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THE INTRODUCTORY COURSE IN EDUCATIONAL PSYCHOLOGY IN PENNSYLVANIA TEACHER-EDUCATION INSTITUTIONS

by

Reba Garvey

A.B., Allegheny College, 1950

M.A., Western Reserve University, 1954

A Thesis submitted to the Faculty of the Graduate School of the University of Colorado in partial fulfillment of the requirements for the Degree

Doctor of Education

School of Education

1961

This Thesis for the Ed.D. degree by

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has been approved for the

School of

Education

by

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Date 7-17-61

Garvey, Reba (Ed.D., Education)
The Introductory Course in Educational Psychology in
Pennsylvania Teacher-Education Institutions
Thesis directed by Associate Professor Dorothy M. Sherman

The purpose of this investigation was to survey the present practices and procedures in educational psychology courses offered in Pennsylvania teacher-education institutions and the relevant opinions of instructors responsible for these courses. By submitting a questionnaire to 91 educational-psychology instructors in 69 Pennsylvania institutions, information was gathered about the basic purpose and subject-matter content of the beginning course in educational psychology; the methods and materials employed; instructors' opinions concerning practicing what they preach; their suggestions for revising the course; and, background information about the instructors themselves. All types of Pennsylvania teacher-education institutions are represented--but not necessarily proportionally--among the 73 respondents from 56 colleges and universities.

The Course

The beginning course in educational psychology is generally a one-semester, three credit-hour course. The introductory psychology course is ordinarily a prerequisite; additional course-work is prerequisite in one-third of the schools. The majority of the students are juniors, with sophomores constituting the dominant minority.

Respondents' statements of the main purpose of the course indicated great variety, but the emphasis was usually placed on either

the learner or learning processes. Great variation was evident in the proportional class-time spent by respondents on major areas of content. Discrepancies were noted between instructors' indications of materials and methods employed, and the topics reportedly included in the course.

Most respondents used some combination of lecture and discussion, plus a variety of supplementary techniques. Many different textbooks were used, with almost one-fourth of the instructors employing Cronbach's volume. A majority require or recommend reading in professional journals and, at least occasionally, employ films and observations.

Students' learning is ordinarily evaluated in terms of one or more factors in addition to a final examination. Examinations are composed primarily of essay or objective items constructed by the instructors themselves.

Instructors

The majority of the respondents range in age from 40 to 59 years; hold doctorates; and, rank as full professors (often, as heads of departments). One-fifth have had experience in both elementary and secondary schools; one-fifth have had experience at neither level. Most have taught educational psychology from five to twenty times before, and almost all favor practicing what is preached, insofar as students' maturity and institutional conditions permit. Most frequently approved revisions included having smaller classes and eliminating sophomores from the course. Standardizing the course in different schools and integrating the content with that of other courses were not generally favored.

Interrelationships

Interrelationships between pairs of 23 factors (relevant to instructors' experience, opinions, and practices) were investigated. Application of the chi-square test to 246 pairs of factors yielded 35 combinations for which the null hypothesis of independence between the factors could be rejected at the .05 level of significance. This was most frequently the case in combinations including the number of supplementary practices used in teaching.

Recommendations

Three recommendations seem warranted by analysis of the available data. An educational-psychology instructor should evaluate this course in terms of its contribution to the specific teacher-education program of which it is a part. In employing and placing an instructor, his experience (particularly at different educational levels), as well as the objectives of the particular courses he will teach and the goals of the entire teacher-education program, should be considered. Every instructor involved in a program of teacher-education should capitalize upon the fact that students' collateral learnings in every course can contribute positively to their growth toward the objectives of the teacher-education program as a whole.

This abstract of about 585 words is approved as to form and content. I recommend its publication.

Signed Dorothy M. Sherman
Instructor in charge of dissertation

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CHAPTER ONE

INTRODUCTION

Background of the Problem

Working with undergraduates in the teacher-education program of a liberal arts college causes one to wonder about the proper place of educational psychology in this program. What does the beginning teacher--or, rather, the sophomore teacher-to-be--need to know about learning, growth and development, teaching methods, evaluation of learning, professional improvement of teachers? Which of the necessary learnings should be included in the beginning course in educational psychology? Should teacher-educators be teaching by example, as well as by precept? Are teacher-educators aware of, and capitalizing upon, what is taught by example? Responsibility for the educational-psychology instruction of some 75 teachers-to-be per year is the basis for concern about the purpose and place of this course in the preparation of teachers.

Uncertainties concerning this course traditionally required for certification have appeared in print over a period of years. In addition to the obvious diversity in the content of recent textbooks in this field, conversational comments indicate that, as previous research efforts have shown, the one salient feature of educational psychology--as it is taught in many different colleges and

universities--is variety: in content, in teaching procedures, in instructors' qualifications, and even in stated purposes for the course.

Awareness of the evidence of lack of agreement among past and present teacher-educators regarding the place of the beginning course in educational psychology in programs of teacher-preparation, along with the related popular criticisms of teachers-of-teachers for failing to practice what they preach and for neglecting to set a good example for future teachers, lie behind this study. Also basic to this investigation are two assumptions. First, it is assumed that improvement on the part of individual instructors (which is the only means for improving the profession) may result from exchanging ideas about a course or program with other instructors, or trading information with teachers who work under slightly different conditions. In the second place, it is assumed that a teacher's personal background has some effect on his teaching of any course, which--in turn--has some effect on what the teachers-to-be enrolled in his course will be doing later, in their own classrooms. An exchange of fact and opinion among instructors of educational psychology courses may stimulate thinking about the effectiveness of these courses and, thus, encourage individual instructors to attempt improvements. The findings of this investigation of the present status of the introductory course in educational psychology in Pennsylvania teacher-education institutions afford a broader and a more objective basis for evaluation than any one instructor might otherwise have available.

Scope of the Investigation

All the instructors involved in this study are employed by institutions of higher learning in Pennsylvania. Thus, a brief overview of the collegiate situation in that commonwealth may be helpful.

Institutions of Higher Education in Pennsylvania

There is a factual basis for Pennsylvania, as the third largest state in terms of population, to have the reputation for "a college in every town." The World Almanac credits the commonwealth with 105 institutions of senior-college or equivalent status.[1] More than 165,000 persons are enrolled as students, and the rosters of full-time faculty members indicate that another 10,000 individuals are directly involved in the business of higher education.

Enrollment. One may find within the state an institution with almost any desired number of students, for the total enrollments reported range from 65 to 19,869.[2] Relatively small schools predominate: only four enroll more than 10,000 students, and four others from 5000 to 10,000 students. Another seven schools record total enrollments between 2000 and 5000 students. The overwhelming majority (85 per cent) remains fairly small, as enrollments are ordinarily

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[1]Harry Hansen (ed.), The World Almanac and Book of Facts, 1960. New York: New York World-Telegram and The Sun, 1960. "Pennsylvania," p. 205.

[2]Ibid., "Education: American Colleges and Universities . . . Spring, 1959," pp. 469-92.

judged. This bias in enrollment is quite evident when one notes that, for the entire state, the mean total enrollment is 1651.4, while the median is 837.5.

Affiliation and Support. In addition to Pennsylvania State University (land-grant), the commonwealth supports fourteen state colleges (until recently, state teachers colleges), which originated between 1839 and 1893 as two-year normal schools. (Although some state aid is granted to the University of Pennsylvania and the University of Pittsburgh, these are ordinarily considered privately-controlled universities.) The fifteen totally state-supported schools, then, constitute approximately 15 per cent of the total number of higher-education institutions in the state.

Slightly more than one-fourth of the total number may be considered truly "privately controlled," as are the two universities mentioned above. This quarter of the commonwealth's colleges are unaffiliated with either governmental or religious groups.

Among the almost 60 per cent of the institutions which are affiliated with, and/or controlled by, religious denominations, eleven (about one-fifth) are classified as "private" in terms of control,[1] while 49 (approximately four-fifths) are classified as "denominational."[2] Sources of income and requirements for membership on the

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[1] Ibid., p. 469.

[2] Ibid., pp. 469-92.
Felician A. Foy (ed.), The 1960 National Catholic Almanac. Patterson, N.J.: St. Anthony's Guild, 1960. "Catholic Universities and Colleges in the United States," pp. 496-501.

board of trustees seem to indicate most clearly, in the case of each school, the degree of control implied by the "denominational" classification.

Programs. The majority (64.7 per cent) of the state's colleges and universities offer coeducational settings for the pursuit of higher learning. In the nineteen restricted to male enrollment and the seventeen to women, it is not uncommon to find that certain courses or programs (in the evening division, during the summer-session, or at the graduate level) are open to the otherwise-excluded sex.

Eighty of the colleges and universities are accredited by the Middle States Association. Of these, 53 (66.2 per cent) are classified by the M.S.A. as Type II, in which the highest degree awarded is the bachelor's, or first-professional, degree. The Type III group includes eighteen additional schools (22.5 per cent) privileged to grant master's, or second-professional, degrees, while only nine (11.2 per cent) are Type IV-institutions privileged to grant doctorates.[1] (Sufficient information to categorize the non-accredited colleges into types based on degrees granted is lacking.)

In the case of the M.S.A. coding of program-type (indicated by a lower-case letter), however, the situation differs.[2] For the unapproved institutions, the name of the school ordinarily indicates the M.S.A. type in which it would be categorized. For the most part,

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[1]Mary Irwin (ed.), American Universities and Colleges, Eighth Edition, 1960. Washington, D.C.: American Council on Education, 1960, pp. 1180-81.

[2]Ibid., p. 1166.

these are professional-technical schools of Type g: eight theological seminaries; three medical colleges; two schools of music; one, each, specializing in agriculture, Bible, osteopathy, and pharmacy-and-science. An additional seminary is evidently Type h, since it is approved by the Department of Public Instruction for the preparation of teachers. Four others are apparently small, general and liberal arts colleges, which would be marked b in this classification scheme.

In Table I (p. 7), it is evident that the classifications indicated by the letters, d, e, and g include most of the state's schools. Beside the code-letter is a description of the program-type, followed by the number and per cent of schools so categorized.[1]

Pennsylvania Colleges and Universities Approved for Preparation of Teachers

The preceding overview of the collegiate picture in the state must be supplemented by comparative information about those colleges and universities approved by the Bureau of Teacher Certification (of the Department of Public Instruction) for teacher-preparation. The official list of approved schools available at the time this investigation was begun included the names of 72 institutions.[2] Two of these were eliminated from the population, since their approval is for programs of art-education only. Of the other seventy colleges and universities then listed, all met the qualifications for preparing

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[1] Ibid., pp. 1180-81.

[2] Institutions Approved for Teacher Education with Areas of Approval. Harrisburg, Pennsylvania: Commonwealth of Pennsylvania, Department of Public Instruction, Bureau of Teacher Education, November 9, 1956. (2 pp. mimeographed.)

TABLE I

NUMBER AND PER CENT OF PENNSYLVANIA COLLEGES AND UNIVERSITIES OFFERING EACH OF NINE PROGRAM-TYPES DEFINED BY THE MIDDLE STATES ASSOCIATION

M.S.A. code letter	Programs	Schools Number	Schools Per Cent
b	liberal arts; general studies	9	8.8%
c	liberal arts; general studies; less-than-four-year terminal occupational programs	2	1.9%
d	primarily teacher-preparation	14	13.7%
e	liberal arts; general studies; teacher preparation	33	32.4%
f	liberal arts; general studies; terminal occupational; teacher-preparation	7	6.9%
g	professional-technical	21	20.6%
h	professional-technical; teacher-preparation	5	4.9%
j	liberal arts; general studies; one or two professional schools	5	4.9%
k	liberal arts; general studies; three or more professional schools; universities	6	5.9%

secondary-school teachers in the so-called academic areas. Forty-six had been granted official approval of their elementary-education programs, fifteen of which were still marked "probationary" at the time this list was compiled.

Enrollment. When, as a group, the seventy schools approved for teacher-preparation are compared with the others, one generalization concerning enrollment is obvious: less than one-fourth of the very small schools (having enrollments of fewer than 500 students)[1] within the commonwealth are involved in the preparation of teachers. The differences between teacher-education and non-teacher-education schools in means and medians are sufficiently large that the establishment of statistical significance seems superfluous. The difference between the mean and the median enrollments of each of the two groups of schools indicates considerable positive skewness in the distributions of enrollments.

TABLE II

MEAN AND MEDIAN ENROLLMENTS OF PENNSYLVANIA COLLEGES AND UNIVERSITIES APPROVED FOR TEACHER EDUCATION AND COLLEGES AND UNIVERSITIES NOT ENGAGED IN PREPARATION OF TEACHERS

	Enrollment	
	Mean	Median
Seventy schools approved for teacher-education	2227.2	1056.5
Thirty-two schools not preparing teachers	335.7	248.0

[1] Hansen, op. cit., pp. 469-92.

Considering this matter from a slightly different point of view, in the top quarter (in terms of total enrollment), there are no colleges or universities which are not approved; among the schools constituting the lowest quarter, by total enrollment, there are three only which are approved for teacher preparation. Although the enrollment figures of some of the approved schools may seem to be quite small, the preparation of teachers is not an undertaking in which the very smallest of the state's schools take part.

Affiliation and Support. All the state-supported schools and all the privately-controlled-but-denominationally-affiliated schools are among those on the approved-for-teacher-preparation list. Among the privately-controlled (and non-sectarian) institutions, which includes most of the professional-technical group, 44.4 per cent are so approved. Among the denominationally-affiliated-and-controlled colleges and universities, 65.3 per cent are listed as approved.

Programs. Of the seventy teacher-preparing schools, only one (seminary) is not approved by Middle States Association as well as by the Department of Public Instruction. By contrast, as evident in a preceding part of this chapter, the majority of the non-teacher-preparing schools (65.6 per cent) are unaccredited and, therefore, unclassified according to the M.S.A. categories. In comparing the teacher-preparing colleges and universities with the others in terms of degree-granting status (Table III, p. 10), one must keep in mind the larger proportion of non-teacher-preparing schools for which such information concerning degrees is not so readily available.

Any attempt to compare these two groups on the basis of program-type, as classified by M.S.A., would be useless. The accuracy of such a comparison would suffer not only from the bias introduced by the lack of information about schools not accredited by M.S.A., but also from a virtually a priori approbation granted those institutions set up by the state for the specific purpose of preparing teachers.

TABLE III

MIDDLE STATES ASSOCIATION CLASSIFICATION OF PENNSYLVANIA COLLEGES AND UNIVERSITIES, ACCORDING TO HIGHEST DEGREE GRANTED: SCHOOLS APPROVED FOR TEACHER EDUCATION AND SCHOOLS NOT ENGAGED IN PREPARATION OF TEACHERS

M.S.A. type	Highest degree granted	Approved for teacher-preparation		Not approved for teacher-preparation	
		N	%	N	%
II	bachelor's	47	67.1	6	18.8
III	master's	15	21.4	3	9.4
IV	doctor's	7	10.0	2	6.2
Unclassified		1	1.4	21	65.6

Professional Accreditation. It seems appropriate at this point to mention the National Council for Accreditation of Teacher Education, which has approved 27.1 per cent of the seventy colleges and universities on the Department of Public Instruction list. The fourteen state colleges have been accredited by the N.C.A.T.E. for both elementary and secondary teacher-preparation, at the baccalaureate level. Four universities--Pennsylvania State, Temple, Pennsylvania, and Pittsburgh--have been accredited through the doctoral level for the preparation of elementary teachers, secondary teachers, and school

service personnel. "Provisional" accreditation has been granted the King's College program for the preparation of secondary-school teachers, at the baccalaureate level. By January 1, 1960, N.C.A.T.E. had approved programs of 334 U.S. colleges and universities; this group constitutes about one-third of the teacher-preparing schools of the country and graduates about two-thirds of the new teachers each year.[1]

Significance of the Problem

The purpose of this study might most accurately be described as a one-instructor attempt to effect an exchange of information among educational psychology instructors. Detailed information about this course and the instructors has been collected by questionnaires sent to educational psychology teachers at 69 colleges and universities; a summary of results will be forwarded to participants to constitute as extensive an "exchange" as mail service permits. The ultimate aim is improvement in the programs of teacher-preparation, possible only as improvements in particular courses are made by individual instructors at their own institutions.

Aside from interest in this phase of the education of teachers, the variety of kinds of research, and the need for a number of research techniques involved in such a study, promote interest from another point of view. Although this study is descriptive, with a questionnaire as the primary research instrument, the investigation directly or indirectly involves several other types of research:

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[1]Irwin, op. cit., p. 142.

historical and integrative, in the summarizing of previous research on this and related topics; deliberative, or philosophical, in respondents' statements of opinion and in the investigator's attempts to unearth implications of the findings; analytical, in the search for possible relationships between factors of instructors' backgrounds of education and experience, and the content, methodology and materials employed. The thinking of many persons, and several approaches to research, are involved in this effort to study the place of educational psychology in the teacher-preparation programs of Pennsylvania's colleges and universities.

Definition of Terms

The terminology involved in this report does not involve any truly unusual definitions of terms. However, three terms will carry a more specific meaning than usual.

1. Educational psychology will be used throughout this report to mean only the beginning course in the field, that course generally required for first certification.

2. Instructor will be employed as the generic term for a college teacher of any rank. Instructors ordinarily designates all (or the responding part of) the 91 educational-psychology instructors constituting the population of instructors.

3. Teacher-education institution generally refers to one of the population of 70 Pennsylvania colleges and universities offering approved programs for the preparation of elementary and/or secondary school teachers.

Preview of Thesis

The ensuing chapters of this report deal with four major topics. Following a review of past research, the procedures of this investigation are described, the findings analyzed, and conclusions and recommendations suggested. In the summary of past research concerning educational psychology note is made of published opinions concerning the purpose of this course in the programs of teacher-education, as well as of previous findings concerning the subject-matter content ordinarily treated in this course; of information about the teaching of the course, and its placement in the curricular program; of instructors' qualifications for teaching this course and their opportunities for influencing future teachers by personal example. A detailed description of the procedures by which this study was carried on follows. The preparation of the questionnaire, the mailing of copies to instructors, and follow-up techniques are explained. An account is provided of the techniques used in analyzing the data and in extracting from the findings some tenable conclusions.

Two chapters are devoted to reporting the findings and the possible interpretations thereof. In the fourth chapter, the over-all picture of educational psychology is summarized. Information concerning the instructors, their opinions, and their procedures is presented. Areas of agreement are noted relevant to the purpose and content of the course, as well as to teaching methods and materials. The fifth chapter is devoted primarily to the results of a search for interrelationships among the various factors previously mentioned.

Certain observations resulting merely from inspection of the data supplement the statistically significant findings.

Major recommendations based on the investigation are presented in Chapter VI. Suggestions therein pertain both to individual instructors and to schools or states. The final chapters are devoted to summaries.

Materials supplementary to the actual text of the report are appended. A sample copy of the questionnaire constitutes Appendix B. Two bibliographies are included, one of which lists the materials used by the investigator. The second bibliography is a reference list of educational psychology textbooks (Appendix A).

CHAPTER TWO

REVIEW OF THE LITERATURE

"Educational psychology is one of the 'hardy perennials' of most teacher education curricula."[1] Pittenger reports that, typically, psychology occupies about 7 per cent of the teacher education program through ". . . either a combination of general psychology and educational psychology or a combination of general psychology, educational psychology and child psychology."[2] At the time of Parr's address to the National Education Association (in 1888), ". . . psychology or educational psychology was generally included in any listing of pedagogical subjects [for elementary teachers]."[3] The 1907 report of the Committee of Seventeen listed for the preparation of secondary teachers "educational psychology with emphasis on adolescence."[4] Monroe refers to ". . . continued emphasis upon 'psychological knowledge'" during the

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[1]William W. Lynch, Jr., "How Can We Improve the Psychological Preparation of Teachers?" Journal of Teacher Education, VIII (December, 1957), p. 409.

[2]Owen E. Pittenger, "Current Practices in the Psychological Training of Elementary Teachers." Dissertation Abstracts, XVII (No. 6, 1957), p. 1272.

[3]Walter S. Monroe, Teaching-Learning Theory and Teacher Education, 1890 to 1950. Urbana, Illinois: University of Illinois Press, 1952, p. 189.

[4]Ibid., pp. 204; 309.

subsequent quarter-century.[1] Relevant to more recent times, he notes that, "In institutions where an integrated program has not been developed, student teaching and educational psychology . . . are required."[2] Before surveying the literature and reporting the results of the present investigation concerning the educational psychology course, a brief summary of the criticisms of, and recommendations for, teacher education is necessary.

Teacher Education

"Stripped of the complexities . . . , professional teacher education for undergraduates in college can be defined," according to Haskew, "as a total curriculum designed carefully and specifically to produce beginners who can perform at least satisfactorily all the obligations of teachers in elementary or secondary schools."[3] Monroe's study of teacher education during the first half of the twentieth century has led him to conclude that ". . . the persistent contemporary criticisms and other evidence strongly indicate that through the years the [technical-professional] program has been generally lacking in effectiveness."[4] In 1949, Macomber reported that intra-university conditions placed many obstacles in the path of a proposed program--from the traditional,

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[1] Ibid., p. 235.

[2] Ibid., p. 376.

[3] Lawrence D. Haskew, "The Uses of Detraction." Phi Delta Kappan, XL (December, 1958), p. 117.

[4] Monroe, op. cit., p. 415.

fifty-minute class period[1] to the inflexible arrangements of tablet-arm chairs.[2] Monroe places a large share of the blame on the "general atmosphere"[3] of the institutions which, he feels, administrators could have improved.[4] Realization that the preparation of good teachers is a responsibility of the entire profession,[5] however, seems to be increasing.

In college and university settings, ". . . we are rapidly approaching the time when teacher education will, by common consent, be regarded as a university undertaking . . . ."[6] Limitation of responsibility for teacher education only to the department of education, Woodring states, ". . . is a source of many of our problems . . . ."[7]

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[1]Freeman G. Macomber, "Core Program in Teacher Education." Educational Leadership, VII (November, 1949), p. 87.

[2]Ibid., p. 89.

[3]Monroe, op. cit., p. 417.

[4]Ibid., p. 419.

[5]Thomas D. Horn, "Good Teachers: Whose Responsibility?" Journal of Teacher Education, VIII (December, 1957), pp. 354-5.

[6]Donald P. Cottrell, "What Changes in the Preparation of Elementary and Secondary School Teachers Will Be Necessary or Desirable in Institutions of Higher Education?" Current Issues in Higher Education, 1957. Washington, D.C.: Association for Higher Education, 1957, p. 111.

[7]Paul Woodring, "What Are the Obligations of Liberal Arts Colleges to the Preparation of Elementary and Secondary School Teachers?" Current Issues in Higher Education, 1958. Washington, D.C.: Association for Higher Education, 1958, p. 280.

> In the teacher education institution the attitude of the prospective teacher toward teaching is influenced by the general attitude of the staff--both professional and academic--toward the importance of teaching and toward teaching as a career.[1]

Ingraham suggests, from a very practical standpoint, that, ". . . if the mathematicians . . . really showed interest in the training of teachers of arithmetic, they would not have to spend so much time correcting it at the college level . . . ."[2] "Most collegiate courses of instruction have both general and special[ized] values for the student . . . depending upon how those courses are taught and the purposes and efforts of the students . . . enrolled."[3]

> The depth of understanding and mutual confidence which exists between those engaged in the professional preparation of teachers and (a) the other members of the college or university staff . . . [as well as] (b) those who teach in the elementary and secondary school has much to do with the effectiveness of the work of the teacher of professional education courses.[4]

Criticisms of Teacher Education

Favorable feeling toward teacher education is not lacking only within the ivied walls and the public schools.

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[1]Earl W. Anderson, "The Setting of Teacher Education." Improving Instruction in Professional Education: Thirty-Seventh Yearbook, 1958. Cedar Falls, Iowa: The Association for Student Teaching, 1958, p. 13.

[2]Mark H. Ingraham, "How Can the Responsibility for the Preparation of Elementary and Secondary School Teachers Be Widely Shared by the Entire College or University?" Current Issues in Higher Education, 1959. Washington, D.C.: Association for Higher Education, 1959, p. 217.

[3]Cottrell, op. cit., p. 114.

[4]E. W. Anderson, op. cit., p. 14.

> A professional educator would have had to restrict his reading almost entirely to children's literature in order to escape notice of the recurrent criticisms of American teacher education appearing in popular and professional publications during recent years.[1]

Popham and Greenberg's survey of current publications indicates that more than half the criticisms of teacher education were directed toward alleged "overemphasis on pedagogy."[2] Other criticisms were aimed at the "philosophical undergirdings of the . . . programs," such as "progressivism;" extent and rigidity of certification requirements; power of professional educators, especially over the public schools; "inferior quality of prospective teachers;" "proliferation of education courses, particularly on the graduate level;" quality of educational research; use of educational jargon; organization of curricula for teacher education; incompetence among professors in teachers colleges.[3] That "professional educators were criticized also for their reluctance to accept criticism and for their 'anti-intellectual' programs,"[4] may be partly responsible for Vance's reminder that evaluation-minded education departments should begin with themselves.[5]

Awareness of the rampant criticisms of teacher education may have precipitated the recent investigations designed to corroborate or refute

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[1]W. James Popham and Suzanne W. Greenberg, "Teacher Education: A Decade of Criticism." Phi Delta Kappan, XL (December, 1959), p. 118.

[2]Ibid., p. 119.

[3]Ibid., pp. 119-120.

[4]Ibid., p. 120.

[5]Merle W. Vance, "Educational Leadership to Improve Teacher Preparation." Journal of Teacher Education, XI (March, 1960), pp. 61-2.

some of the accusations. Popham and Standlee studied the records of some eight hundred 1954-graduates of 24 Indiana schools. They reported (1960) that the "Findings of the study suggest . . . that the commonly held notion about 'soft' grading practices in professional education courses is nothing more than a popular misconception."[1] Weiss and Rasmussen, however, in surveying education grades in six midwestern state universities, concluded that not all such courses are "easy-grading," but that these grades did "run higher" than those in business administration and "arts and sciences."[2] Hanson implies a negative response to the question of "too much method in education," stating that professionally educated teachers are more effective.[3] Woodring notes ". . . a common erroneous belief among liberal arts professors . . . that the certification requirements for secondary teachers make it necessary for the student to spend a major part of his college time in professional courses," which is not supported by most state-requirements of 16 to 18 credit hours.[4] "Another fallacy is the belief that professional courses . . . deal exclusively with methodology," to which Woodring offers the reminder that ". . . more than 1/2 [sic] of them deal with psychology, philosophy, or history of

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[1]W. James Popham and Lloyd S. Standlee, "'Snap' Courses in Teacher Education?" Journal of Teacher Education, XI (March, 1960), p. 32.

[2]Robert M. Weiss and Glen R. Rasmussen, "Grading Practices in Undergraduate Education Courses." Journal of Higher Education, XXXI (March, 1960), pp. 143-9.

[3]Abel A. Hanson, "Too Much Method in Education?" NEA Journal, XLVIII (April, 1959), p. 21.

[4]Woodring, op. cit., p. 280.

education and have nothing directly to do with methods."[1] The findings of a study completed by Pisaro in 1958 reportedly:

> . . . tend to refute claims made by critics of teacher education who proclaim that teacher-preparation programs have become top-heavy with professional courses, with subsequent downgrading in the caliber of education in the public schools.[2]

Investigation of student teachers' attitudes led Cox and Smith to conclude that:

> . . . critics who imply that excessive duplication is characteristic of professional education courses, as compared to courses in other fields, are speaking from assumptions which are not supported by this study.[3]

Recommendations for Teacher Education

Both teacher-educators' self-evaluations and published criticisms may be responsible for eliciting not only relevant research reports but also comprehensive statements of recommendations for teacher educators and of trends in teacher education. During the past few years, several published statements are presented in rather specific terms. In 1956 Hilton's recommendations concerned: instructor-competence (not necessarily indicated by a doctor's degree); need to define goals in terms of teacher-performance; harmony between the theoretical and the practical; sensible sequence, interrelation (but not duplication) of

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[1] Ibid.

[2] "Indiana Study of Successful and Unsuccessful Teachers Supports Proponents of Professional Education Courses." Phi Delta Kappan, XL (February, 1959), p. 211.

[3] Dan Cox and H.F.A. Smith, "Duplication of Course Content: Student Teachers' Attitudes." Journal of Teacher Education, X (March, 1959), p. 48.

course work.[1] Pierce recommends that persons attempting to improve programs of teacher education be cognizant of the factors responsible for the success of the "apple-improvement" effort; namely: (1) that it took place in its natural setting, (2) that it made use of experience and research, and (3) that it was carried on consistently over an adequate period of time.[2] The findings of Harry's survey of teacher-education trends practiced in five midwestern schools providing outstanding preparation for secondary teachers indicate the desirability of: an emphasis on early experience with children and youth, teaching of basic courses to students preparing for elementary and secondary teaching together, a greater interdepartmental sharing of responsibility for teacher education,[3] all of which are in accord with Fisher's suggestions.[4] Fisher emphasizes, also, the liberal arts as ". . . the core of a good preparation program in teacher education."[5]

Perhaps the outstanding comprehensive recommendation concerning teachers of teachers and their programs is the Association for Student Teaching's publication of Improving Instruction in Professional

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[1]Ernest E. Hilton, "Some Comments on Education Courses." Educational Forum, XX (May, 1956), pp. 415-21.

[2]Paul R. Pierce, "Getting Down to Earth in the Improvement of Teaching." Phi Delta Kappan, XL (December, 1958), p. 140.

[3]Shizuko N. Harry, "Some Trends in Teacher Education." Educational Research Bulletin, XXXVII (September, 1958), pp. 158-9.

[4]William H. Fisher, "What's the Fuss About?" Education, LXXIX (February, 1959), pp. 375-6.

[5]Ibid., p. 375.

Education.[1] In the introductory chapter, Barnett and Martin aptly state: "To have improvement, there must be both change and a decision that such change is in a direction held to be desirable."[2] Faculty members must not only admit that improvement is needed, but also accept certain obligations upon which improvement depends.[3] As Anderson comments,

> Even with the best of setting the success or failures of efforts to improve instruction in teacher education programs lies in the ingenuity, facility, industry, and thoughtfulness of the classroom teacher of education in moving the student toward competence in teaching effectively in the complex setting in which he will operate as a full-time teacher.[4]

Barnett and Martin describe seven specific points at which professional educators undoubtedly could instigate improvements:

1. counseling with (incoming) students in order to discover interests, strengths, weaknesses, as a basis for individualization of programming and teaching;[5]

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[1] Improving Instruction in Professional Education: Thirty-Seventh Yearbook, 1958. Cedar Falls, Iowa: The Association for Student Teaching, 1958.

"Outstanding teachers of professional education throughout the nation were asked to send accounts of unique and apparently successful practices which they were doing or observing in their institution[s]. These suggestions were sent to contributors of the various chapters . . . . Each contributor was asked to use these suggestions as well as his own ideas for improving the education of teachers . . . . The yearbook presents promising practices as well as direction for our thinking about the improvement of professional education." (Preface, p. ix.)

[2] Glenn E. Barnett and Clyde I. Martin, "The Meaning of Improvement in Professional Education." Improving Instruction . . . , op. cit., p. 1.

[3] Ibid., p. 3.

