DOCTORAL PROGRAMS IN SPECIAL EDUCATION WERE STUDIED IN 14 UNIVERSITIES AND COLLEGES WHICH RECEIVED FEDERAL SUPPORT FOR DOCTORAL STUDY IN AT LEAST THREE AREAS OF SPECIAL EDUCATION. DATA WERE COLLECTED THROUGH (1) REVIEW OF GRADUATE BULLETINS AND OTHER PUBLISHED MATERIALS ABOUT PROGRAMS, (2) INTERVIEWS WITH DOCTORAL ADVISERS AND ADVISEES IN EACH PROGRAM, AND (3) SITE VISITS TO SIX OF THE LARGER PROGRAMS. THE STRUCTURE AND REQUIREMENTS OF THE PROGRAMS WERE ANALYZED AND DESCRIBED IN DETAIL. A SECTION FOR DISCUSSION AND INTERPRETATION INCLUDED SPECIAL COMMENTS ABOUT SEVERAL GENERAL FEATURES OF DOCTORAL STUDY. PROFESSIONAL LITERATURE AND PROFESSIONAL STANDARDS WERE REVIEWED AND SUMMARIZED WHERE APPROPRIATE. ALSO INCLUDED WERE REFERENCES, SAMPLES OF THE INTERVIEW SHEETS, AND SUMMARIES OF THE DOCTORAL REQUIREMENTS FOR EACH OF THE 14 UNIVERSITIES. (DF)
THE DOCTORATE IN SPECIAL EDUCATION

2-9-67-50

Francis E. Lord
DOCTORATE IN SPECIAL EDUCATION

A report based upon

An Investigation of Doctoral Program in Special Education in Representative American Universities

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

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Requirements for the doctor's degree are flexible and are closely related to the educational traditions and to the resources of a particular university. An effort to standardize practices on a national basis would not be to the best interests of advanced graduate study. Readers of this report are cautioned not to expect to find specific guidelines for a doctorate in special education. Such guidelines for doctoral study, in general, do not exist. There are many practices which are common among institutions which have the sanction of accrediting agencies and academic bodies but these practices are not to be thought of as representing national standards. The requirements of institutions vary, with justification, at least in the eyes of the institution which prescribes them.

The faculty and the students who participated in the survey reflect divergent views regarding requirements and practices. The report does not attempt to quantify these views or opinions, but rather it does attempt to indicate the direction of critical thinking in graduate education as applied to the field of education of exceptional children.

An effort has been made in the report to describe practices and to discuss issues rather than recommend a pattern for a degree. It is hoped that the information and the analyses which are reported will be helpful to those who are interested in reviewing institutional practices and to those who aspire to initiate doctoral programs.

Specific details are provided on the university programs which received major attention. In fairness to these programs, one must admit that a brief schematic summary never does justice to a dynamic program which is always in the process of review and revision. Some programs were undergoing major revisions at the time the summaries were prepared.

Part I of the report provides a brief introduction to the investigation.

Part II includes a description of the structure of the program of the universities included in the study, and discusses selected practices and issues.

Part III presents the summary and interpretations of the practices. The report is more than a summary of the practices
in the selected universities. It includes a considerable body of information from published sources, including related studies. This information is integrated somewhat with the specific data collected from the study of the selected doctoral programs. The suggestions of doctoral advisors and candidates for degrees also are incorporated in the report. The views of the investigator appear throughout the report. It is hoped that the merging of the information from these sources including the views of the advisor and the students has added strength to the report.
ACKNOWLEDGEMENTS

Appreciation is expressed to the representatives named below, from the several universities, who supplied information on their programs.

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PART I
INTRODUCTION

The first doctorate known to have been granted by a university division of education was awarded by Clark University in 1891; this was a Doctor of Philosophy (Ph.D.) degree. However, the program at Clark has not continued up to the present. The oldest Ph.D. programs in education in continuous existence are reported to be at Teachers College of Columbia University, and the University of California at Berkeley, both first granting the degree in 1898. The Ph.D. program in education was added at the University of Chicago in 1901, at the University of Michigan in 1902, and at Catholic University of America in 1906.1

A rapid expansion of programs occurred about the time of World War I and in the decade that followed. During this period a second doctorate, the Doctor of Education (Ed.D.) originated. The idea was created and fostered originally at Harvard University, which granted the first Ed.D. in 1921. Other universities soon took up the practice and began awarding the degree; e.g., Northwestern University (1922), the University of California at Berkeley (1924), Indiana University (1927), Temple University (1928), and Stanford (1929).2

It is estimated that over 100 universities in the United States now offer the doctorate in the field of education, with a combined production from 2,500 to 3,000 annually. It is anticipated that the production will exceed 3,300 by 1970.

The number of universities offering doctorates in special education is not available. However, 36 universities during 1965-66 received support for doctoral programs under

2 Ibid., p.5.
PL 88-164 as amended. One might estimate that perhaps 50 universities have official doctoral programs in special education. There were 301 doctoral fellows on federal stipends in these 36 universities during the school year 1965-66. Perhaps, then, there are in excess of 600 students committed to doctoral study in special education. With the continuation of federal support through PL 88-164 as amended, or similar legislation, and with the rapid expansion of services for handicapped children, one may assume that doctoral students in this field of study will double in the next decade. This may be a conservative estimate since the production of doctorates, in general, has tripled in the past ten years.

The study being reported, which centers upon the structure and requirements of the doctoral program in special education, seems especially timely for the following reasons:

(1) Doctoral study in the field of special education is relatively recent. The major programs have been developed in the past 20 years, and the discipline is just establishing itself on many American university campuses.

(2) A period of rapid expansion of programs is at hand, and many universities with little doctoral study experience have indicated an interest in entering the field. Since the field of study at the advanced degree level is so new in American higher education, and since the institutions that have ambitions to expand are relatively inexperienced in the direction of advanced graduate work, the need for information and guidance is compounded.

(3) The generous support money currently available through the federal government must be expended most efficiently. The anticipated appropriation for college training (senior and graduate) under PL 88-164 as amended will be $24,000,000 for the school year 1966-1967. Marked increase in the program strength should accompany the increase in support.

The doctor's degree in American education is characterized by flexible requirements which place a premium upon the judgments of an advisor and committee representative of the graduate faculty, individualization of programs and, above all, upon institutional pride and traditions. Historically speaking, the degree was based upon the candidate's demonstrated competence as judged by the scholars with whom
he worked. Primary was the evidence of scholarship in a candidate's field of interest. In recent years, the degree has become tied to a multitude of hurdles, course requirements, and residence restrictions. It appears that such structuring is the American way of handling large numbers of students and increasing "institutional efficiency."

Commenting upon the meaning of the Ph.D. degree, Bent states his views as follows:

The strength of the Ph.D. program rests in the fact that it is flexible and that, as knowledge increases and the demands for specialization in the research program develop, faculty and students are competent to adjust the training accordingly. 3

The original spirit of the doctorate must be preserved and defended by all who can influence standards. Creative scholarship should be the essential characteristic of doctoral candidates. Many of the formal requirements that have become attached to the degree represent the inventiveness of the faculty to substitute new controls and to escape, in part, their responsibilities toward the student for guidance, evaluation and individualized instruction.

In the light of the degree's historical purposes and the high regard for creative scholarship, one who studies practices and requirements, and attempts to summarize them, could contribute unwittingly to further sterilization of the degree. Consequently, this report will deal more with problems and issues and will not try to quantify practices and present recommendations regarding best practices.

Problem and Delimitation

The study is concerned with the structure and requirements of doctoral work in special education. In order to establish some workable limits for the study, two delimitations were made. First, attention is given primarily to degrees and programs which are identified with schools of education, i.e., retardation, gifted, orthopedic, etc. Speech and Hearing programs which are less frequently identified with schools of education are given attention since a

recent report has dealt with graduate study in this area. Second, the investigation is restricted to the universities that currently (1964-65) are receiving federal support for doctoral programs in at least three areas of special education. All fourteen institutions which met this simple criteria supplied information on their programs.

Colorado State College
Columbia University
University of Iowa
University of Kansas
University of Minnesota
Peabody College
University of Pittsburgh
University of Southern California
Syracuse University
University of Texas, Austin
University of Virginia
Wayne State University
University of Wisconsin
University of Illinois

Collections of data

Publications: Each university submitted its graduate school catalogues, school of education bulletins, and special comments which described its doctoral program(s). These programs were analyzed for requirements and regulations relating to doctoral study.

Interviews: One or more doctoral advisors for each program was interviewed by the principal investigator. Each interview was used for two purposes (1) to clarify the details of his program (2) to solicit his views regarding certain issues (See Interview Sheet in Appendix A).

In addition, forty candidates for degrees in special education were interviewed. Guidelines to initiate discussion were supplied to the student prior to the interview (See Appendix B). However, no attempt was made to conduct a critique on the student's own program or to review his particular problems. Focus was kept upon major problems and issues in graduate education as viewed by the student.

Site Visits: Campus visits were made to six of the larger programs: Minnesota, Wisconsin, Illinois, Peabody, Columbia, and Syracuse. Three of these institutes are public

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supported and three private. Two have only Ph.D. programs and four have dual programs—Ph.D. and Ed.D.

**Literature:** Current professional literature which seems to relate directly to the study was reviewed and summarized in the report where appropriate.

**Standards Committee:** The Council for Exceptional Children sponsored a project on professional standards during the time this investigation was under way. The project dealt with professional standards for school personnel serving exceptional children and doctoral programs in special education. The investigator participated in the activities of the project subcommittee on doctoral study. Recommendations from the Project Report, where appropriate, are incorporated in the report of this investigation.
PART II
PROGRAMS OF DOCTORAL STUDY

The structure and requirements of the 14 doctoral programs central to this study were analyzed and reduced to condensed descriptions. A uniform outline was used in order to obtain comparable information on each program. The major features of each program which received attention were:

- Degrees offered
- Areas of concentration
- Admission requirements for graduate study
- Admission requirements to the doctoral program
  - Experience required
  - Other requirements
- Admission to candidacy
- Residence
- Examination
- Language
- Doctoral Program
  - General requirements
  - Major and minor sequences
  - Recommended related work

Each doctoral program is described separately in Appendix C. Brief comments supplied by the investigator follow each program description. These comments merely call attention to some special features of each program, and are intended to be descriptive and not evaluative in nature. It is hoped that the program descriptions will supply details which the individual reader may desire.

Part II will deal specifically with certain features of these programs, especially the areas of concentration, required units, and residence requirements.

Degrees Offered: Students in education usually have the option of earning either the Ph.D. or the Ed.D. The latter has had increasing popularity since its inception in
The ratio nationally for granting the two degrees is approximately two to one favoring the Ed.D. Of 92 institutions investigated in 1956-58, over half offered both degrees, 27 offered only the Ed.D., while 17 offered only the Ph.D.¹

The degree plan for the 14 universities included in the present investigation is as follows:

<table>
<thead>
<tr>
<th>Ph.D. Only</th>
<th>Ph.D. and Ed.D.</th>
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<tbody>
<tr>
<td>Minnesota</td>
<td>Illinois</td>
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<tr>
<td>Wisconsin</td>
<td>Syracuse</td>
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<tr>
<td>Iowa</td>
<td>Virginia</td>
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<td></td>
<td>Peabody</td>
</tr>
<tr>
<td>Ed.D. Only</td>
<td>So. California</td>
</tr>
<tr>
<td>Colorado State</td>
<td>Kansas</td>
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</tbody>
</table>

The ratio of degree choice of the current candidates attending these institutions appears to be at least three to one in favor of the Ed.D. The ratio varies markedly between institutions, with some reporting as high as five to one. The choice in favor of the Ed.D. appears to be determined by 1) inappropriateness of the language requirement in the eyes of the candidate, 2) institutional advisement, and 3) the alleged interest of candidates in practical aspects of training rather than in research. Since the factors governing the choice are not constant among the institutions, direct comparisons are meaningless. One institution may give an equal emphasis to research in each degree, while another one may have lower research requirements for the Ed.D. One institution (Texas) has a language requirement for the Ed.D. Some Ph.D. programs require two languages, others only one.

