individual responses will remain strictly confidential.

I would appreciate your taking the time from your busy schedule to complete the enclosed questionnaire; a return envelope has been provided. May I have the reply by January 30, 1980. If this letter is delayed due to forwarding difficulties, please return the completed questionnaire immediately.

Thank you for your interest and concern.

Sincerely,

Mary K. Beyrer, Director
APPENDIX M

INSTRUCTION PAGE FOR SURVEY INSTRUMENT
The questionnaire which follows consists of a number of statements that reflect the knowledge, skills, and attitudes/values determined essential for the effective teaching of health. Please respond to these statements in the following two ways:

1) How important is each stated knowledge, skill, or attitude/value to the school health educator in performing his/her present-day health education responsibilities?

2) How adequate was your professional preparation at The Ohio State University in helping you achieve each stated knowledge, skill, or attitude/value? Rate only the professional preparation that led to your Bachelor's Degree in Health Education.

Keeping this review in mind, please complete the attached questionnaire according to the instructions stated below. When done, place it in the stamped envelope and return.

INSTRUCTIONS:
For each statement, please indicate in as fair and unbiased manner as possible your judgment of the following two criteria:

A) Importance of the stated knowledge, skill, or attitude/value as you perceive it.

<table>
<thead>
<tr>
<th>TOTALLY UNIMPORTANT</th>
<th>MOST IMPORTANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

B) Adequacy of your professional preparation at The Ohio State University to achieve the stated knowledge, skill, or attitude/value.

<table>
<thead>
<tr>
<th>NO PREPARATION</th>
<th>POOR PREPARATION</th>
<th>EXCELLENT PREPARATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

When completing this questionnaire keep in mind that your response to the "importance" scale should be independent of your response to the "adequacy of your professional preparation" scale. Please circle the number which represents the most appropriate response. Circle one number for each of the two criteria stated above.

An example of this "circling" procedure follows:

The school health educator:

<table>
<thead>
<tr>
<th>Importance of the Statement</th>
<th>Adequacy of Your Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>1, 2, 3, 4, 5</td>
</tr>
</tbody>
</table>

Refer to the above two rating scales when completing the questionnaire.
APPENDIX N

COVER LETTER TO SECOND QUESTIONNAIRE MAILING
Dear Health Education Graduate:

Our success in evaluating the present Health Education Professional Preparation Program at The Ohio State University is entirely dependent upon your willingness to provide us with your opinions and reactions to the attached list of knowledge, skill, attitude, and value statements.

As a Health Education Graduate, your insights regarding Ohio State's Professional Preparation Program are invaluable. The Division of Health Education is interested in your views, regardless of your involvement in the health education field since your graduation. The fact that there were about 135 Health Education graduates over the last ten years makes your input even more important.

For these reasons, please take a little time and complete the enclosed questionnaire according to the stated instructions. A return envelope has been provided for your convenience. The questionnaire has been coded only to keep track of those who do not respond. Your individual responses will remain strictly confidential.

I would appreciate your reply by February 20, 1980. If this letter is delayed due to forwarding difficulties, please return the completed questionnaire immediately. If you have already completed an identical questionnaire sent to you previously, please discard the enclosed one.

Thank you again for your cooperation.

Best Regards.

Mary K. Beyrer, Director
School of HPER

P.S. We obviously cannot "reward" you for your cooperation. But, as a token of our appreciation, we will be happy to forward any message you might have to a former class member. If you'd like to get in touch with a Health Education Student who graduated between 1970-1979, jot a note on the last page of the completed questionnaire - we'll forward it for you. Or, if you'd appreciate having a current address for someone, just ask!
APPENDIX O

COVER LETTER TO THIRD QUESTIONNAIRE MAILING
Dear Colleague,

Thank you for your positive reply to our recent telephone conversation. A copy of the questionnaire that we talked about is enclosed; please complete it according to the stated instructions. A return envelope has been provided for your convenience. The questionnaire has been coded only to keep track of those who do not respond. Your individual responses will remain strictly confidential.

Our success in evaluating the present Health Education Program at The Ohio State University is entirely dependent upon your willingness to provide us with your opinions and reactions to the attached list of knowledge, skill, attitude, and value statements. We're interested in your views, regardless of your involvement in the health education field since your graduation. So please return the completed questionnaire as soon as possible.

Thanks again for your concern and cooperation.

Sincerely,

Mary K. Beyrer, Director
School of Health, Physical Education, and Recreation
The Ohio State University
REFERENCES


319


Ohio Department of Education. Standards for colleges or universities preparing teachers. Columbus, 1975.


REFERENCE NOTES

1. Adams, R.D. Western Kentucky University's follow-up evaluation of teacher education graduates. Paper presented at the Teacher Education Program Follow-Up Conference at the University of Texas, Austin, April, 1978.

2. Ayers, J.B. Teacher education program study at Tennessee Technological University. Paper presented at the Teacher Education Program Follow-Up Conference at the University of Texas, Austin, April, 1978.


5. deVoss, G.G. Personal communication, April 16, 1980.

6. Fuller, F., George, A., & Borich, G. Progress report on research on teacher concern checklist. In-house report at the Research and Development Center at the University of Texas, Austin, 1974.