[4] E. W. Anderson, op. cit., p. 15.

[5] Barnett and Martin, op. cit., pp. 5-6.

2. promulgating ". . . clearer understanding of the specifics of this role" of professional education, helping ". . . students to acquire the kinds of understandings, skills, and abilities that can be taken to new problems that demand creative answers;"[1]

3. promoting understanding of "the complex, rapidly-changing culture in which we live . . ." and its influence on learning;[2]

4. providing opportunities for students to ". . . test the findings of research about human beings . . ." through observation of ". . . learning in themselves and others . . . ;"[3]

5. offering not only additional "laboratory experiences" but also ". . . expert help in interpretation of and guidance in this laboratory so that what is learned will be of continually higher quality than that which the laboratory itself offers;"[4]

6. providing and exemplifying "imaginative use" of materials and equipment at least ". . . equal in quality to those that are found in the schools in which future teachers will work;"[5]

7. maintaining "thorough" acquaintance with the schools into which beginning teachers will go, noting: teachers' motivations, impracticability of theoretical proposals, assistance which might be offered in working ". . . with school staffs in their efforts to improve."[6]

The multifarious improvements in teacher-education programs suggested by many writers and educators are summarized, for the most part, according to topics suggested by the above "points where improvement may take place."[7]

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[1] Ibid., p. 6.

[2] Ibid.

[3] Ibid., p. 7.

[4] Ibid.

[5] Ibid.

[6] Ibid., p. 8.

[7] Ibid., p. 5.

Individualization of the general and professional program of a prospective teacher rests upon the "conviction that a person is the focal point of teacher education . . . ."[1] Results of standardized examinations can, of course, help in discovering individual needs,[2] and some progress has been made in developing scales for assessing motivation for teaching,[3] but personal acquaintance and counseling may be essential in unearthing clues to means of piercing ". . . that spurious lethargy disguising the leashed readiness to get going on something significant, if it turns up."[4] The advisability of counseling, individualization of programs and instruction, inclusion of guidance and mental hygiene in the professional course work,[5] is implied in several pleas for fostering "full personality development,"[6] "inner direction,"[7] "constructive personalities,"[8] "more fully developed men and women."[9]

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[1]Haskew, op. cit., p. 117.

[2]Arthur L. Benson, "Role of Examinations in the Preparation of Teachers." Journal of Teacher Education, X (December, 1959), pp. 491-6.

[3]George G. Stern et al., "Two Scales for the Assessment of Unconscious Motivations for Teaching." Educational and Psychological Measurement, XX (Spring, 1960), pp. 9-29.

[4]Jeanette A. Vanderpol, "And What's Your Concept of Your Profession?" Journal of Teacher Education, X (March, 1959), p. 49.

[5]Mary F. Suggs, "Persistent Problems of Teachers." Dissertation Abstracts, XVI (No. 3, 1956), p. 504.

[6]Samuel I. Spector, "Another Look at Teacher Training." Journal of Educational Sociology, XXXIII (April, 1960), p. 348.

[7]Sidney L. Besvinick, "Valuing, Values, and the Education of Teachers." Dissertation Abstracts, XVI (No. 3, 1956), p. 506.

[8]Lawrence D. Haskew, "America's Design for Good Teacher Preparation." NEA Journal, XLVIII (April, 1959), pp. 16-17.

[9]George G. Struble, "Experimental Program in Teacher Education:

Counseling might provide the needed encouragement to stimulate ". . . well qualified young men to become . . . principals of public schools making careers of developing new theory, with their staffs and communities over an extended period of time . . . ."[1]

Developing a "concept of profession"[2] and ". . . instilling an adequate attitude to[ward] the teaching profession as a whole"[3] may well involve including "basic information about our professional organizations"[4] in the preservice program. Study of codes of ethics[5] may well accompany growing familiarity with problems of administrators, teachers, and students, as well as increasing acceptance of teachers' responsibilities ". . . to administrators, communities, students, and themselves."[6] Spector indicates the necessity for fostering ". . . love for the art of teaching"[7] through discovery of the ". . . adventure and joy that work with human beings brings."[8]

What It Is and Why." Educational Record, XXXVIII (July, 1957), p. 260.

[1]Pierce, op. cit., p. 142.

[2]Vanderpol, op. cit., p. 49.

[3]Spector, op. cit., p. 348.

[4]Cecil W. Posey, "Preparation for the Profession and the Pre-Service Program." Journal of Teacher Education, VIII (September, 1957), p. 261.

[5]Besvinick, op. cit., p. 506.

[6]Suggs, op. cit., p. 504.

[7]Spector, op. cit., p. 352.

[8]Ibid., p. 353.

"The teacher without philosophical and historical perspective is not only limited in terms of direction but hopelessly lost in the adaptive use of whatever training he does have."[1] The desirability of teachers' having broadened intellectual outlooks and wide acquaintance with fields of knowledge is a common proposal.[2] Sebaly reports that a beginning teacher's cognizance of ". . . the role which religion . . . [plays] in the culture . . ." depends upon ". . . the strength of the general education offerings of that [teacher-education] institution."[3]

> [But, in]. . . producing a teacher with a broad command of knowledge and a thirst for more knowledge . . . , mere lip-service to general education is insufficient--as insufficient as mere advocacy of "tough" courses. Trivia are trivia whether most students make A's or F's in the pursuit of them, and whether they are labelled "Botany" or "Beautifying Life."[4]

"The . . . real foundation . . . [for women teachers lies] in theology, philosophy, and the humanities together with a proper appreciation of

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[1]Robert T. McKibben, "Emphasize What and Why." Journal of Teacher Education, IX (September, 1958), p. 308.

[2]Charles C. Anderson, "A Canadian Critic on Teacher Education in Western U.S.A." School and Society, LXXXV (April 23, 1960), pp. 204-7.
Joseph S. Butterweck, "End of an Era in Teacher Education." Nation's Schools, LXI (March, 1958), pp. 47-50.
Dorothea S. Coleman, Eleanor Methany, and Vera Skubic, "Liberalizing the Professional Curriculum." Journal of Teacher Education, XI (March, 1960), pp. 41-44.
Judith E. Kranes, "Child's Needs and Teacher Training." School and Society, LXXXVIII (March 26, 1960), pp. 155-6.
Struble, op. cit.

[3]Avis L. Sebaly, "Five Year Study of Teacher Education and Religion." Phi Delta Kappan, XL (May, 1959), p. 315.

[4]Haskew, "The Uses of Detraction," op. cit., p. 117.

the physical world . . . ."[1] A teacher cannot ". . . do the job required of him (or her) . . . unless he has been stimulated himself at least to a dim awareness of the variety and wonder of man and the universe through which he voyages."[2] Odegaard does not claim to be certain about the process for training ". . . this sensitivity to human possibility . . . ," but he does feel ". . . sure that it is helped by giving our prospective teachers themselves a chance at liberal education."[3] While supporting the necessity for "laboratory experiences" and "methodology" in the program of teacher preparation, McKibben makes a strong case for the "academic" phases of the program:

> It is unfortunately necessary to run the risk of being labeled old-fashioned or reactionary and suggest that some of the "meat" of professional teacher education has to be gained through hard work and contemplation in the classroom, in the library, and in the head. There is no real substitute for the experience that prospective teachers have when they are brought into contact with the various philosophical positions concerning education and can discuss and compare their relative merits. In such experience they lay the foundations for their own thought and action and for their continued contemplation and study in the future.[4]

Few reports present explicit recommendations concerning the provision of opportunities for undergraduates to study learning theory "in action"--in themselves and others. Besvinick does indicate that teacher education should include more emphasis on developing skill in

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[1]Sister Mary A. Schirmer, O.S.B., "Evaluation of Teacher Education in Catholic Colleges for Women." Catholic Educational Review, LVII (April, 1959), p. 252.

[2]Charles E. Odegaard, "Place of Liberal Education in Teacher Preparation." North Central Association Quarterly, XXXII (October, 1957), p. 168.

[3]Ibid.

[4]McKibben, op. cit., pp. 308-9.

perception and more opportunities for creativity and criticism during learning.[1] Smith recommends a six-year program of teacher-preparation, with emphasis on behavioral sciences, since the challenge to the teacher is less likely to involve subject matter than ". . . his knowledge of human behavior and his skill in manipulating it."[2]

Among the frequently-mentioned recommendations is that of increasing the "laboratory" or "field" experiences of students preparing to teach. Increasing such opportunities prior to student teaching is strongly suggested.[3] Stiles suggests moving from lecture courses to supervised laboratory experiences in teacher education.[4] Aylesworth and Keem experimented, with undergraduate and graduate students, in providing first-hand experience ". . . in the planning and development of unified curricular experiences . . . ."[5] Spector suggests reducing the "clinical orientation" in teacher education and emphasizing the "healthy, average child" rather than "the exceptional, delinquent, or retarded one."[6]

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[1]Besvinick, op. cit.

[2]Charles B. Smith, "Why Should Professional Education of Teachers Resist Its Basic Subject Matter?" Peabody Journal of Education, XXXVI (November, 1958), p. 145.

[3]Shizuko N. Harry, "Kinds of Association Which Prospective Teachers Need With Youth." Peabody Journal of Education, XXXV (September, 1957), pp. 77-81.
Schirmer, op. cit., (September, 1959), p. 390.

[4]Lindley J. Stiles, "Practical Teacher Training." School and Society, LXXXV (October 12, 1957), pp. 292-3.

[5]Thomas G. Aylesworth and George E. Keem, "Teachers Must Be Spoon-Fed: An Educational Myth." Education, LXXX (April, 1960), p. 502.

[6]Spector, op. cit., p. 352.

Little is stated concerning the provision of the best available materials and equipment for prospective teachers' use. Few teacher-educators would be apt to reject same, if budgetary considerations were favorable.

The necessity for close cooperation between teacher-educators and the public schools receives much support among journalists of the profession.[1] Rehage comments not only on the desirability--in fact, necessity--for good "working relationships" between teacher-educators and public school personnel, but also on the need for ". . . greater communication between administrators and training schools to develop the right criteria [for finding desirable persons], instead of the ones usually put on paper."[2]

Several recommendations to and for teacher educators concern, in addition to the seven points previously considered, the problems involved in evaluation of the "product" of the preservice program. Placing greater responsibility upon colleges and universities, rather than upon state employees, ". . . for identifying qualified graduates" has been suggested.[3] Hubbard's survey of evaluation procedures in professional education revealed ". . . general dissatisfaction on the part of both teachers and students with grading systems and other means of

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[1]Pierce, op. cit., p. 142.
Ralph K. Hansen, "A New Dimension in Teacher Education." Bulletin of the National Association of Secondary-School Principals, XLIII (September, 1959), pp. 179-82.

[2]Kenneth J. Rehage, "Whither Teacher Education." Elementary School Journal, LVIII (November, 1957), p. 69.

[3]Timothy M. Stinnett, "Time for Reform," Editorial Comment. Journal of Teacher Education, VIII (September, 1957), p. 228.

reporting student progress."[1] "Few would accept, much less advocate, the passing of any kind of examination as a substitute for demonstrated competence in a teaching situation."[2] Having attempted to develop a procedure for ". . . determining the level and adequacy of . . . professional understandings" in elementary teachers, Tomlinson noted: "The extent to which professional understandings affect teaching success needs to be determined by subsequent research under carefully controlled conditions."[3]

Monroe recommends that ". . . all instructional groups that contribute to the preservice education of teachers on the college level . . ." formulate and adopt a "statement of desired teacher qualifications," in terms of which institutions could provide an "instructional program."[4] Such a statement could serve also as a guide for evaluating the preparation of the (beginning) teacher. The characteristics of the "quality" teacher described by Millis[5] parallel those outlined by Allen, who indicates that the teacher should: (1) be a "scholar," (2) be a "specialist in the teaching-learning

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[1]Robert E. Hubbard, "A Survey of Procedures for Evaluating Student Progress in Professional Education Courses Offered by the Teacher-Preparing Institutions of Ohio." Dissertation Abstracts, XX (No. 5, 1960), p. 2694.

[2]Wendell Allen et al., "New Horizons in Teacher Education and Professional Standards." NEA Journal, L (January, 1961), p. 65.

[3]Loren R. Tomlinson, "An Investigation of Factors Related to Professional Understandings in Elementary Education." Dissertation Abstracts, XX (No. 5, 1960), p. 2704.

[4]Monroe, op. cit., p. 420.

[5]John S. Millis, "Educating Teachers as Professionals." Journal of Higher Education, XXVIII (April, 1957), pp. 179-85.

process," (3) be a "decision-maker," and (4) view ". . . himself as a professional."[1] These characteristics, Allen feels, contribute to "teaching competence [which] appears to be a subtle blend of what the teacher is, what he does, and how he sees himself."[2] Addressing a College of Education convocation at Ohio State University in 1959, Gould described characteristics of "the teacher of tomorrow," who is--or, will be: ". . . broadly educated;"[3] ". . . scientifically minded;"[4] ". . . uncompromising in his insistence upon quality;"[5] ". . . adventurous in technique;"[6] ". . . confident of his place in the world;"[7] ". . . sympathetically attuned to the student;"[8] ". . . imbued with a sense of mission;"[9] and ". . . spiritually alert."[10]

Practice vs. Preaching

Criticisms of teacher education have been directed not only toward the required course work and the content of same, but also

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[1]Allen et al., op. cit., p. 56.

[2]Ibid.

[3]Samuel B. Gould, "The Noblest Mission." Educational Research Bulletin, XXXVIII (April 8, 1959), p. 92.

[4]Ibid., p. 93.

[5]Ibid.

[6]Ibid., p. 94.

[7]Ibid., p. 95.

[8]Ibid., p. 97.

[9]Ibid., p. 98.

[10]Ibid.

toward the instructors of professional courses for failing to exemplify the theories they teach. "Better teaching will not arrive in public grade and high schools until it first comes on teacher-training campuses,"[1] Ludeman commented a decade ago, when surveying the methodology employed in midwestern state teachers colleges, ". . . because of the carry over into public school procedures."[2] He observed that ". . . public school teachers [tend] to employ techniques they had in their college training."[3] Pierce comments: "Professors [of education] too often fail to demonstrate . . . the professional theory that they expound, although we see this kind of demonstration in the teaching of medicine and engineering."[4] Bortner laments the failure of instructors to practice what they preach because of its effect on future teachers' attitudes.[5]

> This . . . tends to cause many future teachers . . . to lose their early enthusiasm and spontaneity, to become cynical regarding their professional mission, to fall prey to propaganda which tells them not to exert themselves, not to experiment with newer ideas because they won't work. Moreover, it is an unhappy condition since education courses ought to be fountainheads of motivational and functional classroom practices.[6]

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[1]Walter W. Ludeman, "Teaching Methods in Teachers Colleges." Educational Administration and Supervision, XXXVIII (May, 1952), p. 312.

[2]Ibid., p. 309.

[3]Ibid.

[4]Pierce, op. cit., pp. 140-41.

[5]Doyle M. Bortner, "Functional Course in Teacher-Training." Educational Administration and Supervision, XL (February, 1954), p. 87.

[6]Ibid.

In describing a "core program" for elementary teachers, Macomber--a few years earlier--noted that:

> . . . learning a modern philosophy and psychology of education will be greatly facilitated if students experience such philosophy and psychology in operation in their own college classes; in other words, if college professors practice what they preach.[1]

More recently, among the propositions basic to "Operation Manhattan," Dodson[2] included statements that: it is "unmoral for a professor to 'profess' a theory or principle which he, himself, cannot or does not demonstrate to his students,"[3] and it is ". . . unmoral for the professor to continuously profess theories which he has not, himself, tested in the crucible of community experience."[4] Steeves, however, expressed the opinion that "We Don't Have to Practice What We Teach!"[5] He comments that ". . . we need not and should not apply principles of elementary and secondary education to the professional program in teacher education,"[6] but his suggestions for using valid and reliable methods of evaluation, providing direct experience and using diagnosis and guidance,[7] seem paradoxical in relation to his previous comments.

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[1]Macomber, op. cit., p. 88.

[2]Daniel W. Dodson, "Moral Issues in Teacher Training." Journal of Educational Sociology, XXXI (February, 1958), pp. 185-7.

[3]Ibid., p. 185.

[4]Ibid., pp. 185-6.

[5]Frank L. Steeves, "We Don't Have to Practice What We Teach." Clearing House, XXX (September, 1955), pp. 18-19.

[6]Ibid., p. 19.

[7]Ibid.

Other criticisms and suggestions attempt to indicate more specifically which aspects of the preaching may need more emphasis in practice. Blair commented that, "Few university professors who have not made a study of the nature of the learning process make any provision for individual differences among their students."[1] That this may be as true of professors who have studied learning is suggested by Dodson's comment--ten years later--that it is ". . . unmoral for teacher training institutions to teach individual differences and continue to group students into classes as if they were all alike in background,"[2] and by Allen's recent reminder that:

> Teacher education must utilize the tremendous asset found in the differing potentials among individuals. The uniqueness of each learner with reference to experience background, self-concept, motives, and purposes points to the importance of placing greater responsibility on the learner for his education.[3]

In discussing the problems involved in the improvement of teacher education, Woodruff indicates that, "There is more than a strong suspicion that teachers of teachers are violating some of the most fundamental principles they advocate to their students."[4] He explains that such violations occur particularly in:

> (1) presentation of abstract ideas and materials early in the program without pragmatic backgrounds in the students, (2) saving field experiences until the very end of the program and not

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[1]Glenn M. Blair, "Psychological Interpretation of Teaching." Educational Administration and Supervision, XXXIII (October, 1947), p. 325.

[2]Dodson, op. cit., p. 186.

[3]Allen et al., op. cit., p. 61.

[4]Ashael D. Woodruff, "Problems in Improving Teacher Education." Journal of Teacher Education, IX (September, 1958), p. 247.

> capitalizing on them in some kind of culminating course which could possibly help the student organize his earlier experiences on the level of principles, and (3) the unnatural stuffing of courses with both elementary and advanced content which should really be separated by intervening opportunities for digestion and maturation.[1]

Woodruff concludes that, "The principle of readiness appears often to be forgotten."[2]

Blair's criticisms are relevant to several additional principles of learning. He reminds us that good motivation involves ". . . gearing the learning to the needs, drives and desires of the individual,"[3] rather than relying on punishment, a form of motivation which is ". . . widely used in public schools and beautifully exemplified in our colleges and universities . . . ."[4] Recognizing that the efficiency of learning is at least partially contingent upon the organization of the material, Blair admonishes, ". . . that for greatest effectiveness this organization must be in terms of the learner's purposes, and the integration must be meaningful to him rather than to someone else."[5] Professors, he feels, are apt to ". . . prepare and deliver a series of closely-knit lectures which are entirely beyond the comprehension of many of their students,"[6] some of whom will become public-school teachers who ". . . are very likely to imitate in

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[1] Ibid.

[2] Ibid.

[3] Blair, op. cit., p. 327.

[4] Ibid., p. 326.

[5] Ibid., p. 329.

[6] Ibid., p. 325.

their own teaching the erroneous methods of their college instructors."[1]

Several years later, Bortner arrived at several "justifiable conclusions" concerning teacher education, not the most startling of which is that, "The lecture is only one of the many techniques at the disposal of the college instructor."[2] As Anderson and his co-workers had stated earlier, ". . . the use of the lecture method as the main instruction process in teacher education is not the example to set before teachers in training who are to make learning laboratories of their schools."[3] "In such situations the faculty finds itself lecturing against the lecture system, with the students studying child behavior from books, or preparing exercises and lesson plans without reference to the children with whom they are concerned."[4]

> . . . There is no reason to believe that the prospective teacher who has merely learned some facts about the universe or even about children [from lectures] will be able to apply intelligently these facts when confronted with the actual task of teaching.[5]

Blair suggests that ". . . the outworn and unsound theory of formal discipline . . . ," still widely accepted (1947) by university

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[1]Ibid., p. 326.

[2]Bortner, op. cit., p. 87.

[3]G. Lester Anderson, Gertrude Whipple, and Robert Gilchrist, Chapter XIII, "The School as a Learning Laboratory." Learning and Instruction, The Forty-Ninth Yearbook of the National Society for the Study of Education, Part I. Chicago: The University of Chicago Press, 1950, p. 344.

[4]Robert B. Toulouse, "Providing Essential Experiences in Teacher Training." Educational Administration and Supervision, XXXVII (November, 1951), p. 436.

[5]Blair, op. cit., p. 336.

professors and public school teachers,[1] must be abandoned so that teacher educators can "teach for transfer."[2] At about the same time, Norris concurred:

> That rote memorization of facts to be returned to the instructor on the examination and then quickly forgotten is typical of most psychology courses is evidenced throughout the school system; few teachers are actually applying the principles of psychology in their teaching.[3]

Hubbard found that, "Planning for evaluation and planning future teaching-learning activities on the basis of the results of evaluation tend to be somewhat incidental . . . ."[4]

The professional literature is not entirely lacking, however, in accounts of attempts to implement principles of learning in courses included in programs of teacher education. Hoover reports assisting students to learn about various teaching methods by using them, so that ". . . there are fewer contradictions between what the professor says and what he does."[5] Horrocks demonstrates the value of sociometric techniques by using them with educational psychology classes.[6] Frymier instructs undergraduates in research by having the student

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[1] Ibid., p. 333.

[2] Ibid., p. 337.

[3] Robert B. Norris, "We Teach As We Are Taught." School and Society, LXVII (March 20, 1948), p. 210.

[4] Hubbard, op. cit., p. 2694.

[5] Kenneth H. Hoover, "Teaching Methods of Teaching by Demonstration and Application." Clearing House, XXXIII (October, 1958), p. 91.

[6] John E. Horrocks, "Methodology and the Teaching of Educational Psychology." Journal of Educational Psychology, XLII (May, 1951), pp. 277-84.

complete not only an integrative study involving a synthesis of investigators' findings, but also a simple research project of his own.[1] Simpson and Dixon, by having students in an advanced educational psychology course evaluate textbooks in the field, demonstrated a means of obtaining students' reactions to the materials they are using.[2]

Individual differences are handled, to some extent, by special sections of courses,[3] or by such honors work in professional education as that at Boston College, designed to provide ". . . professional preparation for the gifted teacher."[4] Provision of first-hand experience with youngsters early in the teacher-education program is reported by Rivlin,[5] Ballentine (non-credit classroom experience in freshman and sophomore years),[6] and Levine (a half-day per week "assisting"in the

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[1]Jack R. Frymier, "Research for Undergraduates in Teacher Education." Journal of Teacher Education, X (December, 1959), pp. 413-16.

[2]Ray H. Simpson and William R. Dixon, Jr., "Students Evaluate Educational Psychology Texts." Educational and Psychological Measurement, XI (Summer, 1951), pp. 238-47.

[3]Warren R. Baller et al., "Teaching of Educational Psychology: Current Practices and Effective Innovations in Introductory Courses." Journal of Educational Psychology, XLIII (January, 1952), pp. 3-8.

[4]Gerald E. McDonald, "Apologia for Honors Work in Professional Education." Journal of Teacher Education, XI (March, 1960), p. 124.

[5]Harry N. Rivlin, "Teaching of Educational Psychology." Journal of Educational Psychology, XLIII (January, 1952), pp. 23-30.

[6]Isabel Ballentine, "Non-Credit Classroom Experiences for College Freshman and Sophomore Pre-Teachers." Junior College Journal, XXIX (December, 1958), pp. 215-17.

schools, from the freshman year on).[1] In connection with experience provided through a boys' club for teachers-college students, Beyerl states:

> The assumption which underlies this whole program rests upon the conviction that a future teacher educated in and by a total community will have more of the understandings necessary to his assuming leadership, not only in the school but in the community.[2]

Several earlier articles[3] report on experimentation with student-centered activity-type plans for helping future teachers to learn "first hand" about democratic procedures in teaching, which Hoover recommends highly for ". . . classes which are concerned with teaching principles or techniques."[4] In 1948, Norris proposed that, "Any course at any level in our educational system can be organized to draw upon the inherent values of democratic action . . . ."[5] His experience indicates that, among the outcomes, one may anticipate not only more interest and real learning, along with improved student-teacher relationships, but also that:

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[1]Madeline S. Levine, "Extending Laboratory Experiences." Journal of Teacher Education, IX (December, 1958), pp. 379-82.

[2]Merrill C. Beyerl, "Boys' Club and a Teachers College Provide Laboratory Experiences for Prospective Teachers." Journal of Teacher Education, VIII (December, 1957), p. 398.

[3]David R. Stone, "Four-Phase Learning Project in Teaching Educational Psychology in College." Journal of Educational Psychology, XLII (May, 1951), pp. 301-7.
John E. Horrocks, "Approach to Teaching Educational Psychology." Journal of Educational Psychology, XLIII (January, 1952), pp. 9-15.

[4]Kenneth H. Hoover, "Learning Through Teacher-Pupil Planned Activities." Journal of Teacher Education, XI (March, 1960), p. 51.

[5]Norris, op. cit., p. 212.

> Students may, for the first time, experience the satisfying stimulation of democratic participation--an experience which they are likely to pass on to their own students later.[1]

Grambs agrees that:

> We will develop democratic classroom teachers to the degree that in teacher education we provide experiences that are themselves democratic. One cannot learn how to behave democratically by reading about it.[2]

Apparently her students' efforts were successful, for she noted that "[Student] . . . teachers on the job following this training experience are using group methods in their classes."[3] The students involved in this program reported on the vicissitudes of cooperative planning, including agreeing on a means for arriving at grades, which were required by the college.[4] Klausmeier and Swanson had students evaluate their learnings in educational psychology at three levels: theoretical, planning and performance.[5] In a 1953 survey of teacher-education institutions in Ohio, however, Hubbard found that, "Self-evaluation by students is encouraged only incidentally by most of the teachers."[6] He noted also that a few ". . . apparently give no thought to developing this ability and [a] few others indicated that they are

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[1] Ibid.

[2] Jean Grambs, "Learning Group Skills in Teacher Education." Educational Leadership, VII (November, 1949), p. 107.

[3] Ibid., p. 109.

[4] "We Learned to Plan by Planning." Educational Leadership, VII (November, 1949), p. 116.

[5] Herbert J. Klausmeier and Donovan A. Swanson, "Evaluating a Course in Educational Psychology." Journal of Educational Research, XLIII (May, 1950), p. 687.

[6] Hubbard, op. cit., p. 2694.

unable to develop it."[1] Bortner and Gronlund (in 1954 and 1955) reported similar endeavors. Bortner found that students were better motivated and accomplished more through more active participation in learning.[2] In this situation, also, ". . . an effort was made to keep the classes reasonably large [about forty] . . . as one means of helping to dispel the rationalization that only traditional teaching methods can be used in large classes."[3] Simpson reports his endeavor to make the educational psychology course a "teaching-learning laboratory where informal tryouts of some proposed solutions to educational problems can be made."[4] Gronlund's efforts, also, were designed to provide future teachers with experience in student-teacher planning. He cautions, however, that:

> Getting the students to generalize from their experiences in work groups, committees and class discussions requires the constant attention of the instructor. Without this generalization, the students are unable to recognize that most of the material in a beginning educational psychology course is being covered, but in a different way.[5]

The reports of efforts to apply principles of learning to college courses for undergraduates preparing to teach in no way imply that group-work, activity-methods, and such are panaceas. Nor is there any

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[1] Ibid.

[2] Bortner, op. cit., p. 93.

[3] Ibid., p. 88.

[4] Ray H. Simpson, "A Procedure for Managing Teaching-Learning Situations in Educational Psychology." Journal of Educational Psychology, XLVIII (November, 1957), p. 425.

[5] Norman E. Gronlund, "Use of Dual Grouping in Student-Centered Teaching." Journal of Educational Psychology, XLVI (January, 1955), p. 16.

implication that employing this sort of method simplifies the college professor's life. As with other methods, the teacher makes a difference. Spector comments that:

> The instructor by his own example and use of group dynamics has the task of breaking down the barriers of rigidity, inferiority, fear and self-interest that prevent more free and permissive intercommunication between teachers and students and among students themselves.[1]

There is, at least, evidence that several teacher-educators are attempting to practice what they preach.

The Beginning Course in Educational Psychology

Purpose

Clarification of the purpose of the introductory course in educational psychology has received less explicit coverage in professional publications than have such topics as course-content and teaching procedures, through consideration of which the purpose of the course may be inferred. Trow summarizes the thinking of several persons relevant to the objectives to be attained by, and/or the benefits which should accrue to, the educational psychology student in terms of three major topics or "ways to think about improvement:" instructors' expectations, students' expectations and the educational situation itself.[2]

There is little agreement suggested between students' and instructors' expectations. From the point of view of the instructor, Trow states, the introductory educational psychology course may be

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[1]Spector, op. cit., p. 349.

[2]William C. Trow, "Improving Instruction in Foundation Fields," in: Improving Instruction . . . , op. cit., pp. 19-24.

intended ". . . to inculcate certain subject-matter facts and principles . . ." or ". . . to produce in the students personality changes," or both.[1] Trow implies that student-expectations are apt to be irrelevant and that some of these ". . . will be cleared up early in the course . . ."--the expectation "that the course will show them how to teach," for example.[2] In terms of students' backgrounds of experience (which ordinarily include a beginning course in general psychology), the report of a study group (1951) involving Dael Wolfle and others is cited as proposing increased "basic understanding" as the "student-need" to be met by the educational psychology course.[3]

"In view of such considerations as these, we might well inquire what contribution psychology should be expected to make to education."[4] Mere presentation of principles evident from continuing psychological experimentation--frequently involving non-human subjects--coupled with trust that future teachers will see the relationships between the laboratory animals and the classroom pupils, is unrealistic. The "what-to-do" orientation of students' expectations about the educational psychology course, Trow suggests, may offer a working solution. The objectives of the introductory course in educational psychology should, thus, include helping students: ". . . to learn to perceive educational situations as psychological structures" and ". . . to learn to deal with

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[1] Ibid., p. 19.

[2] Ibid., p. 20.

[3] Ibid., p. 21.

[4] Ibid.

them appropriately . . . ."[1] Students should acquire through the work of this course not so much principles of psychology or teaching methods and techniques, but, rather, "principles of action" applicable to the classroom situation.

In tracing the introductory educational psychology course through the programs of teacher education which have evolved from the end of the nineteenth century to mid-twentieth-century, Monroe cites the comments and proposals of many educators. Parr is quoted as having indicated (in 1888) that the educational psychology student should learn to apply ". . . the laws of the mind to an interpretation of the process of growth under stimulation."[2] In 1909, Whipple's report to the American Psychological Association of the variations in the content and emphasis of educational psychology courses suggested ". . . a divergence of opinion concerning the specific purposes of the course."[3] Not until the second and third decades of the new century did teachers begin to orient their pre-professional courses, not toward meeting the "approval of their academic colleagues . . . ,"[4] but toward development of the identifiable requisites for teaching.[5] Monroe notes that Webb's study in 1932--relevant to preference between "cultural" and "functional" orientations of the course--indicated that the questions raised in the

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[1] Ibid., p. 22.

[2] Monroe, op. cit., p. 413.

[3] Ibid., p. 377.

[4] Ibid., p. 396.

[5] Ibid., p. 397.