The Ph.D. often is referred to as the research degree, and the Ed.D. as the professional degree which centers its emphasis upon preparation for administration, supervision, and college teaching. This distinction is clearly reflected in the requirements and electives in some of the programs. The catalogs and supplementary announcements often emphasize the difference and invite the student to make a choice. The validity of making sharp distinctions between research and teaching continues to be actively debatable in the literature relating to doctoral programs. Criticism of the double track emphasis is illustrated in the following view:

The double track in graduate education introduces fundamentally the idea of distinction between instruction and research, between teaching and scholarship. But the basic challenge to American

higher education is to unite, not to separate, these two phases of learning. Surely there are some who are more successful or effective as instructors than as researchers. Surely there are some who are better qualified to be guides to handfuls of graduate students than as lecturers to impatient and sometimes little interested undergraduates.

Nevertheless, the ideal faculty member is one who is equally at home in the classroom and in the library or laboratory and graduate education should reflect this ideal.

Also, we do our graduate students a disservice when we ask them to make a clear choice between teaching and research. The doctoral candidate needs an opportunity to do both, and then later make a choice, if he must, between the two in light of available opportunity, personal experience, and other considerations. Many of us imagine that we may want to do both for a time and carry on research for a time. We want an opportunity to pass back and forth between the two types of activity in our own particular sphere of interest, whatever the discipline of the professional field may be.2

The structuring of doctoral programs with two emphases (research and professional) seems to be common in practice and is defended in the literature. The Professional Standards Committee of the Council for Exceptional Children described in some length the two patterns. The report outlines the competencies required for each program as follows:

The Doctorate with Emphasis Upon Professional Competencies

Administers programs for exceptional children in local, state or national agencies.

Teaches courses and offers supervision in university or college programs for preparation of special teachers and other special education personnel.

Supervises educational programs in a special area, such as mentally retarded or deaf.

Serves as psychoeducational diagnostician.

The Doctorate With Emphasis Upon Scientific Competencies

Teaches at graduate level and does research in special education.

Conducts research in field of special education in universities and colleges or in other research organizations.3

The requirements and programs of the 14 universities central to this study reflect this difference in emphases. Some major differences between the two degrees are:

1. Teaching experience is more likely to be required of candidates for the Ed.D.

2. In some cases, additional course work in education is required for the Ed.D.

3. There is seldom a language requirement for the Ed.D. (only one of the 14 universities required a language).

4. A minor in a related academic field is more likely to be required of candidates for the Ph.D.

5. The course work relating to tools of research are not uniformly higher for the Ph.D. It appears that six of the ten institutions which offer dual programs do not make distinction in such requirements.

6. The dissertation requirement for the Ed.D. departs from the usual requirement for original research which is common for the Ph.D.

The Professional Standards Committee of the Council for Exceptional Children described in some detail the area of graduate study or the blocks of professional preparation which should comprise a sequence of training leading to the several fields of specialization.

Program structuring as suggested by the Committee is reproduced below:

It is logical to assume that those who obtain doctoral degrees, whether oriented professionally or scientifically, will have (a) a core of studies and experiences in common and (b) a different emphasis of concentration for a part of their program. The following scheme and diagram illustrate the general program for the doctoral degree as well as different emphases.

Area 1. It is necessary for all advanced graduate students in special education to develop a common core of competencies in the related disciplines of education, sociology, speech and psychology.

Areas in Advanced Graduate Study in Special Education*

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Common Core of Competencies from Related Disciplines</th>
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<tbody>
<tr>
<td>Area 2</td>
<td>Common Core of Competencies Cutting Across Exceptionality Areas</td>
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<tr>
<td>Area 3</td>
<td>Field of Specialization**</td>
</tr>
<tr>
<td>Administration</td>
<td>Teacher Preparation</td>
</tr>
<tr>
<td>Concentration</td>
<td></td>
</tr>
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* The order in which the areas appear does not imply sequence.

** There may be additional fields of specialization which should be considered (for example, the psychopedagogical clinician and the master teacher), and undoubtedly others will emerge in the future.
Area 2. It is necessary for all students to develop a common core of competencies which cut across exceptionalities - for example, communication disorders, social psychology of the handicapped, psychological theories as applied to deviant children, and advanced clinical diagnosis of learning disorders.

Area 3. It is in this area that a differentiation is made among the specialties. Those desiring to become administrators would concentrate on studies dealing with general administration and with administration of special education programs. The dissertation ordinarily would deal with an administrative problem. Individuals interested primarily in the preparation of teachers would specialize in an area of interest, such as mental retardation. They would, for example, take theoretical and advanced courses and seminars in the field of mental deficiency. Their independent study and dissertation would focus on development of curricula, special instructional material, or teaching methods in the area of specialization.

Individuals who are primarily interested in research in special education might approach their preparation from more than one direction. For example, a program of study might require the individual to obtain his Ph.D. in one of the behavioral sciences, such as psychology, child development, sociology, or speech science, but with study at the level of a minor, or equivalent in special education. The minor would consist mainly of the advanced offerings (under Areas 2 and 3) in special education. Another approach, and the one most relevant to the present context, is for a student to take the doctorate degree in special education with specialization in research. Individuals would necessarily concentrate in Areas 2 and 3 and on further techniques of research in this program and possibly minor in one of the academic disciplines, such as child development, psychology, or sociology. The program would be oriented more to theory and research than the other program.
In view of the expansion of graduate and research preparation in institutions, it has become necessary to prepare individuals who can teach advanced graduate courses such as listed under Areas 2 and 3, who can advise doctoral students, and who can conduct research of their own. Such individuals need doctoral programs which combine emphasis in research and in some special area of application.1

It does appear that each institution defends its degree granting practice whether it has a single or dual-degree offering. Advisors who have dual programs stress the advantages to students in having a choice. The advisors do not see a real difference in the status of the two degrees and often point to the additional units required for the Ed.D. and to the other hurdles that give the Ed.D. program strength in their eyes.

If flexibility and the right to institutional prerogatives are prized, it is hard to argue for a single degree. It is difficult or impossible to assess the influence of a dual program upon the training at a given institution.

4 Ibid., pp. 54-55.
The quality of research advocated by a university training program is related to factors within the university, such as research interests of the staff, tradition of research, commitment to research, etc. Schools offering the dual doctoral program with two standards of thesis requirements could well be weakening the level of research commitment. This general view has been expressed in the literature. One study relating to research offerings in relation to the dual program summarizes the situation as follows:

... it seems that when the Ph.D. and Ed.D. are both offered, the candidates in each program are affected by the presence of the other program. In the case of the Ph.D. program, there seems to be a relaxation of standards almost to the level of the Ed.D. program. In the case of Ed.D. candidates, there seems to have arisen a sense of inferiority concerning the quality of their preparation for research which is generated by comparison with a Ph.D. program which seems to be only slightly better than their own.

If our conclusions are reasonably accurate, then it might be well for schools of education to offer only a single degree. The quality of educational research might thereby benefit in two ways -- by insuring that the Ph.D. candidate is insulated from the pressures which exist in mixed-degree schools for meeting requirements dictated by the Ed.D. program, and by discouraging Ed.D. candidates, who tend to receive inferior training in research, from pursuing a research career.

Incidently, the results of our study of school catalogs tend also to support this recommendation. For it seems somewhat wasteful for schools which grant only the Ed.D. to offer about the same proportion of research courses as schools which grant only the Ph.D. when, as we have seen, the Ph.D. candidates are far more likely to do research later on. Thus, it would seem that faculty members who are highly qualified to give instruction in research techniques could be more efficiently utilized in schools which offer only
the Ph.D. degree by making it possible for these schools to expand both their research offerings and the opportunities for assistantships to professors who are qualified to conduct research.5

The Ed.D. and other professional degrees, notwithstanding the criticism of them, are well established in university practice. In fact, the list of such degrees seems to be growing. The Department of Psychology at the University of Illinois has just established its own degree (Ps.D). The degree requires, among other things, three years of full time academic work, with associated practicum, followed by an internship of one year. These requirements may set a new pattern for strengthening other professional degrees.

A restudy of the Ed.D. requirements was reported to be under way in two of the fourteen universities in this investigation (Syracuse and Kansas). The School of Education at Harvard University has just completed a careful review of graduate study in education, including the Ed.D. The report endorses changes which reflect some of the current interest in modifying requirements. The report says in part:

It seems to us, therefore, that we must hold open the possibility of using the Ed.D. for scholarly training as well as for professional preparation. This is perhaps unfortunate, since it eliminates the clear division between Ed.D. and Ph.D.; yet in view of the difficulties above discussed (control of degrees) it seems to us that there is no superior alternative available. We might, however, try to effect a distinction of degree rather than kind, in the following sense: to channel toward the Ph.D. in Education those candidates whose position, by virtue of training and interest, is closer to the discipline, but whose aim is to develop education as a preferred domain of application, and to channel toward the Ed.D. those whose position is rather closer to the field of education, but whose aim is to develop the capacity to analyze its problems by certain preferred disciplinary methods. This is not a hard and fast line, to be sure, but it seems to us to indicate a difference of direction that makes sense, and it leaves open the possibility of reinterpretation in the light of future possibilities of expansion and changing demands by

students. It also allows for different applications by the several disciplines in accord with variations in the attitudes of their related Arts and Sciences departments.

The Ed.D., then, is to embrace not only professional and problem-oriented programs, but also scholarly and research programs.

By way of summary, the following observations seem appropriate regarding the dual program:

1. The usual distinction between the research emphasis of the Ph.D. and the professional emphasis of the Ed.D. is not always clear in practice. At some institutions (e.g., Peabody), research skills are expected to be the same for both degrees. Some institutions require at least one language for the Ed.D. (e.g., Texas). Some Ed.D. programs appear to be a compromise between research emphasis and professional emphasis with neither objective well detailed.

2. The Ed.D. should embrace high level professional aspects of training, research aspects, and above all, scholarly approach to problems.

3. Some institutions which have only the Ph.D. program make adjustments in requirements that reduce some of the differences between the two degrees: e.g., a single language in combination with some other tool or research skill.

4. Advisors report that the type of position to which the candidate goes after graduation is not closely correlated with his implied interest in his degree choice. However, they defend the advantage of the option as a plan to satisfy the interests of the student.

5. Since the Ph.D. program is promoted as the research degree, it is proper to inquire why so few Ph.D. holders engage in productive research after receiving the degree. This question seems more important to speculate upon than the differences between the degrees.

6. There is, among institutions, some consistency relating to the control of the two degrees. While this point was not specifically investigated with reference to special education, it may be assumed that the general practices

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prevail in this case. The general practice in the United States is reported to be as follows:

Eighty-two percent of the institutions which granted the Ph.D. in Education stated that the administrative responsibility rested with the Graduate School, whereas only 5% reported such control for the Ed.D. Nearly a third (32%) of the latter institutions tended to centralize control of the Ed.D. in the College of Education. However, since the universities which gave autonomy to the College of Education tended to be the larger ones, over 50% of all those who received the Ed.D. were under the control of that college.7

Course Sequences Within the Major: Doctoral programs have become rather highly structured with course requirements despite the fact that the requirements are supposed to be flexible, and primary consideration is to be given to the competence of the candidate. The course structuring is very apparent in the requirements as outlined in the individual programs described in detail in Appendix C. The heart of a student’s program is represented in the sequence of the specialized courses which he elected. Strength and depth in his specialization should be reflected in this combination of courses relating to his major interest. A doctoral program of study is more than a loosely related group of courses put together in an order convenient to the student. A doctoral program is more than two master’s degrees. The importance of the doctoral program including a graduated sequence of courses based upon a progressive complexity of intellectual demands has been stressed by Kirk.

The second question is what constitutes a course at an advanced level. These courses should represent a conceptualization of the field and an organization of the knowledge into some theoretical structure. They are not ‘how to teach’ courses similar to the first-year graduate courses. They are courses that delve deeper into the problems, into the research, and into theoretical considerations. An individual, for example, who has taken two courses in the mentally retarded plus practice teaching knows the characteristics of the children and the methods of teaching them. What he needs

is an integrative course to organize his knowledge and develop broader theoretical concepts. Such a course would include material in mental deficiency which covers theory and research in four areas - biological, psychological, social, and educational.\(^8\)

Advanced graduate courses are described by the Council for Exceptional Children as follows:

A doctoral program in special education should be characterized by experiences of a special nature not found at the masters or premasters level. Merely adding survey courses in various fields of special education or courses where knowledge is directly related to teacher preparation is no substitute for courses and seminars designed to provide the link between the behavioral and biological sciences and the specific problem areas of special education . . . . It is assumed that introductory survey courses and courses at the teacher preparation level have been taken at bachelors and masters levels.

The key to all types of experiences should be the greater breadth of view provided beyond the narrow confines of the immediate and pressing educational problems faced by the special educator. Students in both professional and scientific patterns should have experiences such as those illustrated below.

