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AN ANALYSIS OF THE CURRICULUM OF THE TEACHERS COLLEGE
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by

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CHAPTER I

THE PROBLEM AND ITS SETTING

The Purpose of the Study

The Problem.— It is the general purpose of this study to make a critical topical analysis of the content of the undergraduate and graduate courses in general professional education offered in the Teachers College of the University of Cincinnati during the regular school year, 1942-1943. These courses are described in the current catalogue (3:57-71) under the captions: (1) basal undergraduate constants, (2) general seminars and graduate constants, (3) educational psychology, (4) administration and supervision, (5) secondary education, (6) elementary education, and (7) history and philosophy of education.

Specific Purposes. — The more specific purposes of this study include: (1) a determination of the teaching units or major topics treated in the subject-matter offerings in the various programs of study on the undergraduate and graduate levels, (2) a study of the time given to these units or major topics, (3) a study of the coverage of educational subject-matter offerings in the various programs of study, (4) a determination of the nature and extent of such similarity of content as may be found to exist between courses, and (5) an interpretation of the findings in the light of evidence on functions,

points of view, and treatment, as secured from the faculty of Teachers College.

The Teachers College of the University of Cincinnati

History.--- The College for Teachers of the University of Cincinnati was founded in 1905 after having operated for a number of years as a department in the McMicken College of Liberal Arts (5:13). At that time it became the joint responsibility of the board of directors of the university and the board of education of the school district of Cincinnati. The career of the College for Teachers began with four-year programs for the preparation of teachers in the areas and fields of (1) the kindergarten, (2) elementary grades, (3) high school, and (4) special fields. The special fields included fine arts, music, manual training, home economics, and physical education (103:108). In 1913 and in 1916 reorganizations of the program were made to meet state requirements for certification (103:202). In 1917 the College for Teachers adopted a plan of co-operative student teaching, which permitted the holder of a baccalaureate degree to spend half-time in the College for Teachers and half-time teaching in the Cincinnati schools (103:205).

After a checkered existence and threatened collapse, a crisis was reached in 1922. At this time the name was changed to the College of Education, a new dean was placed in charge, and a general reorganization was effected.

The educational purposes expressed by the new administration appeared as follows in the general announcements of the College down to 1933 (3a:11):

The Teachers College has the following fundamental purposes:

- (1) To provide the technical training for undergraduate students who intend to become teachers.
- (2) To provide annually a number of graduates for appointment in the elementary and secondary public schools of Cincinnati.
- (3) To offer advanced professional study and educational assistance to teachers in service and public school administrators.
- (4) To stimulate and guide advanced students into such research fields as seem to promise practical and constructive contributions to educational theory and practice.
- (5) To provide cultural opportunity for all persons interested in education as a major social enterprise.

The new administration made definite commitments in favor of

- (1) the co-operative plan of teacher training, (2) cultural and professional training for teachers, and (3) standards for teacher training equal to those of other professions such as law and medicine (103:207).

The co-operative or five-year program consisted of two years of liberal arts followed by three years of professional education and academic work. These co-operative programs were offered in the fields of: (1) kindergarten, (2) kindergarten-primary, (3) elementary, (4) high school, (5) hygiene and physical education, (6) home economics, and (7) public school music. These five-year programs led to the degree of Bachelor of Education. In addition, a degree was offered at the completion of the fourth year. The attractive features of the fifth-year program were the payment of a salary for half-time teaching the fifth year, and eligibility for appointment in the

Cincinnati schools. With variations in the number of programs offered, this plan has remained in force down to the time of this study.

Under the reorganization of 1922 the graduate program also prospered. By 1933 twelve programs were offered for the education of specialists (3a:34): (1) specialist in elementary education, (2) specialist in secondary education, (3) school administrator, (4) specialist in statistical methods, (5) specialist in measurement and field research, (6) general supervisor, (7) supervisor of practice teaching, (8) specialist in educational psychology, (9) specialist in history and philosophy of education, (10) specialist in home economics teaching, (11) specialist in vocational education, and (12) specialist in ^{special} types of education.

In 1930 the University assumed complete control of the college, the name of the institution was changed to Teachers College, and another reorganization followed as a measure of retrenchment. A curricular reorganization was made in 1934, which resulted in a reduction of the number of courses offered. In the fields of psychology and elementary education the reduction amounted to about one-third of the courses previously offered, and in the fields of administration and secondary education, one-half or more. Faculty committees labored on this reorganization, with the result that each member became alert to the problems of curriculum construction and avoidance of unnecessary overlapping. The impact of this reorganization is reflected in

the statement of purposes that follows.

Purposes.— The statement of purposes that reflects the curricular reorganization of 1934 has appeared in the annual announcement of Teachers College down to the year of this survey (3:13):

The Teachers College seeks to develop teachers competent to meet the demands made upon education today. Three requirements are held to be of major importance for such teachers: (1) the attainment of health, both physical and mental; (2) an integrated knowledge of the problems of contemporary life, based upon a foundation of broad culture; and (3) an acquaintance with the processes of growth and learning, in order that the teachers may be guides in the educational activities of childhood and youth.

In keeping with this conception of teaching, a complete reorganization of courses has been effected. On the undergraduate level, this involves a reorganization of the various programs, a reduction in their number, and a revision of the basic courses around which the programs are organized. On the graduate level, the reorganization centers in the development of an integrated seminar with divisions covering the major areas of education, and the establishment of a system of comprehensive examinations. A consolidation of several programs leading to the degrees of Master of Education was also effected to give unification and breadth of training rather than extensive specialization. The courses offered by Teachers College for teachers in service were reorganized, with a reduction in the number of semester courses and the development of a number of new full year courses emphasizing continuity and integration of instruction.

This reorganization is designed to secure more effectively the various functions served by the College: (1) to provide the technical training for undergraduate students who intend to become teachers; (2) to provide annually a number of graduates for appointment in the elementary and secondary public schools of Cincinnati; (3) to offer advanced professional study and educational assistance to teachers in service and public school administrators; (4) to stimulate and guide advanced students into research fields offering practical and constructive contributions to educational theory and practice.

Undergraduate Programs.— The plan of organization of the undergraduate programs for 1942-1943, the year covered by the present survey, is given in the catalogue for that year (3:27-48). The Teachers College

is a professional college within the University of Cincinnati.

The professional programs are arranged around a core of educational courses to which rather rigid adherence is expected. In addition to the required educational courses, each program provides for the content courses that usually are taken in some other college of the University or in an affiliated institution. This survey is concerned with the analysis of the educational courses only.

Two types of programs are found on the undergraduate level of Teachers College. These lead to the degrees of Bachelor of Science in Education, and Bachelor of Education. The programs leading to the degree of Bachelor of Science in Education require four years of study. The Bachelor of Education degree is awarded at the end of the fifth year to students having previously completed a four-year program either in Teachers College or in the College of Liberal Arts.

The distinguishing characteristic of the work of the fifth year is the provision for actual part-time teaching in the public schools of Cincinnati. This work requires the student to teach classes in the public schools one-half day each day for a period up to one school year. This work is done under the direction of regular teachers, known as co-operating teachers. A credit of twelve semester hours is given for this internship toward the degree of Bachelor of Education. A practicum carrying an additional eight hours of credit is conducted at the Teachers College for these fifth-year students. In addition to the internship and the practicum, there is a requirement of ten additional credit hours for the year, which might consist of

graduate courses in education. The practicum may be counted as graduate work, making it possible for the fifth-year students to complete eighteen hours of graduate work during the fifth year.

Graduate Programs.— The catalogue states (3:48):

The Teachers College offers graduate professional work in education leading to the degree of Master of Education and Doctor of Education. The programs . . . are designed (1) to provide for the attainment of a unified understanding of the whole educational program, through the establishment of a general seminar in which the various faculty members will co-operate with the students in an attempt to secure perspective and unity; (2) to embody the best in recent developments of comprehensive examination technique, with a view to measuring both the general fitness of candidates for degrees and their mastery of their fields of specialization rather than mastery of the subject matter of specific courses; (3) to select and give individual work to a limited group of students participating in the general seminar; (4) to provide a limited number of specialized courses designed to meet the various needs of teachers.

An outstanding provision for imparting to the graduate students a well organized grasp of the field of education is found in the form of a general graduate seminar. This is organized in four divisions, each carrying four semester hours of credit, and available singly or in any combination (3:50). These are:

Ed. 100. The School and the Social Order.

Ed. 101. Organization of the School System.

Ed. 102. Psychology and Principles of Teaching.

Ed. 103. Scientific Method and Research.

When the general seminar was given, the dean and the instructors or chairmen of the four divisions served as a committee for the co-ordination of this work. These sessions were attended by other members

of the faculty and served, incidentally, as a clearing house for information concerning the scope and emphasis of work offered in other courses. Unfortunately for this survey, the work of the general graduate seminar was suspended during the year of this study as a result of reduction in staff and student body during the war. The graduate constants analyzed in Chapter VI constituted the fixed core of course requirements for graduate work.

Courses for Teachers in Service.— A considerable part of the extensive service rendered by Teachers College is the curricular offering to teachers in service. This offering is made available to teachers in service through the expedient of scheduling classes after school hours and on Saturday morning. Most of the departments, areas, and school levels are represented in the offering, leading to undergraduate and graduate degrees. Local teachers owe much to this feature of Teachers College.

The Need For the Study

An analytical examination of the curricular offerings of the Teachers College of the University of Cincinnati promises several outcomes of value.

Inadequacy of Generally Accepted Criteria for Curriculum Organization in Teachers Colleges.— Since the time of Mann and Barnard extensive developments have taken place in the field of teacher training; but, even now, there exist no generally accepted criteria for the

construction of teacher-training curriculums (18:67; 39:350). The rapid growth of the field of teaching has produced a great array of offerings in the teachers colleges of the United States. The rapidity of the process has favored the growth of curriculums by the accretion of courses with too little attention to functional organization.

Educational Stock-Taking.— In the absence of generally accepted criteria for the organization of courses, it is not surprising that instructors working relatively independently should encounter duplication of effort.

An analysis of the content of the courses of a college is analogous to an inventory of a manufacturing or commercial establishment. It should contribute to intelligent operation.

The Value of the Study

Among the possible values of a topical analysis of the education courses in Teachers College, the following items may be mentioned as significant:

1. Value as an historical document.
2. Information essential in organizing new courses or reorganizing old courses.
3. Promotion of a desirable type of articulation through appropriate cross references from one course to another.
4. By inference, information relative to possible gaps in the offering.

5. Data bearing on the possibility of overlapping of courses and duplication of instruction.

6. Possible contribution to the technique of curriculum development in institutions of higher learning.

The Sources of Data

Syllabi of Courses in Outline Form.— The chief primary data for this study were supplied by the faculty on forms as exhibited in Appendix A.

Conferences with Faculty Members.— An important source of information was that of personal conferences with various members of the faculty. These conferences supplemented data given in the outlines and supplied viewpoints and purposes difficult to convey in the outlines.

Sources of Educational Topics.— For the purpose of comparisons, with reference to coverage and possible gaps in the course offerings of Teachers College and its various programs of study, certain published sources were consulted. The chief references used were: (1) the last three-year and the last one-year volumes of the Education Index (14, 15), (2) Encyclopedia of Educational Research (67), (3) The Commonwealth Teacher-Training Study (17), and (4) various references in the periodical literature that have reported surveys of the curriculums of teacher-training institutions (6, 7, 13, 18, 20, 29, 30, 31, 39, 40, 41, 51, 56, 57, 58, 61, 68, 75, 81, 86, 92, 94, 100, 106).

Courses Included in the Survey

One hundred and ten courses or sections of courses in Teachers College were surveyed. These are listed in Appendix B, Table 29, together with code numbers assigned for the convenience of this study, the catalogue numbers as found in the current catalogue of Teachers College (3), titles of courses, instructors, and credit hours.

Purely subject-matter courses, such as civics and marketing, which do not discuss methods of teaching or other problems pertaining to the profession of teaching, were not included in the survey.

Outlines for a few courses could not be secured. These are named in Appendix B, Table 30, with statements explaining the unavailability of outlines.

Limitations of This Study

This study is limited to one college in one university. It is anticipated that the results will have significance for this university and that both conclusions and techniques may apply in part to other similar institutions.

The scope of the study is restricted to a topical analysis of the graduate and undergraduate courses in general professional education in the Teachers College of the University of Cincinnati. Content courses as such were omitted.

The value of the study is affected by the difficulties involved in securing uniformity of procedure in preparing outlines, by the inconsistency of the nomenclature current in the literature of education,

and by the inevitable difference between course outlines and courses as actually taught. The course outlines were regarded as estimates or approximations rather than actual records of material taught. Comparisons of units of instruction found in the course outlines and quantitative conclusions based on such comparisons should be interpreted with this fact in mind. Judgment of faculty members, relative to the extent of duplication between specific units found in different courses, likewise was subject to the usual errors attending this type of data. These data, however, should not be discounted unduly. The course outlines and judgments of faculty members relative to specific matters lying within their field of experience, and based upon definite and pertinent facts, should be accorded the weight of expert opinion. Upon the validity and reliability of such data this study rests.

Temporal limitations on the value of the findings are present. With future changes in the faculty personnel and shifting emphasis in specific courses, the timeliness of the findings will be affected, a statement which is true of any research of the survey type.

The survey is one of factual analysis and interpretation. It is not considered the function of this study to formulate possible programs of reorganization, based on the data compiled, or to present a critical evaluation of the soundness of the curriculum of the Teachers College. The data collected and the analysis presented may well prove useful to the Teachers College, however, in any reorganization of the curriculum that may occur in the near future.

The General Plan of Treatment

In Chapter II the current literature bearing on the investigation is reviewed with reference to the methods employed and the significant findings. Some of these methods are of interest in the present problem, as is shown in Chapter III, dealing with the technique used.

In Chapter IV the course offerings of Teachers College as a whole are analyzed. The central feature of this chapter is an alphabetical list of the major topics or teaching units, made after reducing the number of different units by combining similar topics from different courses. General reference is made to the division of emphasis with regard to certain categories of subject matter, and to similarities as found between topics of the several courses. A comparison of the coverage of this master list of units with the literature is also made.

In Chapter V similarities found between units are analyzed with respect to functions and applications to teaching situations, and instances of apparent overlapping of content and duplication of teaching are segregated.

In Chapter VI analyses are given of prescribed sequences and various curriculum areas.

CHAPTER II

REVIEW OF THE LITERATURE

The literature germane to the problem of this study covers the general field of higher education relative to curricular offerings and, more specifically, a few prominent studies of specific institutions. These investigations include: (1) the study of duplication made at Ohio State University (29), (2) the investigation by Peik at the University of Minnesota (75), (3) the study of the Western Illinois State Teachers College (61), (4) the Oklahoma study (18), (5) the curriculum survey of the University of Minnesota (65), and (6) various studies of the curricular offerings of representative groups of teachers colleges.

General Survey of Related Studies

Surveys of State Systems of Higher Education.— In 1916, a survey by Angell of the state institutions of higher education of Iowa disclosed duplication of classes between institutions and recommended that major fields of work be assigned to each of the three state schools (2:50). Overlapping of work between Iowa State College and the State University of Iowa was found in psychology and education (2:78).

About 1928 a similar report was made by O'Shea, covering the state system of Virginia. Overspecialization and duplication of effort were seen in the fact that one-fourth of the classes in the university enrolled five or fewer students each (72:226).

The expedient of allowing only one state university to do graduate work in a given field was recommended by McNeely in 1934 as a procedure for eliminating duplication of effort between state institutions in Georgia, North Carolina, Oregon, and Virginia (66).

A survey of teacher preparation in Missouri by Learned and Bagley (59:258) in 1920 disclosed a waste of twelve per cent owing to duplication of classes.

Duplication Between Secondary and Higher Institutions.— In 1912 Judson complained of waste in educational curriculums, pointing out duplications between the last year of high school and the first year of college (50). He asserted that two years are lost in this manner.

Koos, on the basis of an extended study of textbooks, found that colleges duplicate thirty-five per cent of the English literature of the high school (53:274), and that the college and the high school first courses in chemistry are very much alike (53:286), and that the repetition in all high school subjects offered in college "can hardly be less than a full sixth to a full fifth of all the work taken in high school" (53:308). This study was reported in 1925.

With the assistance of a grant from the Commonwealth Fund, Osborn, in 1928, reported an elaborate study of the overlapping of textbook material (70). This study investigated the subjects of English composition, American history, and physics. According to the findings, one-fifth of the work in high school English composition has been given previously in the elementary school and about one-tenth of the material given in high school will be repeated in college, leaving seventy per cent of the high school course which belongs to it alone (70:51). He found that 14.2 per cent of general science is repeated in physics and that 5.2 per cent of physics has been learned in general science. Seventeen per cent of physics text material and 20.5 per cent of laboratory material are covered again in college, and 10.9 per cent of the college text and 29.7 per cent of college laboratory material duplicate high school work (70:52). In history, Osborn found that 19.6 per cent of the high school program repeats grade work and that 22.8 per cent of the high school course is duplicated in college, leaving the high school with a claim to 57.6 per cent of the work in American history as its own.

A different though pertinent view of the problem of duplication between high school and college was given by Learned and Wood (60) in 1938. Comparing the scores on comprehensive tests, they report (60:41):

The median score of the teachers [in preparation] is 626. Above this are the scores of twelve per cent of the high school seniors; twenty-two per cent of them have scores above twenty-five per cent of the teachers. Seven per cent of the prospective teachers made a lower score than thirty-six per cent of the high school pupils.

Thirteen per cent of the high school participants score higher than forty-four per cent of the college group.

Overlapping of University Classes by Matriculation Ages.—

Courses designed for freshmen and sophomores frequently are patronized by juniors and seniors. This practice involves a type of duplication detrimental to high standards. Little has been written on this phase of college and university administration. Winton's study (100:33; 83:165), made in 1926, disclosed that over sixty per cent of 357 courses in the University of Indiana were attended by members of four classes and that all classes "open to freshmen only" were attended by members of at least two classes (100:33).

Overlapping of Textbooks in Courses in Education.— A number of studies of overlapping in courses in education have been based upon examination of textbooks used in these courses. After making an analysis of ten popular texts representative of the field of education, Hyde (45), in 1927, reported an overlapping of subject matter of 51.6 per cent.

Much the same note is sounded repeatedly in the literature. In 1927 MacDonald opined that "there is a vast amount of subject matter common to so-called general psychology, educational psychology, and child psychology" (63). In the following year, Bolton continued in the same tenor (8) and Weeks, Pickens, and Roudebush (98), in 1930, corroborated the findings with a report of overlapping of over fifty per cent between the fields of psychology, educational psychology,

and principles of teaching. A systematic study of thirty-nine basic texts made by Corey (19) in 1933 disclosed overlapping of over thirty per cent.

Determination of the Duplication of Subject Matter in Courses in Education by Pretests.— If an examination possessing the comprehensiveness of a good final examination be given at the beginning of a course, the previously acquired knowledge of the students may be determined. This method does not disclose the source of the previously acquired knowledge, but may be a useful expedient in the prevention of duplication of teaching. By this method Worcester (105) concluded, in 1926, that a large proportion of the students in his classes in educational psychology knew from twenty to forty per cent of the course before enrolling, that certain topics already are familiar to everybody, and that certain students should not be admitted.

A report of Hyde (46), based upon two investigations made about 1928, substantiated the conclusions of Worcester. Pretests were given to classes of freshmen in educational psychology and to juniors and seniors in high-school methods. The results disclosed a knowledge of the course to an extent of about fifty per cent.

Elaborate Curriculum Surveys.— In 1928 Flick and Vannorsdall made a curriculum study of duplication for the sixteen hundred undergraduate courses of ten colleges of Ohio State University (29).

In the same year, the well known Minnesota study was made

by Peik (75). This study investigated thirteen courses prescribed for the education of secondary school teachers. It was based on the analysis of the syllabi and texts of these courses and on an elaborate questionnaire returned by one hundred alumni.

Following the general plan originated by Peik, though on a reduced scale, Linder, in 1935, surveyed twenty-one courses in education offered by the Western Illinois State Teachers College (61).

Grieder's study (39) of certain courses in education at the University of Iowa in 1938 attempted an extensive and critical evaluation based upon criteria from the national survey (86) and other literature and on an elaborate examination which he prepared and administered to students and alumni. This study does very little with the problem of duplication.

The most extensive curriculum survey here reviewed is a two thousand page study of the courses offered by all the teacher-training institutions of Oklahoma (18). While the primary purpose of Conger was not the investigation of duplication of course material, the data involved and the technique employed lend themselves well to this problem.

Some of these curriculum surveys are considered of sufficient importance to the present study to merit further analysis in succeeding pages.

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The Ohio State University Study of Duplication

The Scope of the Ohio State University Study.— The study of duplication by Flick and Vannorsdall covered sixteen hundred courses offered in ten colleges over a period of time extending from the summer quarter of 1923 to the winter quarter of 1928, inclusive (29). This survey did not include the courses open only to graduate students.

The Source of Data.— The comparison of courses was based on data secured from: (1) synopses, (2) texts, (3) required readings, (4) final examinations, and (5) enrollments, with emphasis on the first and the last of these sources of information. Excepting the compilation of enrollments, the data were secured by questionnaires sent to the various departments of the ten colleges. Instructions for writing the synopses state: "Fifty to one hundred words is suggested. State main purposes and give chief topics" (29:262).

The first four sources of data were used for detecting similar material in different courses, and the fifth, for checking the repetition of the same courses in consecutive quarters for very small groups of students. Major topics as listed in the synopses were considered fundamental for the method of detecting duplication between courses. Similarity in references was not considered as conclusive evidence of duplication. Reference to topics developed in other courses was considered as a justifiable practice in order

to establish teaching relationships, but when such units were given major emphasis the duplication was considered unjustifiable.

At the time of this study, the College of Education included the departments of Fine Arts, Industrial Arts, Education, Music, Principles and Practices of Education, Psychology, School Administration and Vocational Education (abandoned, 1927-1928).

The Technique.— A much used technique employed in this survey involved the tabulation of certain data concerning two courses in question in parallel columns. These tabulated data included: (1) the name of the department, (2) the number of the course, (3) the name of the course, (4) the author and title of the text, (5) references, (6) an analysis of the course, (7) selected examination questions, (8) credit hours, (9) prerequisites, (10) enrollment, and (11) conclusions concerning the presence of duplication.

The Findings.— The findings of this study range from pointed criticisms of certain colleges and departments to complete approval for others. Most of the duplication found in the College of Education occurred between and in the departments of Principles and Practices of Education, School Administration, and History of Education. In the seven departments of the college studied, there were 207 courses, thirty-one of which were said to contain some duplicating material.

Criticism of the Study.— The method of making deductions

on the basis of large or inclusive units may be questioned in the light of more recent findings (18:60). The larger the units of comparison the greater is the possibility that they may not contain duplicating material to as great an extent as the headings may indicate and, on the other hand, large dissimilar units may conceal much overlapping material.

The authors make the observation that the work is limited by: (1) the technique itself and (2) the method by which the questionnaire was answered by the various departments (29:4). The data are sketchy and incomplete. An adequate survey of the vast field of ten dissimilar colleges and sixteen hundred courses would fill many volumes. However, the extent of the contribution made under the circumstances is evidence of considerable insight on the part of these two investigators.

The Minnesota Study

The Scope of the Study.— The curriculum evaluation made by Peik (75) set a new pattern for investigations of this kind (79:4). It is outstanding in thoroughness of method. This survey studied intensively thirteen courses for the professional preparation of secondary school teachers on the undergraduate level.

The Method of the Study.— The method included the following essential steps:

(1) The instructors of methods courses submitted topical outlines or syllabi (79:7). A check list or "first master table" of 814 teaching topics was compiled from these syllabi (79:9).

(2) This check list was resubmitted to the faculty to ascertain the kind and extent of the treatment accorded each topic in the check list (79:36-47). The information relating to the treatment of the topics included the items:

1. Specific courses that use it as a major topic.
2. Time allotted to it as a major topic by each course
3. Total time allotted to it as a major topic in all courses
4. Average time allotted to it as a major topic by special methods courses
5. Specific courses which use it as a minor topic
6. Time allotted to it as a minor topic by each course
7. Total time allotted to it as a minor topic by all courses together
8. Average time allotted to it as a minor topic by special methods courses
9. Frequency of regular treatment by all courses
10. Specific courses which give it incidental consideration only
11. Frequency of incidental treatment by all courses
12. Courses which make reference reading assignments on it
13. Frequency of reference reading assignments by all courses together
14. Assumption of each instructor regarding the extent of treatment to be given to each topic by himself
15. Assumptions of instructors regarding the extent of previous or subsequent treatment of the topics of their own courses by other instructors of the series

The data thus secured originally were recorded in an eighty-column and sixty-eight-page table, called the "second master table."

(3) The items of the first master table were submitted to 599 alumni teachers, who were asked to give their reactions under

five categories. These were recall, practical value, theoretical value, desirability of omission, and inadequacy of treatment. Of 104 replies received in an acceptable condition, one hundred were used for study. This information composed the "third master table" (79:40-51).

(4) A "fourth master table" consisted of detailed analyses of the 814 topics of the check list, correlating the analyses of the university treatment with the evaluations of the alumni of the classes of 1923, 1924, and 1925, and the relation to the problems of beginning teachers (79:47, 54-59).

(5) A selection of the topics was made for the purpose of eliminating from the courses the least useful and adding certain topics suggested by the alumni. This elimination arbitrarily affected one-eighth of the topics, made on the basis of the criteria (79:53,63): (a) the per cent suggested for omissions, (b) the "index of functioning value," (c) the per cent indicating inadequate treatment, and (d) the per cent who experienced great problems as beginners.

(6) A procedure was outlined for allocating the selected topics to appropriate courses and the further refinement of existing treatment emphases (79:67-71).

The Findings.— A large number of curricular studies were made upon the basis of primary data included in the first three master tables and the statistical analyses of the fourth master table (79:38,59).

A number of typical findings of the Minnesota study may be listed as follows (76:355):

1. As many topics are treated incidentally as regularly.
2. The average incidental and regular treatment of each topic of the checking list is 2.58 times, affording ample opportunity for duplication and poor articulation.
3. Instructors are wrong in one-third of their assumptions regarding the treatment of their topics in other courses.
4. There is a great variation in the use of references in making assignments.
5. Intimate relations exist between the courses in general and special methods.
6. There is a great variation in the special methods courses.
7. For practical value, courses are ranked by alumni: (1) Practice Teaching, (2) Special Methods, (3) Educational Psychology, (4) Technique of High School Instruction, (5) The High School, (6) Educational Sociology, and (7) History of Education.
8. The general training program is considered adequate in academic subject matter, nearly as much so in educational theory, and much less in the technical aspect of teaching. It is generally lacking in preparation for the non-major teaching fields.
9. The outstanding problems are related to the instructional and professional activities.

10. The majority of the alumni state that the program is helpful, that it is heavy in general training and short in specific training, and that there is overlapping and duplication. About one-half of the alumni suggest the combining of courses in education. There is much criticism of History of Education.

11. Topics were checked oftener for theoretical than for practical values.

12. Historical topics lead the list with suggestions for omission. Administrative and technical topics are also mentioned for omission.

13. The judgments of the alumni show reliability and definite trends of thought.

An Evaluation of the Study Made by Peik.— An evaluation of this study will place it high in any scale of estimates. The findings relative to the rating of educational courses by alumni were corroborated by Eliassen at Ohio State University (22). However, a number of observations may be made relative to certain features.

Peik himself observes that the evaluations on the basis of the opinions of graduates who have been out of college only three years may accentuate certain values and obscure others. The additional criticism may be made that any evaluation based upon the mass opinion of graduates may leave much to be desired. Education is a subject replete with philosophical convictions and preferences. It is possible that many alumni like what they learn to like and that

these preferences may be given back to the mother institution in a survey such as that conducted by Peik. This view is substantiated by the findings of Fredericks (31:168), who found that graduates of the 1921 one-year courses expressed the same evaluations of their training as the 1935 graduates of four-year courses.

It seems that in much of Peik's work there is an effort to compile data in impressive arrays that have but little value either for the theory of education or for application in practice.

From a critical viewpoint, studies like this err grossly in the matter of verification of the findings. After the reorganization of the courses in education in this particular area, there might have been a repetition of the study and comparisons made with the findings of the previous survey.

Finally, there is the question of the selection of the population. There appears to be no evidence that the people who chose not to respond to the survey were represented adequately by the opinions of those who did respond. There should be further evidence that the bulk of the 599 alumni were fairly sampled by the selection of 104 who submitted acceptable replies.

The Western Illinois State Teachers College Study

The General Plan of the Study.— This curriculum survey by Linder (61) is similar, in broad outline, to the Minnesota study. It concerns itself primarily with the commonly-met criticism of

waste due to duplication of course material and the elimination of theoretical and historical material of little functional value, and attempts the establishment of criteria for the choice and treatment of topics in education courses (61:9).

The Technique.— Considering a topic as "a subordinate part of the comprehensive unit of instruction" (61:12), the author made lists of the teaching topics occurring in the courses studied. Three of the six curriculums of this college were selected for this purpose. Syllabi and texts were employed as the sources of data. As each topic was identified, it was recorded on a three-by-five-inch card (61:24). A total of 583 topics so procured was condensed into a master list of 328 items by the elimination of duplications. From these cards were prepared curriculum charts tabulating the topics of each curriculum or program of studies. Data from these charts were used to make tables showing the items involved in cases of duplication (61:28).

The Findings.— Linder's study found a duplication of from three to twenty-five per cent between courses within curriculums, and a range of from eight to thirty-six per cent between special methods courses and educational courses (61:44). But the seriousness of this amount of duplication is modified by the responses of the alumni. Based upon 38.5 per cent return from fourteen hundred questionnaires submitted to graduates, Linder finds that (61:94):

Apparently there is no serious problem of unnecessary duplication in the first two or two and one-half years of the four-year curricula and the situation for the four-year program is not so serious as the duplication charts alone would appear to indicate.

By the same questionnaire this worker found that over half of all the topics were rated high for application to teaching by the majority of graduates and about five per cent, mostly in history of education, were rated low (61:122). On the basis of this questionnaire, about seventy-three per cent of all topics in the check list were considered of sufficient value to be required of all prospective teachers and sixteen per cent for limited groups (61:150).

Evaluation of the Study.— The basic criticisms expressed above relative to the work of Peik apply to this study. In addition, Linder drew upon alumni who had been out of school for a greater period of time and, further, required the respondents to recall facts of repetition relative to the 328 items of the check list and to evaluate their desirability.

The Oklahoma Survey

The Scope of the Study.— With the help of a grant of one thousand dollars from the General Education Board, Conger (18) made an exhaustive survey of the curriculums of the twenty-seven teacher-training institutions of Oklahoma. He analyzed 531 professional courses (168 distinct titles), embracing 10,579 topics. The purpose of the study (18:5) included the determination of: (1) the similarity between courses presumed

to be the same, (2) the placement of courses in the curriculums, (3) the agreement on prerequisites, (4) the agreement on credit for similar courses, (5) the extent of overlapping of content between different courses in the same field, (6) the extent of overlapping in content from one field to another, (7) the extent of agreement on topics for certification, (8) the determination of characteristic differences between classes of institutions, and (9) the extent of overlapping of all courses when classified under large standard types, such as discipline, methods, and other general titles.

The Technique.— Syllabi were submitted by the instructors of the institutions studied. They were asked to "include the major topics and the first-order minor topics", although no attempt was made to define the distinction between major and minor topics (18:36). Text and reference data were also obtained and information on the following list of items requested: (1) name of institution, (2) type of institution, (3) catalogue number and name of course, (4) divisional subject heading, (5) acceptance for senior college credit, (6) credit hours, (7) recitations per week, (8) prerequisites, (9) college year for which specified, (10) classes of students required to take the course, (11) frequency of the offerings, (12) demonstrations with children, and frequency of such demonstrations.

The major and minor topics of the syllabi were transferred

to cards and these sorted in a rather complicated manner. Substantially the same treatment was accorded topics of both classes. An attempt was made to sort the topics according to the topic lists of Voegelein, Peik, Alexander, and others, but this attempt was abandoned after several weeks of fruitless effort. Part of the work of sorting was done with a Hollerith machine.

The "index of similarity", as used by Conger, is expressed as follows (18:69):

$$S = \frac{\sum p_1/d_1 + \sum p_2/d_2 + \dots + \sum p_c/d_c}{C}, \text{ where}$$

p = the per cent of agreement of any course with all equivalent courses with respect to any topic in it,

d = the number of different topics in the course under study,

$\sum p/d$ = the mean percentage of agreement of any course with all equivalent courses with respect to any topic in it,

C, c = the number of institutions offering the subject under consideration,

S = the index of similarity of content of equivalent courses.

The Findings.— Of the numerous statistical tables presented, the most significant is the one giving the indices of similarity between courses, presumably similar, occurring in two or more

institutions (18:58). Four courses, each offered in two schools, were found in which there was one hundred per cent agreement and there were seven, presumably the same, each offered in at least two schools, in which there was not a single topic in agreement. The median index of similarity was found to be 50.67.

Summarizing the findings of this study (18:64):

1. There is a negligible similarity of content between "equivalent" courses.
2. There is a general agreement as to the placement of courses.
3. Fifty-six per cent of the courses have no prerequisites and very little sequence of courses has been established in any of the institutions.
4. A high degree of agreement was found in the amount of credit given for the same course.
5. Specific tables were not computed to show the situation relative to overlapping, but "the general information with reference to the lack of agreement between courses presumed to be the same makes it clear that there is no great amount of overlapping of content anywhere."
6. The same comment applies relative to overlapping from one field to another.
7. No compilation on agreement of topics for certification was made in this study.

8. There was no determination of characteristic differences existing between different types of institutions.

9. There is considerably more overlapping of content in a general way than there is of specific content as indicated by major and minor topics.

Conger concludes (18:65-67) in part:

The fact that stands out most clearly from this study is the confusion and lack of agreement as to what is really being sought by the various professional courses. This is shown, first of all, in a great variety of texts used for presumably the same courses. This would not be significant except for the fact that an examination of the texts shows that in many cases they are written from entirely different points of view and with different purposes in mind. For example, we find texts used in courses presumed to be the same that are as different in content and purpose as "How to Teach" by Strayer and Norsworthy and "Educational Psychology" by Jordan. Both texts are used in courses listed as Educational Psychology. Again we find numerous instances where the same text is used in what is presumed to be entirely different courses and in some cases in entirely different fields. For example, "Foundations of Method", by Kilpatrick is used as a basic text in Philosophy in Methods and in Principles of Teaching. ...

Finally, the low index of similarity of minor topics in courses presumed to be the same is conclusive beyond question that there is relatively little agreement as to the function of any given course. ...

It is obvious from this study that the general practice in curriculum making for teacher training is fallacious.

Evaluation of the Oklahoma Study.--- This study by Conger deserves more publicity than it has received, but it is a matter of regret that the intended compilations relative to duplication were not completed.