1880's had persisted.[1] "Possibly the most significant development [since 1933] is the emerging tendency to think of desired teacher qualifications in terms of competencies rather than accumulation of credits."[2]

This consideration of competencies is evident in discussions of the introductory course in educational psychology carried on in more recent years. The development of a functional educational psychology course, oriented toward factors of teaching competence at the "theoretical," "planning," and "performance" levels, is the subject of a study completed in 1949 by Klausmeier and Swanson.[3] Hountras, almost a decade later, recommends for the introductory unit in educational psychology the topics: "Job Analysis of Teaching"[4] and "Methods for Developing Psychological Concepts and Skills."[5] W. W. Lynch defined "psychological competence" in teaching in terms of skill in interpersonal relations, ability to deliberate and think critically, and possession of a ". . . mature, critically held personal 'philosophy' of human behavior;"[6] development of these competencies served as his objective for the course in educational psychology. Since changing behavior

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[1]Ibid., p. 418.

[2]Ibid., p. 398.

[3]Herbert J. Klausmeier and Donovan A. Swanson, "Development of a Functional Course in Educational Psychology for Teachers." Journal of Educational Psychology, XLI (December, 1950), pp. 449-72.

[4]Peter T. Hountras, "Suggested Course Content for Introductory Educational Psychology." Junior College Journal, XXVIII (March, 1958), p. 399.

[5]Ibid., p. 400.

[6]Lynch, op. cit., p. 410.

involves the formulation of tentative hypotheses, Coladarci suggests that the educational psychology course should contribute essentially toward the development in future teachers of the skills and attitudes necessary for ". . . intelligent hypothesizing and testing of hypotheses."[1]

Thus, the major purpose for the introductory educational psychology course can currently be stated in terms of developing desirable teaching competencies, insofar as these have been and are discernable. As suggested above, further research is necessary not only ". . . to identify these common elements [and] to reconcile the uncommon elements [among learning theories]," [2] but also--and of more importance--". . . to clarify the practical consequences for teachers," [3] so that students preparing for the teaching profession can be helped to acquire ". . . principles of action out of which special techniques and methods grow." [4]

Content

The content of the introductory educational psychology course through the decades is epitomized in a single word: variety. Monroe refers to ". . . several analytical studies of the content of the course

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[1] Arthur P. Coladarci, "Relevancy of Educational Psychology." Educational Leadership, XIII (May, 1956), pp. 489-92.

[2] Arthur I. Gates et al., "Educational Psychology." Review of Educational Research, XXVI (June, 1956), p. 249.

[3] Ibid.

[4] Trow, op. cit., p. 22.

commonly designated as educational psychology."[1] Half a century ago, Whipple found (by means of a questionnaire circulated among normal schools) that ". . . the course content varied with respect to the topics included and especially with respect to the distribution of time among the various topics."[2] An analysis of catalog descriptions of educational psychology (in 1926) led Crabb to conclude that ". . . the evidence does indicate considerable variation among institutions in regard to the content of this most highly 'standardized course.'"[3] Freeman (1949) again mentioned the need for more agreement on the content of educational psychology.[4] Gates suggested four criteria to be considered in selecting content of the educational psychology course--practical, theoretical, cultural and propaedeutic values; he noted ". . . general agreement that, although several of the writers stressed the first criterion, the last two tended to dominate the selection of content in practice."[5] "Too many educational psychology courses in their attempts to become functional have shifted into superficial treatments of learning and guidance," according to Bruce.[6] Trow stated that

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[1]Monroe, op. cit., p. 377.

[2]Ibid.

[3]Ibid.

[4]Frank S. Freeman, "Need to Define and Re-Orient Educational Psychology." Journal of Educational Psychology, XL (May, 1949), p. 258.

[5]Ibid., p. 380.

[6]William F. Bruce, "Relations of Educational Psychology with General Psychology." Journal of Educational Psychology, XL (May, 1949), p. 265.

". . . a visit to a school is still a saddening experience to an educational psychologist . . . ; a guest may wonder ". . . what has become of all the well established 'principles' that were . . . supposedly learned in order to pass the psychology courses required for . . . certification."[1] In discussing the lag between educational psychology and educational theory, Getzels comments:

> . . . Instead of boldly redefining the field and reformulating its basic functions in terms of the changed role of the school, educational psychology attempted to keep pace with the metamorphosis in education . . . by merely adding new chapters to old books."[2]

The textbook-analysis procedure has been, during this century, an apparently popular technique for investigating the content of introductory courses in educational psychology. Individual studies have been reviewed and the findings summarized in several reports, such as the compilations by Trow (1958)[3] Monroe (1952),[4] and Blair (1949).[5] Blair commented on the overlapping between educational psychology texts and those for other courses in psychology as well as on the diversity among the educational psychology texts themselves, suggesting that the latter should be ". . . engineering manual[s] that bridge . . . the gap between psychological theory and the practice of

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[1]William C. Trow, "How Educational Psychology and Child Development Can Contribute to the Preparation of Teachers." Journal of Educational Psychology, XXXIX (March, 1948), p. 130.

[2]Jacob W. Getzels, "Educational Psychology and Teacher Training." Elementary School Journal, LII (March, 1952), p. 379.

[3]Trow, "Improving . . . ," op. cit., p. 17.

[4]Monroe, op. cit., pp. 377-9.

[5]Glenn M. Blair, "Content of Educational Psychology." Journal of Educational Psychology, XL (May, 1949), pp. 267-74.

teaching."[1] Monroe concludes that, "The analyses of recent texts . . . do not indicate much progress toward agreement relative to the first course in educational psychology . . . ."[2]

Blair (in 1949) noted that most educational psychology texts emphasized problems in four areas: growth-and-development, learning, adjustment and evaluation.[3] Certain generalizations concerning trends in content-emphases of textbooks have been made by Hollingsworth, who analyzed 25 representative texts published between 1911 and 1951,[4] and by Gates and his co-workers, who studied the content of 83 books published from 1920 through 1956.[5] Hollingsworth noted that the subject matter had changed from "the original nature of man" to growth and development of the individual, from individual differences to personality-and-adjustment and measurement-and-evaluation; he noted, also, that learning remained the "central core of educational psychology, but with less emphasis on theories and increasing efforts toward synthesis of theories."[6] He detected a decreasing emphasis on the psychology of special school subjects, but increasing coverage of the importance of environment and of the results of research in other social

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[1] Ibid., p. 274.

[2] Monroe, op. cit., p. 381.

[3] Blair, "Content . . . ," op. cit., p. 274.

[4] Thad W. Hollingsworth, "Changing Concepts in Educational Psychology as Derived From Representative Textbooks (1911-1951)." Research in Progress, January, 1954-December, 1954, The University of North Carolina Record, No. 548 (October, 1955). Graduate School Series No. 68, p. 82.

[5] Gates et al., op. cit., pp. 241-4.

[6] Hollingsworth, op. cit., p. 82.

sciences, such as sociology, anthropology, genetic and child psychology, psychiatry, and mental hygiene.[1] In preparing their chapter for the anniversary issue of the Review of Educational Research two years later, Gates and his collaborators for the most part verified Hollingsworth's conclusions. They indicated that in educational psychology texts space devoted to the "physiology of brain, nervous system, and sense organs" had reached a nadir, and might soon begin to increase.[2] Their conclusions relevant to increasing attention to "personality, mental hygiene, unconscious motivation, counseling, and psychotherapy"[3] and to "application of the concepts and research of social psychology" (on such topics as: race relations, group dynamics, national and international affairs, social issues)[4] corroborate Hollingsworth's findings. They found little change in the amount of space devoted to tests and to laws of learning, but pointed out certain content-developments within these areas. There was "increased attention to projective techniques"[5] in the material on testing. Relevant to laws of learning, they noted increasing influence of Gestalt theory[6] and more ". . . stress [on] the applications of the theories of learning even more than . . . [on] the theoretical explanations themselves."[7]

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[1] Ibid.

[2] Gates et al., op. cit., p. 242.

[3] Ibid.

[4] Ibid., p. 243.

[5] Ibid., p. 244.

[6] Ibid., p. 243.

[7] Ibid., p. 249.

Similar generalizations concerning expansion of the field and changes in emphasis are evident from Reed's investigation (1957) of "The History of the Psychological Foundations of Teacher Education"[1] during the first half of the twentieth century. Reed found an eight-fold expansion of the number of topics included therein. She comments also that, "This expansion was accomplished by a shift in emphasis from concern with (1) intellectual attainment in the early decades . . . through (2) measurement in the middle decades . . . to (3) personal and social relations in the final decades of 1940 and 1950."[2] For a study completed in 1956, Jordan had educational psychologists rate in order of value for the introductory course in their field 520 topics compiled from 22 current textbooks in educational psychology.[3] Highest mean ratings were given to: growth-and-development, learning, personality-and-adjustment, motivation, and individual differences and the school, while items ". . . dealing with history, theories, schools of psychology, experiments and experimental data, with detailed specifics, received lower ratings in terms of value for an introductory course."[4] Thus, Jordan concluded that:

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[1]Marian E. Reed, "The History of the Psychological Foundations of Teacher Education (1900-1950)." Dissertation Abstracts, XVII (No. 4, 1957), p. 817.

[2]Ibid.

[3]Howard Jordan, Jr., "The Content of an Introductory Course in Educational Psychology in Teachers Colleges as Determined by a Critical Analysis and Evaluation of Contemporary Textbooks in the Field." Dissertation Abstracts, XVII (No. 4, 1957), p. 809.

[4]Ibid.

> . . . major emphasis should be given to topics which help teachers improve the efficiency of learning; give an understanding of pupil behavior; help in efficient personality development and adjustment; and improve the mental health of both teacher and pupil.[1]

Luker had received comparable judgments of the relative value of educational psychology topics from classroom teachers, supervisors and administrators.[2] Having investigated all psychology courses which were part of the preparation of elementary teachers in four-year degree-granting institutions, Pittenger concluded that, "The content of these courses was found to overlap when considered as categories," but that ". . . when the total programs of the institutions were compared a typical pattern of topics was apparent."[3] The programs ordinarily included, in addition to basic information concerning the field of psychology, such topics as: the adjustment process, and principles of mental health, growth-and-development, learning, and measurement-and-evaluation.[4]

Individual recommendations relevant to the content of the beginning course in educational psychology include similar suggestions and certain agreement on major topics. Seibert proposes three broad topics: the individual and his development, the learning process, and

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[1] Ibid.

[2] Arne H. Luker, "Determination of Relative Values of Topics for Undergraduate Courses in Psychology for the Education of Teachers." Journal of Educational Research, XLIV (May, 1951), pp. 687-94.

[3] Pittenger, op. cit., p. 1272.

[4] Ibid.

evaluation techniques,[1] and Hountras follows an introductory unit with three others: growth, learning (including evaluation), and adjustment.[2] Research performed by Klausmeier and Swanson (1949) led them to incorporate similar topics into five major areas of content for a functional educational psychology course.[3]

In relation to the wide variation among textbooks in content and relative emphasis, Lynch concludes that this ". . . reveals the continued disagreement among educational psychologists concerning the definition of their own field of study and its pertinence to teaching despite years of research and discussion of this problem."[4]

> . . . During the early decades of the century there was relatively little difference in introductory and educational psychology since psychologists were preoccupied with introspection, brass instruments, physiology, nonsense syllables, and rat mazes. However, the demands of the field resulted in a content which included child study, mental testing and measurement, mental hygiene, and the psychology of learning. These matters have since found their way into introductory psychology courses, and so there is no longer any generally accepted content on which to build a course in educational psychology.[5]

Recognizing variations among and within schools of psychology as one cause for such diversity, Monroe suggests that, "A more potent influence . . . has been the absence of recognized criteria for the identification of the content of educational psychology."[6] That greater uniformity

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[1]Earl W. Seibert, "Educational Psychology on Two Levels." Educational Administration and Supervision, XLII (February, 1956), pp. 93-9.

[2]Hountras, op. cit., pp. 400, 402, 403.

[3]Klausmeier and Swanson, "Development . . . ," op. cit.

[4]Lynch, op. cit., p. 409.

[5]Trow, "Improving . . . ," op. cit., p. 20.

[6]Monroe, op. cit., p. 380.

cannot be "forced" and ". . . should not come by a majority vote . . . ," but ". . . only by reaching a rock-bottom foundation on self-evident principles,"[1] is as true at present as it was in 1919 when Ruediger so commented.

There may be certain symptoms of synthesis in the near future for the content of the introductory course in educational psychology which has included such diversity in the past. Orientation of subject-matter content (as well as teaching procedures) toward development of the characteristics intrinsic in teaching competence is a focal point. Agreement is evident on at least the major topics which are to be incorporated into the beginning course in this field, although, as Monroe notes, ". . . 'professors of education' as a group have tended to resist efforts in the direction of standardization of courses."[2] Effort can perhaps be concentrated on making more functional the psychological theory in which areas of agreement are now being emphasized. Monroe expressed the belief that ". . . the current theory of teaching is sound in general outline and that future developments will be of the order of refinements and systematization of formulation."[3]

Instructors

As Diekhoff reminds us, all college instructors--not just those teaching pre-professional courses--influence prospective

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[1]William C. Ruediger, "Introductory Statement Outlining a Tentative List of Basic Courses." Educational Monographs, No. VIII (Society of College Teachers of Education, 1919), pp. 5-6, cited by: Monroe, op. cit., p. 392.

[2]Ibid., p. 389.

[3]Ibid., p. 179.

teachers.[1] W. G. Carr,[2] G. B. Cutten,[3] and G. E. Hill[4] explicitly indicate that, in order to be good teachers, individuals must be good, or better, men and women. The former president of Sarah Lawrence College, in outlining the characteristics of a good college teacher, included not only excellence of scholarship but also: personal adjustment, and interest in the total program of the college.[5] She suggests, also, that good teachers are not "possessive" persons,[6] or, as Odegaard puts it, not ". . . disposed to be predestinarians about the futures of their students."[7] Bruce warns against teachers who are ". . . too rigidly organized emotionally or too loosely organized intellectually . . . ."[8] The good teacher, as a "self-accepting"[9] leader, ". . . wants those he

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[1]John S. Diekhoff, "Who Teaches Teachers What?" Educational Forum, XX (January, 1956), pp. 229-38.

[2]William G. Carr, "The Professional Preparation of Teachers." Journal of Teacher Education, X (December, 1959), pp. 486-90.

[3]George B. Cutten, "The Professor and the Art of Teaching." School and Society, LXXXVII (January 31, 1959), pp. 36-40.

[4]George E. Hill (ed.), "Improving Teacher Education Through Intercollege Cooperation." North Central Association Quarterly, XXXI (April, 1957), pp. 313-20.

[5]Constance Warren, "What Makes a Good College Teacher." Journal of the American Association of University Women, LI (January, 1958), pp. 85-8.

[6]Ibid., p. 87.

[7]Odegaard, op. cit., pp. 167-8.

[8]William F. Bruce, "Psychology Functioning in the Education of Teachers." Journal of Educational Psychology, XLIII (February, 1952), p. 96.

[9]Harold J. Reed, "An Investigation of the Relationship Between Teaching Effectiveness and the Teacher's Attitude of Acceptance." Abstracts of Dissertations, 1952. Los Angeles: University of Southern California Press, 1952, pp. 293-6.

leads to go beyond the limits of his leadership . . . to employ his own achievements without copying his faults," Nemetz notes (in reviewing the works of St. Thomas Aquinas for a Great Books discussion group).[1] To reiterate, ". . . instruction should develop interests and other motives, not merely utilize those which the student already has."[2] Various published pleas for: open-mindedness and lack of prejudice,[3] for "value-oriented instruction,"[4] for awareness of one's moral obligation to students,[5] for tolerance of students' (and others') imperfections,[6] for willingness to state and support honest beliefs,[7] cause one to conclude that these qualities may not be as prevalent as might be desirable among college teachers.

So that prospective teachers may teach in ways that they have been taught to teach, rather than in ways they themselves have been taught, Hughes and Harry suggest that professors: offer permissiveness and support, attempt individualization of instruction and group work,

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[1]Anthony Nemetz, "On the Teacher." Educational Research Bulletin, XXXV (September 12, 1956), p. 163.

[2]Anderson, Whipple, and Gilchrist, op. cit., p. 341.

[3]Odegaard, op. cit., p. 167.

[4]Ordway Tead, "Value Emphasis in College Teaching." Christian Scholar, XLII (June, 1959), pp. 87-100.

[5]Nemetz, op. cit., p. 162.

[6]M. L. Story, "Pupils Are Not Servomechanisms." Phi Delta Kappan, XL (June, 1959), p. 382.

[7]John W. Ashton, "Teaching Religion in the State University." Phi Delta Kappan, XL (May, 1959), p. 313.

and encourage generalization from experience.[1] Spector notes that, "Successful teacher training depends in a large measure on competent trainers."[2] He doubts that there is present in most (chronologically) young persons sufficient ". . . maturity, stability and experience," which affect students, along with instructors' ". . . erudition and teaching skills . . . ."[3] "It requires much maturity to be permissive and democratic with others, particularly those who occupy a subordinate position."[4] Dodson comments that: "One can go from the nursery school to the podium of the college professor and not 'get out of the room.'"[5] Similarly, Wilson questions the usual doctor's degree per se as adequate preparation for college teachers,[6] since the teacher is not merely a purveyor of factual information but a giver of significance to, or an interpretor of, facts.[7]

Throughout the first half of the twentieth century, educators have lamented the lack of adequately trained teacher-educators.[8] In an investigation concerning the teaching personnel of departments and

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[1]Marie M. Hughes and Shizuko N. Harry, "Prospective Teachers in Their College Classrooms." Educational Administration and Supervision, XLIII (April, 1957), pp. 211-16.

[2]Spector, op. cit., p. 348.

[3]Ibid.

[4]Ibid.

[5]Dodson, op. cit., p. 186.

[6]Owen M. Wilson, "Wisdom Is Better Than Strength." Educational Record, XLI (January, 1960), pp. 25-8.

[7]Nemetz, op. cit., p. 160.

[8]Monroe, op. cit., pp. 416-17.
Lynch, op. cit., p. 409.

schools of education, Eckert found that more than half had decided on college teaching only when offered a job.[1] She also found that among the teachers of "basic courses" (including educational psychology), about half held a doctorate.[2] Eckert concluded also that, in comparison with colleagues in other fields, professors of education were less apt to reduce student services in order to devote time to scholarly activities.[3] Edmund and Milanovich, however, strongly state the research responsibilities of college teachers of teachers:

> College instructors in education must not look upon themselves as "how-to-do-it kits wired for sound." They are key members of the research team composed of college and public school personnel and must be willing to fulfill this professional obligation.[4]

The obligation entails not only serving as consultant to teachers and administrators and helping to further the knowledge-seeking partnership between teaching and research, but also: utilizing ". . . research findings in their own teaching," improving their teaching through doing research, and encouraging ". . . students to develop and maintain a critical point of view through research."[5]

Lynch indicates that a major problem among teacher-educators, along with over-reliance on a textbook and "lack of resourcefulness in

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[1]Ruth E. Eckert, "Who Teach in Departments and Schools of Education?" Journal of Teacher Education, X (December, 1959), p. 499.

[2]Ibid., p. 500.

[3]Ibid.

[4]Neal R. Edmund and Anthony Milanovich, "The Role of the College Instructor in Educational Research." Peabody Journal of Education, XXXVII (January, 1960), p. 206.

[5]Ibid.

dealing with the psychological complexities of education,"[1] is the lack of experience with ". . . public school teaching, philosophy, curriculum and methodology."[2] He fears that the result of this lack of experience is ". . . limited ability to develop functional understanding of psychological concepts and principles."[3] Spector recommends--to compensate for lack of public-school experience and to maintain familiarity with current practices--that the teacher educator ". . . spend at least ten days a year in active teaching in a school classroom."[4]

Another factor of importance relevant to the educational psychology instructor (and to any professor teaching any course in the teacher-education program) is his interest and skill, as a "team-teacher,"[5] in making his course an integral part of that program. As Donovan states:

> . . . the implicit logic and continuity of the professional curriculum can only be made explicit and effective by teachers who consider the whole pattern and see their part in it, who build on what has gone before and prepare the students for what comes after; [who] . . . see the professional sequence as a logical, ordered whole and their own course or courses not as independent academic experiences for students but as deliberately placed steps in a graded advancement.[6]

Lynch agrees on the importance of continuity, in noting:

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[1]Lynch, op. cit., pp. 409-10.

[2]Ibid., p. 410.

[3]Ibid.

[4]Spector, op. cit., p. 351.

[5]Charles F. Donovan, S.J., "Jesuit Pedagogy in a School of Education." Journal of Teacher Education, IX (September, 1958), p. 311.

[6]Ibid., p. 315.

> All of the instructional staff in the teacher education institution who have the responsibility for developing psychological competence must follow the student through the entire program in one way or another . . . this means that the instructor in educational psychology has a stake in the course in methods. It means that psychological preparation is only begun in the course in educational psychology, and that it continues through student teaching and beyond.[1]

A human teacher-educator may well be overwhelmed by all the professional responsibilities described in the preceding paragraphs. Almost a decade ago, Rivlin stated the case quite clearly:

> Those of us who teach education courses are in a vulnerable position, for we should be willing to be, as we often are, judged in terms of our effectiveness as teachers . . . . Since the psychology of learning is so important a part of educational psychology, . . . students perhaps naively, expect the educational psychology instructor . . . to be an expert not only in teaching psychology but also in teaching psychologically.[2]

A professor may question his own capacity for fulfilling these multiple obligations. Since Monroe states that, "The continued criticism . . . suggests that educationists have not been sufficiently concerned about 'selling' their work to their academic colleagues,"[3] the teacher-educator may be surprised to learn of McAulay's finding that a majority of the college professors he questioned do respect their colleagues in education departments.[4]

Methods and Materials

In discussing improvements of teaching in the basic preprofessional courses, Trow refers to ". . . the disturbing conclusion of

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[1]Lynch, op. cit., p. 414.

[2]Rivlin, op. cit., p. 23.

[3]Monroe, op. cit., p. 420.

[4]John D. McAulay, "Opinions of Some Scholars on the Status of Education Faculties." Peabody Journal of Education, XXXVII (January, 1960), pp. 232-4.

Lynch that freshmen already know half the content of educational psychology as well as do seniors who have taken three courses."[1] Whether the main objective of the course is inculcating subject matter or effecting changes in students' personalities, it may be that ". . . a systematically prepared content [of factual information] is less important than the methods employed."[2] At any rate, teaching methods and procedures recommended for such a course as educational psychology have received due consideration in the professional literature. A decade ago Ludeman[3] reported on teaching methods employed in teachers colleges. Among the variety of methods reportedly used, their "goodness" seemed to depend on the instructor.[4] He reported, also, a trend toward more student-participation in classroom learning.[5]

Pittenger noted that, "The primary instructional method was a combination of lecture and discussion," while, "supplementary instructional techniques except for the use of audio-visual materials were as yet [in 1957] relatively undeveloped . . . ."[6] Results of

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[1]Trow, "Improving . . . ," op. cit., p. 18.

[2]Ibid., p. 19.

[3]Ludeman, op. cit., pp. 309-12.

[4]Ibid., p. 311.

[5]Ibid., p. 312.

[6]Pittenger, op. cit.

studies by Pitts,[1] Guetzkow, Kelly and McKeachie,[2] and Deignan[3] showed little evidence in favor of a particular scheme for organizing student experiences or class discussions. Haigh and Schmidt,[4] realizing the conflicting evidence from several other investigations of teaching methods, conducted a study in which students might choose between group- and teacher-centered classes and in which students in group-centered classes were not motivated to acquire subject matter in order to pass a final examination: even so, there was "no significant difference between these two types of classes in knowledge of subject matter at the end of the term."[5]

In 1949, Landsman and Peterson commented that, "It is only in the past few years that attention is being given to study of 'student-centeredness' at the college level," "student-centeredness," in this instance, being contrasted with "syllabus-centeredness."[6] Several

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[1]Gaylord E. Pitts, "An Experimental Study of the Effectiveness of Different Methods of Organizing and Directing Student Experiences in an Undergraduate Course in the Nature and Direction of Learning." Summaries of Doctoral Dissertations, University of Wisconsin, Volume VIII. Madison, Wisconsin: University of Wisconsin Press, 1944, pp. 175-7.

[2]Harold Guetzkow, E. Lowell Kelly, and Wilbert J. McKeachie, "An Experimental Comparison of Recitation, Discussion, and Tutorial Methods in College Teaching." Journal of Educational Psychology, XLV (April, 1954), pp. 193-207.

[3]Francis J. Deignan, "A Comparison of the Effectiveness of Two Group Discussion Methods." Dissertation Abstracts, XVI (No. 6, 1956), pp. 1110-11.

[4]Gerard V. Haigh and Warren Schmidt, "The Learning of Subject Matter in Teacher-Centered and Group-Centered Classes." Journal of Educational Psychology, XLVII (May, 1956), pp. 295-301.

[5]Ibid., p. 301.

[6]Theodore Landsman and Kenneth Peterson, "Design for an Experiment in Student-Centered Teaching." Educational Leadership, VII

pages of this same issue of Educational Leadership are devoted to juniors' and seniors' description and evaluation of another student-centered approach to a course entitled, "Basic Procedures in the Guidance of Learning."[1] A year-and-a-half later, Morlan reported the use of group projects (such as, completing a survey) and reports, instead of term papers, in educational psychology.[2] Gronlund analyzed a student-centered procedure in his undergraduate educational psychology course, oriented toward goals established ". . . cooperatively by the learners and the instructor with the needs of each individual learner in mind."[3] That student-centered teaching is free of instructional problems could not be concluded. Gronlund remarked that, probably due to the students' lack of experience with this sort of teaching situation, "One of the persistent problems in student-centered teaching is that of shifting the major leadership responsibility from the teacher to the students as rapidly and efficiently as possible."[4] Grambs had earlier suggested that, "There are students who do not at any time seem to accept group work, and there are others who fail to see the applicability of this process to their own teaching responsibility."[5] Research for a doctoral study led Larson,

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(November, 1949), p. 102.

[1]"We Learned to Plan by Planning." Op. cit., pp. 111-17.

[2]George K. Morlan, "A Student Project in Educational Psychology." Journal of Educational Psychology, XLII (April, 1951), pp. 241-5.

[3]Gronlund, op. cit., p. 3.

[4]Ibid., p. 1.

[5]Grambs, op. cit., p. 109.

more recently, to decide that:

> No final conclusion can be made that the student-centered approach to the teaching of educational psychology is more effective in developing students' attitudes toward children than is a lecture approach, when the lecture approach seeks to cultivate such attitudes.[1]

McKeachie attributed the lack of significance of the research findings along such lines to the multiplicity of (uncontrolled) variables involved.[2]

Among the various teaching techniques which Ludeman reported (in 1952) are: laboratory, demonstration, forum, guest instructor, case study, community study, problem-solving, panel discussion, seminar, workshop, self-directed student activities, group project, individual project, contract method, in addition to the half-dozen techniques originally named by the investigator: lecture, question-and-answer, special report, research approach, visual aids, and excursion or field trip.[3] Anderson was, perhaps, not unjustified in assuming that:

> Educational psychology will not be taught as a lecture-text-book course . . . . Laboratory and field work, with case studies of pupils, observations of learning situations, etc., will be an integral part of the course.[4]

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[1]Rolf W. Larson, "The Differential Effect of Two Methods of College Teaching on the Attitudes of Students in a Pre-Service Education Program." Dissertation Abstracts, XVII (No. 5, 1957), p. 1030.

[2]Wilbert J. McKeachie, "Student-Centered Versus Instructor-Centered Instruction." Journal of Educational Psychology, XLV (March, 1954), p. 148.

[3]Ludeman, op. cit., pp. 309-11.

[4]G. Lester Anderson, "What the Psychology of Learning Has to Contribute to the Education of Teachers." Journal of Educational Psychology, XLI (October, 1950), p. 363.

At about the same time, Bruce emphasized that educational psychology should include neither theory nor observation alone, but should be oriented toward the interrelatedness of the two,[1] while Horrocks reminded that, "Every course in educational psychology could well be a demonstration center and a laboratory in good teaching and learning practices."[2]

The successes and failures of specific approaches to educational psychology (and other, related) courses are recorded in the reports of several investigations. Coleman introduced role-playing as an instructional aid with educational psychology students, but inadequate matching of groups rendered his results inconclusive.[3] At City College, nearly ten years ago, Klausner attempted "thematic teaching" of educational psychology ". . . in the context of communication theory . . . ."[4] Meek's experiment indicated that it may be possible to teach "empathetic ability,"[5] and Roseberry reported that her experimental group (at the University of Maryland) exceeded the control group in, among other items, developing an attitude of greater acceptance.[6] From this small

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[1]Bruce, "Psychology . . . ," op. cit.

[2]Horrocks, "Methodology . . . ," op. cit., p. 279.

[3]William Coleman, "Role-Playing as an Instructional Aid." Journal of Educational Psychology, XXXIX (November, 1948), pp. 427-35.

[4]Samuel Z. Klausner, "Communication Theory as the Unifying Theme in Teaching Educational Psychology." Journal of Educational Psychology, XLIV (December, 1953), p. 489.

[5]Clinton R. Meek, "Experiment in Teaching Empathy." Journal of Educational Sociology, XXXI (November, 1957), pp. 107-10.

[6]Minnie L. Roseberry, "An Investigation of the Direct Study of a Child on the Changes Student Teachers Reveal in Their Attitudes, Beliefs and Understandings of Human Behavior." Dissertation Abstracts, XX (No. 1, 1959), p. 208.

sampling, the variety of techniques which have been tried in educational psychology classes is evident.

Recommendations concerning the teaching of educational psychology are varied. Recent suggestions seem to be more explicit than Murphy's plea (1952) for: getting to know students, for encouraging them to ask and to answer their own questions, and for promoting the application of educational psychology learning,[1] or Getzels's suggestion in the same year that educational psychology be given ". . . focus in terms of current education theory and practice in the classroom."[2] Lynch suggests that teachers' "psychological competence" is developed through three, interrelated types of learning experiences, not merely through delving into psychology textbooks.[3] Such competence results from: ". . . the entire range of intimately personal experiences with others, particularly those of early childhood . . . ," a ". . . series of specific opportunities to recognize the significance of the behavior of others . . . ," and ". . . opportunities to acquire more formal information and ideas concerning human behavior and to engage in some thinking about such concepts."[4] Trow is more explicit in suggesting specific techniques for helping future teachers develop "theories of action:"

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[1]Lois B. Murphy, "Teaching Procedures in Educational Psychology." Journal of Educational Psychology, XLIII (January, 1952), pp. 16-22.

[2]Getzels, op. cit., p. 381.

[3]Lynch, op. cit.

[4]Ibid., p. 411.

> Practice in identifying different kinds of educational situations and causal factors can well be provided by discussing films, by case reports of problem situations, and in other ways. Knowledge of facts and relationships thus comes to be recognized as something that is needed, a means for perceiving the nature of events, and a source which may be drawn upon for dealing adequately with them.[1]

The increasing use of films (up to four per content area) in educational psychology classes in six Kansas colleges Casper found to be positively correlated with student achievement.[2] Beginning secondary-school teachers questioned by Zulauf ranked the course on guidance of learning next in value to student-teaching,[3] while those questioned by Knapp left the educational psychology course ". . . conspicuously absent from comment."[4] The former, however, did suggest that more laboratory experience and greater emphasis on application of theory would have been helpful.[5] Studies by Willard and Duff (reported by Curtis),[6] and Amatora's plea for a functional approach to

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[1]Trow, "Improving . . . ," op. cit., p. 24.