1. Study of conceptual models which integrate the various fields of special education as well as the other components of education. For example, a model of communication theory, cognitive processes, motivational resources, or informational processing, etc., can be applied to many areas of special education. Such study should be limited to those students who are well beyond the master's level and have had supporting area courses in psychology, sociology, or other cognate areas which would aid them in drawing meaningful implications from theory for research and practice in special education.

2. Opportunities to integrate knowledge from various basic disciplines with focus on a single area of special education. Thus, knowledge from

\(^8\) S. A. Kirk, "A Doctor's Degree Program in Special Education." Exceptional Children, 1957, 24, p. 51.
biology, neurology, and psychology can be related, for example, to mental retardation or to auditory impairment.

Advanced offerings may include courses, seminars, and practica both directly in special education and in such areas as school administration, supervision, research design, statistics, measurement, higher education, and curriculum development, which help to support the role the student expects to take in his professional career.9

An Illustrative Sequence: The advanced courses in mental retardation at Peabody College are cited here as an example of effective sequencing. While the separate courses are under constant revision, the description of the current offering illustrates the general framework. The following brief description has been supplied by the Department of Special Education, Peabody College.

The Peabody doctoral course sequence in mental retardation was initiated in the fall of 1956. The general nature of this sequence has remained intact with only minor variations. The scope of content in the post-master's course series in mental retardation is designed to cover the research literature in the fields of medicine, sociology, education and psychology. Prior to taking this sequence, a number of prerequisite courses designed to provide proficiency in research tools and a general knowledge of the field of mental retardation must be completed. Each course is usually taught by a team of two or three instructors. The advanced course sequence includes the following course hours:

Biomedical Aspects of Mental Retardation (3 semester hours) covers the medical, physical and biological aspects of mental retardation. The course has generally been divided into two sections. One section is devoted to covering basic biological concepts which include gross anatomy and physiology of the nervous system, genetics, embryology, and metabolic processes. The other section consists of a comprehensive study of clinical types of mental retardation which typically follows the format of the American Association on Mental

9 Professional Standards for Personnel, op. cit., p. 57.
Deficiency's Manual on Terminology and Classification in Mental Retardation (Heber, 1967). Disease processes, etiological factors, and enumerations of specific syndromes with accompanying symptomology provide the general subject matter. Lectures are presented by staff members of the Vanderbilt University School of Medicine and by faculty members within the departments of biology and psychology at Peabody College. An opportunity to observe a clinical demonstration at Cloverbottom Hospital and School is also provided.

Psychological Aspects of Mental Retardation (3 semester hours) focuses on research literature listed under such diverse topics as the effects of environment upon intellectual functioning, behavioral sequelae of brain injury, differential diagnosis, learning characteristics, personality characteristics, and others. The content of this course is covered through extensive reading, student prepared reviews and abstracts of research literature and presentations by faculty and visiting lecturers. Classroom time is primarily devoted to a critical discussion of particular research studies with heavy emphasis being devoted to the adequacy of methodology. An effort is also made to redesign research studies when appropriate. A textbook (Ellis, N. Handbook on Mental Deficiency) generally accompanies the course. The course goals focus upon gaining both a comprehensive knowledge of the psychological literature and a greater sophistication in planning and executing research.

Educational Theory and Research in Intellectual Retardation (3 semester hours) is concerned with an evaluation of studies on pre-school education, efficacy of special classes, follow-up studies, school achievement and psycho-motor development of the retarded. Studies concerned with disadvantaged children, training of the intellect, language development, etc. are also considered. Research literature in these areas is comprehensively reviewed and abstracted. Classroom presentations and discussions of the adequacy of this research are undertaken. A concerted effort is made to summarize and draw conclusions from the research under each topical area. Designing and redesigning research studies remains as one of the primary objectives of the course.
Sociological Theory and Research in Intellectual Retardation (2 semester hours) covers literature on the impact of retardation on the family and society, adult adjustment, social position of the retarded, and the effects of social forces and strategies on the retarded. The procedures followed are similar to the course on educational theory. It has been common practice, however, to invite a social psychologist to present a number of sessions dealing with the theoretical basis of research in the areas of sociological and social-psychological aspects of mental retardation. In both the education and sociological theory courses, abstracts of studies prepared and distributed in advance of their presentation help to facilitate class participation and discussion. The complete advanced course sequence comprises a total of 11 semester hours. Students wishing to undertake further work of a specialized nature can enroll in Readings and Research in Education of Mental Retardation. The option of electing supervised field work in research, education and administration is also available.

Practicum Experiences and Independent Study: One of the major gaps in the training programs as voiced by candidates for the doctorate is the lack of relationship between theory and practice. Students who have had an opportunity to participate in advanced laboratory experience, faculty research projects, college teaching, etc., viewed the experiences as extremely valuable to them. They considered such assignments essential in a balanced program and repeatedly expressed a desire to see such assignments become a planned part of all programs. Since most of the students interviewed were recipients of fellowships and, therefore, had little opportunity to engage in the usual experiences afforded a paid graduate assistant, it is possible that many of them did not have the same chance at staff involvements that are typical of the "unsupported" candidate. Acceptance of stipends limits the hours permitted for compensated work. Consequently, institutions that have fellows are forced to devise plans for practical experiences as a part of the regular instructional program. The following recommendations were advanced by the Council for Exceptional Children regarding the importance of practicum experiences:

One important part of the doctoral program should be the provision of practicum experiences which integrate and give greater meaning to the academic experiences of the student. For the student who

10 Prepared for this report by Robert H. Bruininks, Graduate Fellow.
is chiefly concerned with professional problems, this might be a clinical practicum with children with special learning disorders. This experience would give increased meaning to general learning theory taken earlier. It might be a practicum in field survey and evaluation procedures for the person interested in administrative problems or a practicum in teaching and supervision of undergraduate students for the potential teacher educator. For the person specializing in research, opportunities to undertake, with increasing student autonomy, small studies which form a natural end link with the dissertation are of crucial importance. Opportunities should also be provided for the student to participate in larger studies which provide an understanding of programmatic research. These experiences should receive primary direction from the special education faculty.11

The comments which follow the program descriptions in Appendix C call attention to some of the practicum experiences provided to students in the selected universities. Since such experiences are tailored to the needs and interests of particular students, generalizations with regard to common practice were not attempted.

During the investigation, the doctoral candidates often appealed for more flexibility in their programs of study. Frequently, a desire was expressed to engage in more independent study, and for some time to think through all of the material coming their way. Certainly the immediate pressure to get through courses and other requirements invites a student to speculate upon the advantages of some freedom. The request was made, however, with such frequency and sincerity to warrant calling it to the attention of the doctoral advisors.

Doctoral students, especially those in the final year of course work, are pressured to complete course requirements, to pass examinations, and to get started on their dissertations. Creative aspects of research and a frame of mind conducive to original work seem to conflict with this regimented academic life. To increase the amount of independent study at the graduate level has been suggested frequently in recent years. Berelson argues that the present situation in graduate schools does not really allow for a large scale program of independent

study. First, if such a program is properly administered it is likely to require more faculty time; second, not all students are ready for such responsibilities. He supports his argument for more direction of graduate students by citing the fact that they desire and appreciate close supervision at the dissertation level.

Areas of Concentration: The entire field of professional education has become highly specialized with many training options. The specialization appears to be far too great for a relatively new discipline. A summary of a recent national conference describes the situation as follows:

Considerable time was devoted to a discussion of whether or not 59 different fields of concentration represented proliferation of merely different conceptions of what constituted a field. Evidence was submitted that this great diversity of fields was partly the product of individual interpretations by referring to the fact that the individuals surveyed identified 84 fields instead of the 59 reported by the institutions. It was agreed that some of this apparent proliferation was a function of an individual's desire to be recognized in the field of his preferred specialty. However, an examination of the list of fields reported caused the conclusion that, while there were probably not as many as 59 or 84, there were undoubtedly too many, and the list could stand some vigorous pruning. But, before any weeding is undertaken, it was agreed, that a more careful definition of what constitutes a field is needed. No essay of this difficult task was attempted at the Conference; at least, none that was formally reported.

General agreement was reached that only a few real fields of concentration exist, and that we ought to address ourselves to the task of defining them more clearly. Acceptance was given to the five most commonly reported fields: School Administration, Counseling and Guidance, Educational Psychology and Child Development, Elementary Education, and Secondary Education.13

Each university program of special education lists a number of options available for doctoral study. The number of choices offered in the programs of the 14 universities included in the present survey is impressive. A total of nine distinct options is available in these universities, with some institutions offering as many as eight choices.

It is hardly appropriate to refer to such options as areas for degrees. To consider them as dissertation areas seems more appropriate. For example, the options entitled Gifted Children may provide only three specific courses for a candidate and, therefore, seem too limited to constitute a doctoral sequence in the generally accepted sense.

There has been a tendency to further increase the public school areas of service in special education; e.g., classes of children with learning disabilities, minimal brain dysfunction, etc. At the same time, there is widespread concern over the great number of existing categories or subdivisions in the field. From the beginning, special education at the collegiate level has been divided into sub-fields which parallel the classification of public school programs. In turn, the public school programs relate directly to medical categories or disability groups—deaf, blind, etc. This elaborate categorization of children influences professional choices of teachers and, in turn, invites universities to diversify training programs. The preparation options that are offered at the doctoral level for each of the 14 universities studied are listed as follows:

**Colorado State**

Ed.D. Visually Handicapped; Mental Retardation; Administration

**Columbia**

Ph.D. Mental Retardation; Physically Handicapped, (including sensorily impaired); Emotionally Disturbed

Ed.D. Physically Handicapped (including sensorily impaired); Emotionally Disturbed; Blind and Partially Seeing; Gifted; Hearing Impaired; Mentally Retarded; Administration
Illinois
Ph.D. Administration of Special Education; Mental Retardation; Speech & Hearing; Deaf; Learning Disabilities; Gifted
Ed.D. Administration of Special Education; Mental Retardation; Speech and Hearing; Deaf; Learning Disabilities; Gifted

Iowa
Ph.D. Mental Retardation; Physically Handicapped; Emotionally Disturbed

Kansas
Ph.D. Emotionally Disturbed; Deaf; Crippled and other Health Impaired; Administration of Programs for Exceptional; Learning Disabilities, Mental Retardation
Ed.D. Emotionally Disturbed; Deaf; Crippled and Other Health Impaired; Administration of Programs for Exceptional; Learning Disabilities, Mental Retardation

Minnesota
Ph.D. Mental Retardation; Speech & Hearing; Emotional Disturbance; Deaf; Visually Handicapped; Crippled and Other Health Impaired

Peabody
Ph.D. Mental Retardation; Emotionally Disturbed; Visually Handicapped
Ed.D. Mental Retardation; Speech and Hearing; Deaf; Emotionally Disturbed; Visually Handicapped; Crippled and Other Health Impaired

Pittsburgh
Ph.D. Mental Retardation; Speech and Hearing; Deaf; Emotionally Disturbed; Visually Handicapped; Crippled and Other Health Impaired
Pittsburgh (con't)

Ed.D. Mental Retardation; Speech and Hearing; Deaf; Emotionally Disturbed; Visually Handicapped; Crippled and Other Health Impaired

Southern California

Ph.D. Mental Retardation; Speech and Hearing; Emotionally Disturbed; Crippled and Other Health Impaired; Visually Handicapped

Ed.D. Mental Retardation; Speech and Hearing; Emotionally Disturbed; Crippled and Other Health Impaired; Visually Handicapped

Syracuse

Ph.D. Rehabilitation Counseling; Administration and Supervision; Mental Retardation; Emotionally Disturbed; Crippled and Other Health Impaired; Speech and Hearing; Speech Pathology; Audiology

Ed.D. Rehabilitation Counseling; Administration and Supervision; Mental Retardation; Emotionally Disturbed; Crippled and Other Health Impaired; Speech and Hearing

Texas

Ph.D. Mental Retardation; Visually Handicapped; Crippled and Other Health Impaired; Special Education Administration; Emotionally Disturbed

Ed.D. Mental Retardation; Visually Handicapped; Crippled and Other Health Impaired; Special Education Administration; Emotionally Disturbed

Virginia

Ph.D. Mental Retardation; Speech and Hearing; Crippled and Other Health Impaired; Emotionally Disturbed

Ed.D. Mental Retardation; Speech and Hearing; Crippled and Other Health Impaired; Emotionally Disturbed
Wayne State

Ph.D. Mental Retardation; Speech and Hearing; Deaf; Visually Handicapped; Organization and Administration; Crippled

Ed.D. Mental Retardation; Speech and Hearing; Deaf; Visually Handicapped; Organization and Administration; Crippled

Wisconsin

Ph.D. Mental Retardation; Emotionally Disturbed; Physical and Neurological Handicaps
Minors and/or Cognate Fields: Minors and/or cognate requirements vary considerably among institutions. Prior to making site visits the investigator thought it was important to inquire whether candidates for degrees were required to complete a minor or equivalent work outside the School of Education. However, it became apparent during the site visits that it is necessary to be acquainted with the structure of a given school of education and the history of its programs in order to interpret the requirements of its program. In some institutions, the field of psychology is within the school of education. In other cases, nationally recognized Human Development programs, Child Development units, or Child Welfare Research units are operating within education and are manned by certified psychologists. In the latter case, some of the best recognized authorities in child development, learning theory, etc. are available to students in education from within their own school. Also in some universities certain courses carry dual prefixes such as education and psychology, and the students get the same course regardless of the prefix selected. Further, there is a clear tendency today to bring sociologists, anthropologists, mathematicians, etc. into the faculties of schools of education. It has been argued that schools of education in the future will incorporate representatives of many disciplines, each representative contributing his unique knowledge of his discipline to the solution of educational problems. This practice will add another dimension to the offerings of the school.