The failure to distinguish between major and minor topics, both with respect to purpose and function and to the time emphases given them in course treatment, raises a question concerning the validity of the technique employed. Concerning this point Conger later said:

Since completing the study reported in Bulletin 133, I have had some question in mind as to the validity of the technique I used. As you recall, the analysis was made by reducing each of the professional courses offered in the twenty-seven institutions doing teacher training work, to major and minor topics. There is a tacit assumption that all of these topics, both major and minor, are dealt with in approximately the same way. This assumption is not valid. ... Conclusions, therefore, drawn with reference to duplication or overlapping should be made with this difference of treatment in mind.¹

The University Curriculum Survey of the University of Minnesota

Plan of the University Curriculum Survey.— A survey conducted by McConnell and Eckert (65) covered 3180 courses in six colleges. The study was begun early in December, 1941, with the avowed purpose of retrenchment.

A carefully developed form used for reporting data covered the following topics: (1) development of the course; (2) educational purpose of the course; (3) expanded topical outline of the course to cover "at least a page outline"; (4) readings; (5) course enrollment; (6) duplication or overlapping among courses, calling for offhand opinions on (a) location of overlapping, (b) extent of overlapping, and (c) evaluation of overlapping; (7) requirements for enrollment in the course; (8) suggestions for new courses; and (9) remarks.

¹Letter to Carter V. Good from N. Conger, dean of the School of Education, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma, dated April 10, 1942.

With the exception of the third point in the circular form, short answers only were required and could be supplied by the faculty members with little effort.

Findings.— During the year covered by this survey, there were approximately three students in residence for each course.

About one-third of the faculty submitted the "page outline" in such a sketchy form as to be of little value for course analysis.

Data concerning the overlapping of course content, based on the opinions of professors concerning courses other than their own, indicated some degree of overlapping for about fourteen hundred, or forty-three per cent, of the courses in the six colleges (65:52-56).

Evaluation of the University Curriculum Survey of the University of Minnesota.— Much valuable information for administration was revealed in this study. For a detailed survey of specific course offerings in the various colleges, however, there is little that can be said concerning the validity or the value of this study. The course outlines were much too brief to be of great value in making a comparative analysis of course content.

The opinions requested relative to knowledge of overlapping should be regarded as an introductory inquiry only, valuable chiefly in preparing the way for a subsequent study.

Summary

Related Studies. — Various phases of the concept of duplication of teaching and overlapping of subject matter include (1) duplication of work between competing institutions of higher learning, (2) subject matter duplication between secondary and higher institutions, (3) registration of students of different matriculation ages in the same courses, (4) duplication of classes between two or more colleges in the same university, and (5) duplication of subject matter involving the granting of double credit for similar work.

The latter phase of subject-matter duplication has been studied by: (1) analyses of texts, (2) pretests of college-class registrants, and by (3) extensive curriculum surveys, as represented by the studies of Flick and Vannorsdall (29), Peik (75, 76, 79), Linder (61), and Conger (18).

Elaborate Surveys.— Surveys of curriculum offerings of an invensive character have been developed through several stages of evolution. The study of Flick and Vannorsdall was one of the first large-scale studies of university curriculums. This survey made a study of the total curriculum offering of a large university and revealed conditions which are the natural result of rapid departmental growth. The data in many cases were fragmentary and the method highly qualitative.

Peik's study was the first to make a systematic analysis of courses in a teacher-training institution. This study originated

the master-list technique, using instructors' syllabi as sources of data. An attempt was made to evaluate the professional offering by organizing the opinions of a limited number of alumni. The value of the findings suffered through a rather atomistic separation of topics with too little regard to their organization and through a naive assumption that a valid evaluation was to be had at the hands of the alumni.

Conger's study surveyed the teacher-training institutions of Oklahoma for the purpose of determining the similarity of courses of comparable titles, with an analysis of overlapping of content of dissimilar courses as a secondary objective. Conger's survey involved the assumption of equal treatment of topics of similar meaning without consideration of organization or function in the classes in which they occurred. This survey, however, was not without merit. It disclosed a generally chaotic condition in the field of teacher education, a general absence of well defined objectives, and a total absence of standardization in the naming and organization of courses for the training of teachers.

The Need for New Techniques.— The value of the literature reviewed consists largely of its presentation of the general background of curriculum evaluation and analysis. Much of the material is superficial.

The study of the current literature has revealed the absence of adequate objective criteria for the evaluation of teachers college

curriculum (18). Theoretical considerations have been advanced (39, 86), opinions of alumni have been sought (51, 61, 79), and an appraisal of teacher efficiency has been correlated with estimates of the quality of teachers' work in classes in education (39). All these approaches have serious shortcomings.

Topical analyses in much of the literature have failed to recognize adequately the significance of organization within courses. Analyses that separate minor topics from functional instructional units, with little or no difference in treatment, lead to unsound deductions.

Studies of overlapping have failed to differentiate adequately between justifiable overlapping and wasteful overlapping and duplication of teaching. In the studies by Peik (75, 79) and by Linder (61), surveys of the opinions of alumni indicated that some overlapping is desirable, but no successful effort has been made to determine the relative extent of overlapping of different types.

The literature is deficient in methods appropriate to determine the adequacy of coverage of educational topics, just as it is lacking in methods of determining the relative educational emphases found in courses and programs.

Methods Used in This Study.— The methods used in this survey, in comparison with those found in the literature reviewed, involve the following characteristics:

1. The use of a master list of teaching units from course

outlines furnished by the instructors of the courses. The method of the master list is not new, but other master lists have failed to distinguish between teaching units and topics of subordinate emphasis (18, 61, 75).

2. An evaluation of the topical coverage of the professional curriculum offering through a comparison of the topics of the master list of teaching units with the topical coverage of the current literature in the field of education. Such a study does not appear in the literature reviewed.

3. An evaluation of the relative emphasis accorded different categories or classes of educational topics, as found in the various prescribed programs of study, required constants, and in the total professional offering. No precedent was found for this approach.

4. A distinction between time in common; called "concurrence," and overlapping or extent of treatment found in common between units. This distinction between concurrence and overlapping of similar topics appears to be unique in this study.

5. A functional classification of similarities between courses and units that involves consideration of: (1) identity of students, (2) prerequisite-sequent relations, (3) use of similar instructional material for different purposes, (4) treatment of different phases of topics by units of similar titles, (5) applications of similar content to different fields of teaching, and (6) duplication of instruction. Such a plan of analysis was not found in the literature.

CHAPTER III

THE TECHNIQUE OF THE INVESTIGATION

The method of procedure used in this study involved collection of data concerning the subject-matter offering of the Teachers College of the University of Cincinnati and the interpretation of these data with reference to two chief lines of inquiry: (1) an analysis of the course offerings to determine the completeness and inclusiveness of the educational subject matter presented, and (2) a study of similarities existing between courses and an appraisal of such similarities.

After making this survey of the offerings as a whole, the inquiry was extended to certain areas and subject-matter fields on the undergraduate and graduate levels.

Collection of Data

Course Outlines.— Each member of the faculty of Teachers College was asked to submit complete outlines¹ of his courses and to specify the amount of class time devoted to each major unit of instruction shown in the outlines. An attempt was made to secure similarity in writing the outlines by defining "major unit of instruction" and

¹
Appendix A, letter to Teachers College faculty members.

"first-order" and "second-order" subtopics.²

A sample page of an outline was submitted to each instructor,³ and uniform blanks were supplied in sufficient number to accomodate all outlines.⁴ Accompanying these blanks was an additional form, one for each course, requesting a list of the texts and references used⁵. Outlines were requested for 128 courses or sections of courses.⁶

Conferences with Faculty Members.— In addition to the information afforded by the outlines of the various courses, other data were secured through conference with members of the faculty. In a few cases members of the faculty who submitted outlines were absent from the campus when the conferences were held. See Table 29, Appendix B.

In some cases it was necessary to divide units differently from the manner originally indicated in the outlines. In each of these instances the instructor concerned was consulted, and new time estimates were determined. One hundred and twenty three units were rechecked for time distribution with the instructors.⁷

²Appendix A, Request Submitted to the Faculty of the Teachers College of the University of Cincinnati, Seeking Data to be Used in Analyses of Courses Offered in the Teachers College.

³Appendix A, Specimen Outline of a Unit.

⁴Appendix A, Outline of Course.

⁵Appendix A, Texts and Required Readings.

⁶Appendix B, Tables 29 and 30.

⁷Appendix C, Tables 31 and 32.

Consultation with faculty members also was employed to determine course sequences and limitations on the admission of students to the courses. In the final analysis of certain units, members of the faculty were interviewed to secure amplifications of the outlines and judgments relative to the nature and amount of the duplication present. The results of such conferences are indicated in this study in the appropriate contexts.

Collection of Data on the Range of Topics in the Field of Education.— Several publications were analyzed to determine the total coverage of topics in the field of education and to secure a comprehensive list of topics that reasonably may be expected to occur in the offerings of a teachers college. These publications included the Education Index, July, 1938-June, 1941 (14), the Education Index, July, 1942-June, 1943 (15), the Encyclopedia of Educational Research (67), and the Commonwealth Teacher-Training Study (17).

A topic card was made for each item that covered a space of one-half page or more in the 1938-1941 volume of the Education Index and that also covered one-sixth page or more in the 1942-1943 volume of the Education Index. Those topics were discarded that did not appear in both volumes of the Education Index studied. The page coverage of each topic was recorded with a double figure, the first representing the page coverage in the three-year volume, and the second, in the one-year volume. The page coverage in the one-year

volume was multiplied by three and averaged with the page coverage as found in the three-year volume, to secure a composite index of treatment. See Figure 1.

As shown in Figure 1, the topic, "Safety Education," covered 2.60 pages in the three-year volume and a weighted equivalent of 1.10 pages in the one-year volume. The figure, "2," is the index of emphasis resulting from the average of 2.60 and 1.10.

Topics not directly educational, such as "abstracts" and regional geographic names, were not included. The items were assembled in a table,⁸ giving the space for the several items in terms of page coverage, "1" for a coverage of 0.50 page to 1.49 pages, "2" for 1.5 pages to 2.0 pages, etc.

In a similar manner, topics in the Encyclopedia of Educational Research were evaluated and tabulated.⁹

An analysis of the Commonwealth Teacher-Training Study was made in as nearly a similar manner as possible.¹⁰ From the list

⁸
Appendix D, Table 33.

⁹
Appendix D, Table 34.

¹⁰
Appendix D, Table 35.

of about one thousand activities, classifications were made, using the number of activities appearing in each group as an index of quantitative evaluation, rather than page coverage as was done in the case of the Education Index and the Encyclopedia of Educational Research.

Organization of the Data

The Card Index.— The data secured through the course outlines supplied by the faculty of Teachers College were transferred to filing cards, three by five inches in size. A card was made for each course, for each teaching unit or major topic, and for each first-order subtopic. Approximately five thousand cards were required for this purpose.

The first line or item of each card gave the catalogue number of the course, the name of the instructor, the title of the course, and the code number of the course. The code numbers of the courses were three-digit numbers, ranging from 001 to 110.

The course cards carried, at the end of the first item, a numeral indicating the number of semester hours of credit and a numeral indicating the number of minutes of total class time. See Figure 2. Following these items, the units of the course were recorded as found in the course outlines. The first line on each of these course cards was underscored in green pencil for ease of identification.

Safety Education	260
	110
	2

Figure 1. — Example of Topic Card

078 Ed.	132 Stewart	Language Arts in the	
		Elementary School	<u>2 — 1500</u>
I The nature of language II Organization for basic instruction III Oral composition IV Written composition V Creative expression VI The correctness program VII The selection and grade placement of spelling vocabulary VIII Methods in the teaching of spelling IX Evaluation in spelling X Penmanship			

Figure 2. — Example of Course Card

The first line or item on each unit card was the same as that appearing on its corresponding course card. See Figure 3. The second line on each unit card gave the title and number of the unit as found on the course outline. In a few cases it was necessary to abbreviate these titles for purposes of classification. At the end of this line giving the name of the unit, a number was placed indicating the number of minutes devoted to the unit in class. Later, after classifying, combining similar topics, and alphabetizing, four-digit code numbers of units were added on the left margin of the card. These numbers ranged from 0001 to 0942. This line on the unit card, identifying the unit, was underscored in blue pencil for ease in identification. Following the first two items on the unit cards, the first-order subtopics were recorded as found in the course outline.

A third series of cards was made for first-order subtopics. Each first-order subtopic card repeated the first and second items of the unit cards, with the omission of code numbers and time spent in class on the unit. See Figure 4. The third item on each of these first-order subtopic cards gave the first-order subtopic as found in the course outline, the time spent in class on the entire unit, and the number of subtopics in the unit. For example, if the time devoted to the entire unit were one hundred and fifty minutes and there were nine first-order subtopics in the unit, the time designation would be "150/9" and read: "one of nine units which

078	Ed. 132 Stewart	Language Arts in the Elementary School	
0201	IV	<u>Written composition</u>	<u>150</u>
		A Letter writing	
		B Keeping records	
		C Forms	
		D Announcements and advertisements	
		E Making a bibliography	
		F Summarizing	
		G Outlining	
		H Theme writing	
		I Evaluating	

Figure 3. — Example of Unit Card

Ed. 132 Stewart	Language Arts in the Elementary School
IV	Written composition
A	<u>Letter writing</u> <u>150/9</u>
1	Importance
2	Types of letters
3	Mechanics
4	Courtesies
5	Development of sensitiveness to letter writing situations
6	Motivation and practice

Figure 4. — Example of First-Order
Subtopic Card

together were given one hundred and fifty minutes of class time." This third line on each of these first-order subtopic cards was underscored in red pencil for ease of identification. Following the third item on each of the first-order subtopic cards, the second-order subtopics were given as they were found in the course outlines.

Each first-order subtopic card was clipped to its major topic or unit card and these unit cards then arranged alphabetically with reference to a key word in the title. Major topics of similar meaning were fastened together with rubber bands. In a limited number of cases, several related units were grouped together and alphabetized under a common caption, and fastened together with a rubber band. These captions were assigned alphabetical positions in the lists of units.

The alphabetized cards were numbered consecutively by assigning to each an identifying code number of four digits. Code numbers were not assigned, however, to the captions indicating the grouping of units. In the case of unit titles shared by units from two or more courses, the unit number was repeated on each unit card. A total number of 1,234 unit cards were written and a total of 942 different units remained after contracting the list by the combination of similar titles.

The Master List of Teaching Units.— A master list¹¹ of

¹¹

See Table 36, Appendix E.

major topics or units of the contracted list was made from the cards. In this list were recorded: (1) the code number of the unit, (2) title of the unit, (3) code number of each course represented by the unit, (4) number of minutes devoted to each unit in each course, and (5) a category number indicating an area or general topic to which the unit was adjudged to be allied.

Interpretation of the Data

Topical Coverage of the Total Offering.— In order to discover possible gaps in the total offering of the Teachers College, comparisons were made between the topics of the master list of units and the lists derived from the current literature. The chief sources in the literature were: (1) Education Index (14,15), (2) Encyclopedia of Educational Research (67), and (3) the Commonwealth Teacher-Training Study (17).

¹² These three lists from the literature were checked against the master list¹³ of teaching units to determine important topics not found in the master list of teaching units. Subject titles representing these gaps in the curriculum offering of the Teachers College were compiled in Table 4.

Study of the Similarity of Course Material in the Total Offering.—

An investigation of similarities between unit titles in the master list

¹² Appendix D, Tables 33, 34, and 35.

¹³ Table 36.

was made. In order to facilitate these comparisons, a chart was constructed, indicating the relation between units and the courses containing them. This chart is not reproduced in this report. On the chart, code numbers of the courses were indicated across the top, and code numbers of units involving similarities were arranged in a vertical column on the left. Opposite the code number of a given unit, and in the column of the course containing the unit, was placed a number indicating the time spent in that course on that unit.

From this chart a list¹⁴ was prepared showing the courses that contained no similarities between the titles of units from a particular course and those of other courses.

It should be noted that this technique was not expected to yield a true measure of overlapping of course duplication, but merely the extent of course material within which overlapping and duplication could be delimited at this stage of the investigation.

Definition of Terms.— Similarity of unit or course material is considered to exist when the unit titles or subtopics give definite indication that the same facts, principles, or relations are treated.

"Concurrence" of similar topics, as used in this study, is a measure of the time in common between two or more units. This measure is usually applied to units having similar titles without reference

14

Table 3.

to the actual degree of similarity between the content of the units as indicated by subtopics. It is measured in minutes and is the sum of the times of the units involved minus the time of the longest unit. For example, units having times of 200 minutes, 150 minutes, and 100 minutes, have a concurrence of 250 minutes.

"Overlapping" is here regarded as referring to the extent of similarity of material existing in separate courses. It is measured in the same manner as concurrence excepting that, instead of applying the measure to entire units of similar titles, the application is made only to those portions of treatment within the units which are identical.

"Duplication," for this study, connotes wasteful or undesirable overlapping between courses. Duplication, as here defined, includes the three characteristics: (1) overlapping content, (2) identity of students, and (3) similarity of educational purpose.

Course overlapping, as here defined, may be present with no "duplication," if one or more of the following characteristics of the purpose applies:

- A. Difference in educational level, such as indicated by the relation between prerequisite and sequent courses, and difference in college level, such as graduate and undergraduate.
- B. Difference in the application of the material, such as theory courses versus observation and practice courses.

- C. Treatment of different phases of the topic, as indicated by two units whose subtopics are quite different.
- D. Application to different fields of teaching, such as primary grades and upper elementary grades, or different subject-matter areas of teaching.
- E. Purposeful repetition as a planned educational procedure.
- F. Reviews and summaries.
- G. Different applications of the same principle.
- H. The same or similar material indicated, but not used in a manner to result in duplication if students have had the competing course. Additional work assigned in such cases.

Study of Overlapping and Duplication.— After identifying the courses and units in which similar material existed, the next step was to identify and eliminate from this group those courses with a known and functional prerequisite and sequent relationship, and courses with a different application or use of teaching content. Information necessary for making this analysis was secured chiefly through conferences with members of the faculty of Teachers College, and the data were recorded in appropriate tables.¹⁵

Pairs of units found in courses involving similar units and not included in the preceding classifications of courses were examined in further detail. First-order and second-order subtopics were studied carefully and conferences with instructors of the courses involved were held to determine in greater detail the nature of the topics in question. These data were recorded in tables.¹⁶

Area Coverage by Categories

In order to evaluate certain courses and programs of study with reference to the variety and extensiveness of topics covered, it was necessary to adopt a system of categories for the classification of topics. The categories selected were:

1. Organization and Administration.
2. Supervision and Curricular Development.
3. Psychology.
4. Special Methods and Related Content.
5. General Methods.
6. History and Comparative Education.
7. Measurement, Research, and Appraisal.
8. Philosophy of Education.
9. Classroom Management and Extra-Instructional Activities.
10. Educational Sociology.

¹⁶

Tables 5, 40, 41, and 42.

Categorical Analysis of the Total Offering.— Each unit of the master list¹⁷ was assigned a number indicating the category most closely related, as indicated in the preceding list. These data were summarized in Table 2.

Categorical Analysis of Prescribed Sequences and Programs of Study. — In a similar manner, tabulations¹⁸ were made for the various courses included in the required sequences of the undergraduate curriculum, for the graduate constants, and for the specific requirements of the programs of study, as given in the current catalogue of Teachers College (3:29-48).

Summary

The technique of this study involved the collection of data relative to the content of the educational courses of Teachers College, chiefly through the medium of extensive outlines submitted by the faculty. These outlines were made to approximate a fair degree of uniformity by means of detailed instructions and uniform blanks for the reporting of course outlines. These outlines were supplemented by conferences with members of the faculty for the purpose of amplifying data concerning the nature of topics, time devoted to topics in class, types of students enrolled in the courses, and teaching purposes.

¹⁷Table 36.

¹⁸Tables 7 - 28.

Data concerning the variety, emphasis, and range of topics included in current educational literature were compiled by making tabulations of the space devoted to topics in the Education Index, Encyclopedia of Educational Research, and the Commonwealth Teacher-Training Study.

The most important medium for the organization of the data relative to the content of courses in Teachers College was a card index covering all the courses, the teaching units or major topics, and subdivisions of these major topics. By means of the card index the unit topics were classified, alphabetized, and condensed by combining titles of similar meaning. From these cards a master list of teaching units was prepared, which carried code numbers of the units, and the courses, the time devoted to each unit in class, and assignment to certain categories of topics in the field of education.

Comparisons of these data were made to determine possible gaps in the list of topics represented by the master list of teaching units.

An analysis of similar units appearing in two or more courses was made to determine the nature and extent of such similarity of content and to evaluate such overlapping and duplication as appeared.

An analysis was made of the total offering, as represented by the master list of units, to determine the relative emphasis with respect to certain logical divisions or categories of subject matter.

These categories included: (1) Organization and Administration, (2) Supervision and Curriculum Development, (3) Psychology, (4) Special Methods and Related Content, (5) General Methods, (6) History and Comparative Education, (7) Measurement, Research and Appraisal, (8) Philosophy of Education, (9) Classroom Management and Extra-Instructional Activities, and (10) Educational Sociology.

A similar categorical analysis was made of certain required courses and specified sequences on the graduate and undergraduate levels.

CHAPTER IV

GENERAL SURVEY OF THE CURRICULAR OFFERING OF THE TEACHERS COLLEGE OF THE UNIVERSITY OF CINCINNATI

The approach to the analysis of the curricular offering of the Teachers College was made through a study of course outlines submitted by the faculty. The major topics or teaching units of one hundred and ten outlines were classified and arranged in an alphabetical list together with information relative to the courses in which the units occurred, the time devoted to each in the class in which it was found, and a numerical designation of the general class or category to which each unit was assigned.

Observations are presented in this chapter concerning the general coverage of educational topics, as recorded in the course outlines, and concerning certain broad aspects of similarities occurring between units of different courses. Attention is directed to possible gaps in the offering and to certain areas in which overlapping or duplication of content may be suspected.

The Master List of Teaching Units

The Form of the Master List of Units.— The major topics or teaching units found in one hundred and ten course outlines were assembled in an alphabetical list. It was found possible to combine some of these as composite units under common titles.

These composite units, together with other units that could not be combined, were alphabetized and, to a certain extent, grouped under common topics, with the related unit topics alphabetized under these common topics. As an illustration, units 0009 to 0034 were grouped under the topic of "Psychology of Adjustment" and this topic as a whole was alphabetized in the list of units. In some cases the leading topic of such a group of unit titles itself served as a unit designation. Unit 0226, "Curriculum," is an example in which the leading caption served also as the topic of units having this general title.

In this master list of topics, Table 36, Appendix E, a serial number was assigned to each separate unit title, but not to the leading captions unless also titles of units.

Course numbers are indicated in the fourth column of this table and occur as code numbers, the key to which is given in Table 29.

A composite unit is characterized in the master list by the inclusion of two or more course numbers and time assignments. As an illustration, unit 0059, "Ancient Education," is found in courses, 005, 006, and 007, with the statement of the time devoted to each in its respective course outline as 200 minutes, 200 minutes, and 400 minutes.

The units of the master list were classified into ten categories or areas of subject matter. Numbers representing these categories were

assigned to the units and these numbers were recorded in the third column of the table.

Content of the Master List of Units.— In the one hundred and ten course outlines, which constitute the major portion of the primary data of this study, were found 1,234 teaching units. Of this number, 455 units were found similar to one or more units. Combinations of these resulted in 163 composite unit titles, reducing the total number of unit titles from 1,234 to 942. These 942 unit titles appear in Table 36, Appendix E, with numbers ranging from 0001 to 0942.

Table 1 shows the frequency of combination of original unit titles in composite unit titles. The number of original unit titles in combination ranged from two original unit titles in each of one hundred and four composite unit titles to ten original unit titles in each of two composite unit titles.

Categories of Topics

An attempt was made to classify the units of the total curricular offering into a short list of categories or areas of subject matter. The categories are:

1. Organization and Administration
2. Supervision and Curriculum Development
3. Psychology
4. Special Methods and Related Content
5. General Methods

TABLE 1

FREQUENCY OF COMBINATION OF ORIGINAL UNIT TITLES
IN TITLES USED IN THE MASTER LIST OF UNITS OF
TEACHERS COLLEGE, 1942-1943

Number of Courses Represented in Combined Unit Title	Number of Composite Unit Titles in Master List	Number of Original Unit Titles Involved in Combination
2	104	208
3	29	87
4	15	60
5	6	30
6	4	24
7	0	0
8	1	8
9	2	18
10	2	20
Total.....	163	455

6. History and Comparative Education
7. Measurement and Appraisal
8. Philosophy of Education
9. Classroom Management and Extra-Instructional
Activities of Teachers
10. Educational Sociology

Organization and Administration.— This category is interpreted to include all material related to the organization of the educational system and the administration of school systems or divisions of systems. This includes material on the staff personnel and pupil personnel, in so far as these are involved in organization and general administration. The plant and supplies, finance, public-school relations, and school law are regarded as administrative topics. Also included are topics related to administration of teacher personnel, such as certification, teacher training, professional ethics, and teacher associations.

Supervision and Curriculum Development.— Supervision and curriculum development are classified together as related topics. Other items, such as study of textbooks, are included with the curriculum.

Psychology.— All phases of psychology, general psychology, educational psychology, child psychology, adolescent psychology, the psychology of specific learning processes, and other applications are included in this category. Associated with psychology are

certain areas of physical growth and activity.

Special Methods and Related Content.— "Special methods and related content" as a category is interpreted to apply to methods of teaching in specific subject-matter fields, together with related subject-matter content. A knowledge of content in subject-matter fields, as in arithmetic, science, and language arts, is necessary for the presentation of special methods of teaching. In many cases, it is neither possible nor desirable to attempt a separation of certain aspects of content from methods of teaching.

General Methods.— General methods of teaching are interpreted as those methods, principles, and teaching devices, the applications of which are not limited to specific subject-matter fields. Such teaching procedures are elementary methods, junior high school methods, and teaching methods in high school. Certain specific techniques with a general application, such as visual aids, were classified with general methods.

History and Comparative Education.— This category cuts across all the other areas with temporal and regional emphases. A few topics of a general and descriptive nature, although local and contemporary in scope, were included in this category.

Measurement and Appraisal.— The techniques of measurement and appraisal include topics under statistics, tests and measurements, rating techniques, and general methods or techniques of research. Also included are the agencies and published results of research,

foundations, and surveys. The work of the United States Office of Education falls in this category.

Philosophy of Education.--- Units dealing primarily with the philosophical bases of educational thought are placed in this category. Also, certain items of a general reflective nature are included, although lacking logical relations to any philosophical system.

Classroom Management and Extra-Instructional Activities.--- Units describing teacher activities extraneous to formal classroom instruction are grouped here. These topics include classroom management, school management, clubs, guidance, library service, and health service.

Educational Sociology.--- Topics from the science of sociology in its application to problems in education, and other topics that primarily involve social aspects, are classified under this heading.

Categorical Analysis of the Curricular Offering

The units of the master list were classified under the above categories and the results are recorded in Table 2.

Most prominent in this tabulation is the fourth category, dealing with Special Methods and Related Content. With respect to the number of units involved, it surpasses its nearest rival more than four to one and, in terms of time spent in class, it receives over five times the emphasis of its nearest rival. This does not

TABLE 2

A CATEGORICAL ANALYSIS OF THE MASTER LIST OF TEACHING
UNITS OF THE TEACHERS COLLEGE, 1942-1943, SHOWING THE
NUMBER AND PER CENT OF UNITS IN EACH CATEGORY, AND
THE TIME AND PER CENT OF TOTAL TIME IN EACH CATEGORY

Category	Units		Time	
	Number	Percent of Total	Minutes	Percent of Total
1. Organization and Administration	91	10	21,205	9
2. Supervision and Curriculum Development.....	46	5	7,790	3
3. Psychology.....	93	10	16,100	7
4. Special Methods and Related Contents.....	403	43	108,845	48
5. General Methods.....	45	5	13,990	6
6. History and Comparative Education.....	38	4	12,180	5
7. Measurement and Appraisal.....	98	10	21,075	9
8. Philosophy of Education.....	12	1	2,260	1
9. Classroom Management and Extra-Instructional Activities of Teachers.	83	9	18,375	8
10. Educational Sociology.....	36	4	6,380	3
Total	945*	101	228,200	99

* Units 0251, 0470, and 0701 were divided in the assignment of
categories.

mean that, in a typical student program, Special Methods and Related Content receive five times the emphasis of any other area of study. It simply states that this is the fact concerning the classification of the 110 courses by categories. It indicates the relative emphasis given the various areas in the work of the Teachers College faculty as a whole, not in the work of the students.

Conspicuous in this table for its lack of emphasis is the topic of Philosophy of Education. It not only is at the end of the list, but is far behind the next lowest area.

The other eight classifications rank, in order of decreasing emphasis: Organization and Administration, Measurement and Appraisal, Psychology, Classroom Management and Extra-Instructional Activities, General Methods, History and Comparative Education, Supervision and Curricular Development, and Educational Sociology.

Similarities Between Courses

Dissimilar Courses.— Courses, all of the units of which appear unique and which display no apparent similarities with unit titles of other courses, are relatively few. See Table 3. These twenty-one courses represent fifty credit hours out of the total of 308 credit hours as reported in the 110 course outlines studied. Approximately one-fifth of the courses in Teachers College involve no similarities in unit titles with unit titles of other courses.

All but five of the twenty-one courses in Table 3 may be classified, in general, in the category of Special Methods and Related Content. One

1

This analysis excludes incidental references to philosophy in the treatment of other educational topics.

TABLE 3

PROFESSIONAL EDUCATION COURSES IN THE CURRICULUM
OF TEACHERS COLLEGE WHICH CONTAINED NO UNIT TITLES
SIMILAR TO UNIT TITLES OF OTHER COURSES, 1942-1943

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses
022	Ed. 29	1	High School Music (Observation)
025	Ed. 33	3	Literature in the Kindergarten- Primary Grades
034	Ed. 51	2	Elementary Physical Education (Basketball)
035	Ed. 51	1	Elementary Physical Education (Track)
038	Ed. 52	2	Intermediate Physical Education, Women's Section (Aquatics)
040	Ed. 54	2	First Aid
045	Ed. 59	2	Advanced Physical Education, Men's Section
046	Ed. 60	4	Athletic Team Sports, Women's Section
047	Ed. 61	4	Individual Athletic Activities, Women's Section
048	Ed. 62	3	Physical Diagnosis and Corrective Gymnastics
053	Ed. 105	2	Statistical Methods
054	Ed. 107	2	Principles of Thesis and Essay Writing
062	Ed. 112b	2	Psychology of Adjustment
074	Ed. 124.1	2	Play Production in Junior and Senior High Schools
081	Ed. 135	2	Teaching of the Social Sciences
085	Ed. 140	2	Special Disabilities in Learning
090	Ed. 170	2	The Conference Method of Teaching
101	Ed. 174	2	Industrial Relations
103	Ed. 180	4	Teaching the Business Subjects
105	Ed. 182	4	Teaching Consumer Education
106	Ed. 182.1	4	Principles of Sociology in Their Educational Application

of these courses, Special Disabilities in Learning, contains considerable emphasis on measurement, and the course in Industrial Relations devotes about one-third of its time to the areas of measurement and sociology.

Two of the other five courses, Statistical Methods, and Principles of Thesis and Essay Writing, are graduate constants. These graduate constants and the courses, Psychology of Adjustment, and Principles of Educational Sociology, have extremely broad application. The Psychology of Adjustment is wholly elective in both undergraduate and graduate programs. The First Aid course is rather technical and is a course of specific application.

Similar Unit Titles.— In the original course outlines there were 455 units with unit titles similar to unit titles of other courses. These 455 original unit titles were combined to form 163 composite unit titles, each including topics from two or more other courses.

Approximately one-third (37 per cent) of the original unit titles were similar to other unit titles and, after combining similar topics in the master list of units, about one-sixth (seventeen per cent) of the units recorded in the master list involved titles from two or more courses.

Time Involved in Title Similarity.— The total time recorded in the course outlines studied was 228,200 minutes, as shown in Table 2, and the total maximum concurrence of topics, in the 163 composite units, was 44,700 minutes. This is approximately one-fifth of the total class time of the courses represented in the master list of units.

Significance of Title Similarity.— A concurrence of twenty per cent accordingly represents the maximum of possible overlapping of courses. If the original units that were represented by repeated titles were identical within each course, this figure would represent a total overlapping of twenty per cent. Obviously this is not the case.

If the reduction in the number of original teaching unit titles from 1,234 to the number in the master list, 942, be taken as a measure of concurrence, the percentage of concurrence would be about twenty-four per cent. This amount of concurrence may be compared with a figure of approximately forty-four per cent reported by Linder (61:25) in 1935, as the result of an analysis of the courses in education at the Western Illinois Teachers College. In other words, the repetition of unit titles in the present data is about one-half that found by Linder.

Comparison of the Curricular Offering of Teachers College with the Current Educational Literature

Topical Coverage of the Current Literature.— Results of analyses of two volumes of the Education Index, the Encyclopedia of Educational Research, and the Commonwealth Teacher-Training Study were recorded in Tables 33, 34, and 35, in Appendix D.

In the list from the Education Index are 370 items, ranging in value from an index number of one to forty-three, with a median of

one and a mean value of 2.3. The total of the index numbers in this study is 853. The index of emphasis of a topic in this list indicates the nearest whole number of pages devoted to references to the topic in a hypothetical three-year volume of the Education Index.

In the list of topics from the Encyclopedia of Educational Research are 152 items, ranging in value from an index number of one to fifty-eight, with a median of four and a mean of 7.9. The index of emphasis of a topic in this list denotes the nearest integral number of pages devoted to the treatment of the topic.

The Commonwealth Teacher-Training Study is a summary of topics dealing with teacher activities and does not include the total field of topics in education. It applies more specifically to general methods, classroom management, and extra-instructional activities.

The use of these lists of topics as standards for comparison with the curriculum offering of the Teachers College was made with due recognition of their limitations. The list from the Education Index overemphasizes topics of popular professional interest, many of which are not of lasting value, and the list from the Encyclopedia of Educational Research stresses subjects that have received the most attention in recent research. It is possible that some areas of fundamental importance for teacher training may receive relatively slight emphasis in these sources. Some value, however, may be gained

by comparing the curriculum offering of Teachers College with these lists of topics from the literature.

Gaps in the Curriculum Offering of Teachers College.— Using the check list described above, a few topics were found that are omitted as titles of units in the offering of Teachers College. See Table 4. In this table only items are entered that have a total index value of three or more, combining the index values of the three sources.

The absence of topics as unit titles from the master list of teaching units does not necessarily imply an absence of treatment of such topics in the courses of Teachers College. The topic of Sex Differences, for example, was given extensive treatment in Child and Adolescent Psychology, although not as a distinct unit of instruction. The topic, Teacher Activities Involving the Personnel of the School Staff, is related to material included in the courses, School Administration, and School Supervision, although not specifically represented by a distinct unit. Educational laws and legislation are often discussed as parts of units in the course, Organization, Administration, and Management, and in other courses in administration.