[2]Wesley Casper, "An Experimental Evaluation of Certain Motion Picture Films in Selected Educational Psychology Classes in Kansas Colleges." Dissertation Abstracts, XVI (No. 6, 1956), pp. 1105-6.

[3]Romeo M. Zulauf, "An Appraisal of Selected Aspects of a Teacher Education Program at the Northern Illinois State Teachers College Based Upon a Follow-up Inquiry of Beginning Secondary School Teachers." Dissertation Abstracts, XVI (No. 10, 1956), p. 1852.

[4]Henry W. Knapp, "Are Education Profs Off Base?" Phi Delta Kappan, XXXIX (April, 1958), p. 334.

[5]Zulauf, op. cit.

[6]Dwight K. Curtis, "Chapter III: Preservice and Inservice Education of Elementary- and Secondary-School Teachers." Review of Educational Research, XXVIII (June, 1958), pp. 211; 212.

educational psychology,[1] also emphasized the desirability of first-hand experience with children (and/or adolescents, one may assume). Implementing the preceding recommendations might, through the educational psychology course (and other courses), help to alleviate some of the major weaknesses (reported by student- and beginning-teachers) in: discipline, or pupil control; providing for individual differences; and motivation.[2]

These weaknesses ordinarily reported by beginning teachers may be partly attributable merely to their youth, as Spector suggests in recommending "teaching internships" through which ". . . these tyros may 'age' a little more and so reduce the trial and error effects on their charges."[3] It may be the lack of transfer value of the educational psychology course--rather than the content, methods and materials used, per se--which causes beginning teachers to report the weaknesses indicated above.

> There is some evidence of positive transfer and application of psychological knowledge to interpersonal relations and educational judgment, yet there is little evidence to substantiate the assumption that even the most thorough intellectual grasp of valid psychological facts and principles in a course can be expected to result in a correspondingly high degree of "face-to-face," "deliberative," and "philosophical" competence expected of the professional teacher.[4]

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[1]Sister M. Amatora, "Functional Approach to Educational Psychology." Educational Administration and Supervision, XLIII (March, 1957), pp. 175-81.

[2]Ibid., p. 211.
Martin R. Thomas, "What Say Teachers About Their Training?" Educational Administration and Supervision, XLIII (November, 1957), pp. 390-94.

[3]Spector, op. cit., p. 348.

[4]Lynch, op. cit., p. 412.

In view of the generally agreed-upon principles of learning, it is not surprising to note that Jones found that:

> Those experiences which had the greatest amount of carry-over value into student teaching situations had one or more of the following characteristics: (1) opportunity to assume responsibility; (2) opportunity to assume leadership in group situations; (3) opportunity to participate in activities included in the role of the teacher; (4) adequate guidance, preparation and follow-up; and (5) opportunity to integrate theory and practice.[1]

Curricular Placement

In addition to research and recommendations concerning the purpose, content, methods, materials, and instructors of the beginning course in educational psychology, some reports pertain especially to the placement of the course in the teacher-education sequence, or integration of educational psychology content with other preprofessional courses. Lynch, for instance, indicates that the placement of the course precludes opportunities for adequately relating educational psychology to other work.[2] "A most serious error," he comments, "is the failure to supplement educational psychology with essential training in the philosophical and sociological foundations of education, without which much of educational psychology is meaningless."[3] He recommends that the educational psychology content be integrated with the rest of the curriculum, that it offer early opportunities for application of theory, and that the development of psychological competence be fostered by all teacher-educators throughout students'

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[1]Isabel F. Jones, "A Study of the Relationship of Various Types of Pre-Student Teaching Experiences to Success in Student Teaching." Dissertation Abstracts, XVI (No. 4, 1956), p. 709.

[2]Lynch, op. cit., p. 410.

[3]Ibid.

entire preparation for teaching.[1] In reporting on the adherence to Ratio pedagogy in the School of Education, Boston College, however, Donovan indicates no necessity for moving the psychology-of-learning course from the second semester of the sophomore year.[2] In the freshman year, the historical approach prevails in all content-areas, including education: the history of education is studied in the first semester and "The School in American Life" in the second,[3] thus providing the philosophical and social foundations mentioned above. The sophomore studies human growth and development in the first term, psychology of learning in the second, the latter being designed to ". . . point ahead to a narrower practicality, indicating that the general laws of learning and motivation will find particular application as regards various age levels and subjects in methods courses to follow."[4]

Monroe calls attention to Horrock's report of a trend from 1933 to 1948 toward integrated courses.[5] Macomber reported in 1949 a core program for students preparing for elementary teaching at Duke University.[6] In 1960, Dietz described integrated course-work at Brooklyn College.[7] Jensen recommends the elimination of the basic

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[1]Ibid., p. 413.

[2]Donovan, op. cit., p. 313.

[3]Ibid., pp. 311-312.

[4]Ibid., p. 313.

[5]Monroe, op. cit., p. 376.

[6]Macomber, op. cit., pp. 87-91.

[7]Elizabeth H. Dietz, "Vitalizing Teacher Education." Journal of Teacher Education, XI (March, 1960), pp. 45-9.

course in educational psychology and suggests that the educational psychology instructor lead a series of seminars (relative to learning, etc.) in conjunction with students' observations in the public schools and with their student teaching.[1] An integrated course, "The Teaching Enterprise," which included educational psychology content, was first offered to sophomores at Chatham College in 1954-55.[2] Educational psychology was integrated with mental hygiene, and (for elementary teachers) child growth and development or (for secondary teachers) adolescent psychology at Appalachian State Teachers College.[3] Because content of courses such as educational psychology may be wasted on less mature students, Spector concludes: "Perhaps it would be better to limit the professional courses to the first half of the fourth year." In a single general course, at this time, might ". . . be included all the germane and practical principles of educational psychology, the history of education and classroom management."[4] It is doubtful that one could dispute Anderson's statement that the objectives of educational psychology can be met in any of several ways: through a simultaneous learning-and-practicing situation available through some laboratory schools; through a workshop program in which encountered

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[1]Barry T. Jensen, "Better Teacher Training." School and Society, LXXXV (December 21, 1957), pp. 398-9.

[2]Margaret J. Fulton, "Experimental Program in Teacher Education at Chatham College." Journal of Teacher Education, IX (September, 1958), pp. 302-6.

[3]Herbert Wey, "Core Program in Teacher Education." Journal of Teacher Education, IX (September, 1958), pp. 252-5.

[4]Spector, op. cit., p. 351.

problems could be disposed of; through a "core course" including educational psychology along with other professional content.[1]

Summary

The professional preparation of teachers, especially at the preservice level, has been condemned or condoned by various writers and speakers whose articles and reports have appeared in the professional and popular literature during recent years. Throughout the first half of this century, several types of investigations have been completed in order to: trace the development of professional education; survey current offerings and practices in the field; analyze the relative desirability of various elements in teacher-education programs; and produce experimental evidence relevant to the validity and preferability of certain procedures. Because teacher-education is and, according to Haskew, ". . . will continue to be a creature of its environment . . . ,"[2] many opinions on teacher-education are expressed by those not directly involved in the profession. Teacher-education, to a greater extent than medical or legal education, is more closely bound to the society in, with, and for which it exists.[3]

Recently Cook, in a widely circulated professional journal, has defended professional preparation of teachers as providing more

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[1]G. Lester Anderson, "Educational Psychology and Teacher Education." Journal of Educational Psychology, XL (May, 1949), pp. 275-84.

[2]Lawrence D. Haskew, "Teacher Education in the Years Ahead." Educational Research Bulletin, XXXVI (September 11, 1957), p. 190.

[3]Ibid., p. 191.

understandings needed by teachers than mere intuition could provide.[1] The literature reviewed above, however, seems less to question the desirability of professional preparation than to criticize and recommend improvements in these preservice programs. W. S. Monroe's monumental history of teacher education and learning theory in this country during the first half of the twentieth century reports in detail the growth of the pre-professional programs through the years.[2] More recent opinions and developments are evident in current issues of The Journal of Teacher Education, published quarterly under the auspices of The National Commission on Teacher Education and Professional Standards of the National Education Association.

An introductory course in educational psychology has long been included among the requirements for certification to teach at the elementary- or secondary-level in the public schools. Evolution in the purposes of these schools, as well as results of innumerable investigations in all the social sciences--including psychology--have caused the content of this course in the professional program to be varied. The developments in the areas of psychology relevant to educational psychology are concisely summarized in the anniversary issue of the Review of Educational Research, entitled "Twenty-Five Years of Educational Research."[3]

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[1]Walter W. Cook, "Why Professional Preparation?" NEA Journal, XLVIII (April, 1959), p. 19.

[2]Monroe, op. cit.

[3]"Chapter III, Educational Psychology." Review of Educational Research, XXVI (June, 1956), pp. 241-67.

Much of the criticism of educational psychology courses, as well as of the other course-work comprising the preservice program, has related to the management and teaching the courses. "Awareness of the need for competent teachers for our times caused these 'teachers of teachers' to seek an evaluation of and suggestions for improvement in their work," states Clyde Martin, chairman of the Editorial Committee, in the Preface to: Improving Instruction in Professional Education.[1] This thirty-seventh yearbook of The Association for Student Teaching, published in cooperation with The National Society of College Teachers of Education, includes Trow's concise summary of past and present thinking relevant to the purpose of the educational psychology in programs of teacher education,[2] as well as specific recommendations for improving instruction in other phases of the preservice program.

The preceding summary of some of the literature relevant to teacher-education in general, and educational psychology in particular, affords background information necessary to the investigation described in the subsequent chapters. The current treatment of educational psychology in Pennsylvania teacher-education institutions can be adequately interpreted only in terms of the history of this course in programs for preparing teachers. Recommendations concerning educational psychology based on the findings of the current investigation must take into consideration also the developments in teacher-education as a whole throughout the years, as well as trends concerning only this particular phase of the program.

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[1] Improving Instruction . . . , op. cit., p. ix.

[2] Trow, "Improving . . . ," op. cit.

CHAPTER THREE

METHOD OF APPROACH

In Chapter I, the subject of this investigation has been described as the beginning course in educational psychology, as it is taught in the Pennsylvania colleges and universities responsible for teacher-education. To collect from the instructors of this course detailed information concerning the content, methods and materials of their courses in this area, as well as certain items of information about their own backgrounds of education and experience, a questionnaire was prepared and mailed. Familiarity with the procedures followed in gathering, analyzing and interpreting the data, as described in the current chapter, is a necessary preface to the reports of the findings in the fourth and fifth chapters of this report.

The first consideration in the following pages is establishing the populations of institutions and instructors. The rationale of the questionnaire is explained. Procedures for mailing and follow-up are described in some detail. The percentages and validity of returns are evaluated.

The next major division of this chapter deals with the treatment of data. Procedures followed in preparing the overview of the educational psychology course presented in Chapter IV are described first. The definition and method of computing three composite scores peculiar to this study are explained. The statistical techniques involved in

the investigation of interrelationships presented in Chapter V are then set forth and the procedural steps outlined.

The Populations Included in This Study

For purposes of the present investigation, two populations are necessary--one of colleges and universities, the other of instructors. The population of schools includes the 69 approved by the Department of Public Instruction for elementary and/or secondary preparation in academic areas, other than the investigator's employing college. This population is clearly defined.

On the other hand, the population of instructors remained slightly nebulous throughout most of the actual data-gathering period. It proved to be almost impossible to discover who, at a few schools, was teaching the beginning course in educational psychology. The individual named by the registrar or the academic dean occasionally disclaimed any connection with such a course--sometimes for a particular semester or year, at other times, completely. Telephone calls to officials of certain colleges and universities were sometimes necessary to discover who actually had taught this course during the second semester of the 1957-58 academic year or soon thereafter. Ninety-one instructors ultimately were included in that population.

Preparation of the Questionnaire

To collect detailed information about a course required posing many questions to each person who was teaching it. To do this in person was not feasible. Thus, an extensive questionnaire was designed, as a written form of structured interview, to expedite the collection

of data about the educational psychology course and about those who were teaching it. This underlying purpose of the questionnaire was explained to the recipients in the second paragraph of the Introduction, as follows:

> Not only the textbook employed, but also the teaching methods and classroom procedures involved--along with the instructor's background of experience and education, his personal valuation of the course, and his specialized interests--affect the impact of the course upon his students. An enjoyable exchange of ideas on these points might well be accomplished through a state-wide meeting of educational psychology instructors. It is hoped that such an exchange may be more readily achieved through a questioning of these instructors by mail. The completion of the questionnaire should place much less strain on the schedule and the pocket-book of each participant. The subsequent summary of the results should afford each participant some of the features of an "exchange."

Because of the detail sought on some topics and because of the extensive coverage necessary in this questionnaire, every effort was made to prepare items through which the maximum amount of information could be collected with the least effort on the part of the respondent. A try-out of the instrument with colleagues who had formerly taught the educational psychology course brought to light not only necessary corrections and revisions but also the probability that the "average" instructor would need to spend about one hour in order to provide the data requested.

The items included in the questionnaire were arranged in outline form, under four major headings: enrollment of respondent's employing institution; background information about respondent; information about the beginning course in educational psychology; and, respondent's opinions about this course. Approximately two-thirds of the questionnaire was devoted to the third of these topics, information about the procedures and materials of the course itself, as it was being taught

by the respondent. The subsequent paragraphs explain the formulation of items included in the questionnaire (a copy of which constitutes Appendix B of this report). The numbering and lettering in the following explanations (pp. 79-89) parallel the numbering and lettering of the actual questionnaire item(s) under discussion.

I. ENROLLMENT OF EMPLOYING INSTITUTION: In this first, brief section, the total enrollment (to the nearest hundred) of the instructor's employing institution was to be recorded in the appropriate space. This figure was requested not only for verification purposes (in comparison with published enrollment figures) but also as the base figure for the percentage (to the nearest ten) of the enrollment preparing to teach, requested in the second item of this same section.

II. INFORMATION ABOUT RESPONDENT: The items constituting this second major division were constructed to elicit certain information concerning the respondent which might prove to be relevant to that instructor's practices in the educational psychology course.

A. The categories of chronological age, one of which the respondent was asked to check, were made broad enough to avoid embarrassment to anyone. The assumptions that chronological age can affect one's teaching and that this may be more evident near the beginning or ending of a professional career lie behind the use of the following age-brackets: under 25 years; 25-39 years; 40-59 years; 60-69 years; and 70 years and over.

B. The respondent was next asked to indicate the highest earned degree held. With the degree, the university granting it and the year in which it was awarded were to be noted.

C. To provide information concerning each respondent's status within his own department, the various academic ranks were listed so that the instructor needed merely to check at the appropriate level. Space was provided, however, for listing any atypical titles held by the respondent.

In the first three items of Part II, then, each instructor was asked to note several facts concerning his academic status.

D and E. The next two items dealt with the instructor's teaching experience. In relation to professional experience in public and private educational institutions, the respondent was asked to indicate the duration and type of experience he had had, as teacher, supervisor, principal, or superintendent. In the subsequent item, he was asked to record the number of times, prior to the current term, he had taught the beginning course in educational psychology. The response to the first of this pair of items was intended to show breadth of experience, as well as mere length of time in the teaching profession or in the presentation of this particular course.

F and G. Each instructor's orientation toward education or psychology--as indicated by a preponderance of education or psychology courses in his educational background and recent teaching assignments--should have become evident in the responses to these items, as well as in the departmental affiliation reported earlier (II,C). In the first item, the respondent was asked to indicate the number of courses completed in education, in psychology, and in educational psychology or psychology of learning; in the second, the respondent was asked to list other courses taught. Since an

instructor ordinarily has some choice in this matter, the titles of courses being taught during the current semester and those taught since September, 1954, suggested the respondent's slant toward education or psychology. (Responses to Item G, also, indicate the extent to which a respondent's teaching time is fragmented.)

H. In relation to the statement, "In their own methods and procedures, instructors of courses in programs of teacher-education should try to exemplify the best of the theory that is included in the content of these courses," the instructor's checking always, usually, sometimes, rarely, or never did pertain to his personal background; however, the item was included in Part II as a consistency-check, to be compared with similar items in Part IV. In addition to checking one of the reactions just mentioned, the respondent was invited to comment on the statement.

The eight items of Part II could not, certainly, be expected to bring forth from respondents all the information about themselves which might have some effect upon their teaching practices. In completing these items, however, the instructors should have supplied, without much difficulty, basic information concerning chronological age, status in the academic realm, and professional experience.

III. INFORMATION ABOUT THE BEGINNING COURSE IN EDUCATIONAL PSYCHOLOGY: This third major division of the questionnaire includes a preponderance of items relevant to the educational psychology course at the respondent's school and this instructor's teaching of it. Since the information requested is extensive, items were grouped under five main headings: basic data, materials and

activities, content emphases, methods and procedures, and evaluation of student-learning. The specifics included under each heading will be considered in the subsequent paragraphs.

A. Items requesting basic data were designed to obtain, with a minimal amount of writing on the part of the respondent, the basic facts concerning the duration of the course, prerequisites for enrollment in the course, and the student personnel of the respondents' sections or classes.

1-5. The first five items were designed so that instructors needed only to make a check-mark or to write a number in spaces provided. Respondents were asked to indicate the number of quarter- or semester-hours credit attached to the educational psychology course, and to check the duration of the course (one quarter; one semester; two quarters; or, three quarters or two semesters). Next, the instructor was asked to note numerically the length of each class period (in minutes), the frequency with which the class met (times per week), and the total number of sections of the course (taught by all instructors), during the current term.

6. In order to simplify respondents' indicating prerequisites for the beginning course in educational psychology, four possibilities were offered: the completion of certain course-work; the attainment of a specified academic status or class; other requisites, to be added by the respondent; and, the absence of any prerequisites, to be indicated by checking "none." In the first area, the respondent needed merely to check one or more of the listed courses--introduction to, or history of, education; various

educationally-related courses in psychology--or to add other courses not included in the list presented. Following the phrase, "academic status of at least:" the respondent could check: second-semester freshman, sophomore, junior, senior, or graduate, or write in any other relevant limitations on class enrollment. Responses to this item showed at what point(s) in college students' four-year programs educational psychology may be scheduled.

7. Likewise, this item was included to discover at what point(s) in the four-year programs college students most frequently do enroll in the educational psychology course, along with other information concerning the student personnel of the respondents' classes. First, instructors were asked to indicate the male-female ratio in their classes, by noting the percentage of each sex. Also by percentage, the proportion of the class(es) at the various academic levels was requested; spaces were provided for recording the percentages of freshmen, sophomores, juniors, seniors, and "others." Then, instructors were to indicate the percentage of their educational psychology students preparing to teach various grade levels or special subjects.

B. The variety of materials available for use in an educational psychology course made the presentation of choices for mere checking impossible in this part of the questionnaire. The specific information which the respondent was asked to provide furnished a more accurate and detailed picture than just discovering what kinds of materials the instructor was using.

1. The section labeled "printed materials" included books, periodicals, and other items (such as pamphlets, folders,

manuscripts). For the basic and supplementary textbooks, the respondent was asked to list the name of the author(s) and the year of publication, in addition to the title. Only the titles of periodicals "with which you expect students in this course to become familiar" were requested. Space was provided for concise identification of other printed materials.

2. In the "audio-visual materials" section, the need to find out primarily what types of audio-visual materials each instructor was using made feasible the listing of five major types: films and filmstrips; disc and tape recordings; radio and television; field trips (for the entire class); and, observations or field experiences (for smaller groups or individuals). The responding instructor needed only to check any of these he was using, but he might add comments or descriptions in the space provided at the right of each type.

Responses to these items concerning printed and audio-visual materials employed were intended to give the investigator, first of all, information concerning which of these materials actually were in use. These responses furnish, also, an indication of the number of kinds of materials employed by each instructor.

C. The next subdivision of Part III was devoted to <u>content</u> emphases in the educational psychology course. Past research and tables of contents of currently available textbooks indicate a lack of agreement relative to the content of this course. Although the fifty listed topics had been grouped under five major headings, it seemed wisest on the questionnaire itself to omit any indications of such grouping and to use the specific topics rather

than the major headings. Space was provided for respondents to add topics which they include in the course but which were omitted from the listing. The list of topics, compiled after inspection of several popular textbooks, was intended to be inclusive in order to save the respondent time and effort, but not to be restricting in indicating limitations to course-content. The instructors replying were asked to comply with the following directions:

> Please indicate in the space to the right of each topic the number of class periods devoted to that topic. Any topic which is not dealt with formally but is mentioned almost daily should be marked D. Mark any topic which is mentioned "in passing" or which is the subject of less than a full period with a check mark (✓). If the topic is not included in the course, please mark it O.

The arrangement of this item made possible, then, not only discovering the emphases placed on particular topics but also, by grouping items, the relative amount of class-time spent on each of the five major areas: professional background and research; growth and development; learning processes and theories; measurement and evaluation of learning; and, the learning situation.

D. Items in the division entitled methods and procedures were designed to reveal not only the basic methods employed by the several instructors but also the variety of supplementary practices used in educational psychology classes. Respondents were asked to indicate reasons for using the methods marked and to state preferences for different methods, if any.

1. In order to structure the responses and to make tabulation of results possible, respondents were asked first to

check, as basic method: lecture, discussion, or individualized instruction. In the spaces provided instructors were to state briefly the main reason for using this method and to mention points at which they deviated significantly from this method. If the respondent subsequently marked affirmatively, "Would you prefer using another 'basic method'?" he was asked to state the method preferred and the main reason for this preference.

2. Respondents were asked to mark fourteen supplementary practices of six major types listed on the questionnaire according to the frequency with which each was used. Only a symbol was necessary to record this information: +(once a week, or more frequently), ✓(occasionally, several times throughout the course), −(rarely; once or twice during the course), or 0 (never). Any classroom practice which seemed usable with college classes was included in the list to be checked.

As with items in other portions of the questionnaire, two kinds of information were available from instructors' responses to the inquiries concerning basic and supplementary methods. The results of this section provide not only the popularity, or extent of usage, of each of the basic or supplementary methods, but also--for each respondent--a picture of his modus operandi, particularly with reference to the variety of teaching techniques employed.

E. The fifth and last section of Part III of the questionnaire consists of three inquiries concerning the evaluation of student-learning. Although the information requested in this area is not particularly extensive, instructors' true purposes are more apt to be evident in evaluation-practices than in statements of

purpose. In the first item, respondents either marked "no examinations given in this course" or indicated by check-mark the frequency of testing: daily, weekly, biweekly, monthly, three or four times per term, twice a term, or once a term. Next, instructors were asked to check any of the following sources of test-items which they used, and to circle the main one: instructor's manual accompanying basic text; instructor's manual(s) for other text(s); undergraduate or graduate assistants; students enrolled in the course; and the instructor himself--as a preparer of objective- and/or essay-type test items. In the third item, respondents checked any of the listed factors which they took into consideration when computing course-grades in educational psychology. The list presented included six factors: final examination; quizzes, tests; individual papers, projects; written assignments; class attendance; participation in class discussion. Spaces were provided for the insertion of additional factors considered by a particular respondent.

IV. RESPONDENT'S OPINIONS ABOUT THE BEGINNING COURSE IN EDUCATIONAL PSYCHOLOGY: There is little doubt that an instructor's view of the purpose of a course has some influence on how he teaches it. Thus, the first item requested in this last major division was a brief statement of the instructor's opinion of the main purpose of the educational psychology course in terms of the total program of teacher-education.

The second section of this part was devoted to suggestions for revising the course--regardless of any external restrictions and limitations, such as present certification requirements. To save

time and effort for respondents and to facilitate classification of the responses, a semi-structured form was employed. Space was provided for marking "no change" or for noting additional recommendations, but the majority of responses could be shown by checking and completing the listed items. The six major points presented for marking were:

___ eliminate the course . . . ;

___ change the emphasis of the course, resulting in:

  ___ more emphasis on _____ and/or
  less emphasis on _____;

___ revise content of the course, as follows: _____;

___ restrict enrollment in (sections of) the course, in terms of:

  ___ class size (limit to ___ students;
  expand to include ___ students)

  ___ student personnel of the class by:
  limiting enrollment in the course to ___, and/or
  permitting enrollment in the course of ___;

___ combine or integrate content of this course with another course or courses, as follows: _____;

___ revise teaching methods and/or procedures, as follows: _____.

Summarizing instructors' markings provided an indication of the popularity of certain revision possibilities, and the number of revisions marked by an individual instructor provided an additional indication of that individual's outlook, at least with respect to the beginning course in educational psychology.

Of the three items in the last part of this section, the first asked that the respondent indicate his opinion of the desirability of standardizing such certification requirements as the educational psychology course. Space was provided for comments, in addition to the check-mark beside "yes," "no," or "?" choices. The second and

third items dealt with the theory-practice question--whether or not teacher educators should practice in their own classes what they preach, in order to set an example; and, whether or not the respondents find it possible actually to do this. Instructors were asked to check: always, usually, sometimes, rarely, or never, for each of these two items. Comments could be added in the accompanying spaces. The phrasing of these items was carefully edited in order to try to elicit an honest reaction from the respondents by not having the items seem objectionable in any way; it was particularly difficult to state the third item in order to find out what each instructor actually does relative to practicing what he preaches. The responses to these three items, plus Item II,H mentioned earlier, do present for each responding instructor some indications of his outlook.

At the close of the questionnaire proper, the respondent was asked to indicate in the space provided if he did not wish to receive a summary of the results. Spaces were included for name, complete mailing address, and correct and complete title of the respondent, and date.

As indicated in the preceding paragraphs, the items included in the questionnaire were designed to gather from educational psychology instructors their opinions as well as information about their personal backgrounds and their teaching materials and methods. Insofar as possible, items were arranged so that responses could be indicated in a clerically simple fashion. In certain instances, however, the type of information desired necessitated permitting a free, or partially free, response. In order to collect the intensive and extensive

information desired, the questionnaire on educational psychology courses had to be rather long and detailed.

Collection of Data

Mailings and Follow-up

On May 21, 1958, a copy of the questionnaire, accompanied by an explanatory letter and a stamped return-envelope, was mailed to each of the 123 individuals on the originally compiled list of educational psychology instructors. By the end of July, approximately thirty completed questionnaires had been received, and reports of "not teaching educational psychology," etc., had been submitted by a few others of those listed.

On August 1, 1958, double post-cards were mailed to all from whom nothing had been received. Several possible reasons for the person's not having submitted a completed questionnaire were provided, to be checked if applicable: having misplaced the questionnaire, never having received the questionnaire, no longer teaching educational psychology, etc. Additional copies of the questionnaire were mailed to persons indicating need for it on the return-half of the post-card. Another ten completed questionnaires were soon submitted, and several other instructors on the original list were otherwise accounted for.

A few months later, the next major follow-up step was taken. Sixty-seven letters were typed and mailed, 53 of them with a second copy of the questionnaire and another stamped return-envelope. By early May of 1959, a total of more than fifty completed questionnaires had been collected and about thirty non-respondents on the original list accounted for, in one way or another. Fourteen long-distance

calls brought in a few additional completed copies at this time.

Late in the summer of 1959, duplicated letter forms, similar in content to the double post-cards used the previous year, were mailed to those on the original list whose responses were still missing. Simultaneously, another duplicated letter-form was mailed to strategically located acquaintances of the investigator. As has been mentioned earlier, establishing the total population of instructors involved certain difficulties. To find out whether or not certain persons on the original list of 123 actually did teach the educational psychology course during the semesters under consideration, a personal call (ordinarily by telephone) by an acquaintance to an official of the institution who could check the records was necessary. The forms reporting the results of these contacts enabled the investigator to correct the mailing list and to establish the population of instructors at 91. An additional copy of the questionnaire was mailed to certain instructors who, on the return-form of the duplicated letter sent to them, had indicated needing another copy.

In the fall of 1959, eighteen long-distance calls elicited some completed questionnaires and some refusals. In December, letters were mailed to remind some potential respondents that the completed questionnaires promised earlier had not yet been received. These last few follow-up measures brought the final total of questionnaires received to 73.

Returns

Of the 91 instructors constituting the population, 73 (80.2 per cent) submitted questionnaires partially or entirely completed. Among

the eighteen non-respondents are nine who, for varying reasons, refused to comply. Five others who had indicated willingness to complete the questionnaire failed to do so. Three instructors may be classified as refusals by default, one of these having left the profession prior to follow-up efforts. Another claimed to have returned a completed questionnaire which did not reach the investigator. Information provided by the 73 respondents, therefore, cannot be assumed to be truly representative of the population of instructors.

The respondents represent 56 (81.2 per cent) of the population of schools. In relation to characteristics of enrollment and affiliation-support, the represented and non-represented schools were compared. The chi-square test was employed in checking the null hypotheses that there is no relationship between representation (or non-representation) by responding instructors and: total enrollment; M.S.A. type;[1] or student population and affiliation-support.[2]

The results presented in Table IV support retention of the null hypotheses in relation to total enrollment and M.S.A. type, but rejection of the hypothesis relevant to student population and affiliation-support. Inspection of the data indicates that state-supported schools are well represented, while women's denominational colleges are not. Coeducational denominational schools are proportionally better represented than men's private-denominational institutions.

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[1] Supra, p. 5.

[2] Supra, pp. 4-5.

TABLE IV

COMPARISON OF REPRESENTED AND NON-REPRESENTED COLLEGES AND UNIVERSITIES IN RELATION TO CHARACTERISTICS OF ENROLLMENT AND AFFILIATION-SUPPORT

Characteristic	Chi-square	Significance* .05	NS
Total enrollment	5.030		x
M.S.A. type	8.030		x
Student population; affiliation-support**	18.003	x	

*.05= significant at the .05 level
NS= not significant

**Schools were categorized in terms of student population (male, female, or coeducational) and affiliation-support (state, private, private-denominational, or denominational).

Since the purpose of this investigation is basically descriptive,[1] there is no necessity for drawing inferences from the data about either the population of instructors or the population of Pennsylvania teacher-education institutions. Moreover, there is no justification for such inferences, since the respondents and the schools which they represent are typical of the respective populations only in certain respects.

Validation of the Questionnaire

The power of the questionnaire itself to elicit consistent replies from respondents was checked by asking certain respondents again to provide answers to six questions. During the interview, each respondent was asked to indicate:

1. the proportion of the institution's enrollment preparing to teach;
2. his own teaching experience at the elementary and secondary levels;
3. the main purpose of the educational psychology course in the teacher-education program;
4. the basic method of teaching used in the educational psychology course;
5. the major content-emphasis of the course; and
6. his opinion concerning the desirability of teacher-educators' practicing what they preach.

Interview responses were checked against questionnaire responses for these eight instructors, who constitute approximately 11 per cent of the total group of respondents.

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[1] Supra, p. 11.