The primary concern is, of course, that the student pursue intensive study in a discipline at least to the level of a minor which is outside the field of professional education, as such. The particular administrative control of the field under consideration is of little consequence as long as the course work in related requirements do justice to the discipline.

The national survey referred to earlier reported the following findings regarding the distribution of course work between the school of education and other schools.

As might be expected, there is a great concentration of education courses in the Ed.D. degree, with 59% of the institutions reporting that it is possible for a student to take all of his course work in this field. Ph.D. candidates are inclined to take a larger number of courses outside their specialty, with 43% of the Ph.D. programs expecting this kind of related study as compared to 38% for the Ed.D. programs. The
The median number of hours taken outside Education is 18 for the Ed.D. and 15 for the Ph.D. However, since the Ed.D. candidate is expected to take a larger number of total hours of doctoral work, this represents 20% of the total in both cases.

Candidates for the Ed.D. degree are expected to take a larger number of total hours beyond the master's degree than are those who elect the Ph.D. The median number of hours for the former is 60 and for the latter, 48.\textsuperscript{14}

The use of a collateral field is well illustrated by the following explanation taken from the Graduate School Bulletin, University of Minnesota. This requirement may be substituted for one foreign language.

The collateral field of knowledge is expected to broaden the candidates scholarly and scientific background by permitting exploration of knowledge in a field related to the major and minor. The collateral field of knowledge may include in this sense any work now available or to be developed in the preparation for college teaching, including supervised instruction at the college level.

The burden of proof of the significance or relevance of the collateral field rests upon the candidate and his major advisor. The group committee under whose jurisdiction the major field falls shall review the recommendations of the major advisor and in turn recommend action to the dean of the Graduate School. In no case may the collateral field of knowledge be one that has regularly or traditionally been included in the major or minor fields of study of similar candidates in the past.\textsuperscript{15}

Special strength in a cognate field and familiarity with research techniques related to it seem to add an appropriate dimension to the doctorate in education and provide a better balance in training than one can expect from the traditional insistence upon mastery of foreign languages.

\textsuperscript{14} The Doctorate in Education, op. cit., Vol. III, p. 44.
\textsuperscript{15} Graduate School Bulletin, University of Minnesota, p. 16, 1964.
Relating to work in fields outside major studies, the Council for Exceptional Children recommended the following:

Breadth of academic background should be provided by arranging for the student to complete a minor, or its equivalent, outside his major area studies. This purpose would be served by depth studies in one or more such fields as sociology, psychology, administrative science, communication theory, mathematics, or anthropology. Such study outside the major program of studies is considered desirable for each program pattern. 16

Summary: The following general statements may be made regarding the practices of structuring minors or cognate requirements in the particular universities central to this investigation:

(I) The requirements for the Ph.D. specify cognate work outside the school of education more often than for the Ed.D.

(2) It appears that in some Ed.D. programs a student may complete all of his requirements with the school of education.

(3) There appears to be an emerging practice in the case of the Ph.D. to include in the program a carefully planned block of courses in a related discipline.

(4) In the case of the Ed.D., the advisor has considerable discretion as to whether or not the candidate should complete work outside the school of education.

(5) Finally, several factors operate which make the question of whether or not courses in some areas are within or outside education rather confusing.

a. In some universities, dual prefixes are used on certain courses and they carry credit in education and also in another university department.

b. In some universities, psychology, for example, is within the school of education.

16 Professional Standards for Personnel, op. cit., p. 58.
In other cases, the school of education has special psychological units (Child Welfare Station, Human Growth and Development Center) which have offerings equal to those of a department of psychology.

c. Some universities have added staff members with academic specializations (anthropology, sociology, history) to the faculty of the school of education.

Unit Requirements: Graduate bulletins of most universities stipulate the units of credit needed to meet minimum requirements for a doctor's degree. In some institutions, the requirements for the Ph.D. are left to the discretion of the advisor. The published unit requirements for the universities central to this study are summarized on the following page. It is recognized that this brief numerical summary of requirements may not do justice to some programs. However, it presents the objective data available to the student and therefore customarily studied by him as he reviews catalog requirements.
<table>
<thead>
<tr>
<th>Institution</th>
<th>Ph.D. Degree</th>
<th>Ed.D. Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado State College</td>
<td>90 qtr. hrs beyond MA</td>
<td></td>
</tr>
<tr>
<td>Columbia University</td>
<td>75 grad. points *</td>
<td>90 grad. points</td>
</tr>
<tr>
<td>University of Illinois</td>
<td>8 units plus **</td>
<td>16 units. No credit for dissertation</td>
</tr>
<tr>
<td>University of Iowa</td>
<td>8 units for diss.</td>
<td></td>
</tr>
<tr>
<td>University of Kansas</td>
<td>90 grad. hours</td>
<td></td>
</tr>
<tr>
<td>University of Minnesota</td>
<td>Equivalent of 3 full years of grad. study</td>
<td>Equivalent of 3 full years of grad. study</td>
</tr>
<tr>
<td>Peabody College</td>
<td>108 quarter hours excluding research tools. 54 hrs. must be grad. courses</td>
<td>108 quarter hours excluding research tools. 54 hrs. must be grad. courses</td>
</tr>
<tr>
<td>University of Pittsburgh</td>
<td>90 units w/minimum 60 units of course work; 18 research cr.</td>
<td>90 units w/minimum 60 units of course work; 18 research cr.</td>
</tr>
<tr>
<td>University of Texas</td>
<td>No minimum set</td>
<td>No minimum set</td>
</tr>
<tr>
<td>University of So. Calif.</td>
<td>Equivalent to 3 yrs. graduate work</td>
<td>Equivalent to 3 yrs. graduate work</td>
</tr>
<tr>
<td>University of Syracuse</td>
<td>90 semester hours</td>
<td>90 semester hours</td>
</tr>
<tr>
<td>University of Virginia</td>
<td>No specific course requirements</td>
<td>Minimum of 78 semester hours</td>
</tr>
<tr>
<td>Wayne State University</td>
<td>135 quarter hours</td>
<td>135 quarter hours</td>
</tr>
<tr>
<td>University of Wisconsin</td>
<td>72 units</td>
<td></td>
</tr>
</tbody>
</table>

* 1 point (at Columbia) = 1 semester hour
** 1 unit (at Illinois) = 4 semester hours
Faculty Requirements: There has been considerable discussion within the profession regarding the size of the qualified graduate faculty required for an acceptable Doctoral program. The many options of specializations within the field of special education compound the problems somewhat. Some faculty members attempt to serve as advisors for two or three options. Some programs draw upon the faculty in related disciplines (psychology, human development) for additional strength and staff support. The requirements for faculty to operate an effective program were not considered to be sufficiently unique to warrant special guidelines. The following recommendations concerning graduate faculty members are summarized:

Graduate faculty members with appropriate preparation are essential to the development and conduct of the programs described above. The graduate staff resources of the university should be brought to bear on the doctoral program in appropriate ways. At the same time, it is necessary to have graduate faculty members who are specifically concerned with special education and who work together in teaching, curriculum development, student advisement, etc.

Doctoral programs in this relatively new area should have at least two full-time graduate faculty members in each special education field of doctoral specialization. In total, the graduate faculty should consist of no less than five members, each with a full-time commitment to special education. . . . 17

A somewhat higher standard has been suggested by the Association of Graduate Schools:

An appropriate array of specialist professors is highly desirable in order to give the doctoral student the stimulation of several points of view and in order to staff the conventional committees which supervise and examine the student. Four or five graduate faculty professors in the subject field, at least, should be participants in the doctoral program, and a minimum of up to ten may be necessary for larger and more subdivided fields.18

17 Ibid., pp. 58-59.
Dissertation Advisement: Since the dissertation is one of the most significant professional experiences within a doctoral program, some attention was given to faculty load in performance of the important role of advisement. Dissertation advisement is time consuming and taxes the patience and energies of a busy faculty. It is difficult to determine an optimum advisement load independent of the many other demands of the faculty—general advisement, membership on other doctoral committees, teaching load, etc. For example, one department chairman reported that he was currently on eight doctoral committees. By contrast, one institution reported a university rule that limits faculty to five assignments as major advisor on dissertations. The opinion of the major advisors who were working in the universities central to the present investigation ranged from two to five assignments as major advisors to students at the dissertation level. It therefore appears that an acceptable practice is a load of from three to four students at the dissertation level. Many advisors prefer a load of two.

Residency: Other studies have dealt in detail with residency requirements for doctorates in education. One of the more recent surveys summarizes national practices as follows:

... Ph.D. Programs were more often characterized by less permissive residence requirements than Ed.D. programs. Six of the 41 responding institutions that granted both degrees reported different residence requirements for each degree. At the University of Arizona, the Ph.D. candidate was required to spend two consecutive semesters in residence during pursuit of the degree, while the Ed.D. candidate was permitted to spend only one semester plus an unspecified number of summer sessions.

Data were not available to indicate the actual effect residence requirements had on production or on the length of time taken for completion of the degrees. It was interesting to observe, however, in relation to the Ed.D. degree, that the 18 high producers tended to be less stringent in this regard than the low producers. Only 4 of the 18 high Ed.D.-producing institutions required two consecutive semesters (or 3 quarters) of full-time enrollment as compared to 15 of the 18 low Ed.D. producers. At the other end of the continuum 7 of the high producers permitted residence requirements to be fulfilled through any combination of day, evening, Saturday or summer classes, while only two of the low producers reported this...
more permissive attitude. No difference emerged when high and low Ph.D. producers were compared. 19

The practices regarding residence for the doctorate as described in the published bulletins of the universities central to this study are summarized on the following page. It will be noted that universities which offer dual programs tend to have identical residence requirements. Approximately half of the universities specify the minimum unit load required.

19 The Doctorate in Education, op. cit., Vol. 11, p. 38.
<table>
<thead>
<tr>
<th>Institution</th>
<th>Ph.D.</th>
<th>Ed.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado State</td>
<td>Colorado State</td>
<td>3 qtrs. w/10 hrs. per 1/4</td>
</tr>
<tr>
<td>Columbia</td>
<td>1 year</td>
<td>1 year</td>
</tr>
<tr>
<td>Illinois</td>
<td>2 successive sem. after M.A.</td>
<td>2 successive sem. or 1 sem. plus summer</td>
</tr>
<tr>
<td>Iowa</td>
<td>1 year and 24 units</td>
<td></td>
</tr>
<tr>
<td>Kansas</td>
<td>1 yr. subsequent to first year w/ 12 units per sem.</td>
<td>1 yr. subsequent to first year w/12 units per sem.</td>
</tr>
<tr>
<td>Minnesota</td>
<td>First two years or last year</td>
<td></td>
</tr>
<tr>
<td>Peabody</td>
<td>3 consecutive qtrs. beyond M.A. and 2 qtrs. beyond adm. to candidacy</td>
<td>3 consecutive quarters beyond M.A. and 2 qtrs. beyond adm. to candidacy</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>3 semesters</td>
<td>3 semesters</td>
</tr>
<tr>
<td>Texas</td>
<td>1 year and 15 sem. hours</td>
<td>1 year and 15 sem. hours</td>
</tr>
<tr>
<td>So. California</td>
<td>24 units</td>
<td>24 units</td>
</tr>
<tr>
<td>Syracuse</td>
<td>1 year</td>
<td>1 year</td>
</tr>
<tr>
<td>Virginia</td>
<td>1 academic year or 2 semesters</td>
<td>1 academic year or 2 semesters</td>
</tr>
<tr>
<td>Wayne State</td>
<td>1 year and 27 qtr. hrs.</td>
<td>1 year and 45 qtr. hrs.</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>3 semesters w/ 9 cr. per semester</td>
<td></td>
</tr>
</tbody>
</table>
Residency is defined in a variety of ways by universities and, therefore, a comparison of practices is very difficult. Excerpts from two university bulletins describing residence requirements for the doctorate are reproduced below. The second example, in particular, offers several options and also permits the applicants committee to have the final decision. One notes also considerable variation in actual time required in full-time study among the options offered.