The topics of greatest importance in Table 4, as indicated by indices of relative value and by their inclusion in two or more lists, are as follows:

TABLE 4

EDUCATIONAL TOPICS NOT LISTED AS COURSE UNITS
IN THE CURRICULUM OF THE TEACHERS COLLEGE OF
THE UNIVERSITY OF CINCINNATI

Topic	Index of Value *		
	I	II	III
Articulation of Secondary School and College.....		3	
Chemistry.....	9		
Educational Laws and Legislation.....	6	8	
Higher Education.....	41	138	
Handedness.....		3	
Journalism.....		3	
Language, Foreign, Modern.....	15	17	
Literature.....	7	4	
Leadership.....		3	
Libraries and Librarians.....	11	8	
Mathematics.....	11	7	
Negroes and Negro Education.....	8	16	
Physics.....	4		
Preschool Education		5	
Racial Differences in Mental Traits.....		3	
Religion and Religious Education.....	12	21	
Rural Education.....	19	34	
Sex Differences.....		5	
Social Sciences.....	11		
Study, Direction of.....	1	5	37
Superstition and Education.....		3	
Teacher Activities Involving the Personnel of the School Staff.....			200
War and Education.....	33		
Women, Education of.....	2	6	

*Indices I, II, and III apply to the emphases of topics as found in Tables 33, 34, and 35, respectively. See Appendix D. In this table the indices are reduced to a common base, each being the nearest integral number of thousandths of the sum of indices in its respective list.

Educational Laws and Legislation
 Higher Education
 Libraries and Librarians
 Negroes and Negro Education
 Preschool Education
 Religion and Religious Education
 Rural Education
 Sex Differences
 Study, Direction of
 Subject Fields in the Senior High School
 Teacher Activities Involving the Personnel
 of the School Staff
 War and Education
 Women, Education of

The evaluation of many of these topics in terms of desirability of greater emphasis in the curricular offering of the Teachers College must be made in the light of additional factors, such as faculty, student personnel, and budget, not disclosed in the present report.

In addition to the above list are a few topics given great emphasis in the Commonwealth Teacher-Training Study, which were included in one or more units of the master list, but which received relatively scant or scattered treatment in the master list.

"Classroom Management," similar to unit 0196, with 1,400 minutes, is scattered among five courses. Records and reports were treated in

unit 0701, in three courses, with a total time allotment of 300 minutes. According to the Commonwealth Teacher-Training Study, these topics constitute about one-third of the activities of the teacher.

The topic of extra-classroom activities, treated in a single unit, 0303, with a time allotment of one hundred minutes, was given an emphasis of about one-sixth of the total of teacher activities in the Commonwealth-Teacher-Training Study.

Cooperation Between Teachers College and the Liberal Arts College.— For the education of teachers in secondary education and in the upper elementary grades, Teachers College is organized to offer practically no content, but utilizes the facilities of the Liberal Arts College of the University of Cincinnati. Some of these subjects are included as requirements, and others as electives.

The presence of the subject fields in the topics of Table 4 is explained by the fact that Teachers College does not offer special methods courses in the senior high school subjects.

This survey, as explained in Chapter I, was limited to professional courses in education.

Summary

The Master List of Units.— A list of the teaching units found in the outlines of the courses was compiled. This list includes 1,234 unit titles which, by combination of similar titles, was reduced to a list of 942 different titles.

Categorical Analysis of the Master List.— These units were classified into ten categories to determine the relative emphases of the curriculum offering of the Teachers College. Nearly one-half of the total class time in Teachers College was found to be devoted to the category of Special Methods and Related Content. Certain courses, such as those found in physical and health education and in music, contain many units primarily of skill and content, with some application of methods. A relatively small amount of time in class was devoted to units in educational philosophy as such, although phases of educational theory are discussed in many units. The other eight categories, in the order of decreasing emphasis, were: Educational Organization and Administration, Measurement and Appraisal, Psychology, Classroom Management and Extra-Instructional Activities, General Methods, History of Education and Comparative Education, Supervision and Curriculum Development, and Educational Sociology.

Similarities Between Courses.— Twenty-one courses were found with no common unit titles. Similarities were discovered between about one-third of the original units, in which about one-fifth of the total class time was involved.

Comparison of the Master List With the Current Educational Literature.— Topical analyses were made of the Education Index, the Encyclopedia of Educational Research, and the Commonwealth Teacher-Training Study. The resulting lists were compared with the master list of teaching units derived from outlines of Teachers College courses.

As a result of this comparison, the possible existence of gaps in the curriculum offering of Teachers College was indicated. The most important topics in this list of possible gaps include: school law, higher education, library practice, rural education, and religious education.

CHAPTER V

OVERLAPPING AND DUPLICATION

An analysis was made of the composite units of the master list of teaching units for the purpose of identifying and evaluating cases of duplication of instruction.

Overlapping, as previously defined, was delimited and classified, but the amount of overlapping in general was not specifically determined. The amount of duplication of teaching, a wasteful form of overlapping, was estimated.

Pairs of Courses

Possible Combinations of Courses.— The maximum number of combinations of similar units in pairs of courses was determined from the data given in Table 1. As limited by the combination of the original units in composite units of the master table of teaching units, the mathematical maximum of possible pairing of the 455 original course units of the 163 composite units was found to be 591. This means that the original units of the eighty-nine courses involved in the 163 composite units may be combined in pairs in 591 different ways.

Classification of Course Combinations.— As previously defined, the condition of duplication between two courses involves three factors: (1) similarity of the course content, (2) enrollment of

the same students, and (3) application of the course content to the same instructional purpose. As defined in this study, similarity of course material is not duplication, if all of these conditions are not present.

Based upon information secured by conferences with members of the faculty of Teachers College, a classification of unit similarities in pairs of courses was made as follows:

1. Courses that do not enroll the same students.
2. Courses having a prerequisite-sequent relation.
3. Courses that apply course content to different instructional purposes, such as theory courses versus observation and practice courses.
4. Units that possess similar titles, but treat different phases of the topics, as shown by the dissimilarity of the first-order subtopics.
5. Units that make application of similar content to different fields of teaching, grade levels, or subject areas.
6. Unit combinations of a miscellaneous group, each combination receiving separate treatment.
7. Units that were considered to involve duplication.

The first three of the above categories apply, in general, to courses as a whole. The other categories were analyzed as applying to specific combinations of units as involved in particular pairs of courses. These classifications of courses and units are recorded in Tables 37, 38, 39, 40, 41, and 42, in Appendix F, and in Table 5, respectively.

These categories are not mutually exclusive. It is possible, for example, for two courses of a pair of courses to occur on the undergraduate and graduate levels, and on this account, to appear in Table 38, but also to make applications of content to teaching on different educational levels. In general, however, the classification was made in the order in which the categories in the above list appear.

Justifiable Overlapping of Courses

Courses Not Enrolling the Same Students. — In Table 37 were recorded 209 unit combinations with 115 different pairs of courses. No two courses in a given pair enroll the same students.

In Table 37, as in the five tables that follow, the code numbers of courses apply to subsequent combinations until a new number is stated. For example, in Table 37, Appendix F, the first pair of courses, 001 and 002, involves three units, 0272, 0580, and 0754. The second pair of courses, 001 and 003, contains reference to units 0252, 0580, 0660, and 0795. The fourth column in this table gives the concurrence of the two courses in a given pair of courses with respect to the specified

unit. Courses 002 and 004 have one hundred minutes in common in composite unit 0580. This does not mean that the units are identical, simply that the unit titles were judged to be similar and that the shorter of the two original units occurring in the course in question received one hundred minutes of class time.

The total of the concurrence shown in Table 37 is 36,945 minutes.

In regarding this first category as concurrence (as shown in Table 37) it was not implied that these topics possibly could include cases of duplication of teaching as far as students are concerned. The cases listed in Table 37 may include, however, cases in which there is course overlapping in the sense that the same course material may be taught to two different groups of students. Whether such a hypothetical case should be regarded as entirely justifiable would depend upon considerations of administrative expedience.

Prerequisite-Sequent Courses.— In this classification of overlapping unit titles are 212 unit combinations with 138 pairs of courses and a total concurrence of 23,175 minutes. See Table 38. Similar titles in these combinations or pairs of courses may include similar material but, characteristically, are of different orders of difficulty or treatment.

In view of the relatively recent and rather extensive course and program reorganization of the offering of Teachers College, as noted in Chapter I, it is reasonable to suppose that the relation

of prerequisite-sequent courses is observed generally by the instructors in the organization and presentation of courses.

Of the 23,175 minutes of concurrence as recorded in Table 38, 5,880 minutes, or approximately one-fourth, are included in pairs of courses in which the two courses of a pair were taught by the same instructor. Nearly one-half of the concurrence recorded in Table 38 (11,600 minutes) occurs in pairs of courses which involve the undergraduate set of constants. The remaining one-fourth of the concurrence recorded in Table 38 involves comparisons between pairs of courses, one of which was on the undergraduate level and the other, on the graduate level.

Acquaintance of each instructor of advanced courses with the type of course material in the undergraduate constants is a reasonable presumption. The types of treatment involved should be different, in general, and hence should involve but little needless overlapping of course material. This consideration does not exclude all overlapping, however. In the one-fourth of the cases involving undergraduate-graduate combinations, there may exist genuine duplication, except as faculty members constantly check with each other and avoid repetitions that are undesirable.

The concurrence between pairs of courses both of which are found within the group of courses including the undergraduate constants and Psychology 11, Introduction to Educational Psychology, is of special interest. As shown in Table 38, this amounts to 2,990 minutes, or approximately four credit hours.

Two instances of concurrence between the undergraduate constants and Psychology 11, Introduction to Educational Psychology, are found in Table 38. These cases of concurrence include two hundred minutes between the sections of Introduction to Education, open to freshmen, and one hundred and fifty minutes between the section of Introduction to Education that is open to special students. This concurrence involves unit 0854, Tests and Measurements. See Table 36.

The total amount of concurrence within the group of undergraduate constants is 2,640 minutes, as recorded in Table 38. All but one hundred minutes of this amount is found between pairs of courses, one of which is a section of Introduction to Education. The freshman section of this course, 001, involves concurrence with five courses of the undergraduate constants to an extent of eight hundred minutes. See Table 38, page 299. The junior sections, 002 and 003, involve concurrences of 550 minutes and 740 minutes, respectively. One of these sections, 002, affects three other courses in the undergraduate constants, and the other, 003, involves four courses in this group. The section of Introduction to Education, 004, open to special students, involves a concurrence of 450 minutes with units in three other courses in the undergraduate list of constants.

Similar Course Material Applied to Different Instructional Purposes.— In Table 39, Appendix F, is recorded the overlapping of titles of units, the substance of which is applied to different instructional objectives. For example, course 010, "Organization,

Administration, and Management," treats the topics of "Discipline" in unit 0257, as does course 012, "Student Teaching" on a primary level, but the use or application of the subject matter is quite different.

Application to different purposes was regarded as a good reason for excluding cases of concurrence from the imputation of duplication of teaching. The point here is that the repetition is on the whole intentional.

In this classification, ninety-five composite units are represented in sixty pairs or combinations of courses. The total concurrence of time in this list is 9,540 minutes.

Similar Titles for Different Subject Matter.— A number of units were found with similar titles for quite different subject matter. Different material under the same or similar titles obviously is not duplication and was not considered as possible duplication of teaching or overlapping of course material. For example, in the composite unit 0580, "The National Educational System," are represented courses 008, "Principles of Elementary Education," and 010, "Organization, Administration, and Management." The original unit of course 008, "Schools of Today," treats of types of schools in city and country, schools for atypical children, private schools, neighborhood conditions of schools, and directions for observing schools in session. The original unit of course 010, "Scope, Status, and Development of the Educational System," treats the development of the present organization

of the public school system and gives data on the statistics of enrollment in the elementary, secondary, and higher levels.

In this list were recorded forty-one units that were involved in thirty-one pairs of courses. See Table 40, Appendix F. No authority is quoted in this table. This classification was based upon a detailed examination of first-order and second-order sub-topics in the course outlines.

A total of 5,360 minutes of concurrence was found for the course pairs in this list.

Similar Unit Subject Matter Applied to Different Areas of Teaching.— The same principles may have quite different applications under different circumstances. The teaching of literature in the primary grades, for example, may differ greatly from the teaching of the same subject in the upper grades. See Table 41, Appendix F.

This category of analysis resembles the category of Table 39 excepting that, in the case of Table 41, the application of basic concepts was made to different teaching problems, whereas, in the former case, the application was made to different methods of instruction in Teachers College.

In Table 41, Appendix F, a total of fourteen units involved in thirteen pairs is recorded. The total time of concurrence in this group is 1,450 minutes.

Miscellaneous Reasons for Overlapping of Course Material.— In Table 42, Appendix F, are recorded a few instances of overlapping of

course material that did not fit any of the larger classifications. This group is relatively unimportant, however, since it includes only eight units, involved in four pairs of courses, and totals only 830 minutes of concurrence.

The courses in three of these pairs of courses were taught by the same instructors and hence could not be regarded as involving undesirable overlapping. The other comparison of courses in Table 42 involved two pairs of units, one of which was judged not to involve undesirable overlapping because of dissimilarity between all of the second-order subtopics. The other comparison of units was judged not to involve undesirable overlapping, as the result of a conference with both of the instructors concerned.

Duplication of Teaching

After classifying the concurrence of teaching units, a few pairs of units occurring in pairs of courses remained. These remaining cases presented the possibility of duplication of teaching. See Table 5. An attempt was made to determine the amount of overlapping material represented by these pairs of units by conference with the instructors concerned. These conferences were based upon specific estimates of time spent upon first-order subtopics and upon judgments that involved consideration of material from the outline of the competing course. Nevertheless, it was deemed questionable to attribute full reliability to the data secured in these inquiries.

The concurrence of 36,945 minutes between courses that did not enroll the same students (Table 37) was judged free from duplication of teaching. Likewise, the concurrence of 9,340 minutes between units applied to different instructional purposes (Table 39), the concurrence of 5,360 minutes between titles of different content (Table 40), the concurrence of 1,450 minutes applied to different areas of teaching (Table 41), and the miscellaneous explanations of concurrence (Table 42) amounting to 830 minutes, all appeared free from duplication of teaching as previously defined. About one-fourth (5,880 minutes) of the concurrence between prerequisite-sequent pairs of courses was found in pairs of courses, both courses of which were taught by the same instructors and hence could be excused from the category of undesirable overlapping. The sum of these amounts of justifiable concurrence is 59,805 minutes of a total of 78,390. The data disclosed in this study certainly do not justify the condemnation of all the concurrence found in pairs of prerequisite-sequent courses. Upon the basis of the experience of the faculty in curriculum and course revision following the reorganization of 1930-1934, it is reasonable to attribute little overlapping to pairs of courses involving the undergraduate constants. The concurrence between such pairs of courses amounted to 11,600 minutes. This leaves 6,985 minutes of concurrence, which includes the concurrence found between undergraduate-graduate pairs of courses

and the course combinations and unit pairs found in Table 5.

Upon the basis of the more conservative figure, the total amount of concurrence within which questionable overlapping may be sought, 18,585 minutes, constitutes a little less than one-fourth of the total concurrence found between courses and units in pairs. Remembering that the total concurrence based upon the grouping of units under composite unit titles in the master list amounted to about twenty per cent of the total professional offering analyzed, it appears that the area within which duplication of instruction may be found is restricted to less than five per cent of the total offering. It is evident that not all of this concurrence represents overlapping. The overlapping that may occur between the pairs of units and courses in Table 5 should be considered as possible duplication of teaching. It is likely that a portion of the concurrence of Table 38, as pointed out, may be in the nature of overlapping of course material and, to the extent that these courses enroll the same students, may be considered duplication of instruction. There is ample evidence to conclude that this amounts to less than five per cent of the total offering.

Total Overlapping

The Total Concurrence of Similar Units.— No analysis was made to determine precisely the amount of general overlapping in

the major categories of overlapping material. The total concurrence of time of individual units within composite units of the master list of teaching units, as recorded in Table 36, Appendix E, is 44,700 minutes. The total amount of concurrence in analysis of common units in pairs of courses, Table 5 and the tables of Appendix F, is 78,390 minutes. Neither of these figures is an indication of the amount of overlapping of course material, because the similar units grouped in composite units and pairs of courses are not identical in content. The first figure, 44,700, represents approximately one-fifth of the total class time in Teachers College. The total, 78,390, found by summing the totals of concurrent time recorded in Table 5 and Appendix F, is misleading if not interpreted with care. In these lists certain units occur many times.

Of the total concurrence of similar teaching units as recorded in Table 6, it was found that approximately one-third resulted from the organization of groups of students in different classes and class sequences. About one-third of the total concurrence of unit topics occurred in relation to the graduation of the difficulty of instructional material in prerequisite-sequent courses, and about one-sixth resulted from the use of similar material in application to different instructional objectives. The remaining one-sixth was divided in miscellaneous fashion.

Course Overlapping.— The total concurrence of units in the master list of teaching units cannot be interpreted as overlapping

TABLE 5

PAIRS OF COURSES AND UNITS INVOLVED IN
DUPLICATION OF INSTRUCTION IN TEACHERS
COLLEGE, 1942 - 1943

Pairs of Courses and Composite Unit Titles Involving Duplication of Instruction	Concurrence, Minutes
008 Principles of Elementary Education 023 Organization and Practice in Childhood Education	
0666 Public School Relations.....	50
011 Introduction to Educational Measurements 017 Introduction to Educational Psychology	
0854 Tests and Measurements.....	150
023 Organization and Practice in Childhood Education 050 Recreational Activity	
0088 Craft Methods and Materials.....	200
027 Practical Arts in Childhood Education 050 Recreational Activity	
0088 Craft Methods and Materials.....	200
032 Practical Arts in Elementary Education 050 Recreational Activity	
0088 Craft Methods and Materials.....	200
033 Principles and Materials of Physical and Health Education 049 Camp Leadership	
0347 Games.....	50
049 Camp Leadership 050 Recreational Activity	
0265 Dramatics, Recreational and Camp.....	50

TABLE 5 (Continued)

Pairs of Courses and Composite Unit Titles Involving Duplication of Instruction	Concurrence, Minutes
049 Camp Leadership 050 Recreational Activity	50
0347 Games.....	
060 Adolescent Psychology 087 Youth and the Future	
0251 Delinquency.....	100
063 School Administration 069 Secondary Education	
0106 Attendance, Compulsory.....	
095 Vocational Education 096 Organization and Administration of Vocational Education	100
0422 Industrial Arts and Industrial and Vocational Education.....	
109 Fundamentals of Speech for Teachers 110 Speech Defects and Correction	
0115 Speech Defects.....	100
Total	1,290

TABLE 6

FUNCTIONAL CLASSIFICATION OF TEACHING UNITS
OF THE TEACHERS COLLEGE, 1942-1943, SHOWING
TYPES OF UNIT OVERLAPPING AND THE DISTRIBUTION
OF UNITS IN CLASSES

Class or Type of Overlapping	Number of Unit Com- binations	Percent of Total	Concur- rence, Minutes	Percent of Total
1. Different students enrolled	209	35	36,945	47
2. Prerequisite-sequent courses	212	36	23,175	30
3. Different instructional purpose	95	16	9,340	12
4. Different phases treated	41	7	5,360	7
5. Application to different areas of teaching	14	2	1,450	2
6. Miscellaneous	8	1	830	1
7. Units involving duplica- tion	12	2	1,290	2
Total	591	99	78,390	101

due to the lack of complete similarity between units of similar titles. It may be stated, however, that the total overlapping, as the rigidly defined in this study, is much less than twenty per cent reported for the amount of concurrence.

With methods of study such as those used by other investigators (18,61,79), who employed less exact techniques of analysis and who did not discriminate quantitatively between different types of justifiable overlapping, the twenty per cent of concurrence found in this study probably would be regarded as overlapping. The following quotations illustrate this point: "... on the average a course covers 43 per cent, nearly one-half, of all the topics covered by the six courses together" (79:72); "there is considerable duplication of topics among special methods courses, the amount varying from 12 to 39 topics" (61:93).

Summary

The course material included in the 163 composite units of the master list was analyzed to determine the presence and amount of duplication of teaching.

Under the 163 composite unit titles were found 455 original units combined in a manner to make possible a total of 591 different combinations of units in pairs of courses. A study of these pairs of courses disclosed that about one-third of the concurrence of similar course material in pairs of courses could be justified by reason of existence of similar material in courses not patronized

by the same students. It was found that somewhat less than one-third of the concurrence could be ascribed to the necessary inclusion of overlapping material in prescribed sequences of courses offered in a prerequisite-sequent relation, and that about one-sixth of the concurrence of similar content could be ascribed to different applications of comparable material, such as that found between theory and practice teaching courses. Applications of concurrent or possibly overlapping material to different fields or areas of teaching and a few miscellaneous explanations accounted for most of the remaining one-sixth.

Making ample allowance for the possibility that courses in the prerequisite-sequent category might involve some unintentional overlapping, the data fully justify the conclusion that duplication of teaching lay well within the limits of five per cent of the curricular offering.

The total amount of overlapping is believed to be much less than twenty per cent of the total curricular offering, possibly only ten to twelve per cent.

CHAPTER VI

REQUIRED CONSTANTS, PROGRAMS OF STUDY, AND CURRICULUM AREAS

A comparative analysis was made of the subject-matter of the graduate and undergraduate constants, the undergraduate programs of study, and certain areas of the curriculum offerings of Teachers College. The prescribed programs of study on the undergraduate level included programs for the preparation of teachers in the following fields: kindergarten-primary grades, elementary grades, departmentalized schools, the high school, physical and health education, public school music, industrial-vocational education, business education, art education, and home economics. The curriculum offerings in the areas of psychology, administration and supervision, secondary education, elementary education, and the courses available to teachers in service were studied.

The Required Constants

The Undergraduate Constants.— The basal undergraduate constants, as described in the current catalogue (3:57-58), included:

- 001 Ed.1. Introduction to Education, Sections I and II
- 002 Ed.1. Introduction to Education, Sections III and IV
- 003 Ed.1. Introduction to Education, Sections III and IV
- 004 Ed.1. Introduction to Education, Section V

- 005 Ed.2. History of Modern Education, Sections I and II
- 006 Ed.2. History of Modern Education, Sections III and IV
- 007 Ed. 2. History of Modern Education, Section V
- 008 Ed.3L. Principles of Elementary Education
- 009 Ed.4. Principles of Secondary Education
- 010 Ed.5. Organization, Administration, and Management
- 011 Ed.6. Introductory Educational Measurement ¹

The first four courses in this list presumably covered the same subject matter. The first course, 001, was specified for freshmen in those programs of study which required freshmen to take the course, Introduction to Education, while the second and third courses in the list, 002 and 003, enrolled juniors and seniors only. Courses 002 and 003 were taught by different instructors. Otherwise these two courses were presumed to be identical. The fourth listing of Introduction to Education, 004, enrolled teachers in service.

In a similar manner, courses 005 to 007, History of Education, were designed for different classes of students. History of Education, Sections I and II, enrolled freshmen only. Sections III and IV enrolled juniors, and Section V was offered for the accommodation of teachers in service.

¹ Code numbers were employed in the tables used in this chapter. For the corresponding catalogue numbers and for more complete descriptions of the courses refer to Table 29, Appendix B.

A Categorical Analysis of the Undergraduate Constants.—

The following list of categories² or classes of teaching units were used as a basis for the analyses of groups and areas of courses:

1. Organization and Administration
2. Supervision and Curriculum Development
3. Psychology
4. Special Methods and Related Content
5. General Methods
6. History and Comparative Education
7. Measurement and Appraisal
8. Philosophy of Education
9. Classroom Management and Extra-Instructional
Activities of Teachers
10. Educational Sociology

An analysis of the undergraduate constants, based upon this list of topics or categories, was recorded in Table 7. As an example from this table, course 001, Introduction to Education, devotes three units, having a total of six hundred minutes of class time, to Organization and Administration; one unit of two hundred minutes to General Methods; three units, totalling six hundred minutes, to History and Comparative Education; one unit of two hundred minutes to Measurement and Appraisal; and three units, with a total of six hundred minutes,

²
See Chapter IV.

TABLE 7

CATEGORICAL ANALYSIS OF THE UNDERGRADUATE CONSTANTS
OF THE TEACHERS COLLEGE, 1942-1943, SHOWING THE
FREQUENCIES OF CATEGORIES AND THE TIME IN MINUTES*

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
001....	3 600				1 200	3 600	1 200			3 600
002....	3 700	1 300	1 300		2 200	3 700				
003....	12 1440	1 20	2 240		1 240	1 80		1 60		2 140
004....	3 600				1 150	3 900	1 150			3 650
005....						8 1350		4 600		1 200
006....	1 200					7 1450		3 600		
007....						5 2250				
008....	3 250	2 200	1 50	8 1000	2 350	2 150	1 50	1 100	1 100	
009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	
010....	17 1300	3 300					3 250		3 200	
011....							14 2250			
** Total	24 2250	7 700	3 300	8 1000	9 1550	14 2250	20 2900	5 700	6 550	4 800

*

In this table and similar tables to follow, frequencies are given on the line with course numbers and the time in minutes is given on the line below.

**

The total covers courses 001, 005, 008, 009, 010, and 011.

to Educational Sociology. Of the two introductory courses, Introduction to Education and History of Modern Education, the totals of this table include only the freshmen sections.

In this group of constants, leading emphasis was given to Measurement and Appraisal, with Administration and History of Education as close seconds. The order of categories, in Table 7, with the percentage of the total time given each category, is as follows:

Measurement and Appraisal, 22.3
 Organization and Administration, 17.3
 History and Comparative Education, 17.3
 General Methods, 11.9
 Special Methods and Related Content, 7.7
 Educational Sociology, 6.2
 Supervision and Curriculum Development, 5.4
 Philosophy of Education, 5.4
 Classroom Management and Extra-Instructional
 Activities, 4.2
 Psychology, 2.3

With a different selection of classes or sections of the two introductory courses, the distribution of time among these categories would be altered.

A Comparison of the Different Sections of the Course, Introduction to Education.— Categorical analyses of the two introductory courses, Introduction to Education, and History of Modern Education, were recorded

in percentages in Table 8.

This table discloses that twice as much emphasis was given to Administration in 003 as in any of the other sections of Introduction to Education. Two sections gave considerable emphasis to Educational Sociology and one section stressed the categories, Supervision and Curriculum Development, and Psychology.

There was more agreement between the sections of the course, History of Modern Education. The two sections for preservice education of teachers, 005 and 006, however, gave considerable emphasis to Philosophy of Education.

Another method of comparison disclosed even more marked dissimilarities between the sections of these two introductory courses. From the data in Table 37, Appendix F, the first two sections of Introduction to Education, 001 and 002, had a concurrence of similar topics of approximately twenty per cent. About the same amount of concurrence of unit titles was found between the first and third sections, 001 and 003; between the second and the fourth sections, 002, and 004; and between the third and the fourth sections, 003 and 004. The first and the fourth sections, 001 and 004, taught by the same instructor, showed nearly complete concurrence, while ^{between} the second and third sections, 002 and 003, a concurrence of about five per cent was found.

Similarly, the concurrence between sections of History of Modern Education was observed. Between the first and second sections of this course, 005 and 006, the concurrence was found to be approximately twenty

TABLE 8

CATEGORICAL ANALYSIS OF THE SECTIONS OF THE COURSES,
INTRODUCTION TO EDUCATION AND HISTORY OF MODERN EDU-
CATION, TEACHERS COLLEGE, 1942-1943, SHOWING PERCENT-
AGE DISTRIBUTION OF THE TIME OF COURSES IN CATEGORIES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
Introduction to Education										
001.....	27				9	27	9			27
002.....	32	14	14		9	32				
003.....	65	1	11		11	4		3		6
004.....	25				6	37	6			27
History of Modern Education										
005.....						63		28		9
006.....	9					64		27		
007						100				

per cent; and between the first and third sections, 005 and 007, between thirty and forty per cent. The least amount of similarity between the sections of History of Modern Education was found between the second and third sections, 006 and 007, and was indicated by a concurrence of about ten per cent.

In view of the fact that the total concurrence of courses in the entire professional offering of Teachers College was approximately twenty per cent, it may be stated that, as far as these two introductory courses are concerned and as indicated by an analysis of the titles of the teaching units, the title of the course bears a minor relation to its content. In these cases, the course title is not a reliable index of course content. This situation, however, is not unique. Differences between introductory courses in education have been studied by various investigators and the fact that there exists no standard introductory course to education generally has been reported (10; 18:67; 33:654; 34:761; 45:309; 73:615; 84:62; 90; 98:339).

The Graduate Constants.—The graduate constants as described in the current catalogue (3:61) included:

- 052 Ed.104a. Educational Measurement
- 053 Ed. 105. Statistical Methods
- 054 Ed. 107. Principles of Thesis and Essay Writing
- 058 Ed. 110. Advanced Educational Psychology

As indicated in Table 9, the material of these required courses was classified as about three-fourths Measurement and Appraisal and one-fourth Psychology.

TABLE 9

CATEGORICAL ANALYSIS OF THE GRADUATE CONSTANTS
REQUIRED BY TEACHERS COLLEGE, 1942-1943, GIVING
FREQUENCIES OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
052....							14 1500			
053....							10 1500			
054....							10 1250	1 100		
058 ...			13 1500							
Total			13 1500				34 4250	1 100		

The Undergraduate Programs

The Plan of Organization.— The plan of organization of the undergraduate programs of Teachers College has been described in Chapter I.

No course outlines were secured for the internships, since it was stated by the faculty members in charge of this part of the program that the work of teaching under supervision and the correlated internship given by co-operating teachers could not be analyzed in terms of units similar to those for ordinary courses. Course outlines were

obtained for three of the practicum sections, described in the current catalogue as follows (3:59):

- 109.1 Practicum (For interns in the kindergarten and primary grades).
- 109.2 Practicum (For interns in the intermediate and upper elementary grades).
- 109.3 Practicum (For interns in high school).

The courses taken by fifth-year students for the final ten hours of credit would probably be selected from the graduate courses in education that are analyzed in this investigation.

A distinction is made in the catalogue (3:29,44) between regular programs and affiliated programs. Two affiliated programs were offered, one in art education and one in home economics. Students register for these courses in the affiliated colleges, the School of Applied Arts and the School of Household Administration³.

The Kindergarten-Primary Grades.— The prescribed courses in education for students preparing to teach in the kindergarten and primary grades included:

- 001 Ed.1. Introduction to Education
- 005 Ed.2. History of Modern Education
- 008 Ed. 3L.Principles of Elementary Education
- 010 Ed. 5. Organization, Administration, and Management
- 011 Ed. 6. Introduction to Educational Measurement

3

The name of this school was later changed to "College of Home Economics."

- 012 Ed.8.1. Student Teaching and Conference
- 017 Psych.11. Introduction to Educational Psychology
- 018 Ed.25.2. Survey of Music Materials for Childhood
Education
- 019 Ed.26. Fundamentals of Music in Childhood
Education
- 023 Ed.30. Organization and Practices in Childhood
Education
- 024 Ed.31. Primary Methods
- 025 Ed.33. Literature in the Kindergarten-Primary Grades
- 026 Ed.34L. Pictorial Arts in Childhood Education
- 027 Ed.35L. Practical Arts in Childhood Education
- 028 Ed.36. Reading in Childhood Education
- 033 Ed.50. Principles and Materials of Physical and
Health Education
- 051 Ed.91.1. Observation
- 055 Ed.109.1. Practicum
- 075 Ed.125. Principles and Methods of Music in Childhood
Education.

A categorical analysis of the prescribed courses for students preparing to teach in the kindergarten and primary grades is recorded in Table 10. By far the greatest amount of emphasis in this program was found to be placed on Special Methods and Related Content. The order of categories in this table, with percentages of the total time

TABLE 10

CATEGORICAL ANALYSIS OF THE COURSES PRESCRIBED BY THE
TEACHERS COLLEGE, 1942-1943, FOR STUDENTS PREPARING TO
TEACH IN THE KINDERGARTEN AND PRIMARY GRADES, SHOWING
FREQUENCIES OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
001...	3 300				1 200	3 600	1 200			3 600
005...						8 1350		4 600		1 200
008...	3 250	2 200	1 50	8 1000	2 350	2 150	1 50	1 100	1 100	
010...	17 1300	3 300					3 250		3 200	
011...							14 2250			
012...	4 200			2 100	5 350				1 100	
017...			14 3350				3 1100			
018...				8 1500						
019...				5 1500						
023...	2 150	1 100	2 300	5 800	5 350				5 550	
024...				8 1950						

TABLE 10 (Continued)

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
025...				15 2260						
026...				5 2250						
027...				3 3460						
028...				11 2250						
033...		2 675		7 1125					4 900	
051...	1 120		1 240	8 960	2 360		1 120		3 600	
055...	5 600		1 100	2 300	7 1500			2 500		
075...		1 500		4 1000						
Total	35 3220	9 1775	19 4040	21 20455	22 3110	13 2100	23 3970	7 1200	18 2750	4 800

devoted to each category, is as follows:

Special Methods and Related Content, 47

Psychology, 9

Measurement and Appraisal, 9

Organization and Administration, 7

General Methods, 7

Classroom Management and Extra-Instructional
Activities, 6

History and Comparative Education, 5

Supervision and Curriculum Development, 4

Philosophy of Education, 3

Educational Sociology, 2

The analysis of this program included the Practicum course, required in the fifth year. The courses analyzed comprised sixty-two credit hours of the total requirement of 158 semester hours for the entire five-year program. The ninety-six semester hours not analyzed in this study included prescribed content courses and liberal arts electives in the first four years and electives in education for the fifth year. Two courses specified in the catalogue (3:30) were not given in 1942-1943. These were Fundamentals of Music in Childhood Education, and Principles and Methods of Music in Childhood Education. Substituted for these courses and analyzed in this program were Fundamentals of Music in Elementary Education, and Principles and Methods of Music in Elementary Education.