During the time which had elapsed between completion of the questionnaire and the interview, decreases in the percentages of students preparing to teach were reported for two institutions. The follow-up reports of teaching experience at the elementary- and secondary-school levels were consistent with the questionnaire responses. Reactions to the question concerning major content-emphasis agreed with the proportional time spent on various content-areas and topics, according to the questionnaire, with the exception of one instructor, whose emphasis has apparently shifted from a genetic, growth-and-development approach to stress on learning. This change is corroborated by a similar change in this instructor's statement of the major purpose of the educational psychology course; the others' purpose-statements were similar to those recorded on the questionnaire. Indications of the basic teaching method employed in the course paralleled those reported earlier. All eight agreed (as had the seven who had answered this question originally) that teacher-educators should practice what they preach.

The consistency of questionnaire and interview responses supports the reliability of the original findings. Some items of information provided by respondents are subject to greater change during a few years--e.g., enrollment, textbook; the intrinsic unreliability of such data over a period of years should not detract from the consistency of responses on more basic items.

Treatment of Data

Overview of the Educational Psychology Course

In compiling the data to formulate an overview of the beginning course in educational psychology, as taught by the 73 responding instructors, only basic statistical treatment was necessary. The operations involved in preparing the overview presented in Chapter IV were: organization of the data (classification of free responses, tabulation of structured and quantitative responses); computation of percentages for comparisons among data; and, calculation of averages.

It was necessary to quantify some data reported in verbal or other form. The D and ✓ symbols employed in marking the fifty topics of Part III,C--"Content Emphases" were arbitrarily translated into one-and-one-half and one-half class periods, respectively, so that the proportion of class-time each respondent devoted to each topic and each major content-area could be expressed numerically, and so that the proportions of class-time spent on each of the major areas could be compared among instructors. In Part III,C,2--"Supplementary Practices," the symbols used to indicate frequency of usage were converted arbitrarily to values of three, two and one, to make possible quantitative expression of relative usage of each practice.

Responses concerning: supplementary practices (III,D,2), materials (III,B), audio-visual aids to instruction (III,B,2), and suggested revisions (IV,B), required two tabulations--one, of the number of times each item listed had been marked, another of the total number of items marked by each respondent. It was helpful to note, for example, not only which of the five types of audio-visual aids

listed was most frequently used, but also how many different types of aids the typical instructor employed in the educational psychology course.

Composite Scores

In order to investigate interrelationships among factors related to instructors' backgrounds and practices, combining of certain data into composite scores was useful. Each composite score, as defined below, is merely a summation of apparently related data, combined under one name and represented by one number, to expedite synthesis of the information provided by respondents.

The Experience Index (E) is a numerical expression of the combination of three facts of the instructor's background (Table V). The maximum score is ten, with a high score indicating greater experience, according to: chronological age, experience in teaching at the elementary- and/or secondary-school levels, and the number of times educational psychology had been taught previously. The Outlook Index, based on responses to items concerning revision and standardization of the educational psychology course, indicates respondents' preference for flexibility or stability in relation to this course. The numerical values arbitrarily assigned to certain responses (Table VI) yield a maximum score of ten. The higher the score, the greater the indicated preference for standardizing the course and maintaining the status quo; a lower score (nearing zero) suggests a desire for avoiding rigidity in and standardization of the course. The Consistency Score for each instructor is based upon a series of comparisons between an item (or between items) in the list of content topics (Part III,C of

TABLE V

EXPERIENCE INDEX: NUMERICAL VALUES ASSIGNED TO NON-NUMERICAL RESPONSES

Factor	Response	Point value
Age	40 years and over	2
	25-39 years	1
	under 25 years	0
Experience at elementary and secondary levels	experience at both levels	4
	experience at one level	2
	relevant non-classroom experience	1
	no experience at either level	0
Number of times ed. psych. taught prior to current semester	21 or more times	4
	11-20 times	3
	5-10 times	2
	1-4 times	1
	none	0

TABLE VI

OUTLOOK INDEX: NUMERICAL VALUES ASSIGNED TO RESPONSES

Factor	Response	Point value
Number of revisions suggested	none	6
	one	5
	two	4
	three	3
	four	2
	five	1
	six	0
Desirability of standardizing course	unqualified YES	4
	qualified YES	3
	qualified NO	2
	unqualified NO	1

the questionnaire) and corresponding practices as reported there and elsewhere in the questionnaire (Table VII). For six of the seven comparisons, a maximum score of two was established; for the seventh, the maximum is one: the total score possible is thus set at thirteen. Credit for consistency was given if the item(s) and their correlates were both listed (checked) or were both omitted. Partial credit was designated on two-point items.

Classification of Data

The data relevant to certain variables were classified automatically, by the nature of the information per se or by the manner in which the information was supplied by the respondents. Data for four factors--completion (or non-completion) of Part III,C of the questionnaire; "always" (or another response) to Item IV,C,3; sex of respondent; education of elementary and secondary teachers (or secondary teachers only) at the respondent's college or university--were inherently dichotomous. Information on five other variables--supplementary practices, teaching materials, audio-visual aids, sources of examination items, factors considered in grading--was classified numerically, according to the number of items in each category checked by the respondent.

For the composite scores--Experience Index, Outlook Index and Consistency Score--extreme groupings (high, low) include respondents whose scores deviated more than nine-tenths of a standard deviation from the mean for the respective composite score. The mean, standard deviation, and extreme-group limits for each score are presented in Table VIII.

TABLE VII

CONSISTENCY SCORE: PARALLEL ITEMS ON QUESTIONNAIRE, RESPONSES TO WHICH WERE COMPARED FOR CONSISTENCY

If the respondent includes in the course-content:	. . . Does he also . . . ?
Audio-visual aids /50/*	indicate usage of audio-visual aids (III,B,2)** and demonstrations (III,D,2,e)?
Teacher-made tests /32/ and informal evaluation techniques /36/	mark accordingly (III,E,2 & 3) concerning his own evaluation of students' work?
Educational diagnosis /33/	indicate a schedule of testing (III,E,1) making this possible?
Educational research /49/	report use of supplementary texts and periodicals (III,B) and individual projects (III,D,2,f,2 & 3)?
Individual differences /11/, adaptation of instruction /37/, classroom climate /44/, mental hygiene /45/, and exceptional pupils /47/	prefer a method other than lecture (III,D,1,a & b); show flexibility in method (III,D,1a2 & 2); use individual activities (III,D,2,f); use variety of materials (III,B); not wish to standardize course (IV,C,1)?
Professional improvement /4/	consider teaching profession /3/, mental health . . . /5/, and educational research /49/?
Learning /24-28/	include effective methods of study /48/?

*The numbers between diagonals refer to item numbers of topics in Part III,C of the questionnaire.

**Parenthetical numbers and letters refer to corresponding sections of the questionnaire, other than Part III,C.

TABLE VIII

COMPOSITE SCORES: MEAN, STANDARD DEVIATION AND RANGE OF SCORES IN EXTREME GROUPS

Composite score	Mean	Standard deviation	Range of scores Low group	Range of scores High group
Experience index	5.9	2.0	0 - 4.1	7.7 - 10
Outlook index	5.9	1.9	0 - 4.2	7.6 - 10
Consistency score	9.3	2.1	0 - 7.4	11.2 - 13

A respondent was assigned to the low, average or high group in each of the five content areas if the proportion of class time devoted to the topics in that content area was in the lower fifth, middle three-fifths, or upper fifth, respectively, of the distribution of proportional times, for that content area, reported by all respondents. The median percentage of class time and the limits of the extreme groups for each content area are presented in Table IX.

In relation to the other variables, arbitrary decisions were made concerning classifications of responses. Categorizing information about the basic method of teaching required seven categories to include the various combinations of lecture, discussion, and individualized instruction reported by instructors. In relation to the orientation of respondents' past course-work and recent teaching experience toward education or psychology, the establishing of four groupings was necessary: for some instructors, the preponderance of education or psychology was clear; for many others, the inclination toward one subject or the other was less certain, from the data reported. Relevant to basic textbook employed, respondents were assigned to one of three groups: those using the most popular textbook,[1] those using another basic textbook, and those requiring the use of several texts or no text. Three classifications of academic rank were employed: positions comparable to head, or chairman, of department or college of education were designated high in rank; those equivalent to lecturer,

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[1]Lee J. Cronbach, Educational Psychology. New York: Harcourt, Brace, 1954. (Subsequent allusions to 'Cronbach's text' refer to this volume.)

TABLE IX

PERCENTAGE OF TOTAL CLASS TIME DEVOTED TO EACH OF FIVE MAJOR CONTENT AREAS: MEDIAN AND RANGE OF SCORES FOR LOW AND HIGH GROUPS

Content area	Median	Range of scores* Low group	High group
Growth and development	32.6%	14.3-25.0%	35.1-57.1%
Learning processes	23.4%	7.3-19.8%	27.9-40.2%
Measurement, evaluation	15.8%	2.0-12.0%	21.3-38.7%
Background information	10.2%	3.1- 7.6%	13.1-26.5%
The learning situation	18.0%	0-15.3%	21.1-24.6%

*Scores for all respondents range from the low score of the Low Group through the high score of the High Group, above.

instructor or part-time teacher were called low. (Professors, associate professors and assistant professors were deemed of average rank, if they were full-time personnel.) The eleven respondents employed by colleges enrolling fewer than 750 students in the fall of 1958 were categorized as representing small institutions, while those ten teaching at colleges and universities with student enrollments in 1958 exceeding 3500 were designated as representatives of large schools; other instructors were considered to represent average-size institutions. In terms of teaching experience, each respondent was classified into one of three groups, according to his having had experience at both elementary- and secondary-school levels, at either the elementary- or the secondary-school level, or at neither level.

Investigation of Interrelationships

The investigation of possible interrelationships among factors of instructors' backgrounds, experience and practices in teaching educational psychology is the topic of Chapter V of this report. Paired combinations of the 23 variables were checked for possible relationships. These factors are:

Three composite scores--E: Experience Index,
K: Outlook Index, and
C: Consistency Score;

Seven elements of teaching procedure:

B: basic method of teaching,
P: number of supplementary practices employed,
T: basic textbook,
M: number of kinds of materials used,
V: number of types of audio-visual aids used,

Q: number of sources of examination items, and
G: number of factors considered in grading;

Proportion of class time devoted to five major areas of educational psychology content:

1: growth and development,
2: learning processes,
3: measurement and evaluation,
4: background information, and
5: the learning situation;

Six facts about the instructor and his college or university:

Z: size of employing institution,
X: offering of preparation for elementary and/or secondary teachers,
R: academic rank of instructor,
O: orientation of instructor toward education or psychology,
S: sex of instructor, and
W: instructor's teaching experience at elementary and/or secondary levels;

Two observations concerning responses to questionnaire:

J: Item IV,C,3--marking "always" or another choice, and
N: completion of Part III,C.

Since the purpose of this phase of the study was establishing the existence (rather than the extent) of interrelationships, for each of the 246 pairs[1] of variables, the null hypothesis of independence between the variables was tested by means of chi-square. Data were tabulated, according to the classifications previously described, into contingency tables yielding from one to, in a few

[1]For 23 variables, a total of 253 paired combinations is mathematically possible. Seven theoretically-possible combinations, however, do not include two independent variables; the pairs thus omitted, expressed in code letters and numbers employed above, are: EW, CN, 1N, 2N, 3N, 4N and 5N. Null hypotheses, therefore, were tested for 246 combinations involving 23 variables.

instances, more than thirty degrees of freedom. The formula for chi-square which includes the Yates Correction for Continuity was employed in certain instances in which the expected frequencies were small.[1] Null hypotheses were rejected only if the chi-squares yielded probabilities of .05 or less with the appropriate degrees of freedom. For paired combinatic s for which the hypothetical independence could be rejected, further inspection of the data was undertaken in order to discern any indications of the direction of possible relationships.

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[1]George A. Ferguson, Statistical Analysis in Psychology and Education. New York: McGraw-Hill, 1959, pp. 171-2.

CHAPTER FOUR

EDUCATIONAL PSYCHOLOGY IN FIFTY-SIX PENNSYLVANIA COLLEGES AND UNIVERSITIES OFFERING APPROVED PROGRAMS FOR PREPARATION OF TEACHERS

To present an overview of educational psychology, as it is taught in the 56 teacher-education colleges and universities from which one or more instructors returned a completed questionnaire, a step-by-step summary of the information submitted is presented. Following a summary of the data about the course itself, the chapter includes subdivisions corresponding to the major subdivisions of the questionnaire. Evidences of consensus are noted and generalizations made where the data so warrant.

Basic Information

Among the 56 teacher-preparing schools from which reports were submitted, there is agreement concerning the duration of the educational psychology course and concerning the academic credit awarded for it. Undoubtedly because of the certification requirement, the course typically carries credit of three semester-hours; most classes meet three times weekly for 48-60 minutes, throughout one semester. Only five "deviations" from this pattern were noted (other than one equivalent in quarter-hours): one deviated in credit given and four in frequency and/or duration of class meetings.

Although the prerequisite of general psychology for this course was stated in the certification requirements, reports from two schools did not mention this prerequisite, perhaps through an oversight. Nineteen schools indicated prerequisites in addition to the general psychology course. The addition was ordinarily a course in the introduction to, and/or the history of, education. Four, however, require a course in growth and development, and one requires statistics.

The data presented in Table X and Table XI make possible a comparison between the minimum prerequisite stated--in terms of academic status (year in college)--and the actual status of the majority of educational psychology students. Although a few institutions do permit second-semester freshmen to enroll for the course, the typical requirement is sophomore status. In one school--the one requiring statistics--the student must be a senior in order to enroll for educational psychology. In spite of the usual sophomore requirement, however, the typical educational psychology class includes primarily juniors. Although the educational psychology instructor is more apt to find a junior-year majority in his classes, the range may well include second-semester freshmen along with graduate students.

Purpose of the Course

Instructors were asked to: "Please state briefly what, in your opinion, constitutes the main objective of this course in terms of the total program of teacher preparation." A variety of reactions was recorded on the lines provided for brief statements. In attempting to sort these responses into meaningful groupings, the distinction

TABLE X

PERCENTAGE OF SCHOOLS REQUIRING FOR ENROLLMENT IN EDUCATIONAL PSYCHOLOGY EACH LEVEL OF ACADEMIC STATUS

Stated prerequisite in academic status	Schools	
	Number	Per cent
Senior	1	1.8%
Junior	12	21.4%
Sophomore: second semester (2) first semester (36)	38	67.9%
Freshman: second semester	5	8.9%

TABLE XI

ACADEMIC STATUS OF MAJORITY OF STUDENTS
ENROLLED IN EDUCATIONAL PSYCHOLOGY CLASSES

Academic status of majority of class	Schools	
	Number	Per cent
Graduate or special	0	0 %
Senior	5	8.9%
Junior*	29	51.8%
Sophomore*	22	39.3%
Freshman	0	0 %

*Several instructors reported an even division between sophomores and juniors in their classes. In order to arrive at an accurate overview, half of these were tabulated with the "Sophomore" and half with the "Junior" majorities.

proposed by Trow seems appropriate:

> As viewed by the instructor, the objectives . . . can be classed in one or the other of two categories, or perhaps in both. One is to inculcate certain subject-matter facts and principles . . . . The other is to produce in the students personality changes . . . .[1]

Of the 65 instructors completing this item, six state a purpose apparently aimed primarily toward producing personality changes in students. The others seem to emphasize the inculcation of subject-matter knowledge as the primary purpose. Perhaps inculcate is too strong a term, but a variety of "subject-matter facts and principles" to be disseminated is evident in the responses.

Personality Changes in Students

Effecting personality changes appears to be the major goal of the six instructors whose statements of the main objective are directly quoted below.

> 1. To develop in the prospective teacher . . . an awareness of the individuality of each pupil in his classroom and a realization that the teacher's job is to create a learning situation for each child, for he is a 'Teacher.'
>
> 2. To help the prospective teacher to guide and direct himself and his pupils in the efficient acquisition of knowledge, skills, attitudes, ideals.
>
> 3. This is the place that students begin to think objectively of their problems and how they may be solved.
>
> 4. To help students appreciate how pupils learn, especially in the educational setting. Learning is treated in the following aspects: attitude formation and change; motor learning and skills; concept formation and change. Emphasis on development of personality and character formation as final outcome of learning.

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[1]William C. Trow, "Improving Instruction in Foundation Fields," pp. 16-32 in: Improving Instruction in Professional Education, Thirty Seventh Yearbook, 1958. Cedar Falls, Iowa: The Association for Student Teaching, 1958, p. 19.

5. . . . It should develop an objective awareness and understanding of self, the learner, and the learning process.

6. To develop attitudes conducive to seeking an understanding of the contributions (and limitations) of psychological principles to education.

Inculcation of Subject Matter

Although the following statements indicate orientation toward transmission of subject matter as the primary purpose, fostering changes in students' personalities may be implied. Writers of these responses may well be doing more than any of those quoted above in bringing about changes in students' personalities, but this is less explicit in their own statements. In order to avoid minimizing nuances of meaning among seemingly similar responses, the instructors' reactions have merely been grouped according to similarities in the apparent subject-matter emphasis of the statements directly quoted on subsequent pages.

Survey of the Field:

1. A survey of the field of educational psychology.

2. Psychological version of Education.

3. . . . designed to teach the student the psychology of learning and the learner.

4. The main objective is to show the field of Educational Psychology, and to teach them that man is an Evolutionary creature, who can be taught in differing ways.

5. To acquaint the student with the relation of the art of learning to the science of teaching.

Principles:

6. Acquaint student with contemporary Theory of Ed. [sic].

7. An application of the principles of psychology to the art of teaching.

8. Learning how to apply principles of General Psychology to learning situations.

9. Show students how the principles of psychology can apply to any learning situation.

10. To present those parts of psychology which can be directly applied to teaching.

11. To *examine* application of findings of psychology to teaching.

12. To bring about an understanding of psychology as it relates itself to the educational process.

13. To assist students to understand psychology as it applies to teaching.

14. The student understands that learning theory and research may be applied to classroom situations.

15. To make practical applications of fundamentals of Gen. Psy. [sic] and to lay basic foundation for teaching in secondary schools.

16. Understanding of the principles of psychology which apply to the learning process and which influence educational practices.

17. The application of sound psychological principles to the classroom-learning situation.

18. Psychology of Learning--ability to apply Principles of Learning to situations.

19. To relate the traditions of master teachers of the past 2500 years, and the tested data of objective psychology to the students' prospective professional needs.

20. My main objective is to set forth principles of psychology which the teacher requires for specific tasks of guiding and directing the mental and moral development of the student under her care. My secondary objective is to make known the modern educational trends and developments.

21. Introduce students to basic principles of human learning as they apply to the classroom.

22. To help the student gain a working knowledge of principles of learning.

23. Provide basic understanding for principles of teaching and learning.

24. To be able to give the novice teacher a sound psychological basis to human growth and development in learning.

25. To teach the genetic approach to mental, emotional, and social development--the laws of learning, and the principles for the effective employment of good practice.

26. To provide the student of education with basic understandings of child and adolescent development, the learning processes, and evaluative techniques needed in planning effective teaching procedures and for evaluating the results of school experiences.

27. Exploring with students the psychological foundation of education. Basing methods and techniques on sound psychological theory and being ever alert to research findings.

28. To provide the underlying theory for all subsequent educational courses.

The Learner:

29. Understanding of learner as learner.

30. To acquaint the student about the 'individual student.' To emphasize certain basic learning principles.

31. To give psychological insight into the learner as an individual and to the most effective methods of communicating with him (them).

32. Promote understanding of pupil--how he learns; his make-up as a human; what teacher can do to promote this process.

33. To acquaint the student with the learner, the learning process, and the learning situation. They are not going to teach a 'faceless' mass of humanity but individuals.

34. 1. understanding of the individual. 2. the learning process. 3. methods of evaluation.

35. To develop a concept of the learner as a whole personality, with special emphasis upon what is known about learning and what influences affect its effectiveness.

36. Understanding of how children learn on the classroom level and a consideration of personal, social, and emotional factors affecting said process.

37. Acquaint student with ways children learn and develop ability to recognize and utilize methods of developing these capacities, especially training of will.

38. Learn how to help pupils and motivate them. Also know what factors affect pupil growth in the learning process and what to do about it.

39. Such knowledge of the mental, social, physical, emotional, moral traits and characteristics of children and adolescents as will produce more effective teaching and learning.

40. Psychology of handling pupils in a classroom situation.

41. Understand and teach children.

42. To give future teachers an understanding of the students they will have, and to introduce them to ways in which learning and development are facilitated (the latter particularly through investigation of research).

Learning Process:

43. To teach how the individual learns.

44. The learning process; the growth and development process; motivation of study and learning.

45. To acquaint future teachers with aspects of growth and development, psychological factors in learning, and the interrelationship and use of the two.

46. Learning.

47. Give a broad survey of learning process and how to evaluate it.

48. To give the prospective teacher understanding of fundamentals in the learning process supported by acquaintance with psychological testing.

49. To understand the dynamic factors which influence learning and teaching.

50. To give the student a background in the psychological factors that are important in the learning situation--from point of view of student and teacher.

51. To develop an understanding of how learning takes place and what the teacher can do to improve its effectiveness.

Role of the Teacher:

52. To study relative behaviors and adjustments of humans in the process of teaching or the preparation to teach.

53. To inform the prospective teacher of activities engaged in and his task is to further the total development of children and young people and to assist them in adjusting both to school and to out-of-school situations.

54. The concept of the teacher as a guide of learning is the central concept. Growth and development in four fields (mental, physical, emotional, and social), the main objective.

55. A clearer understanding of the classroom, its students and the procedures and techniques one needs to master to conduct a learning situation so each individual pupil is an integral part of the total program--not forgetting emotional problems and home situations.

Miscellaneous:[1]

56. Aiding the prospective teacher to understand the causes of behavior and its modifications; how learning is believed to occur; and the 'nature-nurture' phenomenon.

57. 1. Application--understanding and techniques. 2. Filling in gaps in understanding left over from inadequate general psychology course. 3. New learning on nature of thought and learnings.

58. This is considered next to actual practice teaching the most important course.

59. Establishes the basis for an educational program in a world of change.

There appears to be agreement among the majority that the main purpose of educational psychology should be directed toward the principles and processes of learning. The variety evident in the preceding quotations is corroborated by the data reported in subsequent sections concerning content, methods and materials.

Content Emphases

Presented with a list of fifty topics representative of the subject matter ordinarily included in educational psychology

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[1]Miscellaneously classified responses are those not relevant to a single category or not related to the purpose of the course.

textbooks, respondents were asked to indicate the amount of time devoted to each topic, or the relative treatment given the topic. Since the detail requested apparently discouraged and disconcerted several of the instructor-population, the total number included in the analysis of this portion of the questionnaire is sixty instructors--representing sixty of the 69 colleges and universities.

Quantification of instructors' non-numerical indications of the amount of class time spent on each topic permitted these data to be combined with the numerical indications of numbers of class periods devoted to each topic. The varying degrees of exactness and the different interpretations undoubtedly employed by the respondents in marking this section of the questionnaire resulted in total numbers of class periods ranging from 28 to 157. Thus, in order to compare among respondents the proportional amount of time spent on items comprising each of the five major content-areas, it was necessary to compute for each respondent the percentage of his total time devoted to each of the five content areas. The total score, therefore, represents the percentage of the instructor's total class time spent on topics related to each content-area.

Possibly the most valid result from instructors' markings of the fifty subject-matter items listed in Part III,C of the questionnaire is the comparison among the five major content-areas in terms of the median total-score. The data presented in Table XII indicate that a typical educational psychology instructor spends almost one-third of his class time on growth-and-development and about one-fourth on learning-processes-and-theories. The relatively greater emphasis on these two (contrasted with the other three) content-areas

TABLE XII

LOWEST, MEDIAN AND HIGHEST PERCENTAGES OF CLASS TIME IN EDUCATIONAL PSYCHOLOGY DEVOTED TO EACH OF FIVE MAJOR AREAS OF CONTENT

Content-area	Proportion of class time Low%	High%	Median
Growth and development	14.3%	57.1%	32.6%
Learning processes and theories	7.3%	40.2%	23.4%
The learning situation	0.0%	24.6%	18.0%
Measurement and evaluation of learning	2.0%	38.7%	15.8%
Professional background and research	3.1%	26.5%	10.2%

corroborates the preponderance, among the statements of main purpose for the course, of learning principles and processes, as well as the learner.

While differing interpretations of class periods among the respondents reduce the accuracy of the numerical indications of class time devoted to each of the fifty subject-matter topics listed in the questionnaire, the instructors' marking a topic 0 (not included in this course) is unequivocal. An indication of emphasis placed on each topic, in considering the overall picture of the educational psychology course, is evident from the data (presented in Table XIII) showing what percentage of the respondents omit each topic from the course. The specific topics of each subject-matter area (in abbreviated form) are checked in one of four categories according to the proportion of the respondent-group indicating that the topic is omitted from the educational psychology course.

In the space provided for adding items which the respondent included in his course but did not find among the fifty topics listed, eight instructors replied. The several additions included: behavior; scientific point of view; anecdotal method of child study; make-up of individual--body and soul; fundamental equipment of learner; imagination, perception and memory; physical basis of learning; the will; developing awareness to educational problems; phenomenological approach to learning; understanding of need--self and others; personal and social adjustment; processes of socialization; psychology of religion; pupil capacity as related to progress in school.

Since, in recent years, the psychology of specific subject-matter areas has been vanishing from the tables of contents of

TABLE XIII

NUMBER AND PERCENTAGE OF RESPONDING EDUCATIONAL PSYCHOLOGY INSTRUCTORS MARKING AS OMITTED FROM THE COURSE THE SUBJECT-MATTER ITEMS LISTED IN FIVE MAJOR CONTENT-AREAS

Content-area and subject-matter items	Per cent omitting topic: None	1-10%	11-24%	25% & over
No.*				
Growth and development:				
7- environmental influences on pupils	x			
8- general trends, principles	x			
14- mental, intellectual development	x			
15- motor, physical, development	x			
16- social and emotional development	x			
6- genetic, hereditary influences on pupils		x		
9- child growth and development: characteristics		x		
10- adolescent growth and development		x		
11- nature, extent of individual differences		x		
12- nature, extent of group differences		x		
13- development of language abilities and skills		x		
17- development of character, standards, values		x		
Learning processes and theories:				
18- theories of learning	x			
23- learning of thinking, problem-solving	x			
24- readiness for learning	x			
25- motivation for learning	x			
28- transfer of learning	x			
19- learning of habits, skills		x		
21- motor learning		x		
22- trial-and-error learning		x		
26- reinforcement; teaching for permanence		x		
27- interference; inhibition; forgetting		x		
20- learning of specific subject-matter areas				x

*No. refers to the number of the item on the questionnaire, Part III,C.

TABLE XIII (continued)

NUMBER AND PERCENTAGE OF RESPONDING EDUCATIONAL PSYCHOLOGY INSTRUCTORS MARKING AS OMITTED FROM THE COURSE THE SUBJECT-MATTER ITEMS LISTED IN FIVE MAJOR CONTENT-AREAS

Content-area and subject-matter items	Per cent omitting topic: None	1-10%	11-24%	25% & over
The learning situation:				
37- adaptation to individual differences		x		
44- classroom climate; discipline		x		
45- mental hygiene in classroom and school		x		
47- exceptional pupils		x		
48- effective methods of study		x		
33- educational diagnosis			x	
41- guidance services			x	
43- counseling; psychotherapy			x	
46- juvenile delinquency			x	
38- remedial teaching				x
50- audio-visual aids to instruction				x
Measurement and evaluation of learning:				
29- standardized tests of mental ability		x		
31- standardized tests of achievement		x		
36- informal techniques of evaluation		x		
30- standardized tests of personality, adjustment			x	
32- teacher-made tests of achievement			x	
34- interpretation of test scores			x	
35- statistical concepts and methods			x	
39- marking; grading; reporting to parents			x	
40- evaluation of teaching methods, curricula				x
42- testing programs				x

TABLE XIII (continued)

NUMBER AND PERCENTAGE OF RESPONDING EDUCATIONAL PSYCHOLOGY INSTRUCTORS MARKING AS OMITTED FROM THE COURSE THE SUBJECT-MATTER ITEMS LISTED IN FIVE MAJOR CONTENT-AREAS

Content-area and subject-matter items	Per cent omitting topic: None	1-10%	11-24%	25% & over
Professional background and research:				
2- the field of educational psychology		x		
5- mental health; adjustment of teachers		x		
49- educational research			x	
1- aims and objectives of public education in U.S.				x
3- teaching profession				x
4- professional improvement				x

educational psychology texts, it is not surprising to find that approximately 27 per cent of the respondents omit this item. It is interesting to note, however, that 37 per cent of these sixty respondents report omitting the topic, "audio-visual aids to instruction," while only seven of the entire group of responding instructors (about 10 per cent) claim to use none of the five types of audio-visual aids listed in Part III,B,2 of the questionnaire. One-fifth of the respondents to Part III,C report omission of "marking; grading; . . ." from educational psychology; yet, all of them indicate considering at least two factors in grading of their own students, and all of them apparently do report some form of grade for the members of these classes. All responding instructors are, of course, engaged in the teaching profession, but 27 per cent omit that topic, and one-third omit "professional improvement" from the topics included in educational psychology. If it can be assumed that students at the college level learn by example as well as by precept, they may be learning about many topics relevant to which the instructor's teaching is incidental or unconscious.

Methods and Materials

Methods

Respondents were asked to check one of three basic methods: Lecture, Discussion, or Individualized Instruction. Space was provided for stating briefly the main reason for employing this method and for noting any points at which the instructor deviated significantly from the basic method. If an instructor indicated a preference for a

different basic method, he was asked to state briefly what method he would prefer and for what reason(s).

Only eleven (15.3 per cent) of the 72 instructors checked only one basic method. Almost half (47.2 per cent) indicated use of lecture and discussion in about equal amounts; another third (36.1 per cent) employed either lecture or discussion predominantly, but with some variations. The eight categories therefore necessary for classifying the responses are named in Table XIV, with the number and per cent of the responding instructors therein. About 85 per cent of the respondents employ some combination of lecture and discussion.

The reason stated most frequently for employing any of the above methods was that it was the most effective. Class-size was frequently stated as a reason for employing a particular method, with both largeness and smallness of the class stated by different instructors as the reason for using the same method. A majority of those who employ the discussion-method (with or without variations) supported this preference with such reasons as: desire to bring about more student learning through active participation; need to stimulate thinking and check understanding of material; or, opportunity to reinforce learning.

Some deviation from the basic method was noted by more than half the group (61.6 per cent) who responded. Frequently mentioned was the need for instructors who ordinarily use the discussion method to "resort to" lectures of varying lengths in order to present certain topics, to cover necessary material, or to summarize. The majority of instructors (55.9 per cent) using the lecture-discussion combination reported no need to deviate from it.

TABLE XIV

NUMBER AND PERCENTAGE OF INSTRUCTORS MARKING EACH BASIC METHOD OF TEACHING

Basic method of teaching	Instructors	
	Number	Per cent
Lecture	3	4.2%
Lecture, with variations	8	11.1%
Discussion	7	9.7%
Discussion, with variations	18	25.0%
Lecture-discussion combination	30	41.7%
Lecture-discussion combination, with variations	4	5.6%
Individualized instruction	1	1.4%
Lecture-discussion-individualized instruction combination	1	1.4%

The request for indications of preference for a method different from that currently used elicited several interesting comments, such as: "If I did prefer another method, I would use it," and "Not at the moment, but I'll probably try something new next year." Only fourteen respondents (19.4 per cent) stated a preference for another method, the reason usually being to meet individual students' needs more adequately. Including in the course more first-hand experience with children in classrooms was mentioned as desirable. For presenting content more effectively, one instructor stated a preference for a "lecture-motion picture-filmstrip" combination-method.