Example I: The candidate for the Doctor's degree must register for at least three academic years (9 quarters) of graduate study in approved subjects, thesis research and writing. For the student who transfers work from other graduate schools, the first two years or the last year must be spent in residence at the university. In fulfilling the residence requirement, he must pay tuition fees appropriate to his residence or staff status. The required period of three years will normally suffice only for students who devote full time to graduate study. Students who intersperse graduate study between periods of professional or other regular employment will need to extend the total period of study over a longer time.

Example II: Residence in graduate status at the university or elsewhere equivalent to at least three academic years is required. At least one year's course work (24 units) must be done in residence at the University of----

The residence requirement may be met in any one of the following ways: (1) full-time study during two consecutive semesters in an academic year, (2) full-time study during one regular semester and two summer sessions taken consecutively, (3) full-time study during one regular semester and one summer semester, (4) full-time study during two consecutive summer semesters. The final decision on residence rests with the applicant's Committee on Studies.

The Council for Exceptional Children observed that in common practice four academic years or three calendar years are required beyond the bachelor's degree to complete a doctorate. The Council also pointed out that it is the responsibility of the university and the student to prevent the extension of the program to six, seven, or more,
years. The Council describes an ideal post-bachelor's route to the doctorate as follows:

In the first year, the master's degree program would be completed. The post-masters program would represent two years of academic experience plus another year for the completion of the thesis. Such factors as deficiencies and special student needs or interests may add additional time to the length of the program. A minimum of two years of continuous full-time resident graduate study should be required because much of the benefit of the graduate program lies in the close continued contact of the student with staff and other students in a learning environment that can only be approached under residence conditions. It is also desirable that the student remain on the campus while completing his thesis.20

PART III
SUMMARY AND INTERPRETATION

The range of practices regarding the structuring of requirements has been described in detail. Each reader can seek from the descriptions the particular information he desires. No attempt has been made to tabulate the frequencies of all the several requirements. The description of a typical or generalized program does not seem to be an appropriate device to improve practices where variations, flexibility and innovations are encouraged. The major objective of a doctoral program is to assist in the development of a productive scholar. Standardization of the details of the requirements among universities is not a necessity for quality in a program.

Attention is given in this section to a few of the general features of a doctoral program that warrant special comments. The suggestions represent in most cases the judgment of the investigator based upon both the factual information collected during the study and the suggestions received from the major advisor and from the doctoral candidates who were interviewed.

(1) Formal Requirements: The hurdles of formal requirements must be clearly explained and interpreted. Poorly defined requirements should not be allowed to add to the students' uncertainties. Consistent advisement should be available to assist the student in meeting requirements intelligently. Screening procedure should be adequate so that at the end of the first year of graduate study beyond the masters, the student can receive at least provisional acceptance if he appears to meet the requirements.

Planning of students' entire program early and incorporating reasonable adjustments in light of the students' particular background and interest would be welcomed by most candidates.

Many students who are entering doctoral programs express concern over their own readiness for advanced graduate study. Many of the younger students in particular have legitimate questions about their own capacities and aptitudes. Devices and procedures which encourage realistic self-evaluation would appear welcome by the students. Also, frequent evaluation followed by individual conferences appears to be generally desired by students.
(2) **Years of Study:** If a student possesses a master's degree and adequate background upon admission to the program, all requirements for the degree should be completed in three academic years—two years of course work and one year for the dissertation. The university and the student should cooperate to prevent the period from being extended to five years or even seven. The delays in a student's progress due to difficulties in getting assistance from his advisor or his committee must always be an official concern of the university. The student must also assume his share of the responsibility to file his application and to meet his commitments on time.

Some universities require a continuous registration of all candidates, after a designated point in their study, as a device to facilitate orderly progress.

(3) **Advanced Courses:** A program for doctoral study is more than a string of courses on a time line extending two or three years and resulting in a numerical sum of so many units. Courses at the advanced level differ from courses at the beginning level. Advanced courses are integrative in nature and help students organize their knowledge around broad theoretical concepts. There is an urgent need for more attention to the sequences of advanced courses in each of the areas of specializations that meet such requirements. Part II of the report includes an example, in detail, of a well-developed sequence of courses in the area of mental retardation.

(4) The large number of areas of concentration or specializations available to doctoral students in professional education is recognized as a serious problem in programming. As many as 50 options have been reported as fields of concentration in the field of professional education. Special Education has developed at least nine areas for doctoral study and the list seems to be growing.

These options are defensible as areas of concentration for research. However, with the possible exceptions of the areas of speech and hearing and mental retardation, the development of the subject matter within the specializations is too limited to be considered a major field of study in the usual academic sense.

(5) **Minors and/or Cognate Fields:** The requirements of a minor field of study or a cognate field are common features of doctoral programs. Since special education has many interdisciplinary aspects, study in related fields takes on increased importance. The practice of permitting both the
major and the minor to be within the field of special education certainly limits the scope of preparation. The emerging practice at some universities of permitting a well-designed block of courses in a field of study related to the candidate's major interest but outside of professional education should add strength to the preparation of the student.

(6) **College Teaching:** Preparation for effective college teaching as a companion goal to preparation for research is not receiving the attention desired by many students. Since most graduates will become involved in at least some college teaching, preparation for such service should receive systematic attention. Students who have had an opportunity to share teaching responsibilities with an experienced staff member express appreciation for the opportunity. The practice of internships in teaching for students desiring such assignments seems to be a desirable practice.

(7) **Balance in Program:** Doctoral candidates are seeking more opportunities to become directly involved in research projects and field study, etc. While such experience may be sought as an escape from rigorous courses, the suggestion warrants careful consideration to determine whether or not a better balance may be achieved between theory and application.

Related to this suggestion is a frequently expressed desire to engage in more independent study and self-initiated creative endeavors. Upon graduation, the student must become self-directed and must use his creative resources on his job. From the student's point of view, he desires an increased time to study, reflect and assimilate. On the other hand, the faculty seems to be in despair about the burden of operating loosely structured programs.

(8) **Creative Research:** Since research is a creative venture, and flourishes under relaxation from pressures and ample time for reflection, the student's program should be structured to provide maximum opportunity to engage in creative planning and independent productivity.

(9) **Residency:** Residency consisting of one year's full-time post-master's study is a recognized minimum—two years should be preferred. There is a tendency for some universities to substitute less desirable practices, such as consecutive summer sessions, late afternoon study, and off-campus resident credit.
Perhaps the most immediate and most effective way to add strength to the professional degree (Ed.D.) would be to require at least two years of continuous residence. Reference was made earlier to a requirement of three years residence for the new professional degree in psychology at the University of Illinois.

(10) Quality in New Programs: The rapid development of professional services in the field of special education calls for more well prepared specialists which, in turn, invites the further expansion of doctoral programs. An attempt has been made to define the level of resources required by a university to organize an effective program. Institutions contemplating initiating a doctoral program must meet minimum standards or assume the responsibility for weakening the level of professional leadership. While there is interest in regional planning for new programs, including the possibility of developing specialization at certain designated centers, an effective mechanism for cooperative planning at the national level is not available. The prospects of cooperative planning at the regional level is more encouraging. The pressure resulting from greater economic needs may have to exist before active planning will be initiated on either the national or regional levels.

A pattern has been developed through the Southern Regional Educational Board for the establishment of major centers throughout the Region for graduate study. This approach has possibilities for other regions.

Within a state, plans should be explored for some specialization by designated universities. Also, some of the institutions that are desiring to initiate doctoral programs would do well to affiliate with established programs within the state and plan to share resources.

Currently, there are serious limitations in supply of qualified staff for college teaching. Also, in some quarters, qualified graduate students are not available. Multiplying the number of programs at this time may, in the long run, solve few problems.

(11) Advisement: The advisement load of the faculty at the dissertation level must be kept at a level which provides maximum development for the student during this vital culminating experience. In the opinion of the advisors themselves, three to four students at one time constitutes an effective load.
Professional Degree: The universities which offer the professional degree (Ed.D.) seem satisfied with their programs. There does not appear to be a strong interest in the universities which do not offer the degree to add it.

It appears that the most immediate improvement of the professional degree could be made by requiring two or three years of continuous residence and incorporating within this period high level laboratory and internship experiences appropriate to the candidate's specialization, i.e., college training, administration, etc.

Languages: The foreign language requirement is considered appropriate by only a small percentage of doctoral candidates. The emerging practice of offering candidates a chance to select research tools appropriate to his particular needs is viewed with favor by doctoral candidates.

Dissertations: Finally, the dissertations should be shortened. In many dissertations, the quality of work might be improved by removing unimportant parts.
REFERENCES CITED IN REPORT


REFERENCES NOT CITED IN REPORT


APPENDIX A
INTERVIEW SHEET FOR MAJOR ADVISORS

University ________________________________

Information supplied by: ____________________________

1. (a) What are essential differences between your Ph.D. program and your Ed.D. program?
   (b) What proportion of your students elect the Ed.D.?

2. Do you consider the dual program an advantage to the University? Why?
   To the student? Why?

3. In your opinion does the professional degree (Ed.D.) enjoy the same status as the Ph.D.?
   If not, how can its status be improved?

4. Is it your impression that graduates with these degrees seek different kinds of jobs upon graduation?
   Is there a relationship between type of degree held and actual work being performed on their present jobs?

5. (a) What are your ideas regarding an appropriate preparation for the minor or cognate field.
   (b) Should the minor be outside the field of education?

6. Doctoral students point out the conflict between pressure from course requirements on one hand and the desirability for creative efforts and productive scholarship on the other. Is this real? What might be done about it?

7. Students ask for more actual involvement in research, field jobs, college teaching. Is this a fair request? How is it to be accomplished?

8. How would you describe the availability of good doctoral students to enter training?
9. How would you describe the availability of good college teachers on graduate level?

10. New doctoral programs are being proposed in many universities. Should some attempt be made to co-ordinate the development of these programs?

11. (a) How many doctoral candidates at the dissertation level can one advisor serve effectively?

(b) What is your current load of such students?
APPENDIX B

INTERVIEW SHEET FOR CANDIDATE FOR DOCTORAL

1. Is the language requirement for the Ph.D. defensible?

2. If you had a choice between the Ph.D. and the Ed.D., what would be the basis for your final decision?

3. Is there undue anxiety over the understanding of the numerous "hurdles" or requirements? If so, what might be done?

4. Should students have greater involvement in ongoing research during training?

5. Students often report a feeling of insufficient contact with major instructors - little chance to know them. Is this justified? Any recommendations?

6. Doctoral students usually complete one or more minors. Do you believe the minors should be outside the school of education?