The Elementary Field.— The courses prescribed for students preparing to teach in the elementary grades were:

- 001 Ed.1. Introduction to Education
- 005 Ed.2. History of Modern Education
- 017 Psch.11. Introduction to Educational Psychology
- 019 Ed.26. Fundamentals of Music in Elementary Education
- 075 Ed.125. Principles and Methods of Music in
Elementary Education
- 032 Ed.44L. Practical Arts in Elementary Education
- 030 Ed.42. Literature in Elementary and Junior High Schools
- 016 Ed.11. Psychology of Childhood and Adolescence
- 031 Ed.43L. Practical Arts in the Elementary School
- 033 Ed.50. Principles and Materials of Physical and
Health Education
- 008 Ed.3L. Principles of Elementary Education
- 010 Ed.5. Organization, Administration, and Management
- 029 Ed.40. Teaching the Fundamental Skills
- 011 Ed. 6. Introduction to Educational Measurement
- 020 Ed.26.1. Survey of Music Materials for Elementary
Education
- 056 Ed.109.2. Practicum

An analysis of the unit titles in these courses was recorded

in Table 11. Almost half of the emphasis in this program lay in the category of Special Methods and Related Content. The order of emphasis of categories of subject matter, with the percentage of the total time devoted to each category, was as follows:

Special Methods and Related Content, 49
 Psychology, 13
 Measurement and Appraisal, 11
 Organization and Administration, 7
 History and Comparative Education, 6
 Supervision and Curriculum Development, 5
 Classroom Management and Extra-Instructional
 Activities, 4
 Educational Sociology, 3
 Philosophy of Education, 2
 General Methods, 1

The required courses which were analyzed for this program included the Practicum, required in the fifth year. The courses analyzed comprised fifty-one credit hours of the total required for the completion of the fifth year program, 158. The 107 semester hours not analyzed in this study included prescribed content courses and liberal arts electives in the first four years and electives in education for the fifth year. Ed.41, Reading in the Upper Elementary and Secondary Schools,

TABLE 11

CATEGORICAL ANALYSIS OF THE COURSES PRESCRIBED BY TEACHERS
COLLEGE, 1942-1943, FOR STUDENTS PREPARING TO TEACH IN THE
ELEMENTARY GRADES, SHOWING FREQUENCIES OF CATEGORIES AND
TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
001....	3 600				1 200	3 600	1 200			3 600
005....						8 1350		4 600		1 200
017....			14 3350				3 1100			
019....				5 1500						
075....		1 500		4 1000						
032....				2 3600						
030....				13 2100						
016....			15 1300						1 50	
031....				4 3440						
033....		2 675		7 1125					4 900	
008....	3 250	2 200	1 50	8 1000	2 350	2 150	1 50	1 100	1 100	

TABLE 11 (Continued)

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
010....	17 1300	3 300					3 250			3 200
029....				9 2150			1 200			
011....							14 2250			
020....				6 1400			1 100			
056....	2 400			2 600					1 200	1 300
Total	15 2550	8 1675	30 4700	60 17915	3 550	13 2100	24 4150	5 700	10 1450	5 1100

was not offered during the year of this survey and was not included in the survey. No outline was available for Ed. 8.2, Student Teaching and Conferences, which is scheduled for the senior year in the catalogue (3:32).

The Preparation of Teachers for Departmentalized Schools.—

The program prescribed for students preparing to teach in departmentalized schools at both the elementary and secondary levels included the following courses in education:

- 001 Ed.1. Introduction to Education
- 005 Ed.2. History of Education
- 017 Psych.11. Introduction to Educational Psychology
- 016 Ed.11. Psychology of Childhood and Adolescence
- 032 Ed.44L. Practical Arts in Elementary Education
- 030 Ed.42. Literature in the Elementary and Junior High School
- 008 Ed.3L. Principles of Elementary Education
- 009 Ed.4. Principles of Secondary Education
- 011 Ed.6. Introduction to Educational Measurement
- 010 Ed.5. Organization, Administration, and Management
- 057 Ed.109.3. Practicum

Table 12 presents an analysis of these courses by categories or classes of subject matter. One-fourth of the time in this course was devoted to Special Methods and Related Content and about one-fifth to Psychology. The order of emphasis in this program, with percentages of the total time devoted to each category, was:

- Special Methods and Related Content, 25
- Psychology, 19
- Measurement and Appraisal, 16
- Organization and Administration, 9
- General Methods, 9
- History and Comparative Education, 8
- Classroom Management and Extra-Instructional Activities, 4

TABLE 12

CATEGORICAL ANALYSIS OF THE COURSES PRESCRIBED BY TEACHERS COLLEGE, 1942-1943, FOR STUDENTS PREPARING TO TEACH IN THE DEPARTMENTALIZED SCHOOLS AT BOTH THE ELEMENTARY AND HIGH SCHOOL LEVELS, SHOWING FREQUENCIES OF CATEGORIES AND TIME

Course Code Numbers	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
001....	3 600				1 200	3 600	1 200			3 600
005....						8 1350		4 600		1 200
017....			14 3350				3 1100			
016....			15 1300						1 50	
032....				2 3600						
030....				13 2100						
008....	3 250	2 200	1 50	8 1000	2 350	2 150	1 50	1 100	1 100	
009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	
011....							14 2250			
010....	17 1300	3 300					3 250		3 200	
057....	4 300	1 300	1 100	1 200	5 900		2 500		5 600	
Total	28 2550	8 1000	33 5050	24 6900	14 2450	14 2250	25 4500	5 700	12 1200	4 800

Supervision and Curriculum Development, 4

Educational Sociology, 3

Philosophy of Education, 3

The courses analyzed for this course included the Practicum, required in the fifth year. The courses analyzed comprised forty credit hours of the total, 158, required for the entire five year program. The courses not analyzed in this study included prescribed content courses and electives in the field of concentration. Ed.41, Reading in the Upper Elementary and Secondary Schools, was not offered during the year of this study and was not included in the survey. Outlines were not available for Ed. 92.3, Observation and Participation, and for Ed. 9.3, Internship.

The Program for Students Preparing to Teach in High School.—

This program combined liberal arts and education and required the following courses in education:

- 002 or 003 Ed.1. Introduction to Education
- 006 Ed.2. History of Modern Education
- 009 Ed.4. Principles of Secondary Education
- 010 Ed.5. Organization, Administration, and Management
- 011 Ed.6. Introductory Educational Measurement
- 057 Ed.109.3. Practicum
- 060 Ed.111b. Adolescent Psychology
- 070 Ed.121. Secondary School Methodology

The analysis in Table 13 is somewhat ambiguous, owing to the fact that either one of two different sections of the course, Introduction to Education, was available. Two summaries are shown in Table 13 because of this fact. Using the first of these two summaries, the order of emphasis in this program, with the percentage of the total time devoted to each category, appears as follows:

Measurement and Appraisal, 20
 General Methods, 17
 Organization and Administration, 16
 Psychology, 14
 History and Comparative Education, 14
 Supervision and Curriculum Development, 7
 Classroom Management and Extra-Instructional
 Activities, 7
 Philosophy of Education, 4
 Special Methods and Related Content, 1
 *
 Educational Sociology, 0

The courses analyzed for this program comprised twenty-seven credit hours. This is a combined liberal arts and education program, leading to the degree of Bachelor of Arts which is awarded by the College of Liberal Arts at the end of the fourth year. A student may

*

Less than one-half of one per cent.

TABLE 13

CATEGORICAL ANALYSIS OF THE COURSES PRESCRIBED BY TEACHERS
COLLEGE, 1942-1943, FOR STUDENTS IN THE COMBINED LIBERAL
ARTS AND EDUCATION PROGRAMS WHO ARE PREPARING TO TEACH IN
HIGH SCHOOL

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
002....	3 700	1 300	1 300		2 200	3 700				
(003....	12 1440	1 20	2 240		1 240	1 80		1 60		2) 140
006....	1 200					7 1450		3 600		
009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	
010....	17 1300	3 300					3 250		3 200	
011....							14 2250			
057....	4 300	1 300	1 100	1 200	5 900		2 500		5 600	
060....		1 50	15 1300						1 100	1 50
070....	1 100		2 400		3 700		1 200			
Total	27 2700	8 1150	21 2350	1 200	16 2800	11 2300	21 3350	3 600	11 1150	1 50
* (Total	26 3440	8 870	22 2290	1 200	15 2840	9 1680	21 3350	4 660	11 1150	3) 190

*

This total includes course 003 instead of course 002.

elect to take the fifth year, however, qualifying for the additional degree of Bachelor of Education. In this case, the courses, Secondary School Methodology, and Adolescent Psychology are required. These two courses were included in the analysis of this program.

The Program for Men Preparing to Teach Physical and Health Education.— The courses in education required in this program included the following:

- 001 Ed.1. Introduction to Education
- 005 Ed.2. History of Modern Education
- 034 and 036 Ed.51. Elementary Physical Education
- 040 Ed.54. First Aid
- 039 Ed.53. Organization and Administration of
Municipal Recreation
- 017 Psych.11. Introduction to Educational Psychology
- 008 Ed.3L. Principles of Elementary Education
- 009 Ed. 4. Principles of Secondary Education
- 043 Ed.57. Organization and Administration of
Physical Education
- 041 Ed.55. Principles of Physical Education
- 045 Ed.59. Advanced Physical Education
- 010 Ed.5. Organization, Administration, and Management
- 011 Ed.6. Introductory Educational Measurement
- 013 Ed.8.5. Student Teaching
- 044 Ed.58. School Health Education

045 Ed.59. Advanced Physical Education

048 Ed.62. Physical Diagnosis and Corrective Gymnastics

An analysis of the content of these courses was made and is found in Table 14. The distribution of the teaching units among the categories of subject matter was found to be as follows:

Special Methods and Related Content, 34

Classroom Management and Extra-Instructional
Activities, 18

Measurement and Appraisal, 11

Psychology, 9

Organization and Administration, 8

History and Comparative Education, 8

General Methods, 6

Supervision and Curriculum Development, 2

Educational Sociology, 2

Philosophy of Education, 2

The courses analyzed comprised sixty-one semester hours out of 124, the requirement for the four year program. The courses which were not analyzed in the survey, sixty-three credit hours, included prescribed content courses and electives. It should be noted that much of the work analyzed for this program that was indicated as professional education and placed in the category, Special Methods and Related Content, consisted very largely in the acquisition of skills. The applications to the

TABLE 14

CATEGORICAL ANALYSIS OF THE EDUCATIONAL COURSES PRESCRIBED
BY TEACHERS COLLEGE, 1942-1943, FOR MEN PREPARING TO TEACH
PHYSICAL AND HEALTH EDUCATION, WITH FREQUENCIES OF
CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
001....	3 600				1 200	3 600	1 200			3 600
005....						8 1350		4 600		1 200
034....				1 1500						
036....				3 900		2 500	1 100			
039....	2 350			3 350		1 200			2 600	
040....									8 1400	
017....			14 3350				3 1100			
008....	3 250	2 200	1 50	8 1000	2 350	2 150	1 50	1 100	1 100	1 100
009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	
041....				7 1200	1 100	1 150	2 200		1 100	
043....	2 600	2 200		4 2900			1 100		2 1000	
045....				1 1500						
010....	17 1300	3 300					3 250		3 200	

TABLE 14 (Continued)

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
011....							14 2250			
013....					3 750					
044....				1 600					9 3600	
045....				1 1500						
048....				2 2200						
Total	28 3200	9 900	17 3650	31 13650	13 2400	18 3100	27 4400	5 700	28 7250	4 800

teaching situation were presented concurrently with the content.

The Program for Women Preparing to Teach Physical and Health Education.— The requirements in this program included the following courses in education:

- 001 Ed.1. Introduction to Education
- 005 Ed.2. History of Modern Education
- 037 Ed.51. Elementary Physical Education
- 040 Ed.54. First Aid
- 039 Ed.53. Organization and Administration of Municipal
Recreation
- 017 Psych.11. Introduction to Educational Psychology
- 038 Ed. 52. Intermediate Physical Education
- 008 Ed.3L. Principles of Elementary Education
- 009 Ed.4. Principles of Secondary Education
- 042 Ed.56. Principles, Organization, and Administration
of Physical and Health Education
- 046 Ed.60. Athletic Team Sports
- 048 Ed.62. Physical Diagnosis and Corrective Gymnastics
- 010 Ed.5. Organization, Administration and Management
- 011 Ed.6. Introductory Educational Measurement
- 013 Ed.8.5. Student Teaching
- 044 Ed.58. School Health Education
- 047 Ed.61. Individual Athletic Activities

A categorical analysis of the content of these courses was tabulated in Table 15, where the following percentage distribution is shown:

Special Methods and Related Content, 45
 Classroom Management and Extra-Instructional
 Activities, 13
 Measurement and Appraisal, 9
 Organization and Administration, 9
 Psychology, 8
 History and Comparative Education, 5
 General Methods, 5
 Supervision and Curriculum Development, 2,
 Philosophy of Education, 2
 Educational Sociology, 1

The courses analyzed included sixty-five credit hours of the requirement for the four-year program, 125 hours. The courses that were analyzed in this study, sixty hours, included prescribed content courses and electives. No outline was available for Ed.63, Seminar.

It should be noted that much of the work analyzed for this program was indicated as professional education and placed in the category, Special Methods and Related Content, although it consisted largely in the acquisition of skills. The applications to the teaching situations were presented concurrently with the content.

TABLE 15

CATEGORICAL ANALYSIS OF THE EDUCATION COURSES PRESCRIBED
BY TEACHERS COLLEGE, 1942-1943, FOR WOMEN PREPARING TO
TEACH PHYSICAL AND HEALTH EDUCATION, WITH FREQUENCIES OF
CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
001....	3 600				1 200	3 600	1 200			3 600
005....						8 1350		3 600		
037....				3 1700						
039....	2 350			3 350		1 200			2 600	
040....									8 1400	
017....			14 3350				3 1100			
038....				2 4200						
008....	3 250	2 200	1 50	8 1000	2 350	2 150	1 50	1 100	1 100	
009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	
042....	5 1400	1 280		9 2520			1 280			
046....				6 4000						
048....				2 2200						

TABLE 15 (Continued)

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5. Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
010....	17 1300	3 300					3 250		3 200	
011....							14 2250			
013....					3 750					
044....				1 600					6 3600	
047....				7 4200						
Total	31 4000	8 980	17 3650	41 20770	12 2300	15 2450	24 4280	4 700	22 6150	3 600

The Program for Students Preparing to Teach Public School Music.— The courses specifically prescribed for the preparation of teachers in the field of public-school music were:

- 003 Ed.1. Introduction to Education
- 010 Ed.5. Organization, Administration, and Management
- 011 Ed.6. Introductory Educational Measurement
- 015 Ed.10 Introduction to Educational Psychology
- 022 Ed.29. Observation and Participation, High School
- 021 Ed.28. Practice Teaching; Public School Music
- 059 Ed.111a. Child Psychology
- 060 Ed.111b. Adolescent Psychology

An analysis of the content of this group of courses was made, as found in Table 16. The order of emphasis of this list of courses, with the percentage of the total time devoted to each category, was:

- Psychology, 35
- Measurement and Appraisal, 23
- Organization and Administration, 22
- Special Methods and Related Content, 7
- Classroom Management and Extra-Instructional Activities, 5
- Supervision and Curriculum Development, 3
- General Methods, 2
- Educational Sociology, 1

TABLE 16

CATEGORICAL ANALYSIS OF THE EDUCATION COURSES PRESCRIBED
IN TEACHERS COLLEGE, 1942-1943, FOR STUDENTS PREPARING TO
TEACH PUBLIC SCHOOL MUSIC, WITH FREQUENCIES OF CATEGORIES
AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
003....	12 1440	1 20	2 240		1 240	1 80		1 60		2 140
010....	17 1300	3 300					3 250		3 200	
011....							14 2250			
015....			15 1850				3 400			
021....	3 200			10 550			1 50		8 400	
022....		1 40		11 240					1 20	
059....			13 1250	1 100			1 150			
060....		1 50	15 1300						1 100	1 50
Total	32 2940	6 410	45 4640	22 890	1 240	1 80	22 3100	1 60	13 720	3 190

History and Comparative Education, 1

Philosophy of Education, 1

The courses analyzed represented only a portion of the courses required for the degree. Part of this work was secured in the College of Music of Cincinnati and the Cincinnati Conservatory of Music, both of which are affiliated with the Teachers College of the University of Cincinnati (3:40). These institutions offered both content and methods courses for teachers.

The courses of Teachers College analyzed in this report treated seventeen credit hours of the four-year course. Courses not analyzed in this study included methods of teaching, theory and applied music, other content courses, and electives.

The Program of Studies in the Field of Trade and Industrial-Vocational Education.— For this program the required courses in education were:

- 009 Ed.4. Principles of Secondary Education
- 090 Ed.170. Conference Method of Teaching
- 091 Ed.170.1. Methods of Teaching Occupational Subjects
- 092 Ed.170.2. Shop Management
- 095 Ed.171. History and Philosophy of Vocational Education
- 096 Ed.171.2. Organization and Administration of Vocational Education
- 097 Ed.172a. Occupational Analysis
- 098 Ed.172.1. Organization of Industrial Material

- 099 Ed.173. Educational and Vocational Guidance
- 100 Ed.173.1a. Vocational Tests and Measurements
- 101 Ed.174. Industrial Relations
- 106 Ed.182.1. Educational Sociology

An analysis of the unit topics of these courses is given in Table 17. This analysis disclosed the following emphasis, expressed in terms of percentage of total class time:

- Special Methods and Related Content, 41
- Measurement and Appraisal, 17
- Educational Sociology, 12
- Classroom Management and Extra-Instructional Activities, 11
- Organization and Administration, 7
- General Methods, 5
- History and Comparative Education, 3
- Psychology, 3
- Supervision and Curriculum Development, 2
- Philosophy of Education, 0

The courses analyzed included twenty-five credit hours of a total of 124. The courses not included in this analysis comprised sixty hours of academic content courses, twenty hours in shop and related fields, and fifteen hours of electives. It should be noted that this program included only one course required in other programs, that the program was set up in keeping with the vocational education

TABLE 17

CATEGORICAL ANALYSIS OF THE COURSES IN EDUCATION REQUIRED BY TEACHERS COLLEGE, 1942-1943, IN THE FIELD OF TRADE AND INDUSTRIAL-VOCATIONAL EDUCATION, SHOWING FREQUENCIES OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	
090....				7 480						
091....			1 160	9 1440			2 320			
092....			1 150	7 1050			3 450		2 300	
095....	4 480			5 600		3 360			1 120	3 360
096....	9 855			5 405		2 200	3 135		1 45	3 310
097....				7 1910						
098....	1 150	1 200		10 1600						
099....							2 380		14 1550	
100....							12 2000			
101....				11 1320			1 240			3 360
106....										9 1400
Total	15 1585	3 400	4 560	61 8805	6 1000	6 710	24 3675		20 2265	18 2430

program planned by the state and federal (Smith-Hughes) boards, that practically all of the program was given by the faculty members in vocational education, and that the students were experienced workers in trades and industries, rather than young people who have followed high school by college attendance.

The Program for the Preparation of Teachers of Business Subjects.- -

The education courses specified for the preparation of teachers of the business subjects in the public schools were:

- 001 Ed. 1. Introduction to Education
- 005 Ed. 2. History of Modern Education
- 017 Psych.11. Introduction to Educational Psychology
- 009 Ed. 4. Principles of Secondary Education
- 060 Ed.111b. Adolescent Psychology
- 103 Ed.180. Teaching the Business Subjects
- 010 Ed. 5. Organization, Administration, and Management
- 011 Ed. 6. Introduction to Educational Measurement
- 014 Ed.8.8. Student Teaching and Conferences

The chief emphasis in this list of requirements lay in Psychology, with Measurement and Appraisal receiving almost equal emphasis. See Table 18. The percentage distribution of the time emphasis was found to be:

- Psychology, 23
- Measurement and Appraisal, 21
- Special Methods and Related Content, 15

TABLE 18

CATEGORICAL ANALYSIS OF THE COURSES IN EDUCATION REQUIRED
BY TEACHERS COLLEGE, 1942-1943, FOR STUDENTS PREPARING TO
TEACH BUSINESS SUBJECTS IN THE PUBLIC SCHOOLS, SPECIFYING
FREQUENCIES OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
001....	3 600				1 200	3 600	1 200			3 600
005....						8 1350		4 600		1 200
017....			14 3350				3 1100			
009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	
060....		1 50	15 1300						1 100	1 50
103....				9 2800						
010....	17 1500	3 300					3 250		3 200	
011....							14 2250			
014....	2 400				1 300		1 300		1 500	
Total	23 2400	6 550	31 4900	9 2800	8 1500	12 2100	23 4250	4 600	7 1050	5 850

Organization and Administration, 11
 History and Comparative Education, 10
 General Methods, 7
 Classroom Management and Extra-Instructional
 Activities, 5
 Educational Sociology, 4
 Philosophy of Education, 3
 Supervision and Curriculum Development, 3

The professional courses analyzed in this program included thirty-three semester hours. Among the courses not analyzed were subject-matter courses in the field of business education totalling fifty-one semester hours. The balance of the total of 130 semester hours was distributed over twenty-six semester hours of academic content courses and twenty hours of electives.

The Program for Teachers in Service.— In this program areas were specified in the current catalogue (3:43) without requirements of specific courses. As given in the catalogue, these requirements were:

	Hours
Educational and General Psychology.....	6
Educational Methods.....	6
History and Philosophy of Education.....	6
Principles of Education.....	3
Organization, Administration, and Management.....	3
Approved electives from the following fields:....	12
Music, Art, Hygiene, Physical and Health Education, Practical Arts, Educational Tests and Measurements, and Guidance	
Additional work in the above and/or other approved electives.....	28
Total Professional Credits.....	64

The Program in Art Education.— In cooperation with the School of Applied Arts of the University of Cincinnati, the Teachers College maintained an affiliated program for students preparing to teach art in the public schools. The courses in education required in this program were:

- 003 Ed.1. Introduction to Education
- 007 Ed.2. History of Modern Education
- 017 Psych.11. Introduction to Educational Psychology
- 060 Ed.111b. Adolescent Psychology
- 008 Ed.3L. Principles of Elementary Education
- (009 Ed.4. Principles of Secondary Education)*
- 010 Ed.5. Organization, Administration, and Management
- 011 Ed.6. Introductory Educational Measurement
- 012 Ed.8.1. Student Teaching
- 055 Ed.109.1. Practicum

As based on the data of Table 19, and expressed in percentage of total time, the following list indicates the distribution of teaching units in the educational courses specified for teachers preparing to teach art in the public schools:

Psychology, 24

Organization and Administration, 18

* An option of either Principles of Elementary Education or Principles of Secondary Education was offered.

TABLE 19

CATEGORICAL ANALYSIS OF THE COURSES IN EDUCATION REQUIRED
BY TEACHERS COLLEGE, 1942-1943, FOR STUDENTS PREPARING TO
TEACH ART IN THE PUBLIC SCHOOLS, WITH FREQUENCIES OF
CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
003....	12 1440	1 20	2 240		1 240	1 80		1 60		2 140
007....						5 2250				
017....			14 3350				3 1100			
060....		1 50	15 1300						1 100	1 50
008....	3 250	2 200	1 50	8 1000	2 350	2 150	1 50	1 100	1 100	
(009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	)
010....	17 1300	3 300					3 250		3 200	
011....							14 2250			
012....	4 200			2 100	5 350				1 100	
055....	8 600		1 100	2 300	7 1500				2 500	
Total*	41 3790	7 570	33 5040	12 1400	15 2440	8 2480	21 3650	2 160	8 1000	3 190

* Course 009 is not included in the total.

Measurement and Appraisal, 18
History and Comparative Education, 12
General Methods, 12
Special Methods and Related Content, 7
Classroom Management and Extra-Instructional Activities, 5
Supervision and Curriculum Development, 3
Educational Sociology, 1
Philosophy of Education, 1

The courses analyzed covered twenty-six semester hours of professional educational courses scheduled in the junior and senior years, as given in the catalogue (3:45). According to the announcement of the School of Applied Arts, credit hours are designated as "term credit hours" (3:44). A total of 153 such term hours are required for the completion of the four-year program. The length of the school term is eleven calendar months in the junior and senior years (3:46).

The Program for the Preparation of Home Economics Teachers.—

In cooperation with the School of Household Administration (later College of Home Economics) of the University of Cincinnati, the Teachers College maintained an affiliated program for students preparing to teach home economics in the public schools. The courses in education prescribed in this program were:

- 017 Psych.11. Educational Psychology
- 002 or 003 Ed.1. Introduction to Education
- 009 Ed.4. Principles of Secondary Education
- 010 Ed.5. Organization, Administration, and Management
- 011 Ed.6. Introductory Educational Measurement

In Table 20 analyses of these courses are shown by categories, with an indication of the difference occasioned by the choice of the second or third section of the course, Introduction to Education. Reading the data from the first of these sections, the percentage distribution of time among these categories was found to be:

- Psychology, 35
- Measurement and Appraisal, 22
- Organization and Administration, 18
- General Methods, 10
- History and Comparative Education, 7
- Supervision and Curriculum Development, 7
- Classroom Management and Extra-Instructional Activities, 4
- Special Methods and Related Content, 0
- Philosophy of Education, 0
- Educational Sociology, 0

The courses analyzed comprised eighteen semester hours of the total listing of 135 hours for the four-year program. Two courses in professional education, scheduled in the School of Household Administration, were not analyzed. These were H.Ec. Ed. 1a, Methods in Teaching Home Economics, three credit hours, and H.Ec. Ed.2, Supervised Observation and Teaching, five credit hours (3:48).

TABLE 20

CATEGORICAL ANALYSIS OF THE COURSES IN EDUCATION REQUIRED
BY TEACHERS COLLEGE, 1942-1943, FOR STUDENTS PREPARING TO
TEACH HOME ECONOMICS IN THE PUBLIC SCHOOLS, WITH
FREQUENCIES OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Genl. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
017....			14 3350				3 1100			
002....	3 700	1 300	1 300		2 200	3 700				
(003...	12 1400	1 20	2 240		1 240	1 80		1 60		2) 140
009....	1 100	2 200	2 250		6 1000	1 150	1 150		2 250	
010....	17 1300	3 300					3 250		3 200	
011....							14 2250			
Total	21 2100	6 800	17 3900		8 1200	4 850	21 2650		5 450	
Total*	30 2800	6 520	18 3840		7 1240	2 230	21 2650	1 60	6 450	2 140

* This total includes course 003, instead of course 002, which is included in the first total.

Comparison of the Education Requirement in the Undergraduate Programs.— In Table 21 is recorded the amount of time devoted to the required courses in education in each of the undergraduate programs of study, excepting the program offered to teachers in service.

The average class time devoted to education courses in the undergraduate programs was found to be 23,637 minutes. This average included the courses listed in Table 21, omitting the programs in physical education. It was thought that many of these courses included subject-matter content, in addition to the professional phases of education treated.

A comparison of the data of this table disclosed a considerable difference between the extent of the education requirements of the several programs. The professional requirements ranged from approximately one-half of the average amount of 23,637 minutes to double this amount. Conspicuously low in the requirements in education were the program in Home Economics and the Liberal Arts-Education program.

There were marked differences between the undergraduate programs with respect to the relative emphasis upon categories of education subject matter. See Table 22.

Noticeably high in the requirements of Special Methods and Related Content were the programs in Kindergarten-Primary, Elementary Grades, Physical Education, and Industrial-Vocational Education.

TABLE 21

COMPARISON OF THE UNDERGRADUATE PROGRAMS OF STUDY
IN TEACHERS COLLEGE, 1942-1943, WITH RESPECT TO
THE TIME AND NUMBER OF UNITS IN EDUCATION COURSES

Program	Minutes	Units
* 1. Kindergarten-Primary	43,420	241
2. Elementary Grades	36,890	173
3. Departmentalized Schools	27,400	167
4. Liberal Arts-Education	16,650	120
5m. Physical Education for Men	40,050	180
5w. Physical Education for Women	45,880	177
6. Public-School Music	13,270	146
7. Industrial Vocational Education	21,430	157
8. Business Education	21,000	128
10. Art Education	20,720	150
11. Home Economics	11,950	82
Mean	27,151	156
Mean (excluding Physical Education) ..	23,637	152

*
The program numbers correspond to the numbers in Table 22 and
in the current catalogue (3:29-46).

TABLE 22

THE RELATIVE EMPHASES OF THE UNDERGRADUATE PROGRAMS OF
TEACHERS COLLEGE, 1942-1943, EXPRESSED IN PERCENTAGE
DISTRIBUTION OF TIME AMONG CATEGORIES

Pro- gram	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10. Soc.
*										
1	7.4	4.1	9.3	47.3	7.2	4.9	9.2	2.8	6.3	1.9
2	6.9	4.5	12.7	48.6	1.5	5.7	11.2	1.9	3.9	3.0
3	9.3	3.7	18.4	25.2	9.0	8.2	16.4	2.6	4.4	2.9
4	16.2	6.9	14.1	1.2	16.7	13.8	20.1	3.6	6.9	0.3
5m	8.0	2.2	9.1	34.1	6.0	7.7	11.0	1.8	18.1	2.0
5w	8.7	2.1	8.0	45.3	5.0	5.4	9.4	1.6	13.4	1.3
6	22.2	3.1	35.0	6.7	1.8	0.6	23.4	0.5	5.4	1.4
7	7.4	1.9	2.6	41.2	4.7	3.3	17.1	0	10.6	11.7
8	11.4	2.6	23.3	13.3	7.1	10.0	20.6	2.9	5.0	4.1
10	18.3	2.8	24.4	6.8	11.8	12.0	17.7	0.8	4.8	0.9
11	17.6	6.7	4.6	28.0	10.1	7.1	22.2	0	3.8	0
Aver- age	12.1	3.7	14.7	27.1	7.4	7.1	16.2	1.7	7.5	2.7

*
The program numbers correspond to the numbers in Table 21 and
in the current catalogue (3:29-46).

High in the requirements of Psychology were the programs for Departmentalized Schools, Public-School Music, Business Education, and Art Education. The Liberal Arts-Education program, Public-School Music program, and the programs for Art Education and Home Economics devote relatively great emphasis to Organization and Administration.

Special methods received no treatment in the four-year Liberal Arts-Education program. This is in sharp contrast to the great emphasis on special methods in other undergraduate programs. This program also gave negligible treatment to the category of Educational Sociology.

It should be noted that two semester hours out of the twelve semester hours of the internship were credited to special methods in the particular subjects taught by the interns. This portion of the program, however, was in the nature of "student-teaching fellowships" and available to a limited number of students (3:29).

History of Education received negligible treatment in the Public-School Music program. This program also treated lightly the categories of Philosophy of Education and Educational Sociology.

Curriculum Areas

Educational Psychology.— The course outlines studied included courses in educational psychology as follows:

- 015 Ed.10. Educational Psychology
- 016 Ed.11. Psychology of Childhood and Adolescence
- 017 Psych.11. Introduction to Educational Psychology
- 058 Ed.110. Advanced Educational Psychology
- 059 Ed.111a. Child Psychology
- 060 Ed.111b. Adolescent Psychology
- 061 Ed.112a. Psychology of Adjustment
- 062 Ed.112b. Psychology of Adjustment

As indicated by Table 23, eighty-five per cent of the time spent in psychology classes was devoted to psychology, as defined in setting up categories of subject matter for the purpose of this study. Between ten and fifteen per cent was given to measurement, with less than one per cent to each of four other categories.

Administration and Supervision.— The course outlines studied included courses in administration and supervision as follows:

- 063 Ed.115. School Administration
- 064 Ed.115.1. Business Administration of Schools
- 065 Ed.116. School Supervision
- 066 Ed.117. The Curriculum
- 067 Ed.118. Elementary-Secondary School Administration
- 068 Ed.119. Seminar in Administration and Supervision

As indicated in Table 24, over one-half of the time in these classes was devoted to Organization and Administration, about one-fourth to Supervision and Curriculum Development, about one-sixth

TABLE 23

CATEGORICAL ANALYSIS OF THE COURSES OFFERED IN THE FIELD OF
EDUCATIONAL PSYCHOLOGY IN TEACHERS COLLEGE, 1942-1943, WITH
FREQUENCIES OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
015....			15 1850				3 400			
016....			15 1300						1 50	
017....			14 3350				3 1100			
058....			13 1500							
059....			13 1250	1 100			1 150			
060....		1 50	15 1300						1 100	1 50
061....			16 1400				1 100			
062....			12 1200				2 300			
Total		1 50	113 13150	1 100			10 2050		2 150	1 50

TABLE 24

CATEGORICAL ANALYSIS OF THE COURSES OFFERED IN THE FIELD OF
ADMINISTRATION AND SUPERVISION IN TEACHERS COLLEGE, 1942-
1943, WITH FREQUENCIES OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
063....	11 2400	1 200								
064....	19 2700									
065....	1 100	10 1000			1 100		1 100			
066....		5 1000					1 200			
067....	12 1200	4 500		1 100		1 100	5 350		2 300	
068....	1 200						9 1300			
Total	44 6600	20 2700		1 100	1 100	1 100	14 1950		2 300	

to Measurement and Appraisal, with a small amount of time given to four other categories. Topics on Psychology, Philosophy of Education, and Educational Sociology were not included in any of the courses in this area.

Secondary Education.— The courses studied in this area were:

- 069 Ed.120. Secondary Education
- 070 Ed.121. Secondary-School Methodology
- 071 Ed.122. Special Problems in Secondary Education
- 072 Ed.123. Evaluation of Secondary Schools
- 073 Ed.124. Problems of Early Adolescent Education.

Based on the data of Table 25, the percentage distribution of class time was as follows:

- Measurement and Appraisal, 33
- Organization and Administration, 17
- General Methods and Related Content, 10
- Supervision and Curriculum Development, 9
- Philosophy of Education, 8
- Psychology, 6
- Educational Sociology, 5
- Special Methods, 4
- Classroom Management and Extra-Instructional Activities, 4
- History and Comparative Education, 2

TABLE 25

CATEGORICAL ANALYSIS OF THE COURSES OFFERED IN THE FIELD OF
SECONDARY EDUCATION IN TEACHERS COLLEGE, 1942-1943, SHOWING
FREQUENCIES OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
069....	6 900	1 100				1 100	8 1300	1 100		1 200
070....	1 100		2 400		3 700		1 200			
071....	2 400	2 600		1 400			1 300	1 400	1 400	1 300
072....	1 100						8 1200	1 100		
073....	1 100	1 200	1 200		5 300	1 100	2 200	2 200		
Total	11 1600	4 900	3 600	1 400	8 1000	2 200	18 3200	5 800	1 400	2 500

Elementary Education.— The curriculum offerings in this area were about equally divided between the undergraduate and the graduate levels. Analyses were made of these two levels separately, as indicated in Tables 26 and 27. The courses studied on the undergraduate level of this area were:

- 023 Ed. 30. Organization and Practices in Childhood Education
- 024 Ed. 31. Primary Methods
- 025 Ed. 33. Literature in Kindergarten-Primary Grades
- 026 Ed. 34L. Pictorial Arts in Childhood Education
- 027 Ed. 35L. Practical Arts in Childhood Education
- 028 Ed. 36. Reading in Childhood Education
- 029 Ed. 40. Teaching the Fundamental Skills
- 030 Ed. 42. Literature in Elementary & Junior High School
- 031 Ed. 43L. Pictorial Arts in the Elementary School
- 032 Ed. 44L. Practical Arts in the Elementary School

The courses studied on the graduate level of this area were:

- 077 Ed. 131. Teaching Arithmetic
- 078 Ed. 132. Language Arts in the Elementary School
- 079 Ed. 133. Teaching Reading
- 080 Ed. 134L. Science Teaching in the Elementary School
- 081 Ed. 135. Teaching of the Social Studies
- 082 Ed. 136. Functional Literature in Elementary and Junior High Schools

- 083 Ed.137L. Arts and Crafts as Part of the Integrated
Program in the Kindergarten-Primary Grades
- 084 Ed.137.1L. Arts and Crafts as Part of the Integrated
Program in the Elementary School
- 085 Ed.140. Special Disabilities in Learning
- 086 Ed.142. Creative Dramatics

A categorical analysis of the courses in elementary education, shown in Tables 26 and 27, disclosed a great emphasis upon Special Methods and Related Content. This is true alike on the undergraduate and graduate levels.