Of the fourteen supplementary methods listed on the questionnaire, the typical respondent indicated using (at least rarely) approximately ten (10.36). The most popular supplementary technique involved comments or questions from the class. For one instructor, students are required to submit questions at the beginning of a class period. Other frequently-used items were: discussion of lectures, readings, "cases," or problems; individual reading assignments; oral reports by class members; and, instructor-conferences with individual students. Least used by the responding instructors were: demonstrations by class members; "work-periods" during class-time; reports by guests or visitors; demonstrations by instructor or visiting lecturer. The variety of supplementary methods apparently employed more or less frequently by educational psychology instructors should be placing before most of the future teachers a broad sampling of methodology: only eight respondents marked fewer than six of the fourteen items listed.

By assigning numerical values to the symbols respondents employed to show frequency of usage, it is possible to list the items in order from most- to least-used. These arbitrary total scores (Table XV) are of value only in showing relative standings of the several techniques listed.

Since the highest possible score (according to the numerical values assigned) is 216, it is evident that the first item has almost universally extensive usage, while the last is employed much less frequently.

Materials

The first item of information requested in this section of the questionnaire was the basic textbook (author, title, and year of publication) used in the educational psychology course. Nearly one-fourth (24 per cent) of the respondents reported using Cronbach's text.[1] Twelve per cent use Kelly's volume. Stephens (either edition) and Sorenson were named by nine per cent each, while eight per cent report using Smith. Seven per cent employ Lindgren's text. Approximately six per cent of the instructors use one of the texts by Crow and Crow. Books by Commins and Fagin and by Morse and Wingo were named by four per cent, each. Slightly more than three per cent use Kingsley's volume (either edition). Texts by Garrison and Gray or by Skinner were each employed by two per cent of the respondents. The list of others mentioned--either as the basic text, or as one of two-to-four basic

[1]Bibliographic information on this and all subsequently-mentioned textbooks is provided in the Textbook Bibliography, which constitutes Appendix A.

TABLE XV

SCORES INDICATING RELATIVE USAGE OF FOURTEEN SUPPLEMENTARY PRACTICES IN EDUCATIONAL PSYCHOLOGY CLASSES

Supplementary method	Score
Comments or questions from class members	209
Discussion of lecture, reading, etc.	172
Individual reading assignment	167
Discussion of "case," problem, etc.	131
Oral report by class members	118
Individual instructor-student conference	90
Small-group discussion, buzz-session	78
Individual library-research project	74
Oral report of group, committee, panel	63
Demonstration by instructor, guest, visitor	45
Individual research paper	43
Oral report by guest speaker, visiting lecturer	28
Demonstration by class member	27
Small-group "work-period" during class-time	20

texts--includes works by: Pressey, Robinson and Horrocks; Thompson, Gardner and DiVesta; Cole and Bruce; Trow (1950); and, Remmers, Ryder and Morgan. Two instructors reported using no basic textbook, and two others did not respond to this item. (The actual number of instructors naming each textbook is indicated in the Textbook Bibliography, Appendix A.)

Workbooks prepared for use with certain texts were not a popular item among the supplementary printed materials: only two instructors reported using any workbook. Not every instructor could record an exact number of supplementary texts used, since students were given some degree of freedom in choosing among as many as a hundred suggested volumes; nevertheless, one may observe that 57.7 per cent of the instructors reported using one or more supplementary texts. Slightly more than one-fifth (22.5 per cent) of the instructors reported use of a book of readings as a supplementary text.

Only nine instructors specifically indicated directing their students to use standard reference books. A majority of the respondents (70.4 per cent) prescribe the reading of articles in professional periodicals. Several (29.6 per cent) themselves use, and/or have their students use, various other materials, such as pamphlets, manuscripts, or informational folders.

Of the five types of audio-visual aids listed on the questionnaire, the typical instructor claims to use two (1.94). Only one respondent marked all five types, and one failed to complete this part of the questionnaire. Of the 72 replying, seven claim use of none of the five types. The proportions of the responding group employing each type are listed in Table XVI.

TABLE XVI

PERCENTAGE OF RESPONDENTS USING EACH OF FIVE TYPES OF AUDIO-VISUAL AIDS

Type of audio-visual aid	Respondents Using	
	Number	Per cent
Films; filmstrips	56	77.8%
Observations; field experiences	41	56.9%
Field trips (entire class)	20	27.8%
Disc or tape recordings	17	23.6%
Radio; television	9	12.5%

Evaluation of Student-Learning

The typical instructor tests his students three or four times per semester; some test only twice a semester, others as often as once a week. No respondent marked all six sources of test-items listed on the questionnaire, but the typical respondent used 2.8 of the six sources. As the data presented in Table XVII indicate, instructors most frequently use objective and essay items of their own making. Only one instructor marked the manual accompanying his basic text as the only source of items, although eleven did indicate that this is their "major" source. Among the 51 respondents who did indicate, as requested, the major source among those used at all, about three-fourths (76.5 per cent) rely primarily upon their own efforts in preparing either objective and/or essay items.

In arriving at a grade for each student in his course, every instructor reported including the results of a final examination, and none of the 71 responding to this section considers fewer than two factors. Almost all reported the use of test and/or quiz results (94.4 per cent); many also include marks on students' papers and/or projects (88.7 per cent) and on other written assignments and reports (53.5 per cent). The majority take account of students' class-participation (71.8 per cent). Attendance--or lack of it--in some instances (35.2 per cent) is included as a separate factor in the evaluation of the student's work. One or two instructors listed such additional factors as: attitude, leadership, reports of collateral reading, and reports of observations. The typical instructor arrives at a student's grade after consideration of 4.5 factors.

TABLE XVII

PERCENTAGE OF 69 RESPONDENTS USING EACH OF SIX SOURCES OF EXAMINATION ITEMS

Source of items	Respondents	
	Number	Per cent
Instructor's manual for basic textbook	38	55.1%
Instructor's manual for other textbook(s)	24	34.8%
Student assistant	1	1.4%
Students enrolled in course	9	13.0%
Instructor: objective-type items	59	85.5%
Instructor: essay-type items	60	87.0%

Opinion on Theory and Practice

In Part II, near the beginning of the questionnaire, instructors were asked to mark always, usually, sometimes, rarely, or never in reaction to: "In their own methods and procedures, instructors of courses in programs of teacher-education should try to exemplify the best of the theory that is included in the content of these courses." In Part IV--the section devoted exclusively to instructors' opinions--two related items were included (with the same marking procedure): "Is it desirable that teacher-educators attempt to 'practice what they preach'?" and "Do you, as a teacher of future teachers, find it possible in your own courses to make an attempt to 'practice what you preach'?" Space was provided for comments and a majority (58.6 per cent) of the seventy instructors who answered all three items made use of this space. The mere inclusion of such items on the questionnaire elicited some vehement reactions: "If we don't, we invalidate our teaching," commented one; another stated his case tersely: "If not, why preach it!"

Several observations can be made concerning the responses to these items. Fifty-six (80 per cent) of the respondents marked the same choice for both the first and the second of the three items, which may indicate consistency. Again considering the first two items (concerned with what should be), almost half the instructors (47.1 per cent) marked always for both, another 22 (31.4 per cent) marked usually for both, and a smaller group (15.7 per cent) marked always on one and usually on the other of these first two items. Almost 95 per cent of the responding group agrees that practicing what is preached

should be remembered by the teacher of teachers, but almost half (48.6 per cent) of the instructors marked the third item (concerning his own efforts along these lines) "lower" than the second.

The comments of respondents relevant to these items may better indicate instructors' opinions on this matter. The reactions were classified into a few broad categories. Not every comment is quoted below, but the quotations presented illustrate certain typical reactions.

Seventeen instructors offered some sort of "qualification" to their markings, particularly in terms of the unsuitability of some teaching methods to the college level. One respondent noted his assumption that ". . . 'best' is in accord with your philosophy and theory." Typical of comments of the "qualification" type are these: "By this I do not mean that the methods best suited for instruction in elementary schools should usually be used for instructing college students who are taking elementary education courses. Allowances should be made for the fact that differences in levels of college students and grade- and high-school pupils call for different teaching techniques." ". . . I don't mean the instructor descend to a third-grade level, but that his approach to the college student at her level of maturity gives the student a pattern for meeting the maturity needs of her own future pupils . . . ." "Of course an instructor should practice what he preaches, but we must recognize that what we teach is usually intended for public school level, and the students we are working with are in a college level. The best methods and procedures commensurate with the level on which you are teaching should be used."

"The basic principles of learning are applicable at all levels and should not be overlooked on the college level . . . ."

Many additional reactions were directed toward the necessity for instructors' setting examples because students may learn more from what is done than from what is said. Although about half the respondents made comments relevant in varying degrees to this point, their statements showed much variety. "Departments . . . are part of institutions which violate learning principles in their practices," notes one instructor. Seven mentioned that "We teach as we have been taught," and two others commented on the rapidity with which students become aware of discrepancies between preaching and practice. Nine, although agreeing that setting an example is important, mentioned some of the difficulties involved in attempts to do so, such as: exercise of selectivity, compulsory attendance, class-size, subject matter of a course, topic under consideration, materials available, conflicts among the theories themselves.

Some respondents commented that they felt that most instructors do try to practice what they preach, while others stated an opposite opinion. Other respondents' statements emphasized their attempts to set good examples, but did not commend themselves for effectively doing so. 'I may not succeed,' noted one instructor, "but the students are certainly aware of what the objective is. How could you teach learning theory or motivation, without the student's seeing the application in the immediate class?" All teaching at the college-level might well be planned with greater concern that, "There is no purpose in learning . . . unless it can be connected to the individual's own life or habits,' and more awareness that,

". . . The instructor is responsible for setting an example at all times."

Several interesting comments must be classified as "miscellaneous." One instructor mentioned that, "We should encourage students in Ed. Psych. [sic] to determine, on an experimental basis, the effectiveness of various reasonable and logical theories, especially those dealing with learning." Another noted: "I use a discussion-lecture type of teaching. My objective is to help the student to see an application of content of the course." Whether or not one should (usually) practice what one preaches ". . . depends on how closely related the instructor is with actual classroom work in public education." Similar thinking may lie behind the plea for more "Practical Material in Educ. Psych." "My difficulty is that the 'soft-pedagogy' of 'promotion schedule' and 'U.S. diploma--a leaving certificate' has winnowed away the pupil's capacity to relish masterly teaching."

Probably nobody expects a "professor of education" always to be a paragon of all that the teacher-to-be should try to become, but many--perhaps most--would agree that one "should at least attempt to give good example even though imperfect." Another respondent seems to second that thought: "We might not always succeed, but our students deserve our best efforts--always." "'Sometimes' would be the minimum requirement; 'always' is an impracticable goal," stated one instructor; he continued, "Teacher educators are also human, and the public should be educated to this fact. The question is a little like--'Should physicians have good health?' (All M.D.'s die eventually!)"

Suggested Revisions

Seventy instructors completed the section of the questionnaire relevant to recommended changes in the enrollment, emphasis, content and teaching of the educational psychology course. Almost one-fifth (18.6 per cent) marked no change desired. No one, however, preferred to "eliminate the course from the program of teacher preparation." Among the other (five) major revisions suggested in the questionnaire, the 57 instructors who favored any of the changes marked an average of 1.8 (of the five) major suggestions. The number marking each suggestion is indicated in Table XVIII.

The most frequently marked revision concerned change in enrollment requirements and class size. All thirty instructors who stated a desirable limit in class size wished their classes to number thirty or fewer students; a dozen of these (40 per cent) favored 25 or fewer, while two suggested a maximum of fifteen students per section. Notable recommendations, among those concerning academic-status prerequisites, were: eight recommendations that students be at least of junior status, and five suggestions that educational psychology be taken concurrently with student teaching. One respondent recommended that students enroll for educational psychology after student teaching.

The suggested revisions concerning emphasis and content of the course were not clearly delimited, so that similar reactions were recorded for one or both of the items. Relevant to these two items, consensus was apparent in a few areas. Six instructors recommended less emphasis on methodology; eight recommended that the material on

TABLE XVIII

PER CENT OF SEVENTY RESPONDING INSTRUCTORS FAVORING EACH OF FIVE TYPES OF SUGGESTED REVISIONS RELEVANT TO THE EDUCATIONAL PSYCHOLOGY COURSE

Type of revision suggested	Respondents	
	Number	Per cent
Restrict enrollment in the course	34	48.6%
Change emphasis of the course	27	38.6%
Revise content of the course	15	21.4%
Combine or integrate content of the course	12	17.1%
Revise teaching methods or procedures	10	14.3%

evaluation techniques be presented in another course, not in educational psychology.[1] Three respondents suggested more emphasis on learning, and five others recommended more time for application of learning principles. No prevalent theme is evident in the other suggestions. One instructor recommended less emphasis on essay exams and more on problem-solving; another, less on lectures and more on psychological laboratory techniques; still another, less on methods of classroom discipline and more on the clinical approach. Under the "content" heading were such diversified recommendations as: using actual problems (reported by alumni) as the basis for the course; teaching first a course on human evolution; and, making constant revisions in the light of the most recent research.

The mere suggestion of combining educational psychology with some other course(s) elicited "No!" and "Oh, no!" from two instructors. However, twelve respondents did favor integrating educational psychology with other subjects. Two instructors favor teaching educational psychology along with general psychology; two others recommend integration of educational psychology with student teaching. Combinations with child development; mental hygiene; general psychology and mental hygiene; methods of teaching; methods of teaching and student teaching; principles of guidance and tests-and-measurements; psychology, introduction to teaching, and history of education were recommended by only one respondent each. Of eleven specific combination plans just mentioned, six are with a course (or with courses) presently or

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[1]It is interesting to note that the suggestion concerning evaluation, but not that concerning methodology, was submitted chiefly by instructors at state colleges.

formerly taught by the instructor making the proposal. One respondent stated no specific suggestion for course combination, but he did express a desire to reduce overlapping among courses.

There were few suggestions for revising methods and procedures. Two instructors reported the desirability of trying a problem-centered, or case-study, approach. Procedural suggestions recorded included: providing more time for observation, planning for more student-participation, and supplementing lectures with work in a laboratory setting.

Only five comments were submitted in the spaces provided for additional revisions. Two concerned the amount of credit given for the course, while another recommended that a local committee study such a report as would be forthcoming from this investigation and then make locally-applicable suggestions. To see the prerequisite course in general psychology strengthened was the recommendation of one respondent, and another stated, ". . . give it a larger place in the . . . program--along the line suggested by Paul Woodring in A Fourth of a Nation."

From the diversity of suggestions and recommendations submitted by these instructors, it seems quite clear that no particular procedural revision is widely desired. Furthermore, the near-majority of respondents desiring smaller classes may be discouraged by the increasing enrollments anticipated in their colleges and universities.

Instructors' Backgrounds

Age

The majority of the educational psychology instructors (61.7 per cent) who responded to the questionnaire marked the 40-59-years category in terms of chronological age. This category covers a greater span of years than any other, but the 45 (of 73) respondents marking it do constitute a larger proportion than one might expect. Three placed themselves in the under-25-years group, but no age was reported in the definitely post-retirement group, 70-years-and-older, as is evident in Table XIX.

Highest Earned Degree

The majority of the respondents (60.3 per cent) hold a doctor's degree. That only two instructors, at the time of completing the questionnaire, had not been awarded a master's degree, is evident in Table XX.

More than half (52.1 per cent) of all these degrees were granted by colleges and universities in Pennsylvania; exactly one-half the doctorates were earned within the Commonwealth. (Neither holder of the bachelor's degree, only, is teaching at his baccalaureate alma mater.) Among the non-Pennsylvania degrees, 21 are from a dozen different private colleges and universities in other states. Eight hold degrees from seven different state universities, two from teachers' colleges in other states; one holds two doctorates from a European university.

TABLE XIX

NUMBER AND PER CENT OF RESPONDENTS
IN EACH CHRONOLOGICAL-AGE CATEGORY

Age group	Number of instructors Male	Female	Total	Per cent
Under 25 years	2	1	3	4.1%
25-39 years	13	5	18	24.7%
40-59 years	33	12	45	61.7%
60-69 years	6	1	7	9.6%
70 years and over	0	0	0	0.0%

TABLE XX

NUMBER AND PER CENT OF RESPONDENTS HOLDING DOCTOR'S, MASTER'S, AND BACHELOR'S DEGREES

Degree	Respondents	
	Number	Per cent
Doctor's degree	44	60.3%
Master's degree	25	34.2%
Bachelor's degree	2	2.7%
(no response)	2	2.7%

Professional Rank

Sometimes the impression prevails that such a required course as educational psychology is the teaching assignment of the least experienced and/or qualified person within the department in which the course is offered. This is evidently not true in the colleges and universities represented by the responding instructors, for nearly 60 per cent of them hold full professorships. One-fourth of these head their departments or colleges of education and/or psychology. The data presented in Table XXI indicate the relatively high academic rank of responding educational psychology instructors.

Orientation

From information concerning an instructor's title; the number of courses he has completed in education, educational psychology (or psychology of learning), and psychology; and, the names of courses other than educational psychology he has taught during the past few years, it was possible to determine (for some instructors) whether his orientation has been primarily toward education or psychology. For eight instructors all evidence points toward education; for seven others, the data clearly indicate psychology. For the remainder of the group, one can be reasonably certain that 28 have tended toward education, while thirty have concentrated on psychology. Thus, among the 73 respondents, approximately half are education-oriented and half psychology-oriented.

Experience

Experience at the elementary- and secondary-school levels, as well as experience with the educational psychology course, are

TABLE XXI

NUMBER AND PER CENT OF RESPONDENTS
IN EACH ACADEMIC RANK

Rank	Respondents	
	Number	Per cent
Head of department	26	35.6%
Professor	17	23.3%
Associate Professor	14	19.2%
Assistant Professor	7	9.6%
Instructor	5	6.8%
Lecturer and/or part-time	4	5.4%

included under this heading. Thirteen instructors of the 72 who provided the information requested in these items had had no experience with public or private education at the elementary- or secondary-school levels. The only public- (or, private-) school experience of this group of instructors (18.1 per cent) we must assume to be their own years of schooling. Another thirteen (18.1 per cent) have had experience at both elementary- and secondary-school levels. Approximately half the respondents claim secondary-school experience only (51.4 per cent), while seven (9.7 per cent) have had experience only in the elementary grades. Two others have had experience relevant to education but have not been directly involved in classroom teaching or school administration.

Each respondent was asked to indicate the number of times he had taught educational psychology prior to the current semester. Most experienced is the instructor who had taught the course 54 times--twice a year for 27 years. Four respondents were novices in this area at the time of completing the questionnaire. From the data presented in Table XXII, it is evident that most (68.5 per cent) had taught the course during five to twenty preceding semesters.

Standardization of the Course

Instructors were asked to mark (yes, no, or ?) to the inquiry: "Should the content of courses required for teacher-certification--such as educational psychology--be more 'standardized' among the various teacher-preparing institutions?" The responses are indicated in Table XXIII. Four of the 73 respondents omitted this item. Some qualified their yes-or-no answers in the space provided for comments.

TABLE XXII

NUMBER AND PER CENT OF RESPONDENTS REPORTING VARYING EXPERIENCE IN TEACHING EDUCATIONAL PSYCHOLOGY

Number of times course taught*	Respondents	
	Number	Per cent
31 and more	3	4.1%
21-30	3	4.1%
11-20	26	35.6%
5-10	24	32.9%
1-4	12	16.4%
0	4	5.4%
(no response)	1	1.4%

*The "times" refer to semesters or terms, regardless of the number of sections or classes taught during any one semester or term.

TABLE XXIII

NUMBER AND PER CENT OF RESPONDENTS
FAVORING AND OPPOSING COURSE-STANDARDIZATION

Opinion on standardization	Respondents	
	Number	Per cent
YES	14	19.2%
YES (with qualifications)	5	6.8%
Uncertain	14	19.2%
NO (with qualifications)	5	6.8%
NO	31	42.5%
(no response)	4	5.4%

Almost half reacted negatively, and a plurality (42.5 per cent) agreed on a definite no.

Summary

The Course

After studying the data received from 73 instructors in Pennsylvania colleges and universities presented in the preceding sections of this chapter, certain generalizations may be drawn about the beginning course in educational psychology. This course is ordinarily a three-semester-hour credit course, lasting one semester. Completion of at least the introductory course in (general) psychology is almost always one prerequisite. In only a few schools are freshmen permitted to enroll in the course; the majority of the students are sophomores or juniors.

Few statements of the main purpose of the course explicitly included the inducement of changes in students' personalities. Nine-tenths of the respondents' statements were subject-matter centered, with more than one-third of these stressing principles of learning. Emphasis on subject matter does not, of course, preclude alterations in students' personalities resulting from the acquisition of knowledge and understanding.

Analysis of instructors' indications of the proportion of class-time spent on various topics which constitute the content of educational psychology showed that the typical instructor devoted approximately 30 per cent of this time to topics relevant to growth-and-development, about one-fourth on learning-processes-and-theories. One-tenth of the typical instructor's class-time was spent on topics

related to professional-background-and-research, while the remaining time was divided between measurement-and-evaluation and the learning-situation.

The range of proportionate times reported by different instructors was greatest in the area of growth-and-development. None of the twelve topics in this content-area was entirely omitted from the course by more than ten per cent of the respondents; five of these topics were included by everyone. There was great variation, also, in the proportions of class-time spent on topics related to measurement-and-evaluation and to learning-processes-and-theories; the average instructor devoted a much larger proportion of time to the latter. Five (of eleven) topics classified as learning-processes-and-theories were reported to be included in the educational psychology course by all respondents, while none of the (ten) measurement-and-evaluation topics was unanimously included. In the area concerned with learning-processes-and-theories, one topic--learning of specific subject-matter areas--was marked "not included" by at least one-fourth of the respondents; in the measurement-and-evaluation area, two items (evaluation of teaching methods and curricula; testing programs) were omitted from this course by a like proportion of the responding group.

In an educational psychology course offered by any of these respondents, a student, therefore, could expect coverage of: principles of growth and development; influences of the environment on learners; development in mental, physical, and emotional-social areas; theories of learning; readiness and motivation for learning; transfer of learning; as well as, learning of thinking and problem-solving

techniques. The amount of time devoted to any of these topics, or to other topics included in the course, would vary widely among instructors.

A major question is suggested by the reported omission from the educational psychology course of certain other topics. Only seven (of 72) instructors reported employing none of the five types of audio-visual aids listed; at least one-fourth (of sixty instructors completing the content-section of the questionnaire), however, mark the topic, audio-visual aids to instruction, "not included in this course." In spite of the fact that all the respondents deal with future teachers for the public schools of the U.S. and all are engaged in the teaching profession (and, perhaps, the improvement of it), almost one-third report that these topics are "not included" in the educational psychology course. In the section of the questionnaire relevant to evaluation of the educational psychology students' work, every respondent reported administering tests to his students at least twice a semester and considering at least two of the listed factors in arriving at grades for these students; nevertheless, between eleven and twenty-four per cent (of the sixty instructors completing the content-section) marked as "not included in this course" the topics: "teacher-made tests of achievement," "interpretation of test scores," and "marking; grading . . . ." Thus, a question arises concerning what educational psychology instructors may--by incidental example rather than conscious intent--be teaching future teachers about audio-visual aids, the teaching profession, and measurement and evaluation of students' work.

The large majority of respondents (85 per cent) reported using both lecture and discussion methods in teaching educational psychology. Only 19 per cent noted a preference for a basic method other than that currently employed. All respondents, regardless of basic method, reported having "comments and questions from class members." Among other supplementary methods listed on the questionnaire, "discussion of lecture, reading, etc." and "individual reading assignment" were used most frequently and widely.

There is no dearth of textbooks in educational psychology, but almost one-fourth of the respondents were employing Cronbach's text at the time of completing the questionnaire. Another dozen (all teaching at colleges or universities affiliated with the Roman Catholic Church) reported using Kelly's text. Four other volumes (Stephens; Sorenson; Smith; Lindgren) were named by seven-to-nine per cent each. In addition to the six textbooks just mentioned, thirteen others were used by one or more (fewer than five per cent) of the responding instructors. Use of text-oriented workbooks was reported by only two instructors. Only a small proportion employed and/or encouraged students to use standard educational reference books or such materials as pamphlets, monographs and manuscripts, but a majority (70 per cent) did have students become acquainted with the periodical literature in the field. Almost 90 per cent of the respondents used at least one of the (five) types of audio-visual aids listed on the questionnaire; more than three-fourths used films and/or film strips, and well over half employed observations or field experiences carried on individually or by small groups.

The typical instructor tested his students three or four times during the semester. Test items, whether of the objective or essay type, were primarily those prepared by the instructor himself. In arriving at grades for educational psychology students, each responding instructor considered the results of a final examination. Most considered also results of tests and/or quizzes, projects, written assignments and/or reports, and class participation, in arriving at students' grades for the course.

The Instructors

The desirability of teacher-educators' practicing what they preach in their classes was supported by approximately 95 per cent of the respondents, many of whom indicated that they themselves were not always successful in doing so. That this involves not the use of elementary-school tactics with college students, but the strategic recognition of individual differences and application of principles of learning at the college level, was suggested by several. A number of instructors, recognizing the importance of the example set before future teachers, mentioned factors in the college-and-university situations which jeopardize the practicing of what is being preached.

Little consensus was evident among responses relevant to possible revisions in the educational psychology course. Many instructors desired enrollments of thirty or fewer students per class. Some suggested that junior or senior academic status be a requisite for the course. Some recommended greater or lesser emphasis on certain content areas, especially measurement, methodology, and learning. Fewer than one-fifth favored integrating

educational-psychology content with that of another course or other courses. A few diverse responses concerning revisions of teaching procedures were presented.

More than 60 per cent of the responding educational-psychology instructors were between forty and fifty-nine years of age and held doctorates; a slightly smaller percentage held the rank of professor or above (such as, head of department). The responding group was apparently divided about equally between orientation toward education and psychology. A majority reported teaching experience at the secondary-school level; less than one-fifth of the group had taught at both elementary- and secondary-school levels; about one-fifth reported no teaching experience at either level. Approximately two-thirds of the respondents had taught the educational psychology course from five to twenty times before. A small proportion (about one-fifth) clearly favored standardization of the course, while more than two-fifths were definitely opposed to standardization.

CHAPTER FIVE

INVESTIGATION OF INTERRELATIONSHIPS

To null hypotheses of independence between components of the 246 paired combinations of 23 variables concerning instructors' backgrounds, opinions and practices in educational psychology, the chi-square test was applied. For 35 of these combinations, the result was sufficiently large that the null hypotheses could be rejected at the .05 level of significance. In such instances, one may be rather certain that the two factors are not entirely independent of each other and, thus, that some relationship may exist between them.

The results of the chi-square tests are summarized in Table XXIV. The subsequent paragraphs of this chapter are devoted to further inspection of the information relevant to the paired variables which are apparently not independent of each other. In some cases, the data themselves suggest the direction an interrelationship might take; in other instances, further analysis of the data lends no enlightenment. The composite scores (experience, outlook, consistency) and the variables associated with them are considered first. Possible interrelationships between two major content-areas, or between a content-area and another factor, are next investigated. Finally, information available about other variables, in pairs for which hypothetical independence was rejected, is set forth. The chapter is concluded with a summary of the findings relevant to interrelationships among the 23 variables.

TABLE XXIV

SIGNIFICANCE OF CHI-SQUARE TESTS FOR INDEPENDENCE OF 246 COMBINATIONS OF TWENTY-THREE FACTORS RELATED TO THE BACKGROUNDS, TEACHING METHODS AND PRACTICES OF EDUCATIONAL PSYCHOLOGY INSTRUCTORS

FACTOR		K	C	B	P	T	M	V	Q	G	1	2	3	4	5	Z	X	R	O	S	W	J	N
Experience Index	E	o[1]	o	x[2]	o	o	x	o	x	o	o	o	o	o	o	o	o	o	o	o	-[3]	o	o
Outlook Index	K	o		o	x	o	x	o	o	o	o	o	o	o	o	o	o	x	o	o	x	o	o
Consistency Score	C			o	x	o	o	x	o	o	o	o	o	o	o	o	o	c	o	o	o	c	-
Basic Method of Teaching	B				o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Number of Supplementary Practices Used	P					o	o	x	o	o	x	x	o	x	o	o	o	o	x	o	x	x	o
Basic Textbook	T						o	x	o	o	o	o	o	o	o	o	o	x	o	o	o	o	o
Number of Types of Teaching Materials Used	M							x	o	o	o	o	o	o	o	o	o	x	o	x	x	o	o
Number of Types of Audio-Visual Aids Used	V								o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Number of Sources of Examination Items	Q									o	o	o	o	o	o	o	x	o	o	o	o	o	o
Number of Factors Considered in Grading	G										o	o	o	o	o	o	x	o	o	o	o	o	o
Emphasis on: Growth and Development	1											o	x	o	x	o	o	o	o	o	o	o	-
Learning Processes	2												o	x	x	o	o	o	o	o	x	o	-
Measurement and Evaluation	3													o	x	o	o	o	o	o	o	o	-
Background Information	4														o	o	o	o	o	o	o	o	-
The Learning Situation	5															o	x	o	o	o	o	o	-
Size of Employing Institution	Z																o	o	o	o	o	o	o
Prepar. Elementary and/or Secondary Teachers	X																	o	o	x	o	o	o
Academic Rank	R																		x	x	o	o	o
Orientation: Psychology or Education	O																			o	o	o	o
Sex	S																				o	c	o
Experience: Elementary and/or Secondary Schools.	W																					x	o
Response to Item IV,C,3 of Questionnaire	J																						o
Completion of Part III,C of Questionnaire	N																						

[1] o = chi-square not significant.

[2] x = chi-square significant at .05 level.

[3] - = chi-square not applicable.

Composite Scores

The data seem to suggest certain relationships between scores on the Experience Index and three factors: basic teaching method employed; number of kinds of teaching materials used; and, number of sources from which examination items are drawn. The Experience Index, the reader will recall, was based on age, teaching experience at the elementary- and/or secondary-school levels, and number of times the respondent had taught educational psychology prior to the current semester. (Hereafter the extreme groups in relation to Experience Index will be referred to as High-E and Low-E.)

The basic method most often marked by the High-E group (47 per cent) was lecture and discussion (in approximately equal parts). The Low-E instructors most frequently (41 per cent) marked discussion as their basic method, but did indicate that other methods were sometimes employed. There was little difference between the two groups in selection of the lecture method: 19 per cent of the Low-E's and 13 per cent of the High-E's indicated this preference. Any relationships which may exist between experience and teaching method are not apparent from the available information collected for this study.

In regard to the five kinds of materials employed (basic textbook; supplementary texts; periodicals; pamphlets, monographs, etc.; and, audio-visual aids) 33 per cent of the High-E's and only 12 per cent of the Low-E's marked all five types, while none of the High-E's and 12 per cent of the Low-E's reported using only one of these (basic textbook). The majority of both groups, however, employ from two to four of the five varieties of materials. That a much larger proportion of the High-E group uses pamphlets, monographs, and

other such printed materials is evident from the percentages in Table XXV.