7. Do you think all doctoral candidates should have supervised practice in college teaching?

8. What are two or three most meaningful features of your doctoral program? (experiences which seem to you to produce the greatest personal or professional growth)

9. What do you consider to be other problems or issues in the area of doctoral study?

10. Should the university award an appropriate degree upon satisfactory completion of all work except the dissertation? (with completion of the dissertation, the second degree would be awarded, i.e. Ed.D. or Ph.D.)
APPENDIX C

SUMMARY OF DOCTORAL REQUIREMENTS
for each of
FOURTEEN UNIVERSITIES

These institutions have Doctoral Programs in at least three areas of Special Education and are receiving fellowships under Public Law 85-926 as amended by Public Law 88-164 and Public Law 89-105.
COLORADO STATE COLLEGE

Ed.D. (only)

AREAS OF CONCENTRATION

Administration
Mental Retardation
Visually Handicapped

ADMISSION TO GRADUATE SCHOOL

B.A. from accredited college
Over-all GPA of 2.5 or 2.3 on conditional basis
Application to Dean of Graduate Division

ADMISSION TO DOCTORAL PROGRAM

M.A. degree
High quality academic average
Sixty-four quarter hours in education and psychology
G.R.E. - Aptitude and Advanced
Colorado State English Usage Test
Two years successful teaching experience

ADMISSION TO CANDIDACY

Thirty-six hours beyond M.A. with B average or better
Written and oral comprehensive exams
Complete approved outline for research study

DOCTORAL PROGRAM

1. General Requirements for the Degree

A. Recommendation by Committee
B. A minimum of 90 quarter hours beyond M.A.
C. Demonstrate knowledge in areas of national science, social science and humanities
D. Written and oral examination
E. Oral defense of research study
F. Minimum residence of three consecutive quarters with minimum of ten hours for each quarter
G. Teaching certification

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II. Major and Minor Sequences Required (Administration of Special Education)

A. Five required core courses
B. Electives representing each area of the handicapped
C. A minor in school administration

Major and Minor Sequences Required (Mental Retardation)

A. Courses as recommended by major professor selected from the areas of learning difficulties, curriculum development, habilitation, counseling, diagnostic procedures, growth and development, associated anomalies, principles of research, administration and supervision
B. Specific course requirements
C. Work in supporting areas according to need (educational psychology, elementary education, administration and supervision)

Major and Minor Sequences Required (Visually Handicapped)

A. Courses as required by major professor in areas of curriculum and methods, diagnosis, growth and development, administration and supervision, habilitation and counseling.
B. Completion of program for graduate teacher certification
C. Eleven required core courses--including doctoral research study
D. Electives to represent broad coverage of various disabilities
E. A required minor in Research and Measurement with a minimum of 27 quarter hours

INVESTIGATOR'S COMMENTS

A single degree program (Ed.D.)
Demonstrated knowledge of natural science, social science and humanities required
Teaching certificate required
Breadth of training within the field of special education is encouraged
TEACHERS COLLEGE
COLUMBIA UNIVERSITY
Ph.D.  Ed.D.

AREAS OF CONCENTRATION

Mentally Retarded  Physically Handicapped
Physically Handicapped
(including sensorily
impaired)  Neurologically Impaired, Emotionally Disturbed,
Physically Handicapped and
Blind and Partially Seeing,
Neurologically Impaired, Emotionally Disturbed,
Emotionally Disturbed,  Gifted, Hearing Impaired,
Mentally Retarded,  Mentally Retarded,
Administration  Administration

ADMISSION TO DOCTORAL PROGRAM

A. General Requirements
   University, College and Department Requirements

B. Degree
   Bachelor's Degree

C. Examinations
   Miller Analogies
   GRE (may be required)

D. Experience Required
   A background of general education, professional preparation
   and successful teaching in at least one area of exceptionality
   for two years

CERTIFICATION FOR CANDIDACY

A. Records
   Comprehensive Record Form

B. General Exam
   Minimum score of 6 on
   Power Reading and Verbal
   Portions of Teachers
   College General Exams

Minimum score of 6 on
Power Reading and Verbal
Portions of Teachers
College General Exams

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COLUMBIA (cont'd)

**Ph.D.**

C. **Program Plan**
   Submission and approval of a plan for completion of the doctoral program. Certification Seminar, i.e. pre-dissertation oral

D. **Residence**
   One year or equivalent of full time beyond M.A.

E. **Units**
   60 points of graduate work

F. **Language**
   German and French are required; Russian may be substituted for either, and Spanish may be substituted for French only

G. **Other Tools**
   Statistics and Methods of Research

H. **Examinations**
   A six-hour certification exam. Faculty ratings of professional leadership qualities

**Ed.D.**

Submission and approval of a plan for completion of the doctoral program

One year or equivalent of full time beyond M.A.

60 points of graduate work

Statistics and Methods of Research

A six-hour certification exam. Faculty ratings of professional leadership qualities

**DOCTORAL PROGRAM**

I. **General Requirements:**

   A. **Course Requirements**
      Minimum of 75 graduate points
      Research emphasis
   
   B. **Research**
      An acceptable dissertation

   Minimum of 90 graduate points
   Professional leadership emphasis

   An acceptable dissertation or project
COLUMBIA (cont'd)

Ph.D. Ed.D.

C. Oral Examination Acceptable oral examination
Acceptable oral examination

II. Major and Minor Sequences Required:

A. At the Master's Level

Approximately seven courses in the area of concentration

1. General & Introductory Courses
   1. Nature and needs 14
   2. Curriculum and methodology 6
   3. Assessment 4
   4. Practicum 2
   5. Leadership Function 9
      (administration, pedagogy, college teaching or research)

2. Advanced Courses
   a. Courses common to all fields 8
   b. Courses in selected areas i.e. administration, research, pedagogy, college teaching

3. Courses Which Prepare for Projects (research)
   a. Courses common to all 6
   b. Courses specific to preparation of the project 6

4. Courses Related to Scholarly Disciplines 4 to 6 points

B. At the Master's Level

One course in special, historical, or philosophical foundations of education; two courses in psychology including learning, child growth and development, and adjustment

B. Broad and Basic Areas of Professional Scholarship

1. The nature of Education 5
2. Nature of Persons and Learning Processes 10
COLUMBIA (cont'd)

Ph.D.  Ed.D.

C. Two courses in statistics,  Related specializations 6 pts
one course in anatomy and
structure of the nervous
system

D. Post-Master's Level Requirements

1. A minimum of 5 courses in the major field
2. Eight points in related research
3. Non-Major Courses
   a. One (minimum) course in social,
      historical or philosophical
      foundations of education
   b. Three psychological foundations
      courses
   c. Three courses from educational
      administration, guidance or
      curriculum and teaching
4. Recommended courses in other departments

INVESTIGATOR'S COMMENTS

Columbia has a dual program with a greater number of
specializations offered through the Ed.D.

Students have options within each area of concentration. For
example, in the area of mental retardation one may concentrate
upon either educational supervision, advanced pedagogy,
college teaching or research.

The program of study for the two degrees differs greatly.
The Ed.D. degree provides a variety of training specifically
related to professional services.

Candidates for the Ph.D. must have 90 points of acceptable
course work in liberal arts education.
UNIVERSITY OF ILLINOIS

Ph.D.
AREAS OF CONCENTRATION
Administration of Special Education, Mentally Retarded, Speech and Hearing, Deaf, Learning Disabilities, Gifted

Ed.D.
Administration of Special Education, Mentally Retarded, Speech and Hearing, Deaf, Learning Disabilities, Gifted.

ADMISSION TO GRADUATE STUDIES
Must meet minimum requirements of University, B.A. with 3.5 GPA in (A=B5) upper division, GRE Aptitude Test

ADMISSION TO DOCTORAL PROGRAM
A. Evaluation Criteria
1. A measure of graduate aptitude - either the Miller Analogies Test or graduate record examination
2. All previous graduate work
3. Three letters of recommendation
4. The applicant's own statement of professional goals
5. A personal interview may be required

B. Experience Required
Two years successful teaching (4 years for those in the field of administration and supervision)

C. Other Requirements
M.A. in education and certification for teaching in one area of exceptionality and thesis equivalent to M.A. thesis

M.A. and certification for teaching in one area of exceptionality

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ILLINOIS (cont'd)

Ph.D.  Ed.D.

ADMISSION TO CANDIDACY

A. Examinations
Preliminary oral exam

B. Residency or Units
Two successive semesters
after M.A. or 8 units

C. Language
French, German or Russian
Choose two from these.
No transfer tests accepted

D. Other Tools
Competence in statistics and research

DOCTORAL PROGRAM

I. General Requirements for Both Degrees:

A. Maintenance of high standards of scholarships

B. Completion of prescribed course work

C. Successful performance on preliminary and final examinations

D. Completion of an acceptable doctoral dissertation

II. Major and Minor Sequences Required:

A. A major field of study
must include 4 units of course work beyond the Master's degree.

A minimum of 16 units of course work beyond the Master's degree

* 1 unit is equal to 4 semester hours

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ILLINOIS (cont'd)

Ph.D.

or

B. A minor of 4 units or two minors of 2 units of academic course work

or

C. Eight units of academic credit are earned as thesis credit

Ed.D.

Neither a language nor a minor is required, but certain courses are required of all candidates

No academic credit is given for the thesis

III. Recommended Minor and Related Course Work

A. The candidate is required to pass written qualifying examinations in the following areas:

1. Psychological foundations of education
   Social foundations of education

2. The academic minor area
   Psychological foundations of education

3. The area of specialization, exceptional children
   The area of specialization, the field of exceptional children

INVESTIGATOR'S COMMENTS

A dual program with several clear differentiations in requirements between each degree program.

Teaching experience required for both the Ph.D. and the Ed.D.

Similar statistics and research preparation required in each degree.

Certification in a teaching area of special education is required for acceptance in program.

No academic credit for the dissertation for the Ed.D.

One or two academic minors required for the Ph.D.
THE UNIVERSITY OF IOWA

Ph.D.

AREAS OF CONCENTRATION

Mentally Retarded
Physically Handicapped
Emotionally Disturbed

ADMISSION TO GRADUATE STUDIES

B.A. from acceptable college or university

ADMISSION TO DOCTORAL PROGRAM

Evidence of satisfactory completion of undergraduate work and M.A. degree - GRE is required

ADMISSION TO CANDIDACY

File an approved program of studies which includes tools of research, prescribed courses, thesis title and other special requirements

A. Examinations
   Comprehensive examinations

B. Residence
   One academic year in which 24 semester hours are complete; may be two academic years when on assistantship

C. Language
   Competence in two foreign languages

D. Other Tools
   Statistics, or combination of statistics and foreign language

DOCTORAL PROGRAM

1. General Requirements
   A. Three years of residence in a graduate college
   B. A minimum of 90 semester hours of graduate credit
IOWA (cont'd)

Ph.D.

C. One year of residence and a minimum of 24 semester hours at Iowa. Fifteen of the units must be completed after passing the comprehensive examinations.

D. Completion of an acceptable dissertation.

E. Successful performance on final oral examination.

II. Major and Minor Sequences Required

A. Course requirements to be determined by student and advisor.

B. All candidates in special education are expected to have substantial grounding in personality theory, learning theory and research methodology as well as the major field of study.

INVESTIGATOR'S COMMENTS

A single degree program, i.e. Ph.D. Flexible course requirements; specific courses as established by the advisor.

Programing is offered in three areas of concentration.

Two academic years of residency are required of candidates who hold assistantships.

Broad background in psychology is built into programs.

Other research tools may substitute for one foreign language.

Three academic years of residence in graduate school are required.
UNIVERSITY OF KANSAS *

Ph.D.                      Ed.D.

AREAS OF CONCENTRATION

Emotionally Disturbed, Deaf,                  Emotionally Disturbed, Deaf,
Crippled and Other Health                  Crippled and Other Health
Impaired, Administration of                  Impaired, Administration of
Programs for Exceptional                     Programs for Exceptional
Learning Disabilities, Mental                Learning Disabilities, Mental
Retardation

ADMISSION TO GRADUATE STUDIES

B.A. from Kansas or acceptable       B.A. from Kansas or acceptable
college or university, Professional    college or university, Professional
courses equivalent to Kansas           courses equivalent to Kansas
credential requirements

ADMISSION TO DOCTORAL PROGRAM

A. Experience Required             Three years of successful
                                   professional experience

B. Other Requirements

M.A. completed; 2.5 GPA;            M.A. completed; 2.5 GPA;
Miller Analogies Test;             Miller Analogies Test;
Pass Graduate Selection            Pass Graduate Selection
Committee

ADMISSION TO CANDIDACY

A. Examinations

Written Preliminary Examin-    Written Preliminary Examin-
ation - Oral Comprehensive    nation - Oral Comprehensive
Examination

B. Residence or Units

One full year, subsequent       One full year, subsequent
to first year, excluding        to first year, excluding
summer sessions; 12 semester    summer sessions; 12 semester
hours each semester          hours each semester

C. Languages

Two foreign languages; French    May
and German or Russian. May     substitute

*This program is in the process of extensive revision.

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KANSAS (cont'd)

D. Other Tools

Two or more of the following which his advisory committee after consultation with him may deem necessary in pursuit of his program of study: (a) a reading knowledge of one or more foreign languages, (b) ability to use statistical techniques, (c) ability to administer and evaluate the results of educational tests of all types demanded in a reasonable system of educational counseling or guidance, (d) ability to analyze and evaluate education documents or written reports of the findings, (e) the possession of specialized knowledge of some field of educational practice.