Courses Available to Teachers in Service.— Education courses scheduled for the accommodation of teachers in service included:

- 004 Ed.1. Introduction to Education
- 007 Ed.2. History of Modern Education
- 052 Ed.104a. Educational Measurement
- 053 Ed.105. Statistical Methods
- 054 Ed.107. Principles of Thesis and Essay Writing
- 058 Ed.110. Advanced Educational Psychology
- 015 Ed.10. Educational Psychology
- 059 Ed.111a. Child Psychology
- 060 Ed.111b. Adolescent Psychology
- 061 Ed.112a. Psychology of Adjustment
- 062 Ed.112b. Psychology of Adjustment
- 063 Ed.115. School Administration
- 064 Ed.115.1. Business Administration of the Schools

TABLE 26

CATEGORICAL ANALYSIS OF THE UNDERGRADUATE COURSES OFFERED IN THE FIELD OF ELEMENTARY EDUCATION IN TEACHERS COLLEGE, 1942-1943, GIVING THE FREQUENCIES OF THE CATEGORIES AND THE TIME

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
023....	2 150	1 100	2 300	5 800	5 350				5 550	
024....				8 1950					1 300	
025....				15 2260						
026....				5 2250						
027....				3 3460						
028....				11 2250						
029....				9 2150			1 200			
030....				13 2100						
031....				4 3440						
032....				2 3600						
Total	2 150	1 100	2 300	75 24260	5 350		1 200		6 850	

TABLE 27

CATEGORICAL ANALYSIS OF THE GRADUATE COURSES OFFERED IN
THE FIELD OF ELEMENTARY EDUCATION IN TEACHERS COLLEGE,
1942-1943, SHOWING FREQUENCIES OF CATEGORIES AND TIME

Code Course Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
077....		1 100		11 1400						
078....				8 1350			1 150			
079....		1 125		11 1375						
080....				14 3120						
081....		1 150		9 1250			1 100			
082....				13 1450					1 50	
083....				4 3200						
084....				6 3000						
* 085....			1 (170)	4 750 + (510)	3 (510)		2 (340)			
086....				7 2800						
Total		3 375	1 (170)	87 19695 +(510)	3 (510)		4 250 +(340)		1 50	

*

The time emphases indicated in parentheses could not be checked owing to the death of the instructor of this course.

- 065 Ed.116. School Supervision
- 066 Ed.117. The Curriculum
- 067 Ed.118. Elementary-Secondary School Administration
- 068 Ed.119. Seminar in Administration and Supervision
- 069 Ed.120. Secondary Education
- 070 Ed.121. Secondary-School Methodology
- 071 Ed.122. Special Problems in Secondary Education
- 072 Ed.123. Evaluation of Secondary Schools
- 073 Ed.124. Problems of Early Adolescent Education
- 019 Ed. 26. Fundamentals of Music in Elementary Grades
- 075 Ed.125. Principles and Methods of Music in Elementary
Education
- 076 Ed.126. Interpretation of Music in the Classroom
- 077 Ed.131. Teaching Arithmetic
- 078 Ed.132. Language Arts in the Elementary School
- 079 Ed.133. Teaching Reading
- 080 Ed.134L. Science Teaching in the Elementary School
- 081 Ed.135. Teaching of the Social Sciences
- 082 Ed.136. Functional Literature in Elementary and Junior
High Schools.
- 083 Ed.137L. Arts and Crafts as Part of the Integrated Program
in the Kindergarten-Primary Grades
- 084 Ed.137.1.L. Arts and Crafts as Part of the Integrated
Program in the Elementary School

- 085 Ed.140. Special Disabilities in Learning
- 086 Ed.142. Creative Dramatics
- 040 Ed.54. First Aid
- 049 Ed.66. Camp Leadership
- 050 Ed.67. Recreational Activities
- 088 Ed.151. Organization and Administration of Recreation
- 089 Ed.153. Hygiene of the School Child
- 087 Ed.144.2. Youth and the Future
- 102 Ed.178. Contemporary Comparative Education
- 103 Ed.180. Teaching the Business Subjects
- 104 Ed.181. Trends in Business Education
- 105 Ed.182. Teaching Consumer Education
- 106 Ed.182.1. Principles of Sociology in Their Educational
Applications
- 107 Ed.192L. Audio-Visual Aids in the Classroom
- 108 Ed.193L. The Use of Audio-Visual Aids in
Elementary Education
- 109 Ed.194. Fundamentals of Speech for Teachers
- 110 Ed.195. Speech Defects and Their Correction
- 074 Ed.124.1. Play Production in Junior and Senior
High Schools
- 092 Ed.170.2. Shop Management

A categorical analysis was made of the courses offered for the accommodation of teachers in service. See Table 28. The order

TABLE 28

CATEGORICAL ANALYSIS OF THE COURSES OFFERED TO TEACHERS IN
SERVICE BY TEACHERS COLLEGE, 1942-1943, SHOWING FREQUENCIES
OF CATEGORIES AND TIME IN MINUTES

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
004....	3 600				1 150	3 900	1 150			3 650
007....						5 2250				
* 052....							34 4250	1 100		
# 015....										
058....		1	98	1			10		1	1
062		50	11850	100			2050		100	50
** 063....	44	20		1	1	1	14		2	
068	6600	2700		100	100	100	1950		300	
## 069....	11	4	3	1	8	2	18	5	1	2
073	1600	900	600	400	1000	200	3200	800	400	500
019....				5 1500						
075....		1 500		4 1000						
076....				11 1500						
*** 077....		3	1	87	3		4		1	
086		375	(170)	19695 +(510)	(510)		250 +(350)		50	

*

See Table 12

#

See Table 24

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See Table 25

##

See Table 26

See Table 28

TABLE 28 (Continued)

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
040....									8 1400	
049....				12 600					2 100	
050....	1 100			11 1250					1 100	
088....	4 850	1 350		1 200					1 100	
089....	1 100		1 200	3 400					15 2100	
087....	1 100								1 100	10 1000
102....	1 360					5 1460				
103....				9 2800						
104....	1 300			3 700		2 1300			1 200	1 400
105....					12 3000					
106....										9 1400
107....					11 1800					
108....					10 1680					
109....				14 1500						

TABLE 28 (Continued)

Course Code Number	1 Org. Adm.	2 Sup. Curr.	3 Psy.	4 Spec. Meth.	5 Gen. Meth.	6 Hist.	7 Meas.	8 Phil.	9 Mgt.	10 Soc.
110....				8 2800						
074....				11 1500						
092....			1 150	7 1050			3 450		2 300	
Total	67 10610	30 4875	117 14300 +(170)	189 37095 +(510)	46 7730 +(510)	18 6210	84 12300 +(340)	6 900	36 5250	28 4000

of emphasis of this list of courses, with the percentage distribution of time, was found to be as follows:

Special Methods and Related Content, 36

Psychology, 13

Measurement and Appraisal, 12

Organization and Administration, 10

General Methods, 8

History and Comparative Education, 6

Classroom Management and Extra-Instructional

Activities, 5

Supervision and Curriculum Development, 5

Educational Sociology, 4

Philosophy of Education, 1

This order of emphasis resembles, in general, the order as found for the curriculum offering as a whole.

Summary

In this chapter an analysis is presented of certain groups of courses with reference to a given classification of educational topics or categories. The curriculum areas or groups of courses are: the undergraduate constants, the graduate constants, ten specified programs of study on the undergraduate level, and the curriculum offerings in the areas of psychology, administration and supervision, secondary education, elementary education, and the courses available to teachers in service. The categories of educational topics used as a basis for the analyses are: Organization and Administration, Supervision and Curriculum Development, Psychology, Special Methods and Related Content, General Methods, History and Comparative Education, Measurement and Appraisal, Philosophy of Education, Classroom Management and Extra-Instructional Activities of Teachers, and Educational Sociology.

Presumably similar sections of the course, Introduction to Education, but taught by different instructors, were found to be quite different. To a smaller degree, a similar situation was found

between different sections of the course, History of Modern Education. These two courses, together with four courses in Principles of Elementary Education, Principles of Secondary Education, Introductory Educational Measurement, and Organization, Administration, and Management, constituted a set of constants on the undergraduate level.

An analysis of this group of undergraduate constants showed them to be composed, approximately, of twenty-two per cent Measurement and Appraisal, seventeen per cent Organization and Administration, seventeen per cent History and Comparative Education, about twelve per cent General Methods, and eight per cent Special Methods and Related Content. The remainder of the time was distributed, with decreasing emphasis, over the categories of Educational Sociology, Supervision and Curriculum Development, Philosophy of Education, Classroom Management, and Psychology.

The four courses composing the graduate constants of Educational Measurement, Statistical Methods, Principles of Thesis and Essay Writing, and Advanced Educational Psychology were composed of about three-fourths Measurement and Appraisal and one-fourth Psychology.

Great differences were found to exist between the professional requirements prescribed in the various programs on the undergraduate level. These ranged from a requirement of less than twelve thousand minutes of class time in the Home Economics program to over forty

thousand minutes of class time in the Kindergarten-Primary program and in each of the two Physical Education programs. Three programs (Industrial-Vocational Education, Business Education, and Art Education) were found to specify work in professional education to the extent of approximately twenty thousand minutes of class time each.

In the emphasis of subject matter, significant differences also were found between the undergraduate programs of study. The Kindergarten-Primary, Elementary, Physical Education, and Industrial Vocational programs ranked high in their requirement of subject matter in Special Methods and Related Content. Programs ranking relatively high in their requirements in Psychology were those designed to prepare teachers for Departmentalized Schools, Public-School Music, Business Education, and Art Education. The category of Special Methods and Related Content received no treatment in the four-year Liberal Arts-Education program, a fact of marked contrast to the great emphasis on this category in the typical program of preparation for teachers in the elementary grades.

In the area of Psychology, between ten and fifteen per cent of the time in class was devoted to measurement and about eighty-five per cent to Psychology, as defined in Chapter IV. The area of School Administration and Supervision was slightly more differentiated in subject matter. Over one-half of the class time in this area was

devoted to Organization and Administration, about one-fourth to Supervision and Curriculum Development, and about one-sixth to Measurement and Appraisal.

The area of Secondary Education topics was distributed over the entire list of ten categories, with greatest emphasis on the categories of Measurement and Appraisal, and Organization and Administration. In this area relatively slight emphasis was found on Special Methods and on Classroom Management.

In the area of Elementary Education over ninety per cent of the class time was given to Special Methods and Related Content. In this respect the undergraduate and graduate levels were strikingly similar. An implication of these data on elementary education is that there may be reason to examine offerings in this field, with a view to determining adequacy of coverage of problems in elementary schools that are not those of subject instruction as such.

The number of courses included in the curriculum offering for teachers in service was somewhat less than one-half the total offering of Teachers College. The subject matter of the courses for teachers in service was distributed in a manner quite similar to the curriculum offering of Teachers College as a whole.

CHAPTER VII

SUMMARY

The Problem

During the regular school year, 1942-1943, a survey was made of the educational courses of the Teachers College of the University of Cincinnati. It was the purpose of this survey to study only the professional offering or courses in education as contrasted with the general academic preparation of teachers.

The data for the study were secured largely from course outlines provided by the faculty. There were 110 courses in education included in the list of courses studied. For a few courses, outlines could not be secured.

Specifically, the objectives of this study included:

- (1) A study of the completeness of topical coverage of the entire professional offering of Teachers College.
- (2) A study of overlapping of courses and duplication of teaching.
- (3) A study of the topical emphasis in the various programs of study, required sequences, and offerings in the various educational fields.

The Method of Study

Collection of Data.— In soliciting course outlines it was

desired that the material of the courses be presented in terms of teaching units, with estimates of the amount of time spent in each class on each of the units. Later, various faculty members were consulted relative to points not made clear in the outline.

A survey of the professional literature was made to throw light on the completeness of coverage of the professional offering of Teachers College. The Education Index, the Encyclopedia of Educational Research, and the Commonwealth Teacher Training Study were analyzed chiefly by calculating the pages and fractions of pages covered by particular topics.

Constructing the Master List of Units.— The unit titles of the course outlines were transferred to filing cards and then were sorted, at first alphabetically by leading words in unit titles. This procedure brought together topics of similar titles. Groups of similar titles were compressed into single titles, called composite unit titles, and the collection of teaching units so encompassed was termed a composite unit. A composite unit has no existence as a body of teaching content, but was a convenient concept used in this study for the purpose of analysis.

Before making the final draft of the master list it was discovered that related titles could be collected conveniently in groups. This was done in certain cases, but without obscuring the integrity of separate titles and composite unit titles. Then the

original uncombined titles and composite unit titles were numbered consecutively without distinction. Four-digit numbers were used, ranging from 0001 to 0942. See Table 36, Appendix E.

Course numbers and time spent in class were also used to identify and characterize units, with both the original uncombined units and the separate teaching units combined under composite titles.

A category number was added to the description of each unit in the master list to indicate the type of educational subject-matter found in the unit, as classified according to a list of ten categories. See Chapter VI.

Topical Concurrence Within Composite Units.— The individual teaching units grouped together under composite unit titles represented units of the same or similar titles occurring in different courses. The time in common between the units of such a group listed together under a common composite title was defined as "concurrence." The time in common is not the total time, but the total time diminished by the greatest amount of time devoted to a single teaching unit found under the composite unit title. If three such teaching units had time allotments of 200, 150, and 100 minutes, respectively, the concurrence would be 250 minutes. The overlapping as defined, however, might equal 250 minutes, but usually was less than the concurrence, because overlapping was considered as the time in common between

identical or essentially identical material. Frequently units were found with similar titles whose subtopics varied greatly. Furthermore, duplication of teaching, as defined, differed from overlapping, in that duplication of teaching presumes the presence of the same students in the competing classes.

The Study of Overlapping by Categories of Concurrence.—

A limited number of combinations of courses and their units was found to be possible when such combinations were restricted to teaching units within composite units. A study of these would, obviously, take care of most of the cases of overlapping.

After determining the relationship of courses by conferences with members of the faculty, it was found possible to classify these hypothetical pairs of courses into the categories: (1) courses that did not enroll the same students; (2) pairs of courses found in a prerequisite-sequent relation and which, consequently, treated the subject-matter on different levels of difficulty; (3) pairs of courses that made applications of principles and subject matter to different instructional purposes in the education of teachers, as in theory and practice courses; (4) pairs of units having similar unit titles, but which treated different phases of the topics as indicated by first-order subtopics; (5) pairs of units that applied similar principles to different fields or areas of teaching; and (6) a very small group of miscellaneous explanations

of overlapping.

The remainder of the combinations, a group of twelve cases, admittedly contained overlapping in different courses that could be taken by the same students. This group of courses and unit pairs, possibly together with some of the material in the second category above, encompassed most of the undesirable overlapping. In general, overlapping is assumed to be undesirable when these conditions occur: the same material is taught, the same students are taught, and there is no educational purpose in this double teaching. From an administrative viewpoint, overlapping between courses that do not enroll the same students may or may not be justifiable.

Analysis of the Curricular Offering by Categories.— A list of general classes of subject matter or categories was selected to serve as a basis for analysis of the curriculum and required sequences of courses. This was first applied to the offering as a whole, then to the groups of required constants, undergraduate programs of study, and groups of courses or curriculum areas.

Major Findings

The Subject Matter of the Master List of Units.— It was found that the total list of teaching-unit titles could be reduced by almost one-fourth by combining similar unit titles under common titles.

The total concurrence or time in common between teaching units grouped under these common titles or composite unit titles amounted to about twenty per cent of the total class time of all courses analyzed.

Twenty-one courses of the 110 were found to contain no unit titles similar to unit titles of other courses.

There were 1,234 teaching units as recorded in the master list and 942 different numbered unit titles comprising the uncombined unit titles of teaching units and composite unit titles.

Subject-Matter Analysis of the Curriculum as a Whole.— The order of emphasis of the teaching units of the master list, with the time spent in class, expressed in percentage of the total time, was found to be as follows:

Special Methods and Related Content, 48

Organization and Administration, 9

Measurement and Appraisal, 9

Classroom Management and Extra-Instructional

Activities of Teachers, 8

Psychology, 7

General Methods, 6

History and Comparative Education, 5

Supervision and Curriculum Development, 3

Educational Sociology, 3

Philosophy of Education, 1

Curriculum Gaps.— Among the topics revealed in the current literature and not found in the master list of teaching units, the following appeared to be the most important:

Educational Laws and Legislation

Higher Education

Libraries and Librarians

Negroes and Negro Education

Preschool Education

Religion and Religious Education

Rural Education

Sex Differences

Study, Direction of

Special Methods in Academic High School Subjects

Teacher Activities Involving the Personnel of the
School Staff

War and Education

Women, Education of

It was not claimed that the curriculum of Teachers College was totally devoid of treatment of the topics in this list, but that these topics were not accorded a place in the list of 1,254 major teaching units.

It was not considered the function of this study to present evaluations of the quality or desirability of the curriculum of

Teachers College. Some of these apparent gaps in the curriculum may be justified, while other omissions may be debatable. For example, at the time of the study there was no urgent student demand for offerings in higher education, and another college of the University of Cincinnati gave work in preschool education. The inclusion of other topics, such as school law, might be in order, although considerable discussion of school law takes place in connection with units in administration courses.

No attempt was made to determine the adequacy of coverage of the curriculum prescriptions and offerings of Teachers College, although much material for making such a study is contained in the master list of Table 36, Appendix E. For example, the unit on penmanship, 0559, received attention in two courses, Primary Methods, and Language Arts in the Elementary School. The course in Primary Methods was required in the program for kindergarten-primary teachers, but neither of these courses was required in the programs specified for teachers of the elementary grades and teachers of departmentalized schools at the elementary and secondary levels. On the basis of this observation, it would appear that the preparation of many teachers is deficient in this important respect. It should be noted, however, that the purpose of this paragraph is not to point out a particular case of faulty emphasis, but to indicate a field of inquiry that was not attempted in this study.

Overlapping and Duplication.--- Nearly one-half of the possible pairs of courses involving similar material did not enroll the same students and so were free from the question of duplication of teaching. Whether this overlapping between courses that do not enroll the same students is justifiable or not, must rest upon considerations of administrative feasibility.

Course combinations that utilize the same course material for different instructional techniques in Teachers College, and courses that apply the same course material in applications to different areas or levels of teaching, covered about one-seventh of the total concurrence between pairs of courses. Adding to these amounts the concurrence of pairs of units that have no first-order subtopics in common, and the concurrence between pairs of prerequisite-sequent courses taught by the same instructors, plus a very few cases with other apparently justifiable reasons, there remained less than one-fourth of the concurrence between pairs of courses and units to consider for possible duplication of teaching. Applying this ratio to the total concurrence, as computed within composite units of the master list, the maximum of unjustifiable overlapping in the form of possible duplication of teaching was less than five per cent. Within this five per cent of concurrence was classified the use of similar material between prerequisite-sequent courses and between

undergraduate and related graduate courses which occurred in pairs of courses not taught by the same instructor. To the extent that the overlapping between such related courses was planned, as in reviews, summaries, and intentional reteaching, the estimate of duplication must be reduced.

While other investigators have not distinguished between concurrence, overlapping of courses, and duplication of teaching, except in a general way, and while other analyses of the programs of teachers colleges have been less exact in their methods of approach, comparisons may possess some interest and value.

The determination of the seriousness of overlapping in various studies appears to be conditioned by the methods of investigation and by preconceptions relative to permissible amounts of overlapping. Peik (79:72, 74) found in 1930 that nearly one-half of the topics covered by six courses were involved in an average course and that 56 per cent of the alumni criticized the existence of duplication. Linder (61:94), reporting a survey of the curriculum of the Western Illinois State Teachers College in 1935, stated that:

The extent of unnecessary repetition for Curriculum A, when the two-year and the two-and-a-half-year curricula are considered, as reported by from 10 to 24 per cent of graduates, includes 87 topics or 26.5 per cent of the total. ... Apparently there is no serious problem of unnecessary duplication. ...

The same investigator concludes that "adjustments are necessary for certain topics, especially for those reported by 25 to 50 per cent

of the graduates." The same report (61:95) gives the helpful repetition in a certain program as "approximately half of the entire curriculum." In 1940 Fredericks (31:157) found a small percentage (3.3) of graduates of a physical education program who reported "overemphasized, overlapping, and unnecessary material," but McConnell and Eckert (65:52-56) in 1942 found overlapping reported for about 43 per cent of the courses in the University of Minnesota. The McConnell-Eckert estimate was based upon hearsay reports of faculty members rather than a detailed analysis of any kind.

Due to the differences in the approach to the curriculum investigations quoted and to the ambiguity of the data involved, there is neither cause for alarm in any comparison that may be made with the data ~~of~~ this study for Teachers College nor is there great comfort. The most nearly comparable data found in the literature were derived from Linder's (61:25) reduction of his original list of teaching topics from 583 to 328, or 44 per cent. This may be compared directly with a comparable reduction in the construction of the master list of Table 36, which amounted to 24 per cent.

The Distribution of Topics in the Required Constants.— The sequence of six courses required of undergraduates emphasized the categories of Measurement and Appraisal, Organization and Administration, and History and Comparative Education. Receiving attention in decreasing amounts, in the following order, were the categories of General Methods,

Special Methods and Related Content, Educational Sociology, Supervision and Curriculum Development, Philosophy of Education, Classroom Management and Extra-Instructional Activities, and Psychology.

The four graduate constants of Educational Measurement, Statistical Method, Principles of Thesis and Essay Writing, and Advanced Educational Psychology were found to contain a distribution among the categories consistent with their titles.

The Undergraduate Programs of Study.— The amount of the professional education requirements in the eleven programs of study on the undergraduate level ranged from less than twelve thousand minutes of class time to over forty thousand minutes. High in terms of the amount of course material required in professional education were the Physical Education and Kindergarten-Primary programs. Low in education requirements were Home Economics and the Liberal Arts-Education programs. More than the average amount of education requirements was found in the Elementary program and the program of Departmentalized Schools. Approximately an average amount of time was found devoted to the professional subjects in the programs of Vocational Education, Business Education, and Art Education.

The emphasis on topics, as disclosed by categorical analyses, likewise revealed significant differences in the requirements of these undergraduate programs. The Kindergarten-Primary, Elementary,

Physical Education, and Vocational programs were high in terms of requirements of Special Methods and Related Content. Psychology was the leading topic in the programs of Departmentalized Schools, Public School Music, Business Education, and Art Education. The Liberal Arts-Education program, Public-School Music program, and the programs of Art Education and Home Economics devoted a relatively great proportion of their assignments in professional subjects to Organization and Administration.

Special Methods received no treatment in the four-year Liberal Arts-Education program. However, the fifth-year internship provided for work credited as two hours of special methods. This program also gave negligible treatment to the category of Educational Sociology. The Public-School Music program gave relatively slight treatment to the categories of History of Education, Philosophy of Education, and Educational Sociology.

Curriculum Areas.— The curriculum area of Psychology was found to devote approximately one-eighth of the time to measurement, the remainder of the emphasis belonging to Psychology, as this category was defined for the purpose of this study.

The area of Administration and Supervision was composed primarily of the categories of Organization and Administration, Supervision and Curriculum Development, and Measurement and Appraisal. No units in the category of Psychology, Philosophy of Education, or Educational Sociology were found in this area.

The area of Secondary Education covered the entire field of topics with about one-third of the total time given to the category of Measurement and Appraisal, and about one-sixth to Organization and Administration. Relatively little emphasis was found on Special Methods and Related Content, Classroom Management, and History and Comparative Education. The internship of the fifth year, which was not analyzed in this study, included work in special methods to the extent of two credit hours.

The courses in the area of Elementary Education were about equally divided between the undergraduate and the graduate levels. On both levels the subject matter, as indicated by unit titles, was found to lie almost entirely in the category of Special Methods and Related Content.

Somewhat less than one-half of the total course offering of Teachers College was found available for teachers in service. The category of Special Methods and Related Content led the list, with over one-third of the total class time representing this area. Psychology and the category of Measurement and Appraisal in each instance amounted to about one-eighth of the total, with decreasing amounts of time distributed over the other categories in the following order: Organization and Administration, General Methods, History and Comparative Education, Classroom Management, Supervision and Curriculum Development, Educational Sociology, and Philosophy of Education.

The courses for teachers in service covered the field of education with approximately the same distribution of emphasis as was found for the curriculum offering of Teachers College as a whole.

Interpretations and Implications of the Findings

Subject-Matter Emphasis.— The categorical analyses of the curriculum offering as a whole disclosed an apparently disproportionate emphasis upon special methods and related content courses in the area of elementary education and a deficiency of treatment in the secondary area. This may be explained partially by the use of the offerings in the College of Liberal Arts for content courses in the secondary area, whereas no such offerings were available for the elementary level. This picture was modified for the secondary field for students in the internship of the fifth-year. In this course of the fifth year, the deficiency in special and general methods mentioned for the four-year program was satisfied.

Philosophy of education, as such, was apparently neglected.

Gaps in the General Curriculum Coverage.— The findings relative to gaps in the general curriculum offering of Teachers College disclosed only a few topics indicative of scanty emphasis. No implication was contained in the findings relative to the most desirable disposition of the question of curriculum gaps. A few of the topics in the list of gaps possibly could be justified by precedent as courses in the

curriculum of Teachers College. Among these topics are (1) Educational Laws and Legislation (18:33; 40:517; 56:403, 407), Rural Education (18:33; 86:91, 92, 260), and Special Methods in the high school subject fields (9:546; 18:33; 40:517; 56:403; 86:91, 260). Other areas, such as Library Practice, Personnel Relations, Guidance, and Public-School Relations, may be suggested for greater emphasis or more concentrated treatment.

This study, however, did not presume to present the entire situation that would be involved in following such implications. Considerations of curriculum revision must involve matters of fact and policy that lie beyond the scope of this investigation.

Overlapping.— Overlapping, though justifiable from the point of view of the teacher, may, in some cases, be questioned on administrative grounds. Approximately half of the course overlapping was thought to lie between courses that do not enroll the same students. The inference may be expressed that an organization could be effected that would eliminate some of this overlapping with administrative advantages. The possibilities in this regard are relatively restricted, however, since the actual overlapping in courses not attended by the same students certainly is much less than ten per cent of the total offering.

The curriculum offering of Teachers College was found to be essentially free from duplication of teaching. Practically all the repetition of topics and subject matter in Teachers College courses

appeared to have possible educational or administrative justification; for example, in presenting topics to distinct groups of students at different times, or purposeful repetition for the sake of review or application. The recent and extensive reorganization of courses and programs (noted in Chapter I) creates the presumption that instructors generally are aware of the relation of prerequisite-sequent courses. The influence of this reorganization was reflected in the nature of the overlapping of courses and the small amount of duplication of teaching found in this study.

The Undergraduate Constants.— The low concurrence of topics between certain sections of the course, Introduction to Education, indicated little actual similarity between these parallel sections. The desirability of a closer agreement in subject matter is suggested by the data disclosed in the study.

The Undergraduate Programs.— Important differences were found in the total professional requirements between the various prescribed programs of study on the undergraduate level. These facts imply the desirability of further investigation and possible equalization of the educational requirements in these programs.

Marked differences existed between these programs of study with respect to the topical emphasis, as disclosed by categorical analyses. The various programs not only prescribed different amounts of educational material, but they supplied this material with a wide variety of emphasis among areas of educational material.

The Elementary and Secondary Areas.— The curriculum areas of Elementary Education and Secondary Education presented a marked contrast with respect to the course offerings in the category of Special Methods and Related Content. The desirability of harmonizing the viewpoints reflected in the offerings of these two areas was implied by the findings of this survey.

Problems for Future Study

Among the problems directly or indirectly related to this study the following may be suggested:

1. A study of the knowledge acquired in each course in the curriculum offerings of Teachers College, by means of comprehensive examinations given at the beginning and at the end of each course. Such an array of data would be valuable in checking the results of this survey, which was based on course outlines.

2. A study of the application of the units of material of the various courses surveyed in this study, for the purpose of determining: (1) the probable frequency of use in the various teaching situations, and (2) contribution to the development of a science of education. Such a study would be valuable in curriculum organization in Teachers College.

3. An evaluation of the time and/or topical emphasis in the programs and prescribed sequences of study in Teachers College, in relation to analyses of duties and functions of teachers in the various

teaching positions. Such an investigation would supplement the present study.

4. An analytical determination of the concepts common to the necessary educational equipment of: (1) all public-school teachers, (2) teachers of the kindergarten-primary grades, (3) teachers of the intermediate grades, (4) teachers of the junior high school grades, and (5) teachers of the senior high school. A study of this type would throw light on the organization of teachers college courses with reference to educational function as well as grade placement of material.

5. A determination of the professional concepts necessary for teaching in special fields and high school subject areas, exclusive of special methods. Such a study or evaluation would contribute to the interpretation of the desirability of certain types of overlapping.

Recommendations

On the basis of the data disclosed in this study, the following recommendations may be made:

1. An examination of the curricular offering of Teachers College should be made relative to the total available offering, with a view to scrutinizing the adequacy of topical coverage and the relative emphasis of topics. Not only should the relative emphasis of present teaching units be studied, but certain topics such as those disclosed in Table 4 should be considered for their

proper inclusion in the offering.

2. An examination should be made of the articulation of prerequisite-sequent courses and the related undergraduate and graduate courses. Each instructor should possess detailed syllabi of courses related to his own.

3. It is recommended that attention be given the parallel sections of the introductory courses in education, Introduction to Education and History of Modern Education. Attention is directed¹ to the fact that sections of these courses differ greatly.

4. It is suggested that the prescribed programs of study on the undergraduate level be examined with reference to the amount of professional work required and its topical emphasis.

5. It is recommended that consideration be given the matter of special methods courses for teachers of the academic subjects on the high school level (with due regard for the fifth-year internship).

6. 'It is recommended that the preponderance of special methods and related content for the elementary teachers be considered. It may be that other phases of elementary-teacher training are being neglected.

General Significance of the Study

Historical Significance of the Survey.— As noted in Chapter I, there have been two major reorganizations of the curricular offerings

¹ Before the final submission of this study, plans were under way for reorganizing the sections of these introductory courses.

of Teachers College: first in 1922, when the administration of the College was changed and a general reorganization was effected under the leadership of Dean L. A. Pechstein, and, second, during the depression years of the early nineteen thirties. As previously noted, the board of trustees of the university assumed complete supervision of Teachers College and in 1934 a revised and curtailed curriculum was inaugurated.

At the time of the reporting of this survey, the University of Cincinnati was in the process of planning a program for post-war service. A post-war planning committee was set up for the university as a whole, with a special committee functioning in each college.

The findings of this survey should prove of value for the curricular reorganization of Teachers College in the immediate post-war period.

Significance for Curricular Reorganization.— Numerous data presented in this survey should be of value in any curricular organization that may be made locally in the near future. The following points are presented as illustrations:

1. Chapter VI provides a starting point for the review of each undergraduate program.
2. Certain differences in viewpoint existing between the programs and offerings for elementary teachers and secondary teachers have been discovered and the extent of the differences noted.

3. Discrepancies between the parallel sections of the introductory courses were found, and the nature and extent of these discrepancies presented.

4. Specific units involving concurrence between prerequisite-sequent courses and related undergraduate and graduate courses have been catalogued. Such data should be of value in studying the coordination of these courses.

5. Certain areas in which the offering of course material is meager, as in educational philosophy, have been brought to light for administrative and faculty consideration.

6. A few gaps in the curricular offering have been indicated for the consideration of the faculty.

7. Courses that have little or no concurrence with other courses have been identified. One of these courses, Psychology of Adjustment, was not required in any program, and another significant course, Educational Sociology, was specified only in the program for vocational education.

8. The raw data in the form of course outlines made the detailed subject-matter of the courses accessible to the faculty for review.

Contribution to the Methodology of Research.— It is believed that the current methodology applicable to the investigation of curricular content of teachers college curriculums has been developed and improved. This is essentially a curriculum survey of the master-list type, with the following features, which are believed to be

used here for the first time:

1. A functional distinction between major topics or teaching units and subtopics. It was thought that the separation of subtopics from their setting in well organized teaching units distorts their significance. The necessity for such a distinction was expressed by Conger, as noted previously.

2. A method of evaluating the topical coverage of the professional curricular offering through a comparison of topics of the master list of teaching units with the topical coverage of the current literature in the field of education. No similar study was found in the literature reviewed.

3. A categorical analysis or evaluation of the relative emphasis given to classes or categories of topics by courses. The method was applied to various programs of study, the required constants, and the total professional offering.

4. A distinction was made between "concurrence" and "overlapping" of units and courses. This is essentially a distinction between coincidences of title and coincidences of content, each being evaluated, however, in terms of unit or topical length, as expressed in minutes of class time. Duplication of teaching was considered similar to overlapping with the additional condition that the courses concerned have enrolled students in common.

5. A functional classification of similarities between courses

and units that involves consideration of: (1) identity of students, (2) prerequisite-sequent relations, (3) use of similar instructional material for different purposes, (4) treatment of different phases of topics by units of similar titles, (5) application of similar subject matter or methods to different fields or levels of teaching, and (6) duplication of instruction. Such a plan of analysis was not found in the literature.

The methodology involving the above characteristics made possible the analysis of the curricular offering in a systematic manner. Within limits set chiefly by the accuracy and completeness of the course outlines prepared by the faculty, this study provides and analyzes the fundamental data necessary for curricular reorganization and planning for the college studied. At the same time, its procedure is suggested for similar studies in other teacher-training institutions.

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APPENDIX A

SURVEY FORMS

July 23, 1942

TO Teachers College Faculty Members
FROM L. A. Pechstein

Herewith are materials for the detailed course by course survey of the instructional offerings of Teachers College. This survey, conducted by one of the doctoral men, Mr. Ray Lambert, was authorized by the faculty last semester to be carried out for the entire instructional program of the College, as of the academic year 1942-43. The faculty approved the study and pledged its support.

In view of the official character of the research and its fundamental significance for the College, I am sure that each faculty member will execute the survey blanks with utmost thoroughness and as high degree of promptness as possible. The faculty set the deadline for the submission of all this material as November 1, 1942. On the other hand, the material is being placed in your hands now with the expectancy that some of you have your courses so organized that you can turn in the report blanks yet this summer. Mr. Lambert desires to begin the detailed breakdown of the analyses just as soon in August as possible. To this end, will faculty members therefore be prompt in filling in their blanks and resubmitting them directly to the Dean's Office. Of course I need not emphasize again the obligation each faculty member has to do completely his work, since this is an all-College undertaking to which the faculty has pledged its support.

REQUEST SUBMITTED TO
THE FACULTY OF THE TEACHERS COLLEGE OF THE UNIVERSITY
OF CINCINNATI, SEEKING DATA TO BE USED IN ANALYSES OF
COURSES OFFERED IN THE TEACHERS COLLEGE

The instructor is requested to prepare a syllabus of the course in outline form, designating each major unit of instruction under I, II, III, etc., with first-order subtopics appropriate to the treatment under A, B, C, etc. Indicate second-order subtopics, under first-order subtopics, by 1, 2, 3, etc.

A major unit of instruction is to be interpreted as an important subdivision of the course, or basic delimitation for treatment or discussion, which has a substantial value even though it might be separated from its context with other items of the course.