The lack of independence between Experience Index and number of sources of test items is similarly uncertain, statistically speaking, possibly because the overwhelming majority of both groups (81 per cent of High-E; 90 per cent of Low-E) report compiling their tests from two to four sources of items. None of the respondents in these groups is aided by a graduate student in preparing test items. Evidently a larger proportion of the Low-E instructors use objective-type items of their own making. (See Table XXVI.) Not every respondent complied with the request to circle the major sources of his test items. Greater reliance of the Low-E group on the published manuals accompanying their basic textbooks and on their own objective-type items, and greater reliance of the High-E group on their own essay-type items, are suggested by the data reported in Table XXVII.

The Outlook Index (K) for each respondent was computed on the bases of his opinions concerning standardization of a course such as educational psychology and the number of proposed revisions he considered desirable for the course. The High-K group apparently prefers keeping the educational psychology course as it is and possibly standardizing it, while the Low-K group favors more revisions and disapproves of standardization. Possibilities of interrelationships are evident between the Outlook Index and four other variables: number of kinds of teaching materials employed; number of supplementary practices used; instructor's academic rank; and instructor's teaching experience at the elementary- and secondary-school levels.

TABLE XXV

PERCENTAGE OF HIGH- AND LOW-SCORING INSTRUCTORS ON EXPERIENCE INDEX REPORTING USE OF EACH TYPE OF TEACHING MATERIAL

Type of teaching material	Experience Index group	
	Low	High
N =	16	15
Basic textbook	100%	93%
Supplementary textbook(s)	75%	73%
Professional periodicals	62%	53%
Pamphlets, monographs, etc.	19%	40%
Audio-visual aids	81%	93%

TABLE XXVI

PERCENTAGE OF HIGH- AND LOW-SCORING INSTRUCTORS ON EXPERIENCE INDEX REPORTING USE OF EACH SOURCE OF EXAMINATION ITEMS

Source of examination items	Experience Index group	
	Low	High
N=	15	15
Published manual accompanying textbook	67%	60%
Other published manuals	40%	40%
Graduate assistant	0%	0%
Students enrolled in course	20%	12%
Instructor's objective-type items	93%	67%
Instructor's essay-type items	87%	87%

TABLE XXVII

PERCENTAGE OF HIGH- AND LOW-SCORING INSTRUCTORS ON EXPERIENCE INDEX REPORTING EACH SOURCE OF EXAMINATION ITEMS AS THE MAJOR SOURCE

Major source of examination items	Experience Index group	
	Low	High
N =	10	8
Published manual accompanying textbook	35%	19%
Instructor's objective-type items	40%	25%
Instructor's essay-type items	25%	56%

Investigation of the proportions of the High-K and Low-K groups reportedly using each type of teaching material does not suggest any definite pattern which might be typical of either group. These percentages are summarized in Table XXVIII.

The possibility of relationship between the Outlook Index and the number of supplementary practices used is supported by the observation that 80 per cent of the High-K group (as compared with 46 per cent of the Low-K group) report some use of all six types of supplementary practices listed on the questionnaire. Although there is little difference between the groups in the use of most practices, more of the High-K (90 per cent) than of the Low-K (62 per cent) reported using small group and committee work in their educational psychology courses, as is shown in Table XXIX.

The interrelationship of Outlook Index and academic rank may well rest with the larger proportion of Low-K's in the top-ranking category (46 per cent are departmental chairmen, etc.) and of High-K's in the lowest ranks (30 per cent are instructors, lecturers, etc.). The data suggest that the preference for maintaining the status quo is more common with lower-ranking instructors and that the desire for revisions and non-standardization of the course is more prevalent among the heads of departments. These proportions are summarized in Table XXX.

Apparently there may be some relationship also between Outlook Index and teaching experience. Half the High-K's, but none of the Low-K's, reported having had no experience at the elementary- or secondary-school levels. Only 10 per cent of the High-K's--contrasted with 31 per cent of the Low-K's--reported having had teaching

TABLE XXVIII

PERCENTAGE OF HIGH- AND LOW-SCORING GROUPS ON OUTLOOK INDEX REPORTING USE OF EACH TYPE OF TEACHING MATERIAL

Type of teaching material	Outlook Index group	
	Low	High
N =	13	10
Basic textbook	100%	90%
Supplementary textbook(s)	77%	70%
Professional periodicals	62%	70%
Pamphlets, monographs, etc.	31%	20%
Audio-visual aids	85%	100%

TABLE XXIX

PERCENTAGE OF HIGH- AND LOW-SCORING GROUPS ON OUTLOOK INDEX REPORTING USE OF EACH SUPPLEMENTARY PRACTICE

Supplementary practice	Outlook Index group	
	Low	High
N=	13	10
Comments, questions from class	100%	100%
Whole-class discussions	100%	100%
Small group, committee work	62%	90%
Oral reports	100%	90%
Demonstrations	69%	70%
Individual assignments, conferences	100%	90%

TABLE XXX

PERCENTAGE OF HIGH- AND LOW-SCORING GROUPS ON OUTLOOK INDEX AT LOW, MEDIUM AND HIGH ACADEMIC RANKS

Academic rank	Outlook Index group Low	High
	N= 13	10
High	46%	10%
Medium	46%	60%
Low	8%	30%

experience at both levels (Table XXXI). The desire to maintain the status quo and to standardize the educational psychology course is decidedly less prevalent among instructors who have had experience at both elementary and secondary levels than among those who have had experience at neither level.

The Consistency Score (C) is based upon a series of comparisons between items reportedly included in course-content and corresponding practices used. The data tend to support possible relationships between this score and two other factors, namely: the number of supplementary practices and the variety of audio-visual aids employed.

Of the six types of supplementary practices listed on the questionnaire, every respondent in both the High-C and Low-C groups reported using whole-class discussions and individual assignments and conferences, along with extensive use of questions and comments from the class. The variations occurred in relation to the other three practices, with the High-C instructors reporting slightly greater use of demonstrations and oral reports, the Low-C teachers more frequently reporting small group or committee work, as shown in Table XXXII. There is little difference between the groups in terms of the average number of practices: the Low-C mean is 5.4, the High-C mean is 5.7, of the six practices.

There is a considerable difference between high and low scorers on Consistency and the number of kinds of audio-visual aids employed. The Low-C group reports using an average of 1.7 of the five types listed, while the High-C mean is 3.0 types. All the High-C instructors reported using films and/or filmstrips, as do 77 per cent of the Low-C group. One difference, however, seems especially

TABLE XXXI

PERCENTAGE OF HIGH- AND LOW-SCORING GROUPS ON OUTLOOK INDEX REPORTING TEACHING EXPERIENCE AT ELEMENTARY AND SECONDARY SCHOOL LEVELS

Teaching experience	Outlook Index group	
	Low	High
N=	13	10
Both elementary and secondary levels	31%	10%
Either elementary or secondary	69%	40%
Neither elementary nor secondary	0%	50%

TABLE XXXII

PERCENTAGE OF HIGH AND LOW CONSISTENCY-SCORE GROUPS REPORTING USE OF THREE SUPPLEMENTARY PRACTICES

Supplementary practice	Consistency-score group Low	High
N =	9	9
Small group, committee work	89%	78%
Oral reports	89%	100%
Demonstrations	67%	89%

noteworthy: 77 per cent of the High-C respondents, but only 33 per cent of the Low-C instructors, use field trips and/or observations. Further details are self-evident from the percentages reported in Table XXXIII.

Content Areas

Data related to ten combinations of factors, at least one of which is the proportional time devoted to one of the five major content-areas, permit rejection (at the .05 level) of hypothetical independence of the two factors involved. Five of these combinations involve two content-areas, while the other five include one content-area and one other variable.

The proportional time devoted to the area of growth-and-development may be related to the time spent on measurement-and-evaluation or on the learning-situation. The proportional time for learning-processes-and-theories may be related to that devoted to professional-background-information-and-research, or to that spent on the learning-situation. The proportional time for measurement-and-evaluation may also be related to that given to the learning-situation. Only the suggested relationship between class-time for measurement-and-evaluation and for the learning-situation appears to be positive; in the other four instances, those respondents devoting relatively more time to the one area appear to spend proportionally less time on the other.

In instances of comparisons of proportional time spent on a content-area with another variable, the evidence warrants rejection of the null hypotheses of independence in five combinations: the number

TABLE XXXIII

PERCENTAGE OF HIGH AND LOW CONSISTENCY-SCORE GROUPS REPORTING USE OF EACH TYPE OF AUDIO-VISUAL AID

Type of audio-visual aid	Consistency-score group	
	Low	High
N =	9	9
Films; filmstrips	77%	100%
Recordings and/or Radio, TV	56%	78%
Disc or tape recordings	22%	44%
Radio; Television	11%	56%
Field trips and/or observations, etc.	33%	77%
Field trips (entire class)	22%	33%
Observations; field experience	33%	67%

of types of supplementary practices employed and proportional class-time devoted to growth-and-development, learning-processes-and-theories, or professional-background-information-and-research; extent of experience in the elementary and/or secondary schools, and relative time spent on learning-processes-and-theories; and, the preparation of secondary teachers only (as contrasted with preparation of both elementary and secondary teachers) and the proportional time given to the learning-situation. Respondents who spend proportionally more time on professional-background-information-and-research seem to employ more types of supplementary practices in their teaching; instructors who spend relatively more time on growth-and-development or on learning-processes-and-theories apparently employ, on the average, fewer of the six types of supplementary practices. As the data in Table XXXIV indicate, however, the differences in means are not large. Respondents who had had experience at both elementary- and secondary-school levels tended to devote an average proportion of class-time to learning-processes-and-theories, while those who had had experience at only one or neither level tended toward the extremes relevant to the proportion of time spent on this content-area. A slightly larger percentage of the respondents from colleges and universities educating both elementary and secondary teachers (contrasted with those educating secondary teachers only) devote an average share of class-time to the learning-situation; the difference, however, is not sufficiently large to suggest a pattern of relationship between the two variables.

TABLE XXXIV

MEAN NUMBER (OF SIX TYPES) OF SUPPLEMENTARY PRACTICES EMPLOYED BY RESPONDENTS SCORING LOW OR HIGH RELATIVE TO CLASS-TIME DEVOTED TO THREE (OF THE FIVE) MAJOR AREAS OF EDUCATIONAL PSYCHOLOGY CONTENT

Average number of supplementary practices employed	Growth-and-development	Learning-processes-and-theories	Professional-bkgd.-info.-and-research
High group	4.5	4.7	5.4
Low group	5.7	4.9	4.8

Comparisons Among Other Factors

X Factor. Among the teacher-education institutions represented in this investigation, some offer preparation for secondary-school teaching only, while others maintain programs leading both to certification at the elementary-school level and to qualification for teaching in the junior and senior high schools. In relation to this X-factor (concerning the curricular offerings of the colleges and universities employing the respondents) and: sex of respondent, number of sources of examination items, and number of factors instructor considers in computing students' grades in educational psychology, null hypotheses of independence could be rejected.

The suggestion of relationship between respondent's sex and the X-factor is spurious. There are no female instructors reporting from the eighteen secondary-preparation-only institutions. (This group of eighteen schools includes seven [of the nine] men's colleges represented in this investigation.)

Respondents from schools offering preparation of teachers for both elementary- and secondary-school levels tend to score higher in terms of the number of factors affecting students' grades; instructors from schools offering secondary-level preparation only tend to score lower relative to the number of sources from which examination items are drawn. That the reverse may not be true in either instance is evident in Table XXXV.

TABLE XXXV

PERCENTAGE OF RESPONDENTS FROM INSTITUTIONS PREPARING TEACHERS FOR BOTH ELEMENTARY AND SECONDARY SCHOOLS OR FOR SECONDARY SCHOOLS ONLY SCORING LOW, AVERAGE OR HIGH RELATIVE TO NUMBER OF SOURCES OF EXAMINATION ITEMS AND TO NUMBER OF FACTORS CONSIDERED IN GRADING

Teacher preparation programs offered	Number of factors in grading			Number of sources of examination items		
	Low	Average	High	Low	Average	High
Secondary only	33%	33%	33%	67%	17%	17%
Elementary & secondary	13%	30%	57%	46%	23%	31%

V Factor. The number of kinds of audio-visual aids used may bear some relationship not only to the Consistency Score[1] but also to three other variables: number of supplementary practices employed, number of types of materials used, and basic textbook for the course. Respondents scoring low on the number of types of audio-visual aids used tended to score low in terms of the number of supplementary practices; those in the high and average groups relative to audio-visual aids tended to score high on supplementary practices. All instructors scoring high, and the majority of those scoring average, on V-factor also scored high on number of kinds of materials used, but no majority of Low-V respondents exists in any category. Intrinsic overlapping of the topic, audio-visual aids, with topics of supplementary materials and practices suggests that generalizations based on the data reported in Table XXXVI (A and B) be made with caution.

The hypothetical independence of the V-factor and use of the most popular textbook was rejected. That a clear majority of the High-V group employs Cronbach's text and that the majority of average and low-scorers on the V-factor use some other text are clearly evident from the percentages reported in Table XXXVI (C).

Academic Rank (R). The factor of academic rank may be interrelated not only with Outlook Index,[2] but also with: sex of respondent, basic textbook used, instructor's orientation toward education or psychology, and the variety of kinds of materials employed. The data for 73 Pennsylvania respondents support the

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[1] Supra, p. 167.

[2] Supra, p. 163.

TABLE XXXVI

PERCENTAGE OF LOW, AVERAGE AND HIGH SCORERS ON NUMBER OF KINDS OF AUDIO-VISUAL AIDS USED SCORING LOW, AVERAGE OR HIGH RELEVANT TO NUMBER OF SUPPLEMENTARY PRACTICES AND NUMBER OF TYPES OF MATERIALS EMPLOYED AND TO USE OF MOST POPULAR BASIC TEXTBOOK

Number of kinds of audio-visual aids	(A) Supplementary practices			(B) Materials used			(C)	
	Low	avg.	high	Low	avg.	high	Basic Cronbach	textbook other
High	0%	14%	86%	0%	0%	100%	86%	14%
Average	10%	19%	71%	17%	26%	57%	24%	76%
Low	50%	9%	41%	18%	45%	36%	11%	89%

frequent observation that women are less apt than men to be heads of departments.

Only 53 respondents reported using a single basic textbook, of which the majority (51 per cent) were using Cronbach's volume at the time of completing the questionnaire. As the data in Table XXXVII (A) show, it is apparently primarily the group of lower professorial rank which swings the balance toward the popularity of Cronbach's textbook rather than some other of the forty-some available.

The orientation of instructors toward education or psychology, also, may bear some relationship to academic status. From the information available on the completed questionnaires, instructor-orientation was inferred from details concerning respondent's title, course-work completed, and other courses taught. The data reported in Table XXXVII (B) seem to support the conclusion that, for the respondents whose orientation seems unequivocally education (eight) or psychology (seven), the highest in academic rank are more likely to be education-oriented and the lowest-ranking psychology-oriented. Whether or not this indicates that, when the educational psychology course is offered by a psychology-oriented instructor (or, perhaps, a member of the psychology department) he is more apt to be one relatively low in academic rank, is not certain.

The suggestion of interrelationship between academic status and number of kinds of materials used tends toward the positive side, as the information presented in Table XXXVII (C) shows. (The mean number of the five types of materials used increases slightly--from 3.0 through 3.5 to 3.8--as the rank ascends.) Although the consistent decrease in the percentage of respondents scoring low (in terms of

TABLE XXXVII

PERCENTAGE OF RESPONDENTS IN LOW, MEDIUM AND HIGH ACADEMIC RANKS: USING MOST POPULAR BASIC TEXTBOOK, ORIENTED TOWARD EDUCATION OR PSYCHOLOGY, AND SCORING LOW, AVERAGE OR HIGH IN TERMS OF NUMBER OF KINDS OF MATERIALS USED

	(A)		(B)			(C)		
Academic rank	Basic textbook Cronbach	other	Instructor-orientation Educ.	uncertain	Psych.	Materials used Low	avg.	high
High	33%	67%	27%	65%	8%	8%	38%	54%
Medium	29%	71%	3%	89%	8%	18%	29%	53%
Low	50%	50%	0%	78%	22%	38%	0%	62%

number of types of materials used) from the lowest to the highest academic ranks suggests a positive relationship, the incidence of a majority from all ranks in the high group (for materials used) shows a lack of relationship.

Factor W. That instructors' teaching experience at the elementary- and/or secondary-school levels and the Outlook Index[1] or the proportion of class-time devoted to learning-processes-and-theories,[2] may not be independent has been established previously. Such teaching experience (hereafter designated as W) may not be totally unrelated, also, to number of types of supplementary materials or practices employed and to the response to Item IV,C,3 on the questionnaire.

Respondents who have had experience at either elementary or secondary level, or at both levels, reported using more kinds of supplementary materials and practices than those without such experience. The means for the experience-groups are presented in Table XXXVIII.

In response to Item IV,C,3, "Do you, as a teacher of future teachers, find it possible in your own course to make an attempt to 'practice what you preach'?" instructors' marking always (as opposed to any other choice: never, rarely, sometimes, usually) was the crucial factor in the variable designated as J, which is here combined with teaching experience. Although the hypothetical independence of

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[1] Supra, p. 163.

[2] Supra, p. 172.

TABLE XXXVIII

MEAN NUMBER (OF SIX TYPES) OF SUPPLEMENTARY PRACTICES AND (OF FIVE KINDS) OF SUPPLEMENTARY MATERIALS EMPLOYED BY RESPONDENTS HAVING HAD EXPERIENCE AT BOTH ELEMENTARY AND SECONDARY LEVELS, AT EITHER ELEMENTARY OR SECONDARY LEVEL, OR AT NEITHER LEVEL

Teaching experience	Supplementary materials	Supplementary practices
Elementary and secondary levels	3.5	5.5
Either elementary or secondary level	3.8	5.4
Neither elementary nor secondary level	2.8	4.6

these two factors may be rejected statistically, parallel proportions both of the elementary-and-secondary-experience group and of the no-experience group marked always in response to this item.

Other Variables. The data indicate also the possibility of relationship between either instructor-orientation or response to Item IV,C,3 and the number of kinds of supplementary practices employed. The mean number (of kinds) of supplementary practices used was 5.0 for those marking always and 5.4 for those selecting the other responses to Item IV,C,3. These data indicate no particular direction for the possible relationships between these two factors and the supplementary practices used.

The data relevant to sex of instructor and number of types of materials used permitted rejection of the null hypothesis of independence of these two factors. However, the mean number of types of supplementary materials employed is virtually the same for both sexes--3.6 for male and 3.4 for female instructors. Although a slightly higher percentage of the men (28 per cent) than of the women (11 per cent) indicated using all five types of materials, there is little evidence of a direct relationship between sex and number of kinds of supplementary materials used.

Summary

In certain instances in which the hypothetical independence of two variables was rejected with sufficient statistical significance, the data yield no evidence of any particular relationship between the paired factors. This is true of respondents' having marked for

Item IV,C,3 on the questionnaire always (rather than any other choice) and the number of kinds of supplementary practices employed or the extent of the instructor's experience at the elementary- and/or secondary-school levels. Similarly, the data concerning proportion of class-time devoted to the learning-situation and the institution's offering programs of preparation for both elementary- and secondary-school teachers--though yielding a chi-square sufficiently large to reject the null hypothesis--suggest no relationship between the two variables.

In other instances, biases inherent in the data or influences of a cultural or professional nature, rather than actual interrelationship between the factors, may account for the large chi square. That the majority of the respondents who represent colleges offering preparation for teaching at the secondary-school level only also represent men's colleges--a fact which could not be anticipated--undoubtedly accounts for the statistical lack of independence between the X-factor and sex of instructor. That there are fewer women than men in the highest academic ranks may merely reflect, in departments of education and psychology in Pennsylvania institutions represented in this study, a cultural fact. The preponderance of education-oriented (rather than psychology-oriented) respondents in the highest academic ranks also may be due to extraneous elements, such as the relative status of the educational psychology course in departments of education or psychology, or the tendency for psychologists to advance in fields of specialization other than teaching.

The apparent inverse relationship between Outlook Index and academic rank may be surprising to the reader. Among the responding

instructors, the desire for standardizing the educational psychology course and for making relatively fewer revisions in the course was more prevalent among the lower-ranking instructors; favoring more revisions and opposing standardization are more typical of heads of departments.

Course Content

Because the five major content-areas together do comprise the total class-time for each respondent, these five factors cannot be entirely independent of each other. Since no content-area factor is determined only by the one other content-area factor included in a particular paired-combination, the significant lack of independence between certain paired combinations should be meaningful. Respondents who devote a larger proportion of class-time to measurement-and-evaluation spend a greater share of time, also, on the learning-situation. Instructors spending a relatively large share of time on growth-and-development seem to devote proportionally small amounts of time to measurement-and-evaluation or to the learning-situation. Those who allow a greater share of class-time for learning-processes-and-theories evidently devote less class-time to the learning-situation or to professional-background-and-research.

Respondents devoting larger proportions of time to professional-background-and-research reported using more types of supplementary practices, while those giving greater shares of class-time to growth-and-development or to learning-processes-and-theories reported employing fewer kinds of supplementary practices. Instructors reporting experience at both elementary- and secondary-school levels spend an average proportion of class-time on learning-processes-and-theories, while those indicating experience at either or neither

level tend to spend relatively large or small shares of class-times on topics in this content-area.

Teaching Procedures

Experience may affect teaching procedures in many ways. The data reported by educational psychology instructors suggest that those respondents scoring high on the Experience Index more frequently tend to: use a lecture-discussion combination as their basic method of teaching, while more of those scoring low on the Experience Index employ a predominantly-discussion method. Respondents who have had experience at either elementary- and/or secondary-levels employ more types of supplementary practices in their teaching. The number of kinds of supplementary practices used is apparently not independent of Outlook Index or Consistency Score: there is little suggestion of a particular relationship, however, in either instance, except that those respondents scoring high on the Outlook Index more frequently report the use of small-group or committee work in their classes. Although the education- or psychology-orientation of instructors may not be independent of the number of kinds of supplementary practices employed in teaching, no pattern of relationship is evident in these data.

More kinds of audio-visual aids are reportedly used by respondents who: use a greater number of types of supplementary practices, employ more types of teaching materials, score high on Consistency, and use the most popular textbook. Respondents using the Cronbach textbook are most often found in the lower academic ranks. More kinds of teaching materials are employed by higher-ranking

respondents, as well as by those who scored high on the Experience Index and those who have had experience at either elementary- and/or secondary-levels. Neither Outlook Index nor instructor's sex is evidently independent of the number of kinds of teaching materials used, but no pattern of interrelationship is apparent in the data for either of these combinations.

Higher scores on the Experience Index accompany reports of greater reliance on essay-type (rather than objective) examination items prepared by the instructors. The college's offering preparation for both elementary- and secondary-teachers (rather than secondary, alone) seems not to be independent of information reported relevant to the evaluation of students' learning in educational psychology. The majority of respondents from institutions preparing teachers for both levels consider more factors in arriving at students' grades in the educational psychology course; the majority of respondents from schools educating secondary-teachers only reported using fewer sources of examination items.

Testing null hypotheses of independence between paired combinations of several variables corroborates the supposition that the content and teaching procedures of the educational psychology course is not entirely independent of certain factors in instructors' backgrounds and experiences. The data themselves, in some instances, suggest a direction or pattern of apparent interrelationship.

CHAPTER SIX

RECOMMENDATIONS

Questions raised at the outset of this investigation concerning the introductory course in educational psychology can be answered only within the context of teacher-education as a whole. The educational psychology course, as a part of the teacher-education program, must be oriented toward specific objectives which are in accord with, and an integral part of, the objectives of the entire program. Because the public school is a primary social institution, the education of teachers for this school is subject to what Haskew calls ". . . the vagaries of the social environment . . . ."[1] Thus, ". . . teacher education in the future will continue to be a creature of its environment, and . . . the planning for teacher education must continue to be circumstantial rather than absolute."[2] The goal of teacher-education is, of course, nurturing in prospective teachers ". . . the qualifications considered necessary or desirable for teachers in our schools,"[3] which are affected by an ". . . evolving concept of the teaching-learning process . . . ."[4] Thus, as one phase of teacher-education, the field of educational psychology has ". . . responded

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[1]Haskew, "Teacher Education . . . ," op. cit., p. 191.

[2]Ibid., p. 190.

[3]Monroe, op. cit., p. 1.

[4]Ibid.

during this period 1931-1956 not only to currents within psychology but also to changing demands upon education arising from the broader social context."[1] As a member of the teaching profession rendering a valuable service to society and focusing attention on ". . . the welfare of the person or the group being served,"[2] the teacher needs not only information about the characteristics, needs and desires of individuals and groups but also ". . . ability to decide upon procedure in terms of his own assessment or diagnosis of the situation."[3] The teacher needs, also, full awareness that both the available knowledge about human beings and the society's expectations relevant to the functioning of its schools will continue to change.

Persons responsible for teacher-education must, themselves, be involved in a continuous process of evaluation of their own programs and practices, in terms of available knowledge and evolving purposes of the schools in which their students will be teaching. Large-scale programs designed to identify the characteristics needed by the effective teacher, to anticipate the demand for teachers at various levels of education, to improve the requirements for certification of teachers, and such, are currently underway, perhaps reflecting the growing public concern about teacher-education. The subsequent recommendations are in no way intended to minimize the importance of these nation-wide efforts or to excuse any member of the teaching profession

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[1] Gates et al., op. cit., p. 241.

[2] Nolan C. Kearney, A Teacher's Professional Guide. Englewood Cliffs, N.J.: Prentice-Hall, 1958, p. 3.

[3] Ibid., p. 4.

from abetting and publicizing such endeavors to the very limits of his capacities.

The current literature and the results of the present investigation, however, suggest that progress toward the objectives of large-scale programs designed to foster improvement of teacher-education might well be expedited through certain local efforts, which need not be postponed until the results of nation-wide studies are available. Moreover, the over-all recommendations derived from large-scale studies will, obviously, be of no avail unless they are implemented by the individual colleges and universities through the teachers and students actively involved in teacher-education programs at these institutions. For, improvement in teacher-education in the United States is, and will continue to be, merely an abstraction or generalization based upon improvement evident in the teacher-education programs of individual colleges and universities. The three recommendations which follow are, therefore, directed to the individual instructors and departments (or, colleges) of professional education.

Selection of Educational Psychology Instructors

Indications of desirable characteristics of educational psychology instructors suggested by the results of this investigation may be applicable to instructors of all courses in the professional program. The objectives of the entire teacher-education program must be considered in employing instructors, and the roles of particular courses in the program, must be taken into account when assigning to them certain responsibilities for course-work.

Instructors responding to the questionnaire employed in this study furnished information which seems to distinguish between more and less experienced instructors of educational psychology. Those who had had experience at both the elementary- and the secondary-school levels seemed to have a more flexible "outlook" and to use more kinds of materials in their teaching; they seemed to prefer essay-type test items; they reported proportional class-times devoted to the growth-and-development content-area which were neither extremely small nor extremely large. Those respondents with no teaching experience in grades one through twelve use fewer supplementary teaching techniques and tend toward a more rigid "outlook," sometimes favoring standardization of such courses as educational psychology. The design of this investigation did not provide for collection of data which could be statistically correlated, but merely for gathering sufficient information to indicate that the above-mentioned factors of teaching procedure are not entirely unrelated to experience.

The facts that more than four-fifths of the responding educational psychology instructors had had teaching experience at the elementary- and/or the secondary-level; that approximately three-fifths hold doctorates; that the same proportion serve as full professors and/or heads of departments; that more than three-fourths had taught the educational psychology courses at least five times prior to the time of responding may be responsible for the variety of materials and methods employed by the typical educational psychology instructor in the colleges and universities represented in this investigation.

If the objectives of the educational psychology course include increasing students' familiarity with various teaching techniques and

procedures, and if the implementation of the objectives of the teacher-education program is expected to evolve with changing situations, it may be advisable to seek instructors with some breadth of experience. If transmitting certain subject matter is the major purpose of an educational psychology course, the ability to relay information clearly and efficiently may be the most important consideration.

> In employing and placing an instructor, his teaching experience (particularly at different educational levels) should be evaluated in terms of the objectives of the courses he will teach and the goals of the teacher-education program of which these courses are a part.

A concomitant to this recommendation is the suggestion that, if acquainting future teachers with a variety of methods is one of the objectives of the teacher-education program, instructors (of various courses required of all students planning to teach) exemplify a variety of experiential backgrounds and methods of teaching.

The Introductory Course in Educational Psychology as a Part of the Teacher-Education Program

The statements of major purpose for the educational psychology course and the data concerning the subject-matter content of the course submitted by educational psychology instructors in Pennsylvania teacher-education colleges and universities indicate that the lack of agreement concerning educational psychology which has been evident in the past prevails. Most respondents' statements of purpose are subject-matter oriented, about half emphasizing the content-area of learning principles, processes and theories; slightly more than one-fifth of the respondents stressed the growth and development of the learner in the statements of major purpose.

Of the 21 topics listed under the content-areas of learning-processes-and-theories and growth-and-development, none was marked "omitted from the educational psychology course" by more than ten per cent of the respondents; ten of the 21 (five in each content-area) were included in the educational psychology course by all instructors. On the average, almost one-fourth of the educational psychology class-time was devoted to learning and nearly one-third to growth-and-development topics. There is evidence of generally relatively greater emphasis on these two content-areas, and less on measurement-and-evaluation, the learning-situation, or professional-background-and-research. Instructors report, however, devoting from seven to forty per cent of class-time in educational psychology to learning, from 14 to 57 per cent to growth and development: these ranges suggest greater variation in division of class-time among the major content-areas than averages alone might indicate.

Certain suggestions of interrelationships among proportional time spent on each of the five content-areas may also carry some significance. The data indicate that, as the proportion of time spent on growth-and-development increases, that devoted to measurement-and-evaluation or to the learning-situation appears to decrease. The data relevant to time spent on measurement-and-evaluation and on the learning-situation suggest a more positive relationship. Among many possible causes might be: differences in purposes of the educational psychology course, variations in instructors' areas of interest or specialization, inclusion of one or the other of these content-areas in another, or in a separate, course. Information submitted by instructors similarly suggests an inverse relationship between the

proportion of time devoted to learning-processes-and-theories and the time spent on either the learning-situation or professional-background-and-research. In relation to the possible causes mentioned above, a contributing factor in this instance may be the intentional or unintentional orientation of the educational psychology course toward learning theory in contrast to teaching and learning in the classroom situation.

It is impossible accurately to evaluate these findings in toto, in terms of judging the undesirability or desirability of this sort of variety. Although nearly forty per cent of the respondents recommended some change in the emphasis of the educational psychology course, the content of these recommendations shows no consensus. Only 19 per cent responded "yes" without qualifications to the question concerning the desirability of standardizing such required courses as educational psychology. If each instructor implemented his own recommendations concerning the content of the educational psychology course, the variety evident in the statewide picture would probably not be reduced.