DOCTORAL PROGRAM

I. General Requirements

A. The equivalent of three full academic years in graduate study

B. Satisfactory performance on preliminary, comprehensive, and final examinations

C. Satisfactory completion of a thesis

II. Major and Minor Sequences Required

A. A major field in special education (concentration in one area)

B. A minor closely related to the major but in a field other than education

Minor may be in:
1. Administration and Supervision
2. Curriculum and Instruction
3. Educational Psychology and Guidance
Ph.D.          Ed.D.

4. General Teaching Theory and Educational Philosophy
5. Evaluation

Or may be in related field outside the school of education

C. More than one minor may be permitted

D. A thesis showing the result of original research

INVESTIGATOR'S COMMENTS

Dual program with same options for each degree

No teaching experience is required for the Ph.D.

A reading knowledge of one language may be required for Ed.D. (a choice of research tools other than languages is offered)

Minor in field outside education is required for Ph.D.; optional for Ed.D.
UNIVERSITY OF MINNESOTA

Ph.D.

AREAS OF CONCENTRATION

Mentally Retarded
Speech and Hearing
Emotional Disturbances
Deaf
Visually Handicapped
Crippled and other health Impaired

ADMISSION TO GRADUATE STUDIES

B.A.
Special Tests may be required if
scholastic record is questionable
Miller Analogies Test
Special Application Form
Autobiography and letters of recommendation
required of fellowship applicants

ADMISSION TO DOCTORAL PROGRAM

At least 1 quarter or one summer session of
residence
Judgment by members of the graduate faculty
that the student shows significant promise

ADMISSION TO CANDIDACY

A. Examination
   Preliminary examination on major and minor
   fields or supporting programs

B. Residency or Units
   First 2 years or last year at Minnesota

C. Language Requirements
   A reading knowledge of 2 foreign languages or
   a reading knowledge of 1 foreign language and
   the option of a collateral field of knowledge
   or a research technique

D. Other Requirements
   Approval of the Dean of the Graduate School upon
   recommendation of the group committee

*Ph.D. programs are most fully developed in these three fields
DOCTORAL PROGRAM

1. General Requirements

A. At least three academic years of graduate study in approved subjects and thesis research and writing

B. Acceptable performance on a comprehensive written examination covering the major field (may include any work fundamental thereto)

C. Passing the preliminary oral examinations

D. A final oral examination covering the thesis

11. Major and Minor Sequence Required

A. A major field of study to include at least 2/3 of the time spent, including thesis work

B. A minor or two minors which can logically be related to the major field. Not less than 1/6 of total must be devoted to the minor subject(s)

C. A "supporting program" of study may be substituted for the minor.

111. Recommended Areas of Work

Programs are individually arranged, but usually involve a concentration of advanced courses in special education plus studies in Statistics and Measurements, Psychology of Learning, Personality Development and Child Psychology.

INVESTIGATOR'S COMMENTS

A single program leading to the Ph.D. with major attention centered upon three areas of concentration

Minimum of specified requirements; students programs individually planned

A program in a supporting field may be submitted to an all-university committee for approval. If accepted, it may be used as a substitute for one language.
Not less than one sixth of course work must be in minor subject. A supporting program of study may be substituted for the minor. Special strength is offered through the supporting program of study.
PEABODY UNIVERSITY

Ph.D.                Ed.D.

AREAS OF CONCENTRATION

Mentally Retarded, Emotionally Disturbed, Visually Handicapped
Mentally Retarded, Emotionally Disturbed, Visually Handicapped

ADMISSION TO GRADUATE SCHOOL

B.A., B average in undergraduate program and undergraduate major; 12 quarter hours in graduate programs of education or education-related courses; GRE
B.A., B average in undergraduate program and undergraduate major; 12 quarter hours in graduate programs of education or education-related courses; GRE

ADMISSION TO DOCTORAL PROGRAM

Experience Required
Two years required for graduation
Three years required for graduation

Other Requirements
Graduate School admission; AGE Tests
AGE Tests (Advanced Graduate Exams); Graduate School Admission

ADMISSION TO CANDIDACY

Residence
Three consecutive full-time quarters beyond M.A. and two quarters (not necessarily consecutive) beyond quarter when admitted to candidacy
Three consecutive full-time quarters beyond M.A. and two quarters (not necessarily consecutive) beyond quarter when admitted to candidacy

Examinations
Preliminary written and oral exams
Preliminary written and oral exams

Language
Two foreign languages
Six Options:

1. Two foreign languages
2. a) 8 hours research methods and
    b) 8 hours statistics

12 hours of statistics
or
 III. One foreign language and 8 hours of either a) or b) or
 IV. One foreign language and 4 hours of a) and 4 hours of b) or
 V. 16 hours statistics or
 VI. 12 hours statistics and 4 hours research methods

DOCTORAL PROGRAM

1. General Requirements for Both Degrees
   A. A minimum of 108 quarter hours of graduate credit (excluding research tools). At least 54 hours must be graduate courses. At least one advance course in each area of special education.
   B. Success on a doctoral aptitude examination
   C. Written and oral examinations
   D. Completion of a dissertation
   E. Nine quarters of study beyond the Bachelor's degree.
   F. Three consecutive quarters in full-time residence beyond the Master's degree before preliminary examinations, plus two quarters of residence (not necessarily consecutive) after admission to candidacy.

II. Major and Minor Sequences Required
   A. A major sequence of courses in the field of specialization of at least 54 quarter hours (latitude from 1/2 to 2/3 of basic 108 hours)
III. Related Minors and Related Course Work

A. Areas of Recommended Course Work in Education

1. Curriculum supervision and instruction
2. Educational foundations
3. Educational administration

B. Recommended Minors and Related Course Work

1. Psychology
2. English
3. History
4. Mathematics
5. Sociology
6. Biology
7. Physiology

INVESTIGATOR'S COMMENTS

A dual program which features three areas of concentration

General requirements for each degree are the same.

Teaching experience required for each degree

Three consecutive quarters in full time residence beyond the Master's degree before preliminary examinations, plus two quarters of residence (not necessarily consecutive) after admission to candidacy are required.

At least one advance course is required in each area of special education as supplement to work in major areas.

Minors are recommended with one outside the usual offerings of schools of education.

Options in lieu of languages are offered on the Ed.D. Some options include one language.

The Peabody degrees in Special Education are granted by the Department of Human Development.
UNIVERSITY OF PITTSBURGH

Ph.D.  Ed.D.

AREAS OF CONCENTRATION

Mentally Retarded, Speech and Hearing, Emotionally Disturbed, Visually Handicapped, Crippled and Other Health Impaired, and Administration

Mentally Retarded, Speech and Hearing, Emotionally Disturbed, Visually Handicapped, Crippled and Other Health Impaired, and Administration

ADMISSION TO GRADUATE SCHOOL

B.A. or equivalent  B.A. or equivalent
Miller Analogies  Miller Analogies
Evidence of Acceptable Scholastic Status Proficiency
Scholastic Status Proficiency

ADMISSION TO DOCTORAL PROGRAM

Admission is based on evaluation of the following criteria:

- undergraduate record
- standing on admission criteria
- professional record
- previous record in graduate study
- personal fitness for advanced study
- Miller Analogies Score
- Preliminary oral examination

Admission is based on evaluation of the following criteria:

- undergraduate record
- standing on admission criteria
- professional record
- previous record in graduate study
- personal fitness for advanced study
- Miller Analogies Score
- Preliminary oral examination

ADMISSION TO CANDIDACY

A. Residence
   One trimester

B. Language
   Any one modern foreign language

C. Other Tools of Research
   Completion of course work in research

   Completion of course work in research

D. Examinations
   Comprehensive Examination (written and oral)
   Overview Examination (concerning plan for research)

   Comprehensive Examination (written and oral)
   Overview Examination (concerning plan for research)

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PITTSBURGH (cont'd)

Ph.D. DOCTORAL PROGRAM

1. General Requirements
   A. Residence requirement of 6 terms of full-time study, 3 terms must be at degree granting institution
   B. Sixty credits of course work
   C. A minimum of 18 research credits
   D. Completion of an acceptable dissertation

II. Major and Minor Sequences Required
   A. A major field in Education
   B. A minor field may be in Education or in one of the academic disciplines
   C. Four courses in Educational Research
   D. Area Seminars
      Research Training Seminars
      Dissertation Seminars
   E. 90 credits with 60 course credits; 18 research credits

INVESTIGATOR’S COMMENTS

A dual program with identical requirements for each degree with the exception of a language for the Ph.D.
Minor may be in School of Education or in an academic discipline.
Research requirements are same for each degree.
UNIVERSITY OF SOUTHERN CALIFORNIA

Ph.D. Ed.D.

AREAS OF CONCENTRATION

Mentally Retarded, Speech and Hearing, Emotionally Disturbed, Crippled and Other Health Impaired, Visually Handicapped

ADMISSION TO GRADUATE STUDIES

B.A. or equivalent Indication of ability to do acceptable graduate work GRE Strong personal qualifications

B.A. or equivalent Indication of ability to do acceptable graduate work GRE Strong personal qualifications

EXPERIENCE REQUIRED

Two years

ADMISSION TO CANDIDACY

A. Examinations Qualifying Examination

B. Residence At least 24 units

C. Language Reading knowledge of two foreign languages

D. Other Tools Statistics or statistics and educational research

DOCTORAL PROGRAM

I. General Requirements

A. Residence in Graduate status equivalent to three academic years - At least one year’s course work must be done at USC

B. Scholastic average of 3.0 (B) is required in all graduate work

C. Acceptable dissertation based on original investigation

D. A final oral examination
II. Major and Minor Sequence Required (Both Degrees)

A. A major field with specialization within the major field is required. A minimum of 18 units is recommended.

B. A minimum of 10 units in a supplementary field is recommended. The supplementary field may be chosen from:

1. Administration or supervision
2. Elementary education
3. Guidance
4. Instructional technology
5. Music education
6. Secondary education
7. Higher education
8. Adult education
9. Social and philosophical foundations of education
10. Art education
11. Business education

INVESTIGATOR'S COMMENTS

Dual program with identical areas of concentration

Identical requirements for each degree except for the languages on the Ph.D.

No prescribed work area required outside school of education
Supplementary fields of study which support the major are options within the school of education.

Two years of teaching experience required for each degree

A minimum of 10 units in a supplementary field is recommended for both degrees.

Residence in graduate status equivalent to three academic years is required with at least one year's course work to be done at degree conferring institution.
SYRACUSE UNIVERSITY

Division of Special Education and Rehabilitation

Ph Ph.D. Ed.D.

AREAS OF CONCENTRATION

Rehabilitation Counseling, Administration and Supervision, Mentally Retarded, Emotionally Disturbed, Crippled and Other Health Impaired, Speech and Hearing, Audiology

Rehabilitation Counseling, Administration and Supervision, Mentally Retarded, Emotionally Disturbed, Crippled and Other Health Impaired, Speech and Hearing, Audiology

ADMISSION TO GRADUATE STUDIES

B.A. B.A.

ADMISSION TO DOCTORAL PROGRAM

1. Graduate School Admission
2. Miller Analogies Test
3. Approval of Committee on Higher Degrees

Graduate School Admission
Miller Analogies Test
Approval of Committee on Higher Degrees

ADMISSION TO CANDIDACY

Examinations
GRE Preliminary Examination

GRE Preliminary Examination

Residence or Units
One year

One year

Tools of Research

The individual advisor will define the tool requirement for each student in reference to his background and objectives.

The tool requirement will consist of one or more of the following: language, statistics, computer, or related technical competency. Competency will be determined by a proficiency examination or (in the case, for example, of statistics) by a minimum of 2.0

Tools of Research

The individual advisor will define the tool requirement for each student in reference to his background and objectives.

The tool requirement will consist of one or more of the following: language, statistics, computer, or related technical competency. Competency will be determined by a proficiency examination or (in the case, for example, of statistics) by a minimum of 2.0

This program is in the process of extensive revision.