In many cases, as when the class meets once per week, these units of instruction may correspond roughly to the number of meetings of the class. In some instances, as when a class meets three times per week, the number of units should be less than a half or a third of the number of class meetings. It is recommended, however, that composite units, which have been developed owing to limitations of time in class scheduling, should be analyzed into as many separate units of instruction as the purposes of the course may permit. For example, a unit entitled, "School Organization in Relation to Federal and State Control," might be separated conveniently into two units, one treating the federal relations and another treating the state relations. In case of doubt as to whether such a division should be made, the sole criterion should be the effect that such a division would have upon the value of the presentation. If such a composite unit of instruction cannot be divided without impairing its effectiveness, it should not be divided. The fact that a number of units of instruction may have a central theme in common, which might enable them to be grouped under a more inclusive or more generalized heading, such as "teacher personnel" or "pupil personnel," does not militate necessarily against their separation in the syllabus.

First-order subtopics indicate the chief divisions of the units of instruction. The second-order subtopics are divisions under first-order subtopics.

For each major unit of instruction which receives regular treatment in the course, the instructor is requested to state in minutes the time given to the unit in class.

It is highly desirable that the outlines be written in as great detail as considered significant by the instructor. This will facilitate comparisons with other courses that may be outlined in different terminology.

In addition to the above suggestions, it is requested that text assignments, by authors and inclusive page numbers, be shown for each major unit of instruction. (See attached specimen outline of a unit of instruction.)

SPECIMEN OUTLINE OF A UNIT

Course No. 000Page No. of this outline 00

Outline of Course				Time Spent in Class (in min- utes)
No.	Units of Instruction (I, II, III, etc.) (Begin each unit of instruction on new sheet.)			
	No.	First-Order Subtopics (A, B, C, etc.)		
		No.	Second-Order Subtopics (1, 2, 3, etc.)	
II			The Federal Government as an Educational Agency (Reavis and Judd, 237-70 Chamberlain, 25-36)	50
	A		The Federal Constitution	
		1	Implied Provisions for Education	
	B		Federal Aid to Public Education	
		1	Land Grants	
		2	Money Grants	
		3	Government Control	
	C		The Advisory Committees on Education	
		1	First National Advisory Committee on Education	
		2	Second National Advisory Committee on Education	
		3	Results of Advisory Committee Reports	
	D		Emergency Educational Activities	
		1	W.P.A.	
		2	C.C.C.	
		3	N.Y.A.	
		4	Children's Bureau	
	E		The United States Office of Education	
		1	History and Development	
		2	Research of the Office	
		3	Surveys	
		4	Informational Service	
		5	School Life, official journal	
	F		Future Federal Activities	
		1	Future Increase in Federal Influence on Education	

1. Course number _____ Title _____
2. Credit Hours _____ Instructor _____
3. Length of class periods _____ minutes.
4. Number of class periods in the course _____
5. A list of basic assignments in texts and required references is requested. An extensive bibliography is not desired here. The text and reference material given should cover the course adequately, but should be limited to the fundamental or basic readings required of all students. Over-lapping material should be avoided as far as possible.

TEXTS AND REQUIRED READINGS

	Author (State initials)	Title	Page Reference (inclusive)
(1)	_____	_____	_____
(2)	_____	_____	_____
(3)	_____	_____	_____
(4)	_____	_____	_____
(5)	_____	_____	_____
(6)	_____	_____	_____
(7)	_____	_____	_____
(8)	_____	_____	_____
(9)	_____	_____	_____
(10)	_____	_____	_____
(11)	_____	_____	_____
(12)	_____	_____	_____
(13)	_____	_____	_____
(14)	_____	_____	_____
(15)	_____	_____	_____
(16)	_____	_____	_____
(17)	_____	_____	_____
(18)	_____	_____	_____

Course Title _____

Page No. of this outline _____

[illegible]

APPENDIX B

EDUCATION COURSES

TABLE 29

EDUCATION COURSES TAUGHT AT TEACHERS COLLEGE DURING THE REGULAR SCHOOL YEAR, 1942-1943, INCLUDED IN THE SURVEY, SHOWING ASSIGNED CODE NUMBERS, CATALOGUE NUMBERS, CREDIT HOURS, TITLES, AND NAMES OF INSTRUCTORS

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
001	Ed.1	3	Introduction to Education, Sections I and I ¹ open only to freshmen in the Teachers College. W. T. Bryan.
002	Ed.1	3	Introduction to Education, Sections III and IV open only to juniors. Harriett Z. Campbell.
003	Ed.1	3	Introduction to Education, Sections III and IV open only to juniors. Charles W. Johnson.
004	Ed.1	3	Introduction to Education, Section V open to special students. W. T. Bryan.
005	Ed.2	3	History of Modern Education, Sections I and II open only to freshmen in the Teachers College. W. T. Bryan.
006	Ed.2	3	History of Modern Education, Sections III and IV open only to juniors. Harriett Z. Campbell.
007	Ed.2	3	History of Modern Education, Section V open to special students. W. T. Bryan.
008	Ed.3L	3	Principles of Elementary Education. Gordon Hendrickson.
009	Ed.4	3	Principles of Secondary Education. Samuel L. Eby.
010	Ed.5	3	Organization, Administration, and Management. Carter V. Good.

TABLE 29 (Continued)

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
011	Ed.6	3	Introductory Educational Measurement. Gerald V. Lannholm. ¹
012	Ed.8.1	6	Student Teaching. Carol Jean Harrin .
013	Ed.8.5	6	Student Teaching. Oliver M. Nikoloff .
014	Ed.8.8	6	Student Teaching. Ray G. Price .
015	Ed.10	3	Educational Psychology . Gerald V. Lannholm ¹ .
016	Ed.11	2	Psychology of Childhood and Adolescence. Gordon Hendrickson ..
017	Psych.11	6	Introduction to Educational Psychology. James Vaughn .
018	Ed.25.2	2	Survey of Music Materials for Childhood Education . Carol Jean Harrin .
019	Ed.26	2	Fundamentals of Music in Elementary Education . Sarah Y. Cline .
020	Ed.26.1	2	Survey of Music Materials for Elementary Education . Carol Jean Harrin .
021	Ed.28	4	Practice Teaching: Public-School Music. John W. Molnar .
022	Ed.29	1	High School Music (Observation) . John W. Molnar .

¹ This instructor submitted an outline of the course but was absent from the campus when the rechecking was done.

TABLE 29 (Continued)

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
023	Ed.30	3	Organization and Practices in Childhood Education. Carol Jean Harrin.
024	Ed.31	3	Primary Methods. Carol Jean Harrin.
025	Ed.33	3	Literature in the Kindergarten Primary Grades. Harriett Z. Campbell.
026	Ed.34L	3	Pictorial Arts in Childhood Education. Martha Sherman.
027	Ed.35L	4	Practical Arts in Childhood Education. Martha Sherman.
028	Ed.36	3	Reading in Childhood Education. James R. Stewart ¹ .
029	Ed.40	3	Teaching the Fundamental Skills. Harriett Z. Campbell.
030	Ed.42	3	Literature in Elementary and Junior High Schools. Harriett Z. Campbell.
031	Ed.43L	4	Pictorial Arts in the Elementary School. Martha Sherman.
032	Ed.44L	4	Practical Arts in the Elementary School. Martha Sherman.
033	Ed.50	3	Principles and Materials of Physical and Health Education. Helen N. Smith.

TABLE 29 (Continued)

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
034	Ed.51	2	Elementary Physical Education, Basketball (Men). Robert J. Reuss.
035	Ed.51	1	Elementary Physical Education, (Men) Track, Charles Mileham.
036	Ed.51	2	Elementary Physical Education, Nature and Function of Play (Men). Linus Haby.
037	Ed.51	2	Elementary Physical Education, Nature and Function of Play (Women). Helen N. Smith and Grace B. Daviess.
038	Ed.52	2	Intermediate Physical Education, Women's Section, Aquatics. Grace B. Daviess.
039	Ed.53	2	Municipal Recreation: Organiza- tion and Administration. Linus Haby.
040	Ed.54	2	First Aid. Grace B. Daviess
041	Ed.55	4	Principles of Physical Education (Men). Oliver M. Nikoloff.
042	Ed.56	6	Principles, Organization, and Administration of Physical and Health Education (Women). Helen N. Smith.
043	Ed.57	6	Organization and Administration of Physical and Health Education (Men). M. Charles Mileham.
044	Ed.58	6	School Health Education. Helen L. Coops.

TABLE 29 (Continued)

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
045	Ed.59	2	Advanced Physical Education (Men). Joseph A. Meyer.
046	Ed.60	4	Athletic Team Sports (Women). Grace B. Daviess.
047	Ed. 61	4	Individual Athletic Activities (Women). Grace B. Daviess.
048	Ed.62	3	Physical Diagnosis and Corrective Gymnastics. Laurence B. Chenoweth.
049	Ed.66	1	Camp Leadership. Helen N. Smith.
050	Ed.67	1	Recreational Activities. Robert E. Coady. ²
051	Ed.91.1	1	Junior Observation and Participa- tion. Carol Jean Harrin.
052	Ed.104a	2	Educational Measurement. Gerald V. Lannholm. ¹
053	Ed.105	2	Statistical Methods. Gerald V. Lannholm. ¹
054	Ed.107	2	Principles of Thesis and Essay Writing. Carter V. Good.
055	Ed.109.1	4	Practicum (For internes in kinder- garten-primary grades). Carol Jean Harrin.

2

Pete S. Herberholz taught this course and substituted for Robert E. Coady both in the submission of the outline and in later conferences.

TABLE 29 (Continued)

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
056	Ed.109.2	4	Practicum (For internes in upper elementary grades). Harriett Z. Campbell.
057	Ed.109.3	4	Practicul (For internes in high school). Charles W. Johnson.
058	Ed.110	2	Advanced Educational Psychology. Gordon Hendrickson.
059	Ed.111a	2	Child Psychology. Gordon Hendrickson.
060	Ed.111b	2	Adolescent Psychology. Louis A. Pechstein.
061	Ed.112a	2	Psychology of Adjustment. Gordon Hendrickson.
062	Ed.112b	2	Psychology of Adjustment. Gordon Hendrickson.
063	Ed.115	4	School Administration. William A. Cook.
064	Ed.115.1	4	Business Administration of the Schools. William A. Cook.
065	Ed.116	2	School Supervision. Carter V. Good.
066	Ed.117	2	The Curriculum. Carter V. Good.
067	Ed.118	4	Elementary-Secondary School Administration. William A. Cook.

TABLE 29 (Continued)

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
068	Ed.119	2	Seminar in Administration and Supervision. Carter V. Good.
069	Ed.120	4	Secondary Education. Samuel L. Eby.
070	Ed.121	2	Secondary-School Methodology. Samuel L. Eby.
071	Ed.122	4	Special Problems in Secondary Education. Samuel L. Eby.
072	Ed.123	2	Evaluation of Secondary Schools. Samuel L. Eby.
073	Ed.124	2	Problems of Early Adolescent Education. Samuel L. Eby.
074	Ed.124.1	2	Play Production in Junior and Senior High Schools. Frieda Lotze.
075	Ed.125	2	Principles and Methods of Music in Elementary Education. Sarah Y. Cline.
076	Ed.126	2	Interpretation of Music in the Classroom. Carol Jean Harrin.
077	Ed.131	2	Teaching Arithmetic. Gerald V. Lannholm ¹ .
078	Ed.132	2	Language Arts in the Elementary School. James R. Stewart ¹ .
079	Ed.133	2	Teaching Reading. James R. Stewart ¹ .

TABLE 29 (Continued)

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
080	Ed.134L	4	Science Teaching in the Elementary School. Victor Coles.
081	Ed.135	2	Teaching of the Social Studies. James R. Stewart. ¹
082	Ed.136	2	Functional Literature in Elementary and Junior High Schools. Harriett Z. Campbell.
083	Ed.137L	2	Arts and Crafts as Part of the Integrated Program in the Kindergarten-Primary Grades. Harold L. Rice. ¹
084	Ed.137.1L	2	Fine Arts as Part of the Integrates Program in the Primary-Elementary Grades. Harold L. Rice. ¹
085	Ed.140	2	Special Disabilities in Learning. Frances Jenkins. ³
086	Ed.142	4	Creative Dramatics. Gladys Criswell.
087	Ed.144.2	2	Seminar: Youth and the Future . W. T. Bryan.
088	Ed.151	2	Organization and Administration of Recreation. Robert E. Coady.
089	Ed.153	4	Hygiene of the School Child. Grace B. Daviess.
090	Ed.170	2	The Conference Method of Teaching. H. W. Paine.

³ Deceased, after submitting outline.

TABLE 29 (Continued)

Code Numbers	Catalogue Numbers	Credit Hours	Titles of Courses and Instructors
091	Ed.170.1	2	Methods of Teaching Occupational Subjects. H.W. Paine.
092	Ed.170.2	2	Shop Management. H. W. Paine.
093	Ed.170.6a	1	Techniques for Beginning Vocational Instructors. H. W. Paine.
094	Ed.170.6b	1	Techniques for Beginning Vocational Instructors. H. W. Paine.
095	Ed.171	2	History and Philosophy of Vocational Education. H. W. Paine.
096	Ed.171.2	2	Organization and Administration of Vocational Education. H. W. Paine.
097	Ed.172a	2	Trade and Job Analysis. H. W. Paine.
098	Ed.172.1	2	Organization of Instructional Material. H. W. Paine.
099	Ed.173	2	Educational and Vocational Guidance. H. W. Paine.
100	Ed.173.1a	2	Vocational Tests and Measurements. H. W. Paine.
101	Ed.174	2	Industrial Relations. H. W. Paine.
102	Ed.178	2	Contemporary Comparative Education. W. T. Bryan.

TABLE 29 (Continued)

Code Number	Catalogue Number	Credit Hours	Titles of Courses and Instructors
103	Ed.180	4	Teaching the Business Subjects. Ray G. Price.
104	Ed.181	4	Trends in Business Education. Ray G. Price.
105	Ed.182	4	Teaching Consumer Education. Ray G. Price.
106	Ed.182.1	2	Principles of Sociology in Their Educational Applications. Earle E. Hubank.
107	Ed.192L	2	Audio-Visual Aids in the Class- room. Victor Coles.
108	Ed.193L	2	The Use of Audio-Visual Aids in Elementary Grades. Victor Coles.
109	Ed.194	2	Fundamentals of Speech for Teachers. Frieda Lotze.
110	Ed.195	4	Speech Defects and Their Correction. Gladys Criswell.

TABLE 30

EDUCATION COURSES TAUGHT AT TEACHERS COLLEGE DURING THE REGULAR SCHOOL YEAR, 1942-1943, NOT INCLUDED IN THE SURVEY, SHOWING CATALOGUE NUMBERS, CREDIT HOURS, TITLES OF COURSES, NAMES OF INSTRUCTORS, AND REASONS STATED FOR INABILITY TO PROVIDE OUTLINES.

Catalogue Numbers	Credit Hours	Titles of Courses and Instructors	Reasons for Absence of Outlines
Ed.8.2	6	Student Teaching (intermediate and upper elementary). Harriett Campbell.	No fixed outline.
Ed.8.5	6	Student Teaching. (Physical and health education) Helen L. Coops.	No fixed outline.
Ed.9.3	6	Internship. C. W. Johnson.	No outline possible.
Ed.51	2	Elementary Physical Education, Modern Dance (Women). Helen N. Smith.	Practice and creation work.
Ed.51	3	Rhythmic Activities. Helen N. Smith.	Practical work, no outline possible.
Ed.51	2	Elementary Physical Education, Minor Sports (Men). Linus Haby.	Practical course.
Ed.51	1	Physical Education Theory (Women). Helen N. Smith.	Discussion of current articles in papers magazines, etc.; also modern trends.
Ed.52	1	Sports Education (Men). M. C. Mileham.	Practical work, no outline possible.
Ed.52	1	Theory of Physical and Health Education (Women). Helen N. Smith.	Discussion group on current problems, new developments, and future trends.

TABLE 30 (Continued)

Catalogue Numbers	Credit Hours	Titles of Courses and Instructors	Reasons for Absence of Outlines
Ed.52	1	Intermediate Physical Education (Women), Individual Athletic Activities. Grace B. Daviess.	As outlined for Ed.61, omitting theory. This is a practice course only.
Ed.52	2	Intermediate Physical Education (Men), Physical Education Activities. M. C. Mileham.	This is a floor course, hence no practical outline.
Ed.63	1	Seminar in Physical and Health Education. Helen N. Smith and Others.	Units of this course are set up each year by students and staff accord- ing to interests and needs — no two years alike.
Ed.65	1	Folk and Tap Dancing (Women). H. L. Coops.	Practical work.
Ed.90	1	Presophomore Participation. C. W. Johnson.	No outline possible.
Ed.92.3	3	Senior Observation and Participation. C. W. Johnson.	No outline possible.
Ed.150	2	First Aid. Grace B. Daviess.	Same outline as Ed.54.
Ed.172.3	2	Seminar: Vocational Curriculum Revision. H. W. Paine.	Cannot be outlined.
Ed.173.1b	2	Vocational Tests and Measurements. H. W. Paine.	A practical course in test construction following Ed.173.1a.

APPENDIX C

TIME-CHECK LIST OF UNITS

TABLE 31

UNITS CHECKED FOR TIME BY CONFERENCE

Code Number of Unit	Code Number of Course	Code Number of Unit	Code Number of Course
0008	099	0362	099
0043	003	0364	099
0046	042	0367	099
0059	007	0368	099
0061	096	0369	099
0062	038	0370	099
0063	038	0371	042
0102	042	0376	033
0104	042	0377	044
0187	010	0377	044
0187	057	0378	044
0187	096	0381	033
0214	105	0381	044
0216	105	0383	033
0218	105	0383	044
0232	003	0385	044
0233	033	0387	033
0233	042	0387	044
0252	003	0388	033
0257	010	0391	004
0272	004	0395	003
0279	057	0397	047
0283	010	0412	096
0294	096	0414	096
0305	096	0415	096
0306	003	0416	096
0306	010	0421	096
0325	033	0422	096
0337	096	0426	096
0347	033	0428	096
0348	037	0430	096
0356	010	0431	096
0356	099	0476	082
0360	096	0481	082
0361	099	0493	082

TABLE 31 (Continued)

Code Number of Units	Code Number of Courses	Code Number of Unit	Code Number of Course
0496	082	0726	033
0497	082	0731	037
0500	082	0754	004
0505	025	0775	047
0507	025	0795	004
0510	025	0811	003
0517	025	0811	010
0519	042	0827	096
0522	096	0829	042
0525	007	0832	010
0580	003	0832	096
0580	004	0838	004
0580	042	0842	057
0582	006	0851	047
0591	099	0852	047
0593	042	0854	042
0610	042	0855	100
0611	033	0867	100
0612	042	0880	100
0614	033	0881	100
0614	042	0912	006
0617	042	0915	057
0621	033	0923	096
0622	042		
0622	033		
0627	042		
0629	099		
0660	004		
0666	003		
0666	010		

TABLE 32

UNITS NOT CHECKED FOR TIME*

Course Code Number	Unit Code Number	Title of Unit	Designation of Time
085	0286	Evaluating Final Success in the Correction of Special Disabilities	1500/9 **
085	0289	Reports of Progress and Evaluation of Teaching	1500/9
085	0447	Diagnosis of Disabilities for Remedial Programs in Language Arts	1500/9
085	0448	Basis for the Diagnosis of Individual Disabilities in the Language Arts	1500/9
085	0463	Methods of Overcoming Learning Disabilities	1500/9
085	0682	Contributions of Machines to Teach Reading	1500/9
085	0712	Supplementary Procedures in Teaching Remedial Classes	1500/9
085	0713	Varying Progress in Remedial Classes in Reading, Spelling, and Arithmetic	1500/9
085	0714	Basic Remedial Programs for for Individual Pupils	1500/9

* Units in this list were reported with inadequate estimates of time in the outline submitted and could not be rechecked due to the death of the instructor.

** This time designation represents an average assignment of time to each unit and should be read, "the time devoted to one of nine units in a course of 1,500 minutes."

APPENDIX D

TOPICAL SURVEY

TABLE 33

EDUCATIONAL TOPICS FROM THE EDUCATION INDEX

(Compiled from the last three-year and the last one-year volumes of the Education Index (14,15). The index of emphasis is derived by averaging the numbers of pages of references in the first volume and three times the number of pages of references in the second volume, omitting topics which fall below one-half page and one-sixth page, respectively, in these volumes. An index of emphasis, "1", signifies 0.50 to 1.49 pages, "2" signifies 1.50 to 2.49 etc.)

Topics	Index of Emphasis
Ability Grouping	1
Abstracts, Educational	1
Academic Freedom	2
Accreditation	1
Achievement Tests	1
Activity Programs	1
Administration of Schools	8
Adolescence	1
Adult Education	7
Agricultural Education	2
Agricultural Teachers	1
Agriculture	9
Algebra	1
American Association for Health and Physical Education	1
American Association of School Administrators	2
American Association of University Professors	1
American Federation of Teachers	1
American Council on Education	2
American Library Association	1
American Literature	1
Animal Stories	1
Arithmetic	5
Art	2
Art Education	6
Assemblies	1
Association of American Colleges	1
Athletics	1

TABLE 33 (Continued)

Topics	Index of Emphasis
Attendance	1
Attitudes	3
Baltimore	1
Bands, School	1
Behavior	1
Biology	2
Blackboard Drawing	1
Boards of Education	2
Book Lists	2
Book Reviews	31
Book Week	1
Bookkeeping	1
Books and Reading	1
Brooklyn	1
Business Administration of Schools	1
Business Education	7
Cafeterias	1
California	1
Camps and Camping	1
Canada	1
Character and Education	1
Chemistry	8
Chemistry, Analytic	1
Chemistry, Organic	1
Chicago	2
Chicago University	2
Child Study	3
Child Training	1
Child Welfare	2
Children	2
Children, Abnormal	1
Children, Backward	3
Children, Gifted	2
Children's Interests	1
Children's Literature and Reading	2
Children's Songs and Singing	1
Children's Stories	2
Choral Speaking	1
Christmas	4

TABLE 33 (Continued)

Topics	Index of Emphasis
Christmas Decorations	1
Church Work	1
Church Schools	1
Cincinnati	1
Citizenship Education	3
Civics	1
Civilian Conservation Corps	1
Clothing and Dress	1
Clubs	1
College Professors and Instructors	3
College Students	4
Colleges and Universities	13
Columbia University	1
Community and School	3
Community Life	1
Conferences and Conventions, Educational	2
Conservation of Resources	1
Consumer Education	2
Cooperative Education	1
Correlation (Statistics)	1
Correlation of Abilities	1
Correspondence Schools and Courses	1
Credit and Credit Systems	1
Curriculum and Curriculum Making	16
Deaf	4
Debates and Debating	1
Degrees	1
Democracy	3
Democracy and Education	5
Denominational Colleges	1
Denver	1
Design	1
Detroit	1
Directories, Educational	2
Discipline	1
Discussion	1
Dissertations, Academic	2
Dramatizations in Schools	2
Drawing	1

TABLE 33 (Continued)

Topics	Index of Emphasis
Easter	1
Economics	2
Education	43
Education and Social Problems	1
Education and Social Trends	1
Education and the State	1
Education of Children	1
Educational Guidance	1
Educational Laws and Legislation	5
Educational Measurement	1
Educational Policies Commission	1
Electricity	1
Elementary Education	2
Emotions	1
Engineering Education	1
Engineering Schools and Colleges	1
English Language	12
English Literature	3
English Teachers	1
Enrollment	2
Environment	1
Equalization, Educational	1
Evaluation	1
Examinations	1
Excursions	1
Experimental Education	1
Extra-Curricular Activities	2
Eye	1
Factor Analysis	1
Failures	1
Family	1
Family Life, Education for	1
Farm Mechanics	1
Farmers	1
Federal Aid for Education	2
Feeble-Minded	1
Follow-up Studies	1
Foreign Languages	1
France	1
French Language	4

TABLE 33 (Continued)

Topic	Index of Emphasis
Freshmen	1
Future Farmers of America	1
Geography	5
Graduate Work	2
Geometry	2
German Language	1
Germany	1
Graduates	2
Great Britain	2
Halloween	1
Handicraft	1
Handwriting	1
Harvard University	1
Health Education	4
Health Programs	1
Hearing	1
High School Students	2
High Schools	2
Higher Education	3
History	3
Home and School	1
Home Economics	1
Home Economics Education	3
Housing	1
Indians of North America	1
Industrial Arts Education	4
Industrial Arts Teachers	1
Industrial Education	1
Intelligence	1
Intelligence Quotient	1
Intelligence Tests	2
International Education	1
Journalism	1
Junior Colleges	3
Juvenile Delinquency	1
Kentucky	1
Kindergarten	1

TABLE 33 (Continued)

Topics	Index of Emphasis
Languages, Modern	5
Lantern Slides	1
Latin America	2
Latin America and the United States	1
Latin Languages	2
Learning, Psychology of	2
Letter Writing	1
Liberal Education	2
Liberty	1
Librarians' School	1
Libraries	2
Libraries, College	2
Libraries, School	4
Library Schools and Training	1
Lip Reading	1
Literature	2
Los Angeles	2
Lunches, School	1
Maps	1
Marking Systems	1
Marks, Students	1
Mathematics	7
Mechanical Drawing	1
Mental Hygiene	1
Metal Work	1
Michigan University	1
Minneapolis	1
Minnesota University	1
Mothers Day	1
Moving Pictures	4
Moving Pictures in Education	2
Music	3
Music Education	6
Music Teachers	1
National Association of Secondary School Principals	1
National Congress of Parents and Teachers	1
National Education Association	7
National Youth Administration	1
Nature Study	1

TABLE 33 (Continued)

Topics	Index of Emphasis
Negro Schools and Colleges	1
Negroes	1
Negroes in the United States	5
New York City	5
New York State	1
New York State University	1
Newspapers and Periodicals	1
Normal Schools and Teachers Colleges	2
North Central Association of Colleges and Secondary Schools	1
Nursery Schools	1
Nurses and Nursing	2
Nutrition	1
Occupations, Choice of	1
Occupational Information	1
Occupations	1
Ohio State University	2
Open Forum	1
Orchestral Music	1
Oregon	1
Paper Work	1
Parent Education	1
Parent-Teacher Associations	1
Parents	1
Pennsylvania University	1
Personality	1
Personality Tests	1
Personnel Records	1
Personnel Service	5
Philadelphia	1
Philosophy	1
Physical Ability Tests	1
Physical Directors	2
Physical Education	6
Physically Handicapped	1
Physics	4
Picture Study	1

TABLE 33 (Continued)

Topics	Index of Emphasis
Placement	1
Poetry	2
Population	1
Posters	3
Practice Teaching	1
Preschool Children	1
Primary Education	1
Primary Grades	1
Principals	2
Printing	1
Private Schools	1
Problem Children	1
Prognosis of Success	1
Progressive Education	1
Progressive Education Association	1
Projects	1
Promotions	1
Propaganda	1
Psychology	2
Psychology, Educational	1
Public Schools	2
Public Schools, Endowed	1
Public Speaking	1
Publicity	2
Race Prejudice	1
Radio Broadcasting	5
Radio in Education	5
Reading	13
Reading, Supplementary	1
Reading Preferences	1
Recreation	2
Religion	1
Religious Education	4
Reports and Education Records	1
Research	1
Research, Educational	1
Retail Selling	2
Roman Catholic Church	2
Roman Catholic Colleges	1

TABLE 33 (Continued)

Topics	Index of Emphasis
Roman Catholic Schools	1
Rural Education	3
Safety Education	2
Salary Schedule	1
Scholarships and Fellowships	2
School Building Programs	1
School Buildings	7
School Children	8
School Finance	4
School Plays	2
Science	10
Science Teachers	1
Seat Work	1
Secondary Education	5
Secretarial Training	1
Sex Education	1
Shops, School	1
Shopwork	1
Social Adjustment and Development	2
Social Science	10
Social Work	1
Society for the Promotion of Engineering Education	1
Sociology	2
Spanish Language	2
Special Education	1
Speech Defects	1
Speech Education	3
Spelling	2
Sports	1
State Aid for Education	1
State Colleges and Universities	1
Statistical Methods	1
Stenography	2
Student Achievement	2
Student Advisers and Counselors	1
Student Employment	1
Student Newspapers and Periodicals	1
Student Selection	2
Student Self-Government	1
Study	1

TABLE 33 (Continued)

Topics	Index of Emphasis
Summer Schools	1
Sunday Schools	2
Superintendents	2
Supervision and Supervisors	2
Surveys	3
Teacher Training	8
Teachers	17
Teachers College, Columbia University	2
Teachers and Students	1
Teachers of Workshops	1
Teaching	5
Teaching as a Profession	1
Technical Education	3
Tenure	2
Tests and Scales	4
Text Books	2
Thanksgiving Day	1
Theater	1
Toleration	1
Typewriting	2
United States	15
Units of Work	2
Valentine's Day	1
Vineland, New Jersey, Training School	1
Visual Education	3
Vocational Education	8
Vocational Guidance	4
War and Education	28
Wisconsin	1
Wisconsin University	1
Women	2
Woodworking	1
Workers Education	1
Youth	3

TABLE 34

EDUCATIONAL TOPICS FROM THE
ENCYCLOPEDIA OF EDUCATIONAL RESEARCH

(Compiled from the Encyclopedia of Educational Research (67). The index of emphasis indicates the nearest whole number of pages devoted to the topic, including only those topics covering one-half page or more.)

Topics	Index of Emphasis
Accreditation	2
Administration, City School	9
Administration, State School	4
Adult Education	11
Adult Intelligence	2
Agricultural Education	7
Analysis of Variance	2
Arithmetic	14
Art Education	6
Articulation of Secondary School and College	3
Attitudes	6
A Typical Children	25
Behaviorism	1
Business Administration of Schools	13
Character Education	6
Child Accounting	1
Child Development	58
Child Guidance Clinics	2
Church and Education, Catholic	4
Church and Education, Jewish	2
Church and Education, Protestant	2
Class Size	3
Codes of Ethics for Teachers	2
Coding	2
Colleges and Universities	120
Commercial Education, Secondary	13
Comparable Measures	4
Comparative Education	7
Compulsory Education	8
Consolidated Schools	5
Consumer Education	3
Correlation	3
Curriculum Development	10

TABLE 34 (Continued)

Topics	Index of Emphasis
Depression and Education	6
Diagnosis and Remedial Teaching	6
Difference, Reliability of	2
Directing Study	6
Education of Women	7
Educational Psychology	3
Educational Sociology	1
Elementary Education	25
English, Language, Grammar, and Composition	13
English Literature	5
Evaluation	2
Examinations	3
Experiment	2
Extracurricular Activities	5
Factor Analysis	4
Family and Education	2
Federal Relations to Education	9
Finance, School	14
Foreign Languages, Modern	20
Foundations, Philanthropic	4
General Language	2
Gestalt Psychology	2
Guidance	2
Handedness	3
Handwriting	5
Health Education	9
Higher Mental Processes	8
History of Education	3
Home Economics Education	8
Index number	1
Individual Difference	5
Industrial Education	17
Intelligence and Intelligence Tests	11

TABLE 34 (Continued)

Topics	Index of Emphasis
Journalism	3
Junior College	4
Juvenile Delinquency	3
Kindergarten Education	5
Latin	8
Leadership	4
Learning	16
Libraries	9
Marks and Marking Systems	5
Mathematics, Secondary	8
Mental Hygiene	11
Methods of Teaching	5
Military Training	2
Money Value of Education	1
Motivation	6
Nature and Nurture	3
Negro Education	19
Normal Curve	1
Norms	6
Overlapping	1
Parent-Teacher Relationships	3
Personality	9
Philosophy and Science	2
Philosophy of Education	3
Physical Education	12
Physical Education, Measurement	3
Physical Education, Measurement of Behavior Traits	1
Population Growth	6
Preschool Education	6
Primary Education	3
Probable Error	1
Prognosis	20

TABLE 34 (Continued)

Topics	Index of Emphasis
Progressive Education	3
Psychology of Religion	3
Pupil Personnel Work	1
Pupil Records and Reports	3
Questionnaire	2
Racial Difference in Mental Traits	3
Radio Education	6
Rating Methods	3
Reading	35
Recreation	8
Religious Education, Catholic	3
Religious Education, Jewish	3
Religious Education, Protestant	3
Religious Instruction in Public Schools	3
Research Bureau	1
Rural Education	35
Safety Education	3
Salaries and Salary Schedules	5
Sample	2
School and Community	4
School Attendance	7
School Census	2
School Enrollment	2
School Law	10
School Plant	23
School Progress	4
School Surveys	5
Science Education	2
Secondary Education	40
Sex Differences	6
Social and Economic Change in Education	3
Social Effectiveness of Formal Education	3
Social Facilitation, Influence of the Group	3
Social Needs	4
Social Studies	25

TABLE 34 (Continued)

Topics	Index of Emphasis
Special Schools and Special Classes	4
Speech Pathology	4
Spelling	14
State School Systems, Measurement	1
Superstition and Education	3
Supervision and In-Service Training	4
Survey Investigations	1
Teacher Education	42
Teacher Personnel	30
Teachers' Associations	4
Teaching Efficiency	5
Tests, Achievement	18
Textbooks	4
Transfer of Training	6
Transportation of Pupils	4
United States Office of Education	2
University Extension	2
Visual Education	10
Youth Out of School	9

TABLE 35

EDUCATIONAL TOPICS FROM THE
COMMONWEALTH TEACHER-TRAINING STUDY

(Compiled from the Commonwealth Teacher-Training Study (17). The index of emphasis is the number of activities included under the given item.)