This variety may be more desirable than it at first appears to those who lament the lack of agreement in various courses carrying the same title. The purposes and content of different educational psychology courses may well, in each institution, adequately contribute toward students' meeting the objectives of the teacher-education program as a whole, but may do so by different means in different programs. Assuming that the faculty-members primarily responsible for the teacher-education program in a particular institution are able to state in operational terms some of the major objectives to be attained by students preparing to teach, and assuming that the professional

course work in that institution can be planned--within the framework of the college or university schedule and facilities--best to help students to grow toward these objectives, any single professional course must be evaluated in relation to the total program. In a college where the students in the prerequisite general psychology course are exposed to extensive treatment of learning processes and theories, emphasis in the subsequent educational psychology course may be placed on classroom applications of the theory, individual differences among learners, or another content-area. In another institution, where students complete a course in growth-and-development before enrolling in educational psychology, little time in educational psychology may need to be spent on this content-area. Statistics concerning the content of the educational psychology course alone do not necessarily indicate that certain areas of content are under- or over-emphasized in the entire teacher-education program.

On the assumption that there is always "room for improvement," then, the second recommendation might be stated as follows:

> Every educational psychology instructor should evaluate the purposes and content of this course in terms of its contribution to the specific teacher-education program of which it is a part.

The instructor, and his colleagues, should attempt to include somewhere in the teacher-education program the subject matter and experience-opportunities which will help students attain the objectives of the professional program. In which courses particular items are included is perhaps less important than the assurance that they <u>are</u> included. This recommendation is not intended to eradicate overlapping of courses where, as Fischer suggests, it may be useful ". . . to show the relevance of various specialties to the

same educational situation"[1] or where meaningful repetitions--in a variety of situations--may aid retention. Major revisions in the placement, objectives, and content of educational psychology--or any other single course--should be attempted only in the context of the particular program for teacher-education of which that course is a part.

Instructor-Awareness of What Is Being Taught

In summarizing material concerning "the general nature of learning," Mouly refers to John Dewey's emphasis on collateral learnings, which, he notes, ". . . invariably accompany--and often overshadow in importance--the primary learnings the teacher sets out deliberately to implant."[2] Mouly quotes Dewey's statement: "Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only the particular things he is studying at the time,"[3] and later, himself, warns that the teacher must ". . . take care that in his engrossment over primary learnings he does not lose sight of the by-products."[4] The results of the present investigation suggest that educational psychology instructors--at least those in Pennsylvania who submitted information--should not be heedless of this warning.

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[1]Louis Fischer, "Necessary and Desirable Overlap." Journal of Teacher Education, XI (September, 1960), p. 351.

[2]George J. Mouly, Psychology for Effective Teaching. New York: Henry Holt, 1960, p. 240.

[3]John Dewey, Logic, cited by Mouly, op. cit., p. 240.

[4]Ibid.

The respondents, in marking the portion of the questionnaire relevant to the content of the educational psychology course, not only indicated the amount of class-time devoted to the fifty topics listed but also reported the omission from the educational psychology course of any topic(s) which they were not including, even incidentally. Comparison of the data on teaching procedures reported by the same instructors indicates several inconsistencies.[1]

1. All the instructors are members of the teaching profession, helping to educate new members of the profession. However, 27 per cent report that the topic, "teaching profession . . ." is not included in the educational psychology course; one-third indicate exclusion of the "professional improvement . . ." topic; and 32 per cent report omission of "evaluation of teaching . . . ." All of the respondents are engaged in the preparation of teachers for the public schools of the nation, yet thirty per cent report giving no attention in educational psychology to the "aims . . . of public education in the United States."

2. All the instructors are teaching a course in which a great deal of emphasis is on learning, yet one-sixth omit "educational research . . ." and almost one-tenth exclude "effective methods of study."

3. All respondents are using tests in the educational psychology course, assigning marks to their students on the basis of at least two factors; nevertheless, one-fifth claim no attention to "marking, grading . . ." and approximately one-eighth exclude "interpretation of test scores . . . ."

4. Although less than ten per cent of the respondents report using none of the types of audio-visual aids listed, 37 per cent claim that the topic of "audio-visual aids . . ." is omitted from the educational psychology course.

5. Four-fifths of the respondents reported some use of individual student-professor conferences, yet 38 per cent indicate that "remedial teaching" is given no attention in educational psychology. The available data warrant no more than a guess that the individual

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[1]These inconsistencies are based primarily on data reported by the sixty instructors who completed Part III,C (Content Emphases) on the questionnaire. In instances of reference to responses to items in other sections of the questionnaire, the data provided by these sixty instructors only was used for comparison.

conferences with college sophomores and juniors might sometimes constitute remedial teaching.

One might hope that, in marking Part III,C (Content Emphases), the educational psychology instructors considered as ". . . not included in the course . . ." any topic which is not associated with the deliberate, formal, or intentional learnings designated in the course-objectives, although the instructions for marking do include a provision for topics which are dealt with for less than a full class-period or are merely "mentioned 'in passing' . . . ." Assuming that demonstration--though incidental--is one means of teaching and assuming that undergraduates possess--in varying degrees--ability to generalize from experience, one might conclude that teachers-to-be are learning something about the teaching profession, the aims of education, techniques for learning, evaluation of learning, and the use of audio-visual aids in educational psychology courses, whether or not their instructors so intend.

Thus, a third recommendation seems justifiable, in spite of the absence of adequate statistical support for it in the data gathered for the current study. Both the general agreement that students learn from what instructors do, as well as from what they say, and the prevalent criticism of professional educators for failure to practice what they preach, along with the inconsistencies in the data noted above, indicate that each educational psychology instructor should be quite cognizant of the importance of concomitant learnings.

> Every instructor involved in a teacher-education program should be well aware of students' collateral learnings and should capitalize upon the fact that such learning does occur; he should include, in continuous evaluation of his performance, consideration of the extent to which his handling of concomitant learnings contributes positively to students' growth toward the objectives

of the teacher-education program as a whole, in addition to the success with which certain informational content, designated for inclusion in a course, has been transmitted.

Consideration of the current literature relevant to teacher-education and of the data provided by instructors of educational psychology who completed the questionnaire employed in this study suggests three recommendations. First, college and university administrators responsible for teaching assignments should consider each applicant's past teaching experience at elementary- and secondary-school levels and the contribution his experience might make in helping undergraduates to attain the goals of the teacher-education program. Contact with several instructors exemplifying different procedures and drawing upon different backgrounds of experience, it may be assumed, will further future teachers' acquaintance with the variety of teaching methods and materials available. Secondly, instructors of educational psychology (or other professional courses) should evaluate the purposes and content of the course in relation to the objectives of the total program of teacher-education. The third recommendation is that teachers-of-teachers plan for concomitant learnings, as well as intentional instruction, to contribute toward students' approaching the objectives of the teacher-education program.

CHAPTER SEVEN

SUMMARY

Problem

Teacher-education has been the target for much criticism by teachers and administrators, by college professors, and, more recently, by laymen. Included in the teacher-education program has been, and is, an introductory course in educational psychology. Contemporary concern about teacher-education in general and lack of agreement relevant to the educational psychology course suggest that an investigation of this course, as it is being taught in the teacher-education institutions of Pennsylvania, could provide sufficient data on which to base recommendations for improving this course as a part of the entire program. Exchanging a summary of the state-wide findings for each instructor's information about his treatment of the course may stimulate further evaluation by these instructors. Thus, the specific purpose of the current investigation was to survey the present practices in educational psychology courses offered in Pennsylvania teacher-education institutions and the relevant opinions of instructors responsible for these courses.

Procedure

By submitting a detailed questionnaire to 91 educational psychology instructors in 69 institutions in Pennsylvania educating

elementary and/or secondary teachers, information was gathered concerning the basic purpose and the subject-matter content of the beginning course in educational psychology; the methods and materials employed by instructors; instructors' opinions concerning teacher-educators' practicing what they preach; their suggestions for revising the educational psychology course; and, background information about the instructors themselves. These data have been summarized to present an overall picture of the educational psychology course in Pennsylvania teacher-education institutions. The chi-square test has been applied to null hypotheses of independence between 246 pairs of the 23 variables representing certain factors of instructors' backgrounds and practices in the educational psychology course. Further observation of the data themselves--in order to discern possible patterns, or directions, of relationships between factors--followed, for paired-combinations yielding chi-square statistics large enough to necessitate rejection of the null hypotheses.

Sample

At the inception of this investigation, 69 colleges and universities (other than the college employing the investigator) held approval from the Department of Public Instruction for programs leading to certification of elementary and/or secondary teachers in academic fields. In these institutions for higher education, 91 persons were responsible for teaching the introductory course in educational psychology. Completed (or partially completed) questionnaires were received from 73 instructors (80 per cent) representing 56 (81 per cent) of the 69 schools. In the sample, the state-supported

colleges and universities and coeducational denominational institutions are proportionally better represented than certain types of denominational colleges for men or women only. Among the respondents, all types of teacher-education institutions in Pennsylvania (educating elementary and/or secondary teachers in academic fields) are represented, but not necessarily in the same proportion in which they exist.

Conclusions

The Educational Psychology Course

The beginning course in educational psychology is generally a one-semester course carrying three hours of credit. General psychology is ordinarily a prerequisite and, in approximately one-third of the colleges and universities, completion of additional courses is required prior to enrollment in educational psychology. The majority of the students in the course(s) are juniors, and the minority is composed primarily of sophomores.

Instructors' statements of the main objective of the educational psychology course indicate great variety. In most of these statements, learning is emphasized, sometimes from the point-of-view of the learner rather than the processes and theories of learning. In a few statements, educational psychology as a field, or the role of the teacher, or molding students' personalities, receives the major emphasis.

For purposes of summarizing, the fifty subject-matter topics listed on the questionnaire have been grouped into five major areas of content. To the area of growth-and-development is devoted about one-third of the typical instructor's class time in educational psychology,

and to the area of learning-processes-and-theories, almost one-fourth. Areas designated "the learning situation," "measurement and evaluation," and "professional background and research" typically receive lesser shares of the educational-psychology class time. There is great variation, however, among individual instructors relevant to the proportion of time spent on the two major content areas: reports range from seven to forty per cent on learning-processes-and-theories, and from fourteen to fifty-seven per cent on growth-and-development.

Responses to inquiries concerning teaching methods employed indicate that most educational psychology instructors use some combination of lecture and discussion. Only three respondents reported as the one basic method that of the lecture. Instructors evidently employ a variety of the supplementary techniques listed on the questionnaire, one of which--comments or questions from the class--was reportedly used by every respondent.

Of the instructors responding to questions about textbooks, only two reported using no basic textbook, and several use two or more basic texts. A variety of the available texts was in use, with Cronbach's--used by almost one-fourth of the respondents--leading the list. The workbooks available for use with certain textbooks were not popular among the respondents, but approximately one-fifth of the instructors were using books of readings as supplementary texts. Although a majority require (or recommend) reading in professional periodicals, only one-eighth reported directing the students to the standard reference works in the field. Among the five types of audio-visual aids suggested on the questionnaire, films (and filmstrips) and observations (and field experiences) are used at least occasionally by

the majority of educational psychology instructors, while recordings, radio-television, and field trips (for entire classes) are less often used.

Evaluation of educational psychology students' learnings (in terms of course-grade) is based on at least two factors, a final examination generally being one of these. The large majority of respondents also consider results of tests and quizzes (usually three or four per semester), appraisal of papers and projects, and class participation. For the most part, educational psychology instructors reported relying primarily on objective- and essay-type test items which they themselves have prepared (as opposed to those published in teachers' manuals, etc.).

Instructors and Their Recommendations

The majority of the responding educational psychology instructors range in age from 40 to 59 years, hold a doctor's degree, and rank as full professors (often with departmental-administrative responsibilities). Their academic backgrounds seem to indicate orientation toward education or psychology in equal numbers. One-fifth of the instructors have had teaching (or administrative) experience in both elementary and secondary schools, but another fifth have had experience at neither level. Most have taught the educational psychology course from five to twenty times before.

Almost all the responding educational psychology instructors favored practicing what is preached, although many are not sure that they are sufficiently successful in doing so. Comments indicate that opinion is divided concerning the typical teacher-educator's actual efforts and intentions along this line. Agreement on the desirability

of exemplifying what is being taught was frequently qualified, in terms of practicing principles (as opposed to specific techniques) and of allowing for conditions in higher-education situations which seem to preclude such practicing.

Of the instructors who deemed desirable any suggested (or appended) revisions of the educational psychology course, the largest proportion recommended smaller class-enrollments and/or exclusion of sophomores from the course. Among the revisions relevant to course-content and teaching methods, little consensus is evident. Only about one-fourth of the respondents reported favoring standardization of such courses as educational psychology, and almost half reacted negatively and emphatically. Approximately one-sixth recommended combining the educational psychology course with one or more other courses (often those currently or formerly taught by the respondent himself). One might conclude that any proposal for establishing on a state-wide basis the subject matter to be "covered" in educational psychology courses or for integrating educational psychology content with the subject matter of other courses would not be given a particularly favorable reception by the respondents.

Interrelationships

Application of the chi-square test to various pairs of 23 factors of instructors' reported experience, opinions and practices yielded 35 combinations for which the null hypothesis of independence between the two factors could be rejected at the .05 level of significance. In some instances the lack of independence between the two variables is attributable to biases in the data or to extraneous

factors. For several pairs of variables, however, further inspection of the data themselves suggests certain patterns or directions of possible relationships.

More recommended revisions in the educational psychology course and less frequent approval of standardization of the course were typical of higher-ranking respondents, while those in the lower academic ranks approved fewer revisions in the course and more often favored standardization. The data suggest certain relationships among the proportional class-time spent on the five major content-areas. Respondents devoting larger proportions of class-time to measurement-and-evaluation tended to devote proportionally more time to the learning-situation, also. Instructors giving greater emphasis to learning-processes-and-theories reported giving less time to the learning-situation or to professional-background-and-research. Those giving more time to professional-background-and-research report the use of more types of supplementary practices in their teaching, while respondents devoting more class-time to growth-and-development or to learning-processes-and-theories indicated the use of fewer types of supplementary practices. Instructors who had had experience at both elementary- and secondary-school levels tended to spend an average proportion of class-time on learning-processes-and-theories, while those who had had experience at one or neither level tended toward high or low extremes of time devoted to this content-area.

More experienced instructors reported using a lecture-discussion method of teaching, while the less-experienced more often use a basically-discussion method. Instructors who had had elementary- and secondary-school experience reported employing more types of

supplementary (teaching) practices. The number of supplementary practices is apparently not entirely independent, also, of instructors' Outlook Index and Consistency scores.

More types of audio-visual aids are reportedly employed by respondents who: use more kinds of supplementary practices, have high Consistency scores, employ more types of teaching materials, and use Cronbach's textbook. The Cronbach text is used by a considerably larger proportion of the lower-ranking respondents. The number of types of teaching materials used is not independent, also, of academic rank, experience, sex, or Outlook Index. Higher-ranking respondents more often report reliance on essay- (rather than objective-) type examination items. Instructors representing colleges and universities offering programs for elementary- and secondary-school teaching consider more factors in arriving at students' grades for the educational psychology course; those from schools offering preparation for secondary-school teachers only report drawing from fewer sources of examination items.

Recommendations

Reviewing the literature and analyzing the data lead to the conclusion that any professional course and any instructor's pedagogical efforts can be adequately and fairly evaluated only in relation to the teacher-education program as a whole and the objectives toward which this program is oriented. Information obtained from Pennsylvania educational psychology instructors indicates that these respondents may be teaching in educational psychology courses more, about more topics, than they realize. Thus, three recommendations seem

warranted by the results of this investigation.

1. Every educational psychology instructor should evaluate the purposes and content of this course in terms of its contribution to the specific teacher-education program of which it is a part.

2. In employing and placing an instructor, his teaching experience (particularly at different educational levels) should be evaluated in terms of the objectives of the courses he will teach and the goals of the teacher-education program of which these courses are a part. If one objective of the program is exposure of students to different teaching procedures, assigning a variety of instructors to the several courses required of all teachers-to-be may be especially desirable.

3. Every instructor involved in a teacher-education program should be well aware of students' collateral learnings and should capitalize upon the fact that such learnings do occur; he should include, in continuous evaluation of his performance, consideration of the extent to which his handling of concomitant learnings contributes positively to students' growth toward the objectives of the teacher-education program as a whole, in addition to the success with which certain informational content, designated for inclusion in a course, has been transmitted.

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APPENDIX

APPENDIX A

EDUCATIONAL PSYCHOLOGY TEXTBOOKS* PUBLISHED IN THE UNITED STATES SINCE 1950

Figures in parentheses indicate the number of respondents who, at the time of completing the questionnaire, were using the volume as a basic textbook. The fractions are due to some instructors' using more than one basic textbook, while tabulation of the data was based on one basic textbook per instructor.

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APPENDIX B

QUESTIONNAIRE TO INSTRUCTORS OF BEGINNING COURSES
IN EDUCATIONAL PSYCHOLOGY IN TEACHER-PREPARING
INSTITUTIONS OF PENNSYLVANIA

INTRODUCTION*

The wide variation in the content of the beginning course in educational psychology is certainly evident from a perusal of currently available textbooks as well as from the results of earlier research. The purpose of the research in which you are presently requested to participate is the collection and analysis of both facts and opinions concerning the educational psychology course universally required for certification to teach. Points of agreement and difference, as well as recommendations, may be suggested by these data.

Not only the textbook employed, but also the teaching methods and classroom procedures involved--along with the instructor's background of experience and education, his personal valuation of the course, and his specialized interests--affect the impact of the course upon his students. An enjoyable exchange of ideas on these points might well be accomplished through a state-wide meeting of educational psychology instructors. It is hoped that such an exchange may be more readily achieved through a questioning of these instructors by mail. The completion of the questionnaire should place much less strain on the schedule and the pocket-book of each participant. The subsequent summary of the results should afford each participant some of the features of an "exchange."

Your signature is requested at the close of the questionnaire. No instructor's name will be included, however, in reporting the

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*In the original form mailed to educational psychology instructors, the questionnaire itself constituted nine pages, following the one-page introduction. The spacing, but not the content, of the questionnaire items has been altered in Appendix B.

findings. The inclusion of the name will certainly expedite the collection and the sharing of data.

Any comments you wish to include, in addition to those specifically requested, will be welcomed. Your forwarding, with the completed questionnaire, of sample copies of bibliographies, outlines, and other duplicated materials used in the educational psychology course, would be most interesting and helpful.

Depending upon the willingness of educational psychology instructors to participate, the results of the study should provide a rather accurate picture of the beginning course in this one area of the program of teacher-preparation in Pennsylvania. Such a picture might encourage our complacency or stimulate our desire to improve!

QUESTIONNAIRE TO INSTRUCTORS OF BEGINNING COURSES IN EDUCATIONAL PSYCHOLOGY IN TEACHER-PREPARING INSTITUTIONS OF PENNSYLVANIA

I. ENROLLMENT OF EMPLOYING INSTITUTION

A. Total enrollment of full-time students (to nearest hundred)_____

B. Per cent of above enrollment preparing to teach (to nearest ten)_____%

II. INFORMATION ABOUT RESPONDENT

A. AGE (Please check [✓] appropriate range of years.)

__under 25 __25-39 __40-59 __60-69 __70 and over

B. HIGHEST EARNED DEGREE (Please print.)

_____ _____ _____
(degree) (college or university) (year)

C. PROFESSORIAL STATUS (Please check [✓] appropriate title.)

__head, chairman, director, or dean of school or college of education

__head, chairman, director, or dean of division

__head, chairman, or director of department

__professor __instructor

__associate professor __instructor (part-time); lecturer

__assistant professor __laboratory-school supervisor

__(other: _____)

D. PROFESSIONAL EXPERIENCE IN PUBLIC AND PRIVATE EDUCATIONAL INSTITUTIONS

(In the column at the left, please indicate the total number of years of each type of experience. In the column at the right, please indicate the grade-levels, subjects, etc., relevant to each type of experience you have had.)

no. yrs.	position	grade-levels, subjects, etc.
_____	TEACHER	_____
_____	SUPERVISOR	_____
_____	PRINCIPAL	_____
_____	SUPERINTENDENT ..	_____

E. NUMBER OF TIMES RESPONDENT HAS TAUGHT COURSE IN EDUCATIONAL PSYCHOLOGY

Prior to the current term, how many times have you taught the beginning course in educational psychology? ..... _____

(Count each semester--or quarter, or year, depending upon the duration of the course--as a "time;" disregard the number of "sections" of the course taught during any particular term or terms.)

F. COURSES IN EDUCATION AND PSYCHOLOGY COMPLETED BY RESPONDENT

(In the spaces provided, please indicate the total number of courses--regardless of the number of credit hours--which you have completed at the college undergraduate or graduate level in each area listed.)

___EDUCATION ___EDUCATIONAL PSYCHOLOGY ___PSYCHOLOGY (other)
___PSYCHOLOGY OF LEARNING

G. OTHER COURSES TAUGHT BY RESPONDENT (Please print course titles.)

1. During the current term:

_____ _____

_____ _____

2. Since September, 1954, and not listed above:

_____ _____

_____ _____

_____ _____

_____ _____

II. RESPONDENT'S OPINION CONCERNING THEORY-PRACTICE

(Please check[√] your reaction to the following statement, and add comments if you wish.)

In their own methods and procedures, instructors of courses in programs of teacher-education should try to exemplify the best of the theory that is included in the content of these courses.

__NEVER __RARELY __SOMETIMES __USUALLY __ALWAYS

(COMMENTS)_____

_____

_____

III. INFORMATION ABOUT THE BEGINNING COURSE IN EDUCATIONAL PSYCHOLOGY

A. BASIC DATA

(Please check [√] , indicate number, and complete blanks as indicated.)

1. Academic credit awarded for this course is: ___quarter hours
   ___semester hours
2. Duration of the course is:
   __1 qtr. __1 sem. ___2 qtrs. __3 qtrs. or 2 sems.
3. Regularly scheduled class period lasts how many minutes?_____
4. This class meets for how many class periods per week? _____
5. During the current term (or the most recent term during which the course was offered), how many "sections" were taught by all instructors? ..... _____

6. Prerequisites for enrollment in this course include:

   a. the completion of courses in:

      ___general psychology

      ___introduction to education; introduction to teaching

      ___history of education

      ___child psychology; child growth and development

      ___adolescent psychology; adolescent growth and development

      ___psychology of adjustment; mental hygiene

      ___abnormal psychology

      ___(other: _____)

      ___(none)

   b. academic status of at least:

      ___second-semester freshman

      ___sophomore

      ___junior

      ___senior

      ___graduate

      ___(other: _____)

      ___(none)

   c. (other: _____

      _____)

   d. ___(none)

7. During the current term (or the most recent term during which the course was offered) the "make-up" of the class is (was):

   (Please insert appropriate percentages in spaces provided.)

   a. SEX: ____% male ____% female

b. ACADEMIC STATUS

__% fresh. __% soph. __% jr. __% sr. __% (other)

c. PREPARING TO TEACH IN:

__% nursery-kgn.
__% grades 1-6
__% grades 7-12
__% college or univ.
__% special subjects (art, home econ., etc.)
__% special educ. (of exceptional)
(__% not preparing to teach)

B. MATERIALS AND ACTIVITIES

1. "Printed" Materials

a. BOOKS (Please print in the appropriate spaces the author, title and year of publication for basic and supplementary text- and workbooks used in this course.)

	(author)	(title)	(year)
1) basic:	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
2) supplementary:	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

b. PERIODICALS (Please print titles of any periodicals with which you expect students in this course to become familiar.)

_____ _____

_____ _____

_____ _____

c. PAMPHLETS, FOLDERS, MANUALS, UNPUBLISHED MATERIALS, ETC. (Please identify as concisely as possible any such materials which you use and consider valuable for students in this course.)

_____

_____

_____

_____

2. "Audio-Visual" Materials

(Please check [√] any of the following which you employ in this course. Space has been provided at the right for any comments you care to make or any identification of these materials you wish to include.)

	(comments)
__films; filmstrips	_____
__disc, tape recordings	_____
__radio, television	_____
__field trips (entire class)	_____
__observations; field experiences (individuals; part of class)	_____

C. CONTENT EMPHASES

(Please indicate in the space to the right of each topic the number of class periods devoted to that topic. Any topic which is not dealt with formally but is mentioned almost daily should be marked D. Mark any topic which is mentioned "in passing" or which is the subject of less than a full period with a check-mark [✓]. If the topic is not included in the course, please mark it O.)

1) aims and objectives of public education in the United States..___
2) the "field" of educ. psych.: methods, limitations, etc. .....___
3) teaching profession: advantages, disadv.; responsibilities;etc.___
4) professional improvement: in-service training; recreation; etc.___
5) mental health, personal & professional adjustment of teachers ___
6) genetic, hereditary influences on pupils, or learners .....___
7) environmental influences on pupils (home, community, peers, etc.)___
8) growth and development: general trends, principles .....___
9) child growth and development (typical characteristics, etc.)..___
10) adolescent growth and development .....___
11) nature and extent of individual differences .....___
12) nature and extent of "group" differences .....___
13) development of language ability, skills .....___
14) mental, intellectual development .....___
15) motor, physical development .....___
16) social, emotional development .....___
17) development of character, moral standards, values .....___
18) theories of learning .....___
19) learning of habits, skills .....___
20) learning in specific subject-matter areas (arith., history, etc.)___

21) motor learning .....___

22) trial-and-error, or trial-and-success, learning .....___

23) learning thinking and problem-solving .....___

24) readiness for learning .....___

25) motivation of, or for, learning .....___

26) reinforcement of learning; teaching for permanence .....___

27) interference; inhibition; forgetting .....___

28) transfer of training, learning .....___

29) standardized tests of mental abilities .....___

30) standardized tests of personality, adjustment .....___

31) standardized tests of achievement .....___

32) teacher-made tests: construction; use; advantages & disadvantages...___

33) educational diagnosis: sources and uses of information .....___

34) interpretation of test scores: norms, profiles, etc. .....___

35) statistical concepts, methods (correlation, stand. deviation, etc.)..___

36) informal techniques of evaluation (observation; sociogram; etc.)___

37) adaptation of instruction to individual differences .....___

38) remedial teaching .....___

39) marking, grading; reporting to parents; promotion .....___

40) evaluation of teaching methods, curricula, school programs ...___

41) guidance services .....___

42) testing programs .....___

43) counseling; psychotherapy .....___

44) classroom climate, atmosphere; discipline .....___

45) mental hygiene in the classroom and the school .....___

46) juvenile delinquency; a- or anti-social deviations .....___

47) exceptional pupils (gifted, slow, handicapped, etc.) .....___

48) effective methods of study .....___

49) educational research: use, methodology, limitations .....___

50) audio-visual aids to instruction .....___

51) (other: _____).....___

52) (other: _____).....___

53) (other: _____).....___

D. METHODS AND PROCEDURES

1. Basic Method

a. Please check [✓] the basic method you employ in this course.

___LECTURE ___DISCUSSION ___INDIVIDUALIZED INSTRUCTION

1) Please state briefly the main reason for employing this method.

_____

_____

2) At what point(s), if any, do you deviate significantly from this basic method during this course?

_____

_____

b. Would you prefer using another "basic method?" __YES __NO

If "yes,"

(1) What method would you prefer? _____

(2) What is the main reason for this preference? _____

_____

2. Supplementary Practices

Please indicate the frequency with which each of the following occurs in this course by marking, in the space to the right of each item:

+ once a week, or more frequently;

✓ occasionally--several times throughout the course;

- rarely--once or twice during the course;

O never.

a. comments or questions from the class ..... ___

b. discussion (by class as a whole) of:

1) lecture, assigned reading, audio-visual presentation, etc. ___

2) "case" or problem suggested by class member(s) ..... ___

c. small group or committee:

1) discussion of topic at hand, "buzz-session," etc. ..... ___

2) "work-period" during regular class time ..... ___

d. oral reports by:

1) individual members of class ..... ___

2) groups, panels, committees, etc. ..... ___

3) guest speaker; visiting lecturer ..... ___

e. demonstration by:

1) class member(s) ..... ___

2) instructor; guest; visitor ..... ___

f. individual activities:

1) reading assignment ..... ___

2) library-research project ..... ___

3) preparing research-paper ..... ___

4) conference with course-instructor ..... ___

E. EVALUATION OF STUDENT-LEARNING

1. Frequency of Testing (Please check [✓].)

___daily ___three or four times per term

___weekly ___twice a term

___biweekly ___once a term

___monthly (___no examinations given in this course)

2. Sources of Test Items (Please check [✓] any sources used, and circle the check-mark preceding the major source.)

___instructor's manual accompanying basic textbook for the course

___instructor's manual(s) for other textbooks

___undergraduate, or graduate, student assistants

___students enrolled in the course

___instructor: objective-type questions

___instructor: essay-type questions

3. Factors in Grading (Please check [✓] any of the following which affect a student's grade in this course.)

___final exam. score ___written assignments

___quiz, test scores ___class attendance

___individual papers, projects ___participation in class discussion

___(other: _____) ___(other: _____)

IV. RESPONDENT'S OPINIONS ABOUT THE BEGINNING COURSE IN EDUCATIONAL PSYCHOLOGY

A. OBJECTIVE (Please state briefly what, in your opinion, constitutes the main objective of this course in terms of the total program of teacher preparation.)

_____

_____

_____

B. REVISION (If you, as an individual, were responsible for reorganizing a program of teacher-preparation in terms of the needs of teacher-trainees--and regardless of present certification requirements--what changes would you make with reference to the beginning course in educational psychology? Please check [✓] at the left any appropriate items, and complete blanks as necessary to explain further.)

___eliminate this course from the program of teacher-preparation

___change the emphasis of the course, resulting in:

more emphasis on _____ and/or

less emphasis on _____

___revise the content of the course, as follows:

_____

___restrict enrollment in (sections of) the course, in terms of:

__class size (limit to __ students; expand to include __ students)

__student personnel of the class, by:

limiting enrollment in the course to _____ and/or

permitting enrollment in the course of _____

___combine, or integrate content of, this course with another course or with other courses, as follows:

_____

___revise teaching methods and/or procedures, as follows:

_____

___(other: _____)

(___no change)

C. QUESTIONS (Please check [√] one of the "given" responses to each question; comment if you wish in the space provided below each item.)

1. Should the content of courses required for teacher-certification--such as, educational psychology--be more "standardized" among the various teacher-preparing institutions?

___YES ___NO ___?

(COMMENTS) _____

_____

2. Is it desirable that teacher-educators attempt to "practice what they preach?"

__NEVER __RARELY __SOMETIMES __USUALLY __ALWAYS

(COMMENTS) _____

_____

3. Do you, as a teacher of future teachers, find it possible in your own courses to make an attempt to "practice what you preach?"

__NEVER __RARELY __SOMETIMES __USUALLY __ALWAYS

(COMMENTS) _____

_____

The following information will not be included in the summary of the results of the questionnaire. It is requested so that records of completed questionnaires may be kept accurately and so that respondents may receive copies of the summary.

Please check in the box at the right if you

do not wish to receive a summary of the findings. ..... ☐

PLEASE PRINT!

RESPONDENT'S FULL NAME _____

RESPONDENT'S "OFFICIAL" TITLE _____

COLLEGE OR UNIVERSITY EMPLOYING RESPONDENT _____

RESPONDENT'S COMPLETE MAILING ADDRESS _____

_____

DATE _____