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SYRACUSE UNIVERSITY (cont'd)

Ph.D.       Ed.D.

grade point average in courses designated necessary to meet this requirement.
Courses required to meet the tool requirement will not fulfill major or minor area requirements

Other Requirements
Completion of 45 hours of course work (15 must be in residence)

DOCTORAL PROGRAM

1. General Requirements for Both Degrees

A. Two years of successful teaching
B. A minimum of 90 graduate hours beyond the B.A.
C. Satisfactory performance on the doctoral qualifying examination in the major and two supporting areas of the major and one supporting area of a more intensive nature
D. Completion of a dissertation
E. Oral examination on the dissertation

II. Major and Minor Sequences Required

A. A minimum of 33 hours in a major professional field
B. A minimum of 12 hours in each of two minor areas of more intensive nature
C. A minimum of 18 hours of dissertation credit

A. A minimum of 33 hours in a major professional field
B. A minimum of 9 hours in statistics and methodology of educational research
C. A minimum of 9 hours of two supporting areas or equivalent in one minor of more intensive nature
D. A 6-hour interdisciplinary Doctoral Seminar
E. Not less than 12 or more than 15 hours of dissertation credit
SYRACUSE UNIVERSITY (cont'd)

Ph.D.  Ed.D.

III. Recommended Related and Minor Course Work:

Any area where a major for A. Psychological approaches to
the Ph.D. is approved by education
the Graduate School. May B. Cultural Foundations
be inside or outside the C. School Programs
School of Education

INVESTIGATOR’S COMMENTS

Dual programs with specialization in Speech, Hearing, Speech
Pathology, Audiology, limited to the Ph.D.

Identical admission requirements and unit of course work for
each degree.

A minimum of 9 units in statistics and research and a 6-unit
interdisciplinary doctoral seminar is required for the Ed.D.

Two years of successful teaching experience required for
each degree.

Candidate may choose two minor or supporting areas or more
intensive study in one minor or supporting area.

Credit is given for the dissertation for each degree.

Work outside the school of education is not required for the
Ed.D. and is optional for the Ph.D.

Candidates have a choice of research tools which are appropriate
to needs.
THE UNIVERSITY OF TEXAS

Ph.D.

AREAS OF CONCENTRATION

Mentally Retarded; Visually Handicapped; Crippled and Other Health Impaired; Administration of Special Education; Emotionally Disturbed

Ed.D.

AREAS OF CONCENTRATION

Mentally Retarded; Visually Handicapped; Crippled and Other Health Impaired; Administration of Special Education; Emotionally Disturbed

ADMISSION TO GRADUATE STUDIES

B.A. or equivalent, B average GPA, GRE Aptitude Test, A test of English proficiency, Personal Data Sheet

ADMISSION TO DOCTORAL PROGRAM

Experience Required

Two academic years of successful teaching

ADMISSION TO CANDIDACY

Examinations

Qualifying examination within Department of Special Education

Qualifying examination covering all six departments in College of Education

Residence and Academic Requirements

At least one year in residence and at least 15 semester hours of graduate work with concentration on the area of special education at the University of Texas

Completion of 18 semester hours of graduate work with concentration on the area of special education at the University of Texas

Completion of three general field courses in education in the Department of Special Education.

Completion of three general field courses in education in the Department of Special Education.
THE UNIVERSITY OF TEXAS (cont'd)

Ph.D. Ed.D.

Language
One foreign language

Other Tools
Evidence of outstanding academic research and writing competence

DOCTORAL PROGRAM

I. General Requirements for Both Degrees

A. Maintenance of B average in all course work
B. Passing of required qualifying examinations
C. Satisfactory completion of course work, research, dissertation and other Graduate School Requirements under supervising committee appointed by the Graduate Dean

II. Major and Minor Sequences Required

A. No minimum is set relative to enumeration of courses or credit
B. A major area (e.g. Special Education)
C. Area of specialization (e.g. Mental Retardation)
D. Broad preparation in all areas of Special Education

III. Recommended Related Course Work

A. Broad preparation in following areas:
   1. History & foundations of education
   2. The nature and processes of human behavior and development
   3. General experimental and quantitative approaches

   In addition, course work in each of the other departments preparatory for the qualifying examination
TEXAS (cont'd)

Ph.D.  

B. Student may elect courses from other departments of the University to establish a broad background and a sound basis for specialization.

Ed.D.  

Student may elect courses from other departments of the University to establish a broad background and a sound basis for specialization.

INVESTIGATOR'S COMMENTS

Dual program offering five options for specialization on each degree.

A test in English proficiency is required for admission.

No teaching experience is required for the Ph.D.

Residency requirements and units requirements are same for each degree.

A foreign language is required for the Ed.D. degree.

No required work outside field of education is stipulated.
UNIVERSITY OF VIRGINIA

Ph.D. Ed.D.

AREAS OF CONCENTRATION

Mentally Retarded, Speech and
Hearing, Crippled and Other
Health Impaired, Emotionally
Disturbed

Mentally Retarded, Speech and
Hearing, Crippled and Other
Health Impaired, Emotionally
Disturbed

ADMISSION TO GRADUATE STUDIES

B.A., GPA of B or better in
last two years, Evidence of
adequate preparation

B.A., GPA of B or better in
last two years, Evidence of
adequate preparation

ADMISSION TO DOCTORAL PROGRAM

A. Experience Required
   One to two years successful
   work in education

B. Other Requirements
   M.A. in Education or equivalent
   Personal interview, GRE scores
   on Aptitude and Educ. sections,
   Complete all preparatory work
   Miller's Analogy Test

ADMISSION TO CANDIDACY

A. Examinations
   Written examination at com-
   pletion of course work

B. Residence or Units
   Two or three sessions
   One academic year or two
   semesters

C. Language
   French and German
   Departmental Examination

D. Other Tools
I. General Requirements

II. Major and Minor Sequences Required

A. No specific course requirements listed, but competence in areas listed in section III as well as major area

B. A final exam on the dissertation

A. A minimum of 78 semester hours of work in graduate courses, including those applied toward M.A.

B. A minimum of 24 of the total hours must be in foundations of professional education

C. A minimum of 39 of the total hours must be in the field of specialization

D. A minimum of 15 of the total hours in related areas

E. The candidate must plan and carry out a research study appropriate for this professional degree

F. The candidate must demonstrate a high level of competence in his field of specialization through a practicum or actual experience

G. The candidate must pass an oral exam on the dissertation

III. Recommended Related Course Work

The candidate must take preliminary written examinations in the following fields:

A. History of Education

B. Philosophy of Education

C. Educational Psychology

Comprehensive examinations must be taken

A. History, Philosophy, and Sociology of Education

B. Educational Psychology
VIRGINIA (cont'd)

Ph.D.  Ed.D.
D. Educational Administration  C. Curriculum and Instruction
E. Elementary Education  D. Area of Specialization
F. Secondary Education

INVESTIGATOR'S COMMENTS

A dual degree program listed, but programming in special education is usually through the Ed.D.

Teaching experience required only in the Ed.D.

Departmental examination is substituted for the language requirement in the Ed.D.

No specific course requirements for the Ph.D.

Academic work outside of school of education is permitted but not required.

Minor requirements for the Ed.D. for most students are made up of courses in special education which are planned to provide a broad knowledge of the field.
## WAYNE STATE

### Ph.D.

#### AREAS OF CONCENTRATION

- Mental Retardation, Speech and Hearing, Deaf, Visually Handicapped, Emotionally Handicapped and Crippled; Organization and Administration

### Ed.D.

#### AREAS OF CONCENTRATION

- Mental Retardation, Speech and Hearing, Deaf, Visually Handicapped, Emotionally Handicapped and Crippled; Organization and Administration

### ADMISSION TO GRADUATE SCHOOL

- Eligibility for state provisional certificate. 30 quarter hours (20 semester hours) or professional study in undergraduate education courses are prerequisite to graduate credit in education courses. Evidence of satisfactory undergraduate preparation in the field of specialization.

### ADMISSION TO DOCTORAL PROGRAM

#### A. Experience Required

- Three years successful teaching

#### B. Other Requirements

- **M.A.**
  - Battery of tests and inventories to cover: scholastic aptitude, general education, personality, professional background, B average, Miller Analogies-50th percentile, also California Test of Mental Maturity-50th percentile

- **M.A.**
  - Battery of tests and inventories to cover: scholastic aptitude, general education, personality, professional background, B average, Miller Analogies-50th percentile, also California Test of Mental Maturity-50th percentile
WAYNE STATE (cont'd)

Ph.D.

ADMISSION TO CANDIDACY

A. Examinations
   Preliminary Examination

B. Residency or Units
   One year (27 quarter hours)

C. Languages
   Competency in two languages
   (usually French and German)
   May substitute research techniques or another foreign language for the French or German

D. Tools
   (18 hours research techniques)

Ed.D.

Preliminary Examination

One full year (45 hours) beyond M.A. May include research techniques, but not dissertation research; of the 45, 27 must be completed in one calendar year or 3 regular quarters plus 1 summer session

DOCTORAL PROGRAM

I. General Requirements for Both Degrees
   A. Maintenance of high standards of scholarship
   B. Completion of prescribed course work
   C. Completion of acceptable research and dissertation
   D. Successful performance on final oral dissertation

II. Major and Minor Sequences Required
   A. Completion of a minimum of 135 quarter hours beyond B.A.
   B. A minimum of 45 hours of education course work of which at least 30 is major area

   A. Completion of a major in education and work cognate thereto, equivalent to 135 quarter hours beyond B.A.
   Eighteen hours in research
WAYNE STATE (cont'd)

Ph.D.
C. A minimum of 12 hrs. in a non-education minor
D. A minimum of 45 hrs. of dissertation research
E. The remaining 45 hrs. assigned to research and/or course work in accord with student's needs

Ed.D.
techniques are required in addition
B. Pre-Doctoral Seminar 4 hrs.
C. Professional Theory Backgrounds 12-15 hrs.
D. Professional Field of 27 hrs. concentration (minimum)
E. Cognate Study - unspecified amt. (45 hrs. maximum)
F. Non-Education 23 hrs
G. Dissertation 23-26 hrs
H. Research Techniques 18 hrs

INVESTIGATOR'S COMMENTS

A dual degree program offering same areas of concentration with each degree.

Identical admission requirements for each program.

Eligibility for state provisional certificate required on both programs.

Three years of successful teaching experience required on each degree.

Twenty-three hours of course work in non-education fields required in the Ed.D.

Unit credits given for Ed.D. dissertation.

A minimum of 12 hours in a non-education minor.

Eighteen hours in research techniques required for Ed.D. are not included in the 135 hours minimum of work required.

Credit is given for the dissertation for each degree.
UNIVERSITY OF WISCONSIN

Ph.D. in Behavioral Disabilities

AREAS OF CONCENTRATION

Mentally Retarded
Emotionally Disturbed
Physical and Neurological Handicaps

ADMISSION TO GRADUATE STUDIES

B.A. or B.S.
Undergraduate major in field of proposed graduate study or its equivalent - 70 semester credits of academic work outside under-graduate major - B average GPA

ADMISSION TO DOCTORAL PROGRAM

A. Experience Required
   Department of Counseling and Behavioral Studies

B. Other Requirements
   Specified GPA
   Battery of Tests

ADMISSION TO CANDIDACY

A. Examinations
   Comprehensive Preliminary Examination in Major and Minor Field

B. Residence or Units
   Three semesters: at least nine graduate credits per semester

C. Language
   Reading knowledge of two foreign languages in which substantial scholarly literature in student's major field; one must be German, French or Russian. Certificates of reading proficiency from other schools not acceptable.

D. Other Tools
   A one year period is required after passing the comprehensive preliminary exams prior to graduation.

E. Other Requirements
   Approval of minor
   Approval of thesis title
DOCTORAL PROGRAM

I. General Requirements

A. A minimum of 72 units beyond the bachelor's degree - 54 to 56 of which are required and 16 to 18 of which are electives

B. Completion of acceptable thesis

C. Final oral examination on the thesis, and if the advisor deems necessary, on the general field of the major and minor studies

II. Major and Minor Sequences Required

<table>
<thead>
<tr>
<th>Minimum Units Required</th>
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<tbody>
<tr>
<td>A. General Special Education Courses</td>
<td>15 units</td>
</tr>
<tr>
<td>B. Fundamental Areas of Knowledge within the Behavioral Sciences</td>
<td>21 units</td>
</tr>
<tr>
<td>C. Areas of specialization</td>
<td>9 to 20 units</td>
</tr>
<tr>
<td>D. Electives</td>
<td>16 to 18 units</td>
</tr>
</tbody>
</table>

INVESTIGATOR'S COMMENTS

A flexible requirement in major which reflects common practice with Ph.D. programs

A single degree program is offered - Ph.D., limited to three major areas of concentration

The university limits its options to the areas of concentration.

The Ph.D. requires a block of courses in the Behavioral Sciences.

Required preparation of academic work outside the undergraduate major before admission to graduate study

Three semesters of residence with a minimum of nine per semester are required.