Topics	Index of Emphasis
General Methods of Classroom Instruction	110
School and Class Management, Records and Reports	168
School and Class Management, Contacts with Pupils	203
Extra-Classroom Activities	146
Relations with Personnel of School Staff	200
Public-School Relations	55
Professional and Personal Advancement	35
School Plant and Supplies	20

APPENDIX E

MASTER LIST OF TEACHING UNITS

TABLE 36

MASTER LIST OF TEACHING UNITS, COVERING THE OFFERING OF THE TEACHERS COLLEGE OF THE UNIVERSITY OF CINCINNATI AS REPRESENTED BY OUTLINES SUBMITTED BY INSTRUCTORS OF 110 COURSES, SHOWING NUMBERS, TITLES, AND CATEGORIES OF UNITS TOGETHER WITH CODE NUMBERS OF COURSES AND THE TIME DEVOTED TO EACH UNIT IN THE COURSE IN WHICH IT IS FOUND

Unit	Title of Unit	Category	Course	Time
0001	Abilities, General and Special	3	058	100
0002	Abilities of Man	3	017	50
0003	Accounting, Systems of	1	064	150
0004	Accrediting of High Schools	7	067	150
0005	Accrediting Schools, Guiding Principles for	7	072	200
0006	Activity, Creative	3	016	50
0007	Activity Program of the School	5	009	100
0008	Adjustment or Follow-Up Service	9	099	100
	Adjustment, Psychology			
0009	Adjustment	3	061	100
0010	Adjustment by Ailments	3	061	100
0011	Case Study Methodology	7	062	150
0012	Clubs, Groups, and Camps, Use of	3	062	100
0013	Deeper Therapies: Treatment Interviews	3	062	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0014	Defense, Adjustment by	3	061	100
0015	Diagnosis, Component-Factor Method	3	062	50
0016	Diagnosis, General Methods	3	062	100
0017	Factors of Behavior	3	062	50
0018	Family Attitudes as a Focus of Treatment	3	062	100
0019	Fear and Repression in Adjustment	3	061	100
0020	Foster Home as Means of Treatment	3	062	100
0021	Foster Home, Removing a Child From	3	062	100
0022	Human Conduct and the Scientific Method	3	061	50
0023	Individual, Adjustment of	3	015 017	100 350
0024	Institutional Placement as Treatment for Behavior Problems	3	062	100
0025	Interview Techniques	7	062	150
0026	Mental Hygiene, Positive, Applications of	3	061	100
0027	Mental Hygiene Study of the Individual	3	061	100

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0028	Problems of Adjustment	3	073	200
0029	Reactions, Nonadjustive, Persistent	3	061	150
0030	Readjustment, Guidance of	3	061	100
0031	School's Part in Changing Behavior	3	062	200
0032	Treatment, Effective	3	062	100
0033	Treatment Interview Techniques	3	062	100
0034	Withdrawing, Adjustment by	3	061	100
Administration of Schools				
0035	Administrators and Supervisory Force, Local	1	003 063 067	60 200 100
0036	Board of Education, Local	1	063	200
0037	Budget in Business Administration of Schools	1	064	50
0038	Business Education, Administra- tion and Supervision of	1	104	200
0039	Divisions or Levels of the School System, General	1	003 063	180 200
0040	Divisions of the School System, Special	1	063	100
0041	Elementary Administration, Purpose and Scope	1	067	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0042	Junior High School	1	073	100
0043	Local Units and Their Control	1	003	60
			010	100
			063	200
0044	Music, Administrative-Supervisory Problems	1	021	100
0045	Organization of Elementary Schools, Types of	1	067	200
0046	Personnel Administration	1	010	50
			042	280
			063	400
			064	200
0047	Rise and Significance of Administrative Problems in Public Education	1	063	200
0048	Specialized Services in the Schools, Workers in	1	003	120
0049	Adolescence, the End of	3	060	50
0050	Adolescent Education, Early Introduction to	6	073	100
0051	Adolescent Education, Early, Philosophy and Objectives of	8	073	100
0052	Adolescent and His Home	3	060	50
0053	Adolescent Psychology, Nature and Scope of	3	060	200
0054	Adolescent Pupil	8	073	100
0055	Adolescents, Community Influence on	0	060	60

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0056	Adult Education and the Youth Problem	10	001 004	200 300
0057	Agricultural Vocational Education	4	095	120
0058	Allen Method of Classifying Trade Content	4	097 098	170 150
0059	Ancient Education, Relation to Mores and Civic Patterns	6	005 006 007	200 200 400
0060	Aphasia	4	110	100
0061	Apprenticeship and Special Training	4	096	145
0062	Aquatics, Practice in	4	038	100
0063	Aquatics, Theory	4	038	2100
0064	Archery	4	047	700
	Arithmetic			
0065	Addition and Subtraction of Whole Numbers	4	077	150
0066	Curriculum, Selection and Content of	2	077	100
0067	Diagnosis and Remedial Work	4	077	100
0068	Division of Whole Numbers	4	077	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0069	Fractions, Common	4	077	100
0070	Fractions, Decimal	4	077	150
0071	Field of Teaching	4	008	150
0072	Fundamentals of Teaching	4	029 077	100 100
0073	History of Number, Early	4	077	100
0074	Importance and Purposes	4	077	100
0075	Multiplication of Whole Numbers	4	077	150
0076	Numbers, Reading and Writing, and Counting	4	077	100
0077	Primary Number Work	4	024	400
0078	Problems, Written, Teaching	4	029	200
0079	Processes, Specific Problems of Teaching	4	029	400
0080	Readiness for Learning	4	051	120
0081	Weights and Measures, Teaching	4	077	100
0082	Art and Music as Fields of Teaching	4	008	150
	Art in Public School Education			
0083	Art Appreciation	4	026 031 084	340 360 300
0084	Arts and Crafts, Introduction to	4	083	100
0085	Book Folio Construction	4	083	100

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0086	Compositions, Children's	4	026 031	340 240
0087	Correlation of Pictorial Arts with Units of the Elementary School	4	026 031	410 840
0088	Craft Methods and Materials	4	023 027 032 050 055 083	300 2520 2880 240 200 2900
0089	Crafts in the Elementary School Unit	4	032	720
0090	Design, Abstract	4	084	500
0091	Design, Decorative	4	084	1000
0092	Design, Realistic	4	084	200
0093	Fine Arts, Introduction to	4	084	100
0094	Fine Arts, Theory	4	084	900
0095	Influence in Life of Elementary School Child	4	031	720
0096	Manipulative Skills in Childhood	4	027	100
0097	Portfolio	4	083	100
0098	Primary Methods, Art in	4	024	150
0099	Primary Unit, Demonstration of Practical Arts in Childhood Education	4	027	840
0100	Skills, Development of	4	026 031	1360 1080

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0101	Teacher as Critic in the Primary Classroom	4	026 031	100 200
0102	Athletic Fields, Care and Maintenance of	4	042	280
0103	Athletic Program, Interscholastic	4	043	500
0104	Athletics, Intramural	4	042 043	280 2200
0105	Athletics and Physical Education	4	067	100
0106	Attendance, Compulsory	1	010 063 067 069	100 200 100 100
Atypical Child				
0107	Deviates, Emotional	3	016 060	100 50
0108	Deviates, Intellectual	3	060	50
0109	Dull	3	016	50
0110	Exceptional Children, Education of	3	002	300
0111	Gifted	3	016	50
0112	Physically Handicapped	3	016	50
0113	Problem Child	3	023	200
0114	Speech Defectives	4	110	150
0115	Speech Defects	4	109 110	100 350

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0116	Speech Disorders, Articulatory	4	110	700
0117	Speech Handicapped, Attitudes Toward	4	110	50
0118	Stuttering	4	110	650
0119	Audio-Visual Aids	5	008	50
			009	150
			057	100
			073	100
			107	180
			108	100
0120	Film Strip	5	107	30
0121	Flat or Still Picture	5	107	240
			108	240
0122	Grade School, Use in	5	108	120
0123	Graphic Materials	5	107	60
0124	Health, Visual Aids and Printed Materials on	4	089	200
0125	Industrial Instruction, Use in	4	098	150
0126	Journey, School	5	108	180
0127	Lantern Slide, Standard Glass	5	107	300
			108	320
0128	Lantern Slide, Teacher-Pupil made	5	107	120
0129	Lantern Slide, Two by Two Inches, and Natural Color	5	107	30
0130	Motion Picture	5	107	600
			108	300

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0131	Museum, School	5	108	180
0132	Music, Public School, Audio-Visual Aids in	4	021	50
0133	Radio and Sound Projector in Teaching	5	009 107 108	150 60 60
0134	Recordings for Classroom Use	5	107 108	60 60
0135	Use of Audio-Visual Aids, Successful	5	108	120
0136	Backstage Organization	4	074	100
0137	Badminton	4	047	700
0138	Baseball	4	045	1500
0139	Basketball	4	034	1500
0140	Basketball for Women	4	046	1400
	Behavior			
0141	Biological Basis of Human	3	070	200
0142	Development of	3	015 017	100 300
0143	Growth of Adolescents in Attitudes and	3	060	100
0144	Infant	3	059	50
0145	Modification of	3	061	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0146	Origins of	3	061	100
0147	Biological Foundations of Education	3	003	60
0148	Birds	4	080	240
0149	Blocks and Instructional Order	4	097 098	170 150
0150	Blocks and Progression Factors	4	097 098	170 150
0151	Bookkeeping, Teaching	4	103	300
0152	British Educational System, Characteristics of Building, School	6	102	360
0153	Costs, Analysis of	1	064	100
0154	Plant and Equipment, Operation of	1	010	100
0155	Program, Personnel of	1	064	100
0156	Program and the Population	1	064	200
0157	Secondary School	1	067	100
0158	Site	1	064	150
0159	Standards	1	064	350
0160	Units, Size and Utilization	1	064	100
0161	Wider Use of	1	064	100
	Business Education			
0162	Agencies of	6	104	1000

TABLE 36 (CONTINUED)

Unit	Title of Unit	Cate- gory	Course	Time
0163	History of, in the United States	6	104	300
0164	Integral Part of American Life	10	104	400
0165	Junior Business Training	4	103	500
0166	Law, Teaching	4	103	200
0167	Looking Ahead in	4	104	100
0168	Present Status	4	104	300
0169	Vocational	4	104	500
0170	Camps and Camping	4	039	100
0171	Campers, Understanding Our	4	049	100
0172	Counselor Responsibilities in Organizing Programs	4	049	50
0173	Craft, Camp	4	047	200
0174	Group Leadership and Group Work Applied to	4	049	50
0175	History and Philosophy	4	049	50
0176	Institute, Camp	4	049	50
0177	Nature Activities in Camp	4	049	50
0178	Program and Development	4	049	50
0179	Rainy Day Programs	4	049	50
0180	Singing	4	049	50
0181	Trips and Outings	4	049	50

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0182	Case Studies in Industrial Relations	7	101	240
0183	Case Studies, Written Reports on	7	057	100
0184	Case Study Method in Research	7	054	100
0185	Catholic Reformation and Education	6	006	100
0186	Central Tendency, Measures of	7	053	150
0187	Certification, Teacher	1	010 057 069 096	50 50 100 60
0188	Character	3	016	100
0189	Child	3	023	100
0190	Development	3	008 055	50 100
0191	Observation of Individual	3	051	240
0192	Study, Methods and Problems of	3	059	150
0193	Childhood Education, Principles of Early	5	023	50
0194	Christianity, Effect on Education	6	005	150
0195	Civic Leadership, Local	10	087	100
0196	Classroom Management	9	014 023 051 056 057	500 300 360 200 100
0197	Commercial Education, Plan of	4	095	120

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0198	Commercial Instructional Material	4	098	150
0199	Comparative Education	6	006	100
0200	Composition, Oral	4	078	150
0201	Composition, Written	4	029 078	400 150
0202	Composition, Written, Subjects Often Used in Conference Method of Teaching	4	029	200
0203	Case Conference Method	4	101	120
0204	Devices	4	090	60
0205	Leadership	4	090	60
0206	Materials	4	090	60
0207	Objectives and Procedures	4	090	120
0208	Problems and Topics	4	090	60
0209	Topics and Objectives	4	090	60
	Consumer Education			
0210	Aims and Status	4	105	400
0211	Business Education in	4	105	400
0212	History and Development of Movement	4	105	200
0213	Home Economics in	4	105	200

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0214	Industrial Arts in	4	105	100
0215	Materials, Organizing and Classifying	4	105	300
0216	Mathematics in	4	105	100
0217	Need for	4	105	200
0218	Science in	4	105	100
0219	Scope of	4	105	600
0220	Social Studies in	4	105	200
0221	Teaching	4	103	200
0222	War Time	4	105	200
0223	Cooperative Centers, Schools and Children in	1	012 051 055	50 120 200
0224	Correlation Techniques in Evaluation of Test Material	7	053	100
0225	Correlation Theory	7	053	200
0226	Curriculum	2	002 063	300 200
0227	Construction and Revision in Physical Education	2	043	100
0228	Core Curriculum	2	071	300
0229	Course Outlines and Revision of	2	098	200
0230	Course of Study and Schedule of Recitations	2	010	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0231	Development, Educational Objectives and	2	066	200
0232	Development, Organization and Programs for	2	003 066	20 200
0233	Development, Physical and Health Education	2	033 042	450 280
0234	Development, Teaching-Learning Methods in	2	066	200
0235	High School	2	060	50
0236	Instruction, Planing Programs of	2	057	300
0237	Materials, Selection and Organization	2	066	200
0238	Materials, Selection of, for Social Studies	2	081	150
0239	Outcomes, Appraisal of	7	066	200
0240	Problems	2	008	100
0241	Program Problems	2	008	100
0242	Program of Studies for Early Adolescent Education	2	073	200
0243	Reorganized Secondary School	2	009	150
0244	Schedule, Daily, Elementary	2	067	200
0245	Schedule, Daily, High School, Construction of	2	067	100
0246	Schedule of Recitations, Daily Time, in Childhood Education	2	023	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0247	Selection and Organization	2	070	100
0248	Social Change and Current Issues in	2	066	200
0249	State Control of Content	2	069	100
0250	Dances and Rhythmic Activities	4	018 020	100 100
0251	Delinquency	3 3 10	016 060 087	100 100 100
0252	Democracy, Education in a	10	001 003 004	200 80 150
0253	Democratic Way of Life, Teaching	10	056	300
0254	Dental Clinic	9	089	100
0255	Development, Prenatal	3	059	50
0256	Developmental Psychology, Objectives and Methods	3	016	100
0257	Discipline	9	010 012 041 055 057 094	50 100 100 400 200 70
0258	Discus Throw	4	035	75
0259	Discussion Period, Pupil	5	023	50
0260	Disease, Communicable	9	089	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0261	Drama, Understanding of and Skill in Handling the Elements of	4	086	200
0262	Dramatic Play and Games in Childhood Education	4	023	200
0263	Dramatics, Creative, Requirements and Possibilities	4	086	200
0264	Dramatics, Practical Demonstration of Techniques	4	086	1100
0265	Dramatics, Recreational and Camp	4	049 050	50 60
0266	Dramatization of Stories	4	086	600
0267	Earth, Changing Surface of	4	080	300
0268	Economic Planning	4	101	120
0269	Education as Growth	3	070	200
0270	Education, Introduction and Background	6	002	300
0271	Educationally Neglected	10	071	300
0272	Elementary School	6	001 002 004 008	200 200 300 100
0273	Elementary Education, Objectives	8	008	100
0274	Elementary Education, Trends	6	008	50
0275	Emotion	3	058	50
0276	Emotional Development	3	015 016 059 060	100 100 100 100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0277	Emotion and the School	3	060	50
0278	Employment, Effect of Foreign Trade and Economic Adjustment	10	087	100
0279	Employment, Securing the Position	1	012 055 057	50 100 50
0280	Energy of the Universe	4	080	240
0281	Equalization of Educational Burdens and Facilities	1	064	200
0282	Equipment and Tools, Selection and Care of	4	092	150
0283	Ethics, Professional	1	010 012 055	50 50 100
0284	Europe, Chief Educational Systems	6	102	360
0285	Evaluation of Teaching	7	008 010 057 065 070 072 092 093 094 098	50 100 400 100 200 400 150 190 70 150
0286	Disabilities, Special, Evaluating Final Success in the Correction of	7	085	(170)*

*The parentheses indicate an average assignment of time which could not be verified due to the death of the instructor. See Table 32.

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0287	Junior High School Education	7	073	100
0288	Physical Education	7	041	100
0289	Reports of Progress and	7	085	(170)
0290	Scales, Development of, in Secondary Education	7	072	100
0291	Scoring and Norms, Technique of, in Secondary Education	7	072	100
0292	Secondary Education	7	071	300
0293	Visiting Committee, Procedures of, in Secondary Education	7	072	200
0294	Evening Schools and Classes	4	096	120
0295	Executives, Methods of, in Industrial Relations	4	101	120
0296	Excursions	5	023	50
0297	Experimental Method	7	054	200
0298	Expression	4	074	100
0299	Expression, Creative, in Language Arts	4	078	150
0300	Expression of Thought	4	109	100
0301	Expression of Thought and Emotion	4	109	100
0302	Expression, Tools of the Actor	4	074	100
0303	Extra-Curriculum or Extra-Class Activities	9	010	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0304	Extra-Instructional Activities of Teachers	9	057	100
0305	Federal Board for Vocational Education	1	096	70
0306	Federal Government in Education	1	003 010 063	60 50 300
0307	Federal Government and General Secondary Education	1	069	200
0308	Federal Government in Secondary Education	1	071	200
0309	Festivals, Christmas and Others, in Childhood Education	5	012 023 055	100 150 400
0310	Field Hockey for Women Finance, School	4	046	1000
0311	Control of	1	064	100
0312	Costs	1	002 010	300 100
0313	Costs, Instructional and Equipment, and Standards	1	067	100
0314	Costs, School, Trends in	1	064	200
0315	Income, Sources of School	1	064	300
0316	Indebtedness First Aid	1	064	100
0317	Breathing and Resuscitation	9	040	200

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0318	Burns, Heat and Cold Injuries	9	040	100
0319	Fractures and Dislocations	9	040	300
0320	Fundamentals of First Aid	9	040	100
0321	Kits and Common Emergencies	9	040	50
0322	Lifts and Carries	9	040	150
0323	Poisons	9	040	100
0324	Safety and First Aid in Camps	9	049	50
0325	Folk Dances	4	033	75
			050	120
			076	100
	Foundations, Commissions, and Important Studies			
0326	Advisory Committee on Education	7	068	200
0327	American Youth Commission, American Council on Education: "Youth Tell Their Story" .	7	069	100
0328	Carnegie Study of Secondary and Higher Education in Pennsylvania: "The Student and His Knowledge"	7	069	100
0329	Commission on Junior College Terminal Education, American Association of Junior Colleges	7	069	100
0330	Committee on the Orientation of Secondary Education, National Association of School Principals, Report of N.E.A.	7	069	100

TABLE 36 (Continued)

Units	Title of Unit	Cate- gory	Course	Time
0331	Committee on Revision of Standards, North Central Association	7	068	100
0332	Cooperative Study in General Education, American Council on Education	7	068	100
0333	Cooperative Study of Secondary- School Standards	7	069 072	300 200
0334	Douglass Commission on Industrial and Technical Education	7	096	30
0335	Educational Policies Commission, N.E.A.	7	068	200
0336	Local School Units in Ten States, United States Office of Education	7	068	100
0337	National Society for Promotion of Industrial Education	7	096	30
0338	National Survey of Secondary Education	7	069	100
0339	Occupational Adjustment Study, National Association of Secondary School Principals, N.E.A.	7	068	100
0340	Progressive Education Association, Projects of the	7	068	200
0341	Progressive Education Association, the Eight Year Study	7	069	300

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0342	Regents' Inquiry into the Character and Cost of Public Education in the State of New York	7	068 069	200 200
0343	White House Conference on Children in a Democracy	7	068	100
0344	Frequency Distribution	7	053	150
0345	Frequency Distribution, Graphical Representation	7	053	100
0346	Furniture, Classroom	1	064	150
0347	Games	4	033 049 050 051	75 50 240 120
0348	Games, Dramatic and Singing	4	037	500
0349	Games of Low Organization	4	036 037	550 700
0350	Genetic Method of Research	7	054	100
0351	Golf	4	047	500
0352	Group, the	10	106	200
0353	Group-Employee Relations, Formal Methods in	4	101	120
0354	Group-Employee Relations, Informal Methods in	4	101	120
0355	Growth Sequence and Factors	3	058	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0356	Guidance	9	009	150
			010	50
			057	100
			071	400
			087	100
			099	100
0357	In Business Education	9	104	200
0358	Individual Child	3	015	100
0359	Learning, Guidance of	3	015	200
			017	300
0360	Vocational	9	096	45
0361	Vocational, Contributions of Elementary Education to	9	099	100
0362	Vocational, Counseling Service	9	099	100
0363	Vocational Courses, Guidance into	9	095	120
0364	Vocational, Definition	9	099	100
0365	Vocational, Need for an Organized Program of	9	099	190
0366	Vocational, Organization and Administration of the Program of	9	099	190
0367	Vocational Preparatory Service	9	099	100
0368	Vocational, Responsibility of the School System for	9	099	100
0369	Vocational, Self Inventory Service	9	099	60
0370	Vocational, Service Involved in a Program of	9	099	60

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0371	Gymnasium Facilities and Equipment	4	042	280
0372	Gymnasium Procedures	4	041	100
0373	Gymnastics, Corrective Medical	4	048	600
0374	Gymnastics, Corrective, Physical Diagnosis for	4	048	1600
	Health			
0375	For Campers	9	049	50
0376	Education	9	033 044 089	225 600 200
0377	Education, Analysis of Newspapers and Periodicals	9	044	600
0378	Education, Investigations of Literature	9	044	600
0379	Examination	9	089	100
0380	Field of Teaching	4	008	50
0381	Healthful School Living	9	033 044	225 600
0382	Hygiene and	9	024 060	300 100
0383	Instruction	4	033 044	225 600
0384	Program	2	067	100
0385	Public	9	044	600

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0386	Public Health Federation,	9	089	100
0387	Service	9	033 044	225 600
0388	Sources of Material on Health	9	033	225
0389	High School, Origin and Background	6	067	100
0390	High School, Purpose of, in Relation to Elimination and Curriculum	2	067	100
0391	Higher Education	6	001 004	200 300
0392	Higher or University Education in the United States	6	006	150
0393	Historical Growth, Present Issues in the Light of	6	005	150
0394	Historical Method	7	054	200
0395	History of Education, Nature and Value of	6	003 005 007	80 150 300
0396	Home Economics Education	4	095	120
0397	Horse Shoe Pitching	4	047	50
0398	Human Being, Single	10	106	200
0399	Human Nature, Variations of	3	058	100
0400	Hurdles, High	4	035	75
0401	Hurdles, Low	4	035	75

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0402	Hygiene and Construction of the School Plant	1	089	100
0403	Hygiene of Ear, Nose, and Throat	9	089	200
0404	Hygiene of School Child, Introduction to Course	9	089	100
0405	Hygiene of School Child, Reports and Term Projects	9	089	400
0406	Industrial and Household Arts as a Field of Teaching	4	008	50
	Industrial Relations			
0407	Adjustment Processes in	4	101	120
0408	Changes and Maladjustments in	4	101	120
0409	Individualism and its Effects	4	101	120
0410	Principles Involving Change	4	101	120
0411	Responsibilities and Programs in	4	101	120
	Industrial and Vocational Education			
0412	American Vocational Association and Related Organizations	1	096	130
0413	Ancestry of	6	095	120
0414	Ancient and Mediaeval	6	096	100
0415	Colonial	6	096	100
0416	Economic and Social Value of	10	096	60

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0417	Employers' Attitude Toward	10	095	120
0418	Future of	6	095	120
0419	Girls and Women in	10	096	190
0420	Guilds, Contribution of	6	095	120
0421	Housing and Equipment for	1	096	75
0422	Industrial Arts and	4	095 096	120 40
0423	Information and Assignment Sheets in	4	091	160
0424	Instruction Sheets in	4	098	200
0425	Instructional Materials for, Organizing	4	093 094 097 098	190 200 170 150
0426	Kinds of	4	096	60
0427	Labor's Attitude Toward	10	095	120
0428	Legislation on, National	1	095 096	120 120
0429	National Responsibility for	1	095	120
0430	Private Initiative in	1	096	40
0431	Schools, All-Day	1	096	100
0432	Inheritance, Biological and Social	3	058	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0433	Insects, Pests and Friends of Man	4	080	240
0434	Instruction, Enrichment of	5	073	200
0435	Insurance	1	064	50
0436	Intelligence, Nature and Measurement of	7	015	100
			017	450
			059	150
0437	Interests, Intellectual-Cultural	3	060	50
0438	Intramural and Tournament Planning	4	050	50
0439	Javelin Throw	4	035	50
0440	Job and Trade Analysis	4	091	160
			092	150
			094	70
			097	720
0441	Jump, Broad	4	035	75
0442	Jump, High	4	035	75
0443	Kindergarten and Nursery	5	002	100
0444	Kindergarten-Primary Education in Cincinnati	5	055	100
0445	Kindergarten-Primary Education, Current Magazine Articles in	5	012	50
			055	200
0446	Language Arts			
0446	Correctness Program	4	078	150
0447	Diagnosis of Disabilities for Remedial Program	4	085	(170)

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0448	Diagnosis of Individual Disabilities, Basis for	4	085	(170)
0449	Field of Teaching	4	008	200
0450	Fundamentals in Teaching	4	029	100
0451	Group Discussion	4	051	120
0452	Language and Its Development	4	016 059	100 100
0453	Nature of Language	4	078	150
0454	Organization for Basic Instruction in the Elementary School	4	078	150
0455	Primary Methods in Teaching Language	4	024	400
0456	Program, Oral	4	029	300
0457	Teaching	4	056	300
0458	Latin-American Education	6	102	360
0459	Leadership and a Philosophy for Leaders in Industrial Relations	10	101	120
0460	Leadership in Recreation	4	039 088	150 200
0461	Leadership, Training in Class Learning	4	041	300
0462	Difficulties of Pupils	3	091	160

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0463	Disabilities, Methods of Overcoming	3	085	(170)
0464	Guidance of	3	058	150
0465	Improvement and Loss of	3	058	100
0466	Interpretations of Learning: Conditioning, Connectionism, Insight	3	058	150
0467	Nature of, General	3	009 015 017 059 092	150 250 350 100 150
0468	Subject Matter, Presentation of, for Learning	4	093	190
0469	Lesson and Line of Approach	4	091	160
0470	Lesson Plans	5 4 4 5 4 4 4 4	014 021 041 057 091 092 094 098	300 50 150 200 160 150 200 200
0471	Lesson Sheets	4	091 092	160 150
0472	Lesson Steps, Application and Test	4	091	160
0473	Lesson Steps, Preparation and Presentation	4	091	160

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0474	Library and Story Hour in Childhood Education	4	023 051	200 120
0475	Library Techniques and Survey of Related Literature	7	054	100
0476	Library, Training Pupils in the Use of	9	009 082	100 50
0477	Life Forms	4	080	240
0478	Light	4	080	240
	Literature in Elementary and Junior High School			
0479	Airplanes and Flying	4	030	150
0480	Animals	4	030	150
0481	Artists and Photographers	4	082	50
0482	Bible Stories and Selections	4	030	150
0483	Bibliography	4	082	100
0484	Books for Older Boys	4	082	200
0485	Career and Vocational	4	082	100
0486	Children's Books, History of	4	082	100
0487	Christmas and Other Holidays	4	030	150
0488	Evaluation of Books	4	030	150
0489	Fiction for Adolescent Girls	4	082	100
0490	Geography and Travel	4	030 082	150 200

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0491	Historical Books	4	030	300
0492	Humorous Books	4	030	150
0493	Magazines for Youth	4	082	50
0494	Myths, Legends, and Hero Stories	4	030	150
0495	Poetry	4	030	150
0496	Prizes and Awards to Outstanding Books	4	030 082	150 50
0497	Publishing Houses and Their Specialties	4	082	50
0498	Science and Nature	4	030 082	150 200
0499	Social Studies, Books Supplementing	4	030	150
0500	Sources of Book Lists	4	082	50
0501	War Information	4	082	200
	Literature in the Kindergarten- Primary Grades			
0502	Animals	4	025	150
0503	Cautionary Tales	4	025	150
0504	Fun and Humor	4	025	150
0505	History and Development of Children's Books	4	025	50
0506	Holidays, Books and Stories for	4	025	300

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0507	Inexpensive Books, How to Judge	4	025	20
0508	Magazines	4	012	50
0509	New Books	4	012 055	50 100
0510	New Publishers of Books for Young Children	4	025	20
0511	Newberry Medal and Other Prizes	4	025	50
0512	Nursery Rhymes and Poetry	4	025	300
0513	Picture and Pre-Reading Books	4	025	100
0514	Science, Books of	4	025	200
0515	Social	4	025	300
0516	Stories, Modern Imaginative	4	025	200
0517	Ten-Cent Store Books	4	025	20
0518	Traditional and Folk Tales	4	025	300
0519	Locker Rooms and Shower Rooms	4	042	280
0520	Lunch Period	9	023	50
0521	Malnutrition	9	089	100
0522	Manual Training	4	096	40
0523	Marketing and Economic Geography, Teaching	4	103	200
0524	Meaning, the Development of	3	015 017	100 300

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0525	Mediaevalism, Effect of, on Education	6	005 007	250 200
0526	Melodic Invention	4	019	200
0527	Mental Development	3	015 016 017 060	100 200 150 100
0528	Mental Health and Hygiene of the School Child	3	015 017 089	100 400 200
0529	Mental Health of the Teacher	3	015 017	100 200
0530	Methodology, High School, Background of	5	070	200
0531	Modern Movements in Education	6	007	900
0532	Mother Countries, Influence on Education of Dominions or Colonies	6	102	240
0533	Motivation	3	017 058 059 061 094	150 50 100 100 70
0534	Motor Development Music, Public School	3	059	100
0535	Analysis of	4	019	100
0536	Appreciation in Childhood Education	4	018	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0537	Appreciation in Elementary Education	4	020	100
0538	Assembly	4	021	100
0539	Business Procedures	9	021	50
0540	Choral Training	4	022	20
0541	Chorus, Organization of	4	022	20
0542	Class, General	4	021	50
0543	Close of the School Year	9	021	50
0544	Contests and Festivals	4	021	50
0545	Demonstration of Interpretation	4	076	100
0546	Education, Music, Introduction	4	075	150
0547	Experience Analyzed	4	019 075	100 150
0548	Extra-School Work in Music	9	021	50
0549	Financing Music Activities	9	021	50
0550	Groups, Organizing Special	9	021	50
0551	Hughes High School Program	2	022	40
0552	Instruments for Music in Childhood Education	4	018	300
0553	Instruments for Music in Elementary Education	4	020	300

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0554	Integration	4	075	500
0555	Library Procedures	9	021	50
0556	Materials, High School	4	022	20
0557	Musicality Through Listening	4	022	20
0558	Observations of High School Music, Requirements and Objectives	4	022	20
0559	Opening of the School	9	021	50
0560	Operatta Production	4	021	50
0561	Organizing the Music Class	9	021	50
0562	Organizing the Year's Work in High School	9	022	20
0563	Piano Music in Childhood Education	4	018	100
0564	Piano Music in Elementary Education	4	020	150
0565	Planning a Complete Music Experience for Children	2	075	500
0566	Presenting the Number	4	022	20
0567	Primary Methods in Music	4	024	150
0568	Programs and Materials	4	021	50
0569	Programs, Objectives of, for High School	4	022	20

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0570	Public School Music, Introduction to Course	4	021	50
0571	Reading Power in High School	4	022	20
0572	Rehearsing the Parts in High School	4	022	20
0573	Songs for Childhood Education	4	018	450
0574	Songs and Choral Selections for Elementary Education	4	020	450
0575	Supplies and Equipment	4	021	50
0576	Teacher-Conductor in High School	4	022	20
0577	Tone Quality, Improvement of, in High School	4	022	40
0578	Victrola Records for Childhood Education	4	018	250
0579	Victrola Records for Elementary Education	4	020	300
0580	National Educational System, Scope, 1 Status, and Development		001	200
			002	100
			003	100
			004	200
			006	200
			008	100
			010	100
			042	280
			102	360
0581	Nationalism in Education	10	005	200
			069	200

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0582	Naturalism and Its Effect on Educational Thought	8	005 006	150 300
0583	Nature Study and Science	4	024	300
0584	Neurological Bases for Behavior	3	058	100
0585	Normal Curve of Distribution	7	053	150
0586	Normative Survey Method in Research	7	054	200
0587	Nurses School, Work of	9	089	100
0588	Nutrition	9	089	200
0589	Observation of Classroom Instruction	5	003 009 013 051 065	240 250 1400 240 100
0590	Occupational Analysis and Job Specifications	4	097	170
0591	Occupational Information Service	9	099	60
0592	Occupational Subjects, Development of Methods of Teaching in	4	091	160
0593	Office Management	1	042	280
0594	Office and Secretarial Practice, Teaching	4	103	300
0595	Oral Presentation, Choice of Materials for	4	086	100
0596	Organizations, Associations, and Foundations, Educational	1	010 063	50 200

TABLE 36 (Continued)

Unit	Name of Unit	Category	Course	Time
0597	Oriental Education	6	102	240
0598	Part-Time Education, Trends in	1	095 096	120 190
0599	Penmanship	4	024 078	250 150
0600	Percentages	7	053	150
0601	Perceptual Development	3	059	100
0602	Personality Factors, Organic	3	061	50
0603	Personality Traits, Development of	3	059 061	100 60
0604	Personality, Wholesome	3	058	150
0605	Personnel Data Collecting Service	7	099	190
0606	Personnel Man, Methods of Training	4	101	120
0607	Personnel, Pupil, Studying	9	057	100
0608	Personnel Work, Pupil	9	099	190
0609	Phonetics	4	110	400
0610	Physical Education	4	042	280
0611	Aims and Objectives	4	033 041 043	225 200 150
0612	Budget and Finance in	1	042	280
0613	Class Organization and Conduct	9	043	400

CHAPTER 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0614	Definitions and Relationships	4	033 042	225 280
0615	Facilities and Supplies	9	043	600
0616	Interpretations in Relation to Education in General	5	041	100
0617	Methods	4	042	280
0618	Nomenclatures	4	041	150
0619	Principles	4	041	150
0620	Principles, Sources of Data on Physical Education	4	041	150
0621	Program	2	033	225
0622	Related Physical Education Activities	4	033 042	225 280
0623	State Programs, Development of	1	043	400
0624	Physical Growth	3	015 016 059 060	100 100 100 150
0625	Physical and Health Education, Introduction	4	043	50
0626	Historical Review of	6	041	150
0627	Organization Procedures	1	042	280
0628	Time Allotment	2	043	100
0629	Placement Service	9	099	100

CHAPTER 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0630	Plants Other than Trees	4	080	240
	Play Acting			
0631	Character Analysis and	4	074	100
0632	Make-Up and Costuming	4	074	100
0633	Pageantry, Puppet and Marionette Plays	4	086	300
0634	Play Production, Directing	4	074	500
0635	Play Production, Introduction	4	074	100
0636	Play Production, Rehearsing	4	074	100
0637	Plays and Casts	4	074	100
0638	Projecting the Character in	4	074	100
0639	Staging of Plays	4	074	100
	Play Activities			
0640	Age in Relation to	4	050	120
0641	Evaluation of	7	036	100
0642	Finger Plays	4	018	100
0643	Free	4	051	120
0644	Historical Attitudes Toward	6	036	150
0645	Modern Play Movement	6	036	350
0646	Organization and Spirit of	4	050	100
0647	Outdoor	4	023	50

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0648	Period, Free Play	4	023	50
0649	Primitive	4	036	100
0650	Theories of	4	036	250
0651	Work and	3	059	100
0652	Playground and Community	10	050	100
0653	Playground, Planning	9	039	100
0654	Poetry, Interpretation	4	086 109	300 100
0655	Pole Vault	4	035	75
0656	Posture	4	089	100
0657	Primitive Education	6	005 007	250 450
0658	Problem, Formulation of, in Research	7	054	100
0659	Profession of Teaching, Requirement for Success	1	003	180
0660	Profession of Teaching, Selecting	1	001 003 004	200 180 200
0661	Professional Growth	1	021 056 057	50 200 100
0662	Protestant Reformation, Aims and Results of	6	005 006	100 200
0663	Psychoanalysis	3	061	50
0664	Psychological Foundations of Education	3	003	180
0665	Psychology, Educational, Scope and Characteristics	3	015 017 058	100 100 200

