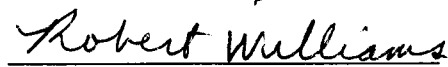
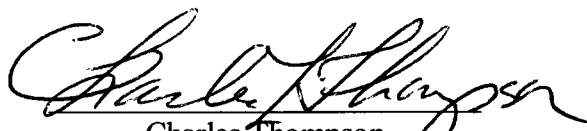


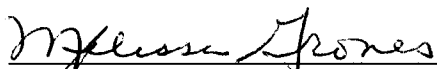
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