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0666	Public-School Relations	1	003	20
			008	100
			010	50
			012	50
			014	200
			021	50
			023	50
			055	100
			056	200
			067	100
0667	Pupil Classification	1	008	50
			067	200
0668	Pupil Initiative and Control	9	067	200
0669	Pupil Progress and Improvement	7	009	150
			010	100
			091	160
			092	150
0670	Question Box	5	012	50
			055	100
0671	Racing, Relay	4	035	50
0672	Rationalism and Increased Knowledge	8	005	100
	Reading			
0673	Beginning Reading, Specific Methods of	4	028	250
			079	150
0674	Clinic	4	085	750
0675	Difficulties, Diagnosis and Remedy	4	079	100
0676	Enriched Curriculum in	2	079	125

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0677	Field of Teaching	4	008	150
0678	High School Reading, Problems of	4	057 071	200 400
0679	Individual Differences in	4	079	100
0680	Individual Differences, Primary Grades	4	028	200
0681	Interests and Habits	4	028 079	200 125
0682	Machines to Teach Reading, Contributions of	4	085	(170)
0683	Materials of	4	079	100
0684	Meaning in	4	028 079	200 150
0685	Objectives of, Changing	4	079	150
0686	Oral	4	109	100
0687	Organization of Basic Instruction	4	079	125
0688	Physical and Mechanical Aspects of	4	028 079	200 125
0689	Vocabulary, Development of	4	079	100
0690	Word Recognition, Aids in Reading Readiness	4	028	200
0691	Beginning Reading and	4	024	150
0692	Determination of	4	028	200

TABLE 36(Continued)

Unit	Title of Unit	Category	Course	Time
0693	Foundation for Reading	4	051	120
0694	Intellectual Factors Involved in	4	028	200
0695	Meaning of	4	028	200
0696	Personal Development and	4	028	200
0697	Physical Development and	4	028	200
0698	Program of	4	079	150
0699	Realism in Education	8	006	200
0700	Reasoning and Problem Solving	3	015	200
			017	300
			058	150
			059	100
			094	70
0701	Records and Reports	9	023	100
		9	055	100
		1	067	100
0702	Recreation	1	088	200
0703	Areas and Facilities	1	088	150
0704	Areas and Facilities, Operation of		088	150
0705	City Planning for Recreation	1	039	100
0706	Games and Crafts	4	050	100
0707	Individual Recreation	4	039	100
0708	Municipal Recreation, Historical Background	6	039	200
0709	Organization and Administration	1	039	250
			050	100
			088	350

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0710	Program Features and Services	2	088	350
0711	Programs and Program Planning	9	039 088	500 100
0712	Remedial Classes, Supplementary Procedures in Teaching	5	085	(170)
0713	Remedial Classes, Varying Progress in Reading, Spelling, and Arithmetic	5	085	(170)
0714	Remedial Programs for Individual Pupil, Basic	5	085	(170)
0715	Renaissance, Effect of, on Western Thought	6	005	100
0716	Research Procedures, Classification of	7	054	50
0717	Research, Reporting and Implementation of	7	054	100
0718	Research Service	7	099	190
0719	Research Workers, Training of	7	054	100
0720	Rest Period	9	023 051	50 120
0721	Retirement and Social Security of Teachers	1	010	100
0722	Rhythm in Elementary Music	4	019	500
0723	Rhythm, Interpretation through Drawing	4	076	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0724	Rhythm Period, Observation of	4	076	100
0725	Rhythm, Spontaneous Interpretation of	4	076	100
0726	Rhythmic Activities	4	033	75
0727	Rhythmic Activities of Singing Time	4	051	120
0728	Rhythmic Interpretations of Nursery Rhymes	4	076	100
0729	Rhythmic Interpretations, Surveys of Applications	4	076	500
0730	Rhythms, Accompaniment for	4	076	100
0731	Rhythms, Child	4	037	500
0732	Rhythms, Fundamental	4	076	100
0733	Rhythms, Fundamental, in Games	4	076	100
0734	Rhythms, Variations of	4	076	100
0735	Richard's Formula	4	090	60
0736	Running, Cross Country	4	035	50
0737	Running, Long Distance	4	035	50
0738	Running, Middle Distance	4	035	50
0739	Safety Education	4	089	100
0740	Safety in the School Shop	4	092	150
0741	Salaries and Economic Security of Teachers	1	010	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0742	Sampling Error Theory	7	053	250
0743	Scholarship, Promotion of	9	067	100
0744	School as the Primary Institution for Education	8	003	60
0745	Science Basis to Developmentalism	8	005	200
0746	Science as a Field of Teaching in Elementary Education	4	008 080	100 60
0747	Science in Primary Education	4	051	120
0748	Science, Teaching	4	056 080	300 60
0749	Scientific Determination in Education	8	005	150
0750	Scientific Inquiry, Development of	8	006	100
0751	Scientific Method and the Role of Philosophy, Characteristics of	8	054	100
0752	Screens for Use in Audio-Visual Aids	5	107	120
0753	Seatwork Activities	5	012 055	100 400
0754	Secondary Education	6	001 002 004 009	200 200 300 150
0755	Comparative	6	069	100

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0756	Individual Differences in	3	009 057	100 100
0757	Legal Basis of American Secondary Education	1	067 069	100 100
0758	Philosophy of Secondary Education	8	069 071 072	100 400 100
0759	Problems of, in Ohio	1	072	100
0760	Shaping Factors of, and Place in Society	10	087	100
0761	Supplementary Types of, and the State	1	069	200
0762	Terminal	1	071	200
0763	Types of Secondary Schools and the State	1	069	200
0764	Seeds	4	080	240
0765	Selvidge Method of Analysis	4	097 098	170 150
0766	Shop and Class Control and Management	9	093	190
0767	Shop Materials and Supplies, Requisition and Handling	9	092	150
0768	Shop Production Work versus Exercise Work	4	092	150
0769	Shop Students, Study of	9	092	150
0770	Shop-Teaching Aids and Devices	4	092	150

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0771	Shopwork Class, Organization of	9	093 094	190 70
0772	Shopwork Class, Organizing for Related Work	9	094	70
0773	Shorthand, Teaching	4	103	500
0774	Shot Put	4	035	50
0775	Shuffleboard	4	047	50
0776	Sight Conservation	9	089	100
0777	Skill	3	016	50
0778	Skin Diseases as Seen in the Classroom	9	089	100
0779	Soccer	4	046	200
0780	Social Development	3	015 016 059 060	100 100 100 150
0781	Social Hygiene	9	089	100
0782	Social Life of the School Social Studies	3	060	50
0783	Approaches to	4	081	150
0784	Field of Teaching	4	008	150
0785	Instructional Aids in	4	081	150
0786	Methods in	4	081	150

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0787	Nature and Functions of	4	081	150
0788	Principles of	4	081	100
0789	Special Methods of	4	081	100
0790	Specific Plans of Organization	4	081	100
0791	Societary Control	10	106	200
0792	Societary Energy	10	106	200
0793	Societary Processes	10	106	200
0794	Societary Relationships	10	106	100
0795	Sociological Foundations of Education	10	001 003 004	200 60 200
0796	Sociological Theory, Outline of	10	106	100
0797	Sociology and Education, Introduction to	10	106	100
0798	Sociology, Educational Objectives of	10	106	100
0799	Soft Ball for Women	4	046	700
0800	Sound	4	080	240
0801	Speaking, Choral	4	109	100
0802	Speaking, Radio	4	109	100
0803	Speech Mechanism	4	109	100
0804	Speech, Standard American	4	109	100
0805	Speech for Teachers, Introduction	4	109	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0806	Speed Ball	4	046	200
0807	Spelling	4	024	150
0808	Spelling, Fundamentals in Teaching	4	029 078	250 300
0809	Spring	4	035	50
0810	Standardizing and Accrediting Agencies	7	010	50
0811	State Educational Organization or State Control of Education	1	003 010 063	60 50 200
0812	Story Telling	4	050 109	60 100
0813	Student Observation and Participation, Evaluation of	7	051	120
0814	Sun and its Family Supervision	4	080	300
0815	Conferences, Individual and Group	2	065	100
0816	Curriculum and Materials of Instruction	2	065	100
0817	Evaluation and Improvement of	2	065	100
0818	Individual Differences and Adaptation of Instruction to	2	065	100
0819	Leadership in Research, and	2	065	100
0820	Organization and Planning for	2	065	100
0821	Teacher-Learning Procedures and Activities	2	065	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0822	Teachers' Extra-Instructional Activities	2	065	100
0823	Theories and Principles of	2	065	100
0824	Supervisor, Training and Activities of	2	065	100
0825	Supervisory Procedures and Improvement of Instruction	2	010	100
0826	Supplies, Purchase and Distribution of	1	064	50
0827	Surveys, Industrial Education	7	096	75
0828	Swimming Pageants and Beginning Swimming	4	050	100
0829	Swimming Pools	4	042 050	280 50
0830	Teacher-Child Relationships	9	008 016	100 50
	Teachers			
0831	Classroom	1	003	300
0832	Education and Training	1	010 068 095 096 104	50 200 120 70 100
0833	Improvement in Service	1	057 065	100 100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0834	Preparation, Qualifications, and Selection of, for Physical and Health Education	1	043	200
0835	Role of	1	002	300
0836	Secondary School	1	009	100
0837	Selection and Placement of	1	010	100
0838	Traits, Abilities, and Understandings Necessary to	1	001 004 023	200 200 100
	Teaching			
0839	Devices of	5	012 055	50 100
0840	Methods	5	002 057	100 300
0841	Opportunities Offered by the Profession	1	003	120
0842	Practice	5	013 057	750 150
0843	Responsibilities of	1	055	100
0844	Student, Individual Problems	1	014	200
0845	Student Teaching, Reports and Conferences Based on	5	013	750
0846	Technique of	5	001 004	200 150
0847	Trade, Problems of, and Need for	4	091 095 097 098	160 120 170 150

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0848	Types of, in Secondary Schools	5	009	200
0849	Temper and Temperament	3	017	50
0850	Tennis	4	047	1400
0851	Tennis, Deck	4	047	150
0852	Tennis, Table	4	047	150
0853	Tenure and Turnover, Teacher	1	010	100
0854	Tests and Measurements	7	001 004 011 015 017 041 042 052 100	200 150 150 200 400 100 280 100 200
0855	Achievement Tests in Industrial Education	7	100	100
0856	Aptitudes, Specific, Measurement of	7	011 052	100 100
0857	Arithmetic	7	029	200
0858	Business Education	7	014	300
0859	Capacity and Achievement	7	067	100
0860	Content Subjects	7	011 052	200 100
0861	Examinations, Characteristics of Good	7	011 052	150 100
0862	Examinations and Tests	7	091	160

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0863	Examinations, Written, Types of	7	011 052	250 200
0864	Industrial Education, Measurable Factors in	7	100	200
0865	Industrial Education, Related Fields of	7	100	200
0866	Industrial Education, Testing Techniques in	7	100	200
0867	Industrial Education Tests, Administering	7	100	100
0868	Intelligence and Aptitude Tests in Industrial Education	7	100	200
0869	Intelligence, General, Measurement of	7	011 052	150 100
0870	Intelligence and Other Aptitude Tests, Practical Use of	7	015	100
0871	Marking Systems and Credits	7	067	100
0872	Methods in the School	7	017	250
0873	Music Tests	7	018 020 021	100 100 50
0874	Non-Academic Subjects	7	011 052	150 100
0875	Objective Achievement Examinations, Construction of	7	011 052	150 100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0876	Personality Traits	7	011	100
			052	50
			061	100
			100	200
0877	Physical Education	7	043	100
0878	Pupil Progress, Appraisal of	7	073	100
0879	Results of Testing	7	100	200
0880	Scales for the Rating of Industrial Education Subjects	7	100	100
0881	Shop Tests, Selection and Evaluation of	7	100	100
0882	Shop Tests and Testing Programs	7	092	150
			100	200
0883	Skill Subjects, Measurement in	7	011	250
			052	150
0884	Social Studies, Evaluation and Measurement in	7	081	100
0885	Spelling, Evaluation in	7	078	150
0886	Test Construction, Theory of	7	011	250
			052	100
0887	Test Results, Analysis and Summary of	7	011	100
			052	100
0888	Test Results, Interpretation of	7	011	150
			052	100
0889	Test Results, Use of	7	011	100
			052	100
0890	Test Scores, Standard Measures and Methods of Combining	7	053	100

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0891	Textbooks and Collateral Reading in the Social Studies	4	081	150
0892	Textbooks and Instructional Materials, Selection of, and the School Library	2	010	100
0893	Textbooks and Special Methods Periodicals, Examination of	2	009	50
0894	Thinking, Precise	3	016	50
0895	Tones Track	4	019	600
0896	Coaching Suggestions	4	035	50
0897	Equipment	9	035	50
0898	Field and	4	047	300
0899	Field, Construction of	1	035	50
0900	Field Events, Rules of Running	4	035	200
0901	Meet, How to Run Off	9	035	200
0902	The Start	4	035	50
0903	Training and Treatment of Injuries	9	035	100
0904	Transcription, Teaching	4	103	200
0905	Transfer of Training	3	015 017	100 300
0906	Transition and Enlightenment, Period of	6	006	200

TABLE 36 (Continued)

Unit	Title of Unit	Category	Course	Time
0907	Transportation	1	064	50
0908	Trees, Study of	4	080	240
0909	Tuberculosis	9	089	100
0910	Typewriting, Teaching	4	103	400
0911	Unemployment and its Mitigants	10	101	120
0912	United States, History of Education in, 1865-1942	6	006	500
Units of Teaching				
0913	Construction of Units in Secondary Schools	5	070	400
0914	Development of, in Music Education	4	075	200
0915	Reports by Interns on Unit Plans	5	057	150
0916	Special Features of, in Secondary Education	5	070	100
0917	Types of Classroom Procedures Involving	5	009	150
0918	Units in Social Studies	4	081	150
0919	Units of Work in Childhood Education	5	023 051 055	50 120 200
0920	Units of Work in Elementary Education	5	008	300
0921	Variability, Measures of	7	053	150

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0922	Vocation, Choice of	3	060	50
0923	Vocational Rehabilitation	10	095 096	120 60
0924	Voice Disorders	4	110	400
0925	Voice, Emotional Qualities of, for Dramatic Interpretation	4	109	100
0926	Voice Mechanism	4	109	100
0927	Voice, Qualities of a Good	4	109	200
0928	Voice Tests, Classification	4	021	50
0929	Volley Ball for Women	4	046	500
0930	Weather, Ways of	4	080	240
0931	Work Experience in High School	2	071	300
0932	Work Period	9	023 051	50 120
0933	Work Programs, National Youth	10	087	100
0934	Work Programs, Relation of School and Youth in	10	087	100
0935	Worker, the Changing Situation of	10	101	120
0936	Wounds	9	040	400
0937	Writing, Creative Youth Problem	4	029	200
0938	Agencies Responsible for Planning and Action	10	087	100

TABLE 36 (Continued)

Unit	Title of Unit	Cate- gory	Course	Time
0939	Conclusions About	10	087	100
0940	Physical Disorders of Youth	10	087	100
0941	Responsibility of Federal and State Government toward	1	087	100
0942	Unemployment, Effect of, on Youth	10	087	100

APPENDIX F

CLASSIFICATION OF CONCURRENCE

TABLE 37

COURSES THAT ARE INVOLVED IN THE SAME COMPOSITE
UNITS BUT WHICH DO NOT ENROLL THE SAME STUDENTS

Pairs of Courses		Concurrence		* Authority
Code Number	Code Number	Unit	in Minutes	
001	002	0272	200	Johnson
		0580	100	
		0754	200	
	003	0252	80	Johnson
		0580	100	
		0660	180	
		0795	60	
	004	0056	200	Johnson
		0252	150	
		0272	200	
		0391	200	
		0580	200	
		0660	200	
		0754	200	
		0795	200	
		0838	200	
		0846	150	
		0854	150	
002	003	0580	100	Johnson
	004	0272	200	Johnson
		2580	100	
		0754	200	
003	004	0252	80	Johnson
		0580	100	
		0660	180	
		0795	60	
	023	0666	20	Johnson
004	023	0838	100	Harrin
005	006	0059	200	Johnson
		0582	150	
		0662	100	

*The name of the faculty member is given as authority for the statement that the two courses in a given pair of courses do not enroll the same students. This quotation of authority does not apply to other data included in the table.

TABLE 37 (Continued)

Pairs of Courses		Concurrence		Authority
Code Number	Code Number	Unit	in Minutes	
	007	0059	200	Johnson
		0395	150	
		0525	200	
		0657	250	
006	007	0059	200	Johnson
008	092	0285	50	Hendrickson
	093	0285	50	Hendrickson
	094	0285	50	Hendrickson
	098	0285	50	Hendrickson
009	082	0476	50	Eby
011	052	0854	100	Johnson
		0856	100	
		0860	100	
		0861	100	
		0863	200	
		0869	100	
		0874	100	
		0875	100	
		0876	50	
		0883	150	
		0886	100	
		0887	100	
		0888	100	
		0889	100	
		0854	150	
		0876	100	
012	014	0666	50	Johnson
	056	0666	50	Johnson
	057	0257	100	Johnson
		0279	50	
013	051	0589	240	Mileham
	057	0842	150	Johnson

TABLE 37 (Continued)

<u>Pairs of Courses</u>		Concurrence		Authority
Code Number	Code Number	Unit	in Minutes	
014	051	0196	360	Price
	055	0666	100	Johnson
	056	0196	200	Johnson
		0666	200	
	057	0196	100	Johnson
		0470	200	
	092	0470	150	Johnson
015	016	0276	100	Johnson
		0527	100	
		0624	100	
		0780	100	
	017	0023	100	Johnson
		0142	100	
		0359	200	
		0436	100	
		0467	250	
		0524	100	
		0527	100	
		0528	100	
		0529	100	
		0665	100	
		0700	200	
		0854	200	
		0905	100	
	041	0854	100	Hendrickson
	042	0854	200	Hendrickson
	092	0467	150	Hendrickson
	094	0700	70	Hendrickson
	100	0854	200	Hendrickson
016	059	0276	100	Hendrickson
		0452	100	
		0624	100	
		0780	100	
		0107	50	Hendrickson
	060	0251	100	
		0276	100	
		0527	100	
		0624	100	
		0780	100	

TABLE 37 (Continued)

Pairs of Courses		Unit	Concurrence in Minutes	Authority
Code Number	Code Number			
017	092	0467	150	Hendrickson
	094	0533	70	Hendrickson
		0700	70	
	100	0854	200	Hendrickson
018	020	0250	100	Johnson
		0873	100	
021	092	0470	50	Johnson
023	032	0088	300	Harrin
024	078	0599	150	Harrin
026	051	0083	340	Sherman
		0086	240	
		0087	410	
		0100	1080	
		0101	100	
		0083	300	
	084	0083	300	Sherman
027	032	0088	2520	Johnson
	083	0088	2520	Sherman
028	079	0673	150	Johnson
		0681	125	
		0684	150	
		0688	125	
030	082	0490	150	Johnson
		0496	50	
		0498	150	
031	084	0083	300	Sherman
032	083	0088	2880	Sherman

TABLE 37 (Continued)

<u>Pairs of Courses</u>		Unit	Concurrence in Minutes	Authority
Code Number	Code Number			
033	041	0611	200	Mileham
	043	0611	150	Smith
	051	0347	75	Mileham
036	037	0349	550	Johnson
039	050	0709	100	Mileham
	088	0460	150	Mileham
		0709	250	
		0711	100	
041	042	0854	100	Johnson
	091	0470	150	Mileham
	092	0470	150	Johnson
	094	0257	70	Johnson
		0470	150	
	098	0470	150	Johnson
	100	0854	100	Johnson
042	043	0104	280	Johnson
	050	0829	60	Mileham
	100	0854	200	Johnson
050	051	0347	120	Mileham
	055	0088	200	Mileham
	076	0325	100	Mileham
	083	0088	240	Mileham
	088	0709	100	Mileham
051	056	0196	200	Johnson
	057	0196	100	Johnson
052	100	0854	100	Hendrickson
		0876	50	
055	056	0666	100	Johnson
	057	0257	200	Johnson
		0279	50	
	094	0257	70	Johnson

TABLE 37 (Continued)

Pairs of Courses		Unit	Concurrence in Minutes	Authority
Code Number	Code Number			
056	057	0196	100	Johnson
		0661	100	
	067	0666	100	Campbell
057	070	0285	200	Johnson
		0356	100	
	071	0678	200	Eby
		0119	100	
	073	0119	100	Johnson
	091	0470	160	Johnson
	092	0285	150	Johnson
		0470	150	
	093	0285	190	Johnson
	094	0257	70	Johnson
		0285	70	
		0470	200	
	096	0187	50	Johnson
	098	0285	150	Johnson
		0470	200	
	099	0356	100	Johnson
058	094	0533	50	Hendrickson
		0700	70	
059	092 094	0467	100	Hendrickson
		0533	70	Hendrickson
		0700	70	
061	094	0533	70	Hendrickson
	100	0876	100	Hendrickson
065	092	0285	100	Good
	093	0285	100	Good
	094	0285	70	Good
	098	0285	100	Good
068	095	0832	120	Good
	096	0832	70	Good
069	096	0187	60	Eby

TABLE 37 (Continued)

<u>Pairs of Courses</u>			Concurrence	
Code Number	Code Number	Unit	in Minutes	Authority
070	072	0285	200	Eby
	092	0285	150	Eby
	093	0285	190	Eby
	094	0285	70	Eby
	098	0285	150	Eby
071	099	0356	100	Eby
072	092	0285	150	Eby
	093	0285	190	Eby
	094	0285	70	Eby
	098	0285	150	Eby
073	107	0119	100	Eby
	108	0119	100	Eby
107	108	0119	100	Coles
		0121	240	
		0127	300	
		0130	300	
		0133	60	
		0134	60	
Total			36,945	

TABLE 38

PAIRS OF PREREQUISITE-SEQUENT COURSES
INVOLVED IN THE SAME COMPOSITE UNITS

Pairs of Courses		Unit	Concurrence in Minutes	* Authority
Code Number	Code Number			
001	006	0580	200	Bryan
	008	0272	100	Hendrickson
		0580	100	
	009	0754	150	Bryan
	010	0580	100	Good
	011	0854	150	Good
	015	0854	200	Hood
	017	0854	200	Hendrickson
	023	0838	100	Bryan
	052	0854	100	Hendrickson
	100	0854	200	Johnson
	102	0580	200	Johnson
002	008	0272	100	Hendrickson
		0580	100	
	009	0754	150	Campbell
	010	0312	100	Campbell
		0580	100	
	057	0840	100	Johnson
	063	0226	200	Johnson
003	012	0580	100	Johnson
	006	0580	100	Johnson
	008	0580	100	Hendrickson
		0666	20	

*

The name of the faculty member is given as authority for the statement that the two courses in a given pair of courses have a prerequisite-sequent relation. This quotation of authority does not apply to other data included in the table.

TABLE 38 (Continued)

Pairs of Courses		Concurrence		Authority
Code Number	Code Number	Unit	in Minutes	
	009	0589	240	Johnson
	010	0043	60	Good
		0306	50	
		0580	100	
		0666	20	
		0811	50	
	055	0666	20	Johnson
	056	0666	20	Johnson
	063	0035	60	Johnson
		0039	180	
		0043	60	
		0306	60	
		0811	60	
	065	0589	100	Johnson
	066	0232	20	Johnson
	067	0035	60	Johnson
		0666	20	
	102	0580	100	Johnson
004	008	0272	100	Hendrickson
		0580	100	
	010	0580	100	Good
	011	0854	150	Hendrickson
	015	0854	150	Good
	017	0854	150	Hendrickson
	052	0854	100	Hendrickson
	100	0854	150	Johnson
	102	0580	200	Johnson
005	069	0581	200	Johnson
006	010	0580	100	Good
	102	0580	200	Johnson
008	012	0666	50	Hendrickson
	014	0666	100	Hendrickson

TABLE 38 (Continued)

<u>Pairs of Courses</u>		<u>Concurrence</u>		<u>Authority</u>
<u>Code</u> <u>Number</u>	<u>Code</u> <u>Number</u>	<u>Unit</u>	<u>in</u> <u>Minutes</u>	
	021	0666	50	Hendrickson
	055	0190	50	Johnson
		0666	100	
	056	0666	100	Johnson
	057	0119	50	Johnson
		0285	50	
	065	0285	50	Johnson
	067	0666	100	Johnson
		0667	50	
	070	0285	50	Johnson
	072	0285	50	Johnson
	073	0119	50	Johnson
	080	0746	60	Hendrickson
	102	0580	100	Johnson
	107	0119	50	Johnson
	108	0119	50	Johnson
009	057	0119	100	Johnson
		0356	100	
		0756	100	
	065	0589	100	Johnson
	071	0356	150	Johnson
	073	0119	100	Johnson
	087	0356	100	Eby
	091	0669	150	Johnson
	092	0467	150	Johnson
		0669	150	
	099	0356	100	Johnson
	107	0119	150	Johnson
		0133	60	
	108	0119	100	Johnson
		0133	60	
010	055	0257	50	Johnson
		0283	50	
		0666	50	
	056	0666	50	Johnson
	057	0187	50	Johnson

TABLE 38 (Continued)

<u>Pairs of Courses</u>		Concurrence		Authority
Code Number	Code Number	Unit	in Minutes	
		0257	50	
		0285	100	
		0356	50	
	063	0043	100	Johnson
		0046	50	
		0106	100	
		0306	50	
		0596	50	
		0811	50	
	064	0046	50	Johnson
	065	0285	100	Johnson
	067	0106	100	Johnson
		0666	50	
	068	0832	50	Johnson
	069	0106	100	Johnson
		0187	50	
	070	0285	100	Johnson
	071	0356	50	Johnson
	072	0285	100	Johnson
	087	0356	50	Good
	091	0669	100	Johnson
	092	0285	100	Johnson
		0669	100	
	093	0285	100	Johnson
	094	0257	50	Johnson
		0285	70	
	095	0832	50	Johnson
	096	0187	50	Johnson
		0832	50	
	098	0285	100	Johnson
	099	0356	50	Johnson
	102	0580	100	Johnson
011	015	0854	150	Hendrickson
	061	0876	100	Hendrickson
012	051	0223	50	Johnson
015	052	0854	100	Hendrickson
	058	0665	100	Johnson

TABLE 38 (Continued)

Pairs of Courses		Unit	Concurrence in Minutes	Authority
Code Number	Code Number			
		0700	150	
	059	0276	100	Good
		0436	100	
		0467	100	
		0624	100	
		0700	100	
		0780	100	
	060	0276	100	Hendrickson
		0527	100	
		0624	100	
		0780	100	
	089	0580	100	Hendrickson
016	017	0527	150	Hendrickson
	087	0251	100	Hendrickson
017	052	0854	100	Hendrickson
	058	0533	50	Johnson
		0665	100	
		0700	150	
	059	0436	150	Hendrickson
		0467	100	
		0533	100	
		0700	100	
	060	0527	100	Hendrickson
	061	0533	100	Johnson
	089	0528	200	Hendrickson
019	075	0547	100	Cline
023	055	0088	200	Johnson
		0309	150	
		0666	50	
		0701	100	
		0919	50	
	056	0196	200	Johnson
		0666	50	
	057	0196	100	Johnson

TABLE 38 (Continued)

<u>Pairs of Courses</u>		Concurrence		Authority
Code Number	Code Number	Unit	in Minutes	
	067	0666	50	Harrin
		0701	100	
	083	0088	300	Harrin
024	060	0382	100	Harrin
027	055	0088	200	Johnson
029	077	0072	100	Hendrickson
	078	0201	150	Hendrickson
		0808	250	
032	055	0088	200	Johnson
033	042	0233	280	Smith
		0614	225	
		0622	225	
	044	0376	225	Smith
		0381	225	
		0383	225	
		0387	225	
	076	0325	75	Mileham
	089	0376	200	Mileham
041	043	0611	150	Mileham
	052	0854	100	Mileham
	055	0257	100	Johnson
	057	0257	100	Johnson
		0470	150	
042	052	0854	100	Mileham
	063	0046	280	Mileham
	064	0046	200	Mileham
	102	0580	280	Mileham
044	089	0376	200	Mileham
050	109	0812	60	Johnson
051	055	0223	120	Harrin
		0919	20	

TABLE 38 (Continued)

Pairs of Courses			Concurrence	
Code	Code		in	
Number	Number	Unit	Minutes	Authority
055	067	0666	100	Harrin
		0701	100	
069	071	0785	100	Eby
	072	0333	200	Eby
		0758	100	
071	072	0758	100	Eby
092	093	0285	150	Paine
		094	70	Paine
		0440	70	
		0470	150	
093	094	0285	70	Paine
		0425	190	
		0771	80	
	097	0425	170	Paine
	098	0285	150	Paine
		0425	150	
094	098	0285	70	Paine
		0425	150	
		0470	200	
Total			23,175	

TABLE 39

PAIRS OF COURSES THAT ARE REPRESENTED IN THE SAME
COMPOSITE UNITS BUT WHICH APPLY THE SUBJECT MATTER
TO DIFFERENT EDUCATIONAL PURPOSES

Pairs of Courses			Concurrence	*
Code Number	Code Number	Unit	in Minutes	Authority
003	012	0666	20	Johnson
	013	0589	240	Johnson
	014	0666	20	Johnson
	021	0666	20	Johnson
	051	0589	240	Johnson
009	010	0356	50	Eby
		0669	100	
	013	0589	250	Johnson
	015	0467	150	Eby
	017	0467	150	Eby
	051	0589	240	Johnson
010	059	0467	100	Eby
	012	0257	50	Johnson
		0283	50	
		0666	50	Johnson
	014	0666	50	Johnson
	021	0666	50	Johnson
012	021	0666	50	Johnson
	023	0309	150	Johnson
		0666	50	
	041	0257	100	Johnson
	055	0223	50	Johnson
		0257	100	
		0279	50	
		0283	50	
		0309	100	

*

The name of the faculty member is given as authority for the statement that the two courses in a given pair of courses apply the subject matter of the units mutually involved to an essentially different educational purpose. The quotation of authority does not apply to other data included in the table.

TABLE 39 (Continued)

Pairs of Courses		Unit	Concurrence in Minutes	Authority
Code Number	Code Number			
		0445	50	
		0509	50	
		0666	50	
		0670	50	
		0753	100	
		0839	50	
	067	0666	50	Johnson
	094	0257	70	Johnson
013	065	0589	100	Johnson
014	021	0470	50	Johnson
		0666	50	
	023	0196	300	Johnson
		0666	50	
	041	0470	150	Johnson
	067	0666	100	Johnson
	091	0470	160	Johnson
	094	0470	200	Johnson
	098	0470	200	Johnson
018	021	0873	50	Johnson
020	021	0873	50	Johnson
021	023	0666	50	Johnson
	041	0470	50	Johnson
	055	0666	50	Johnson
	056	0661	50	Johnson
		0666	50	
	057	0470	50	Johnson
		0661	50	
	067	0666	50	Johnson
	091	0470	50	Johnson
	094	0470	50	Johnson
	098	0470	50	Johnson
023	051	0196	300	Johnson
		0474	120	
		0720	50	

TABLE 39 (Continued)

<u>Pairs of Courses</u>				
Code Number	Code Number	Unit	Concurrence in Minutes	Authority
		0919	50	
		0932	50	
049	051	0347	50	Johnson
051	065	0589	100	Johnson
052	061	0876	50	Hendrickson
057	065	0285	100	Good
		0833	100	
	107	0119	100	Johnson
	108	0119	100	Johnson
058	059	0533	50	Hendrickson
		0700	100	
	061	0533	50	Hendrickson
059	060	0276	100	Hendrickson
		0624	100	
		0780	100	
	061	0533	100	Hendrickson
		0603	50	
065	072	0285	100	Good
071	087	0356	100	Eby
091	097	0440	160	Johnson
		0847	160	
	098	0470	160	Paine
		0847	150	
092	097	0440	150	Paine
	100	0882	150	Paine
094	097	0425	170	Paine
		0440	70	

TABLE 39 (Continued)

Pairs of Courses			Concurrence	
Code	Code		in	
Numbers	Numbers	Unit	Minutes	Authority
095	097	0847	120	Paine
	098	0847	120	Paine
097	098	0058	150	Paine
		0149	150	
		0150	150	
		0425	150	
		0765	150	
		0847	150	
Total			9,340	

TABLE 40

PAIRS OF COURSES THAT CONTAIN UNITS WITH
SIMILAR TITLES BUT NO SIMILAR SUBTOPICS

Pairs of Courses		Unit	Concurrence in Minutes
Code Number	Code Number		
001	041	0854	100
	042	0580	200
		0854	200
002	006	0580	100
	042	0580	100
003	005	0395	80
	007	0395	80
	042	0580	100
004	006	0580	200
	009	0754	150
	041	0854	100
	042	0580	200
		0854	150
006	008	0580	100
	042	0580	200
008	010	0580	100
	042	0580	100
011	041	0854	100
017	041	0854	100
023	027	0088	300
033	050	0325	75
		0347	75
055	083	0088	200
056	080	0748	60

TABLE 40 (Continued)

Pairs of Courses			Concurrence
Code Number	Code Number	Unit	in Minutes
057	069	0187	50
	072	0285	400
	087	0356	100
063	067	0035	100
		0106	100
067	069	0106	100
		0757	100
068	069	0342	200
	104	0832	100
091	092	0440	150
	095	0847	120
092	098	0285	150
		0470	150
095	096	0428	120
		0598	120
		0832	70
		0923	60
Total			5,360

TABLE 41

PAIRS OF COURSES CONTAINING UNITS OF SIMILAR
SUBJECT MATTER WHICH IS APPLIED TO DIFFERENT
FIELDS OF TEACHING, GRADE LEVELS, OR AREAS

Pairs of Courses			Concurrence	*
Code Number	Code Number	Unit	in Minutes	Authority
008	009	0119	50	Hendrickson
010	023	0666	50	Good
	041	0257	50	Good
	042	0046	50	Good
		0580	100	
	104	0832	50	Good
011	042	0854	150	Hendrickson
017	042	0854	280	Hendrickson
063	064	0046	200	
065	070	0285	100	Eby, Good
086	109	0654	100	Lotze
087	099	0356	100	Bryan
095	104	0832	100	Price
096	104	0832	70	Price
Total			1,450	

*

The name of the faculty member is given as authority for the statement that the two courses in a given pair of courses make applications of the similar content in question to different fields of teaching, grade levels, or subject areas.

TABLE 42

MISCELLANEOUS REASONS FOR SIMILARITY OF SUBJECT MATTER

<u>Pairs of Courses</u>			Concurrence, Minutes	Reason for Similarity and Authority
<u>Code Number</u>	<u>Code Number</u>	<u>Unit</u>		
008	010	0285	50	The use of material in course 008 is to help students to observe teaching, while in 010 the application is to supervisory rating scales. Hendrickson, Good.
		0666	50	First-order subtopics suggest similarity, but no similarity between second-order subtopics.
	016	0830	50	Some repetition between topics, not much in treatment. Purposeful repetition as educational expedient. Hendrickson.
091	092	0470	150	Same material included, but not used if students have had other course. Additional work assigned in such case. Paine.
		0471	150	
		0669	150	
	094	0440	70	Same material included, but not used if students have had other course. Additional work assigned in such case. Paine.
		0470	160	
Total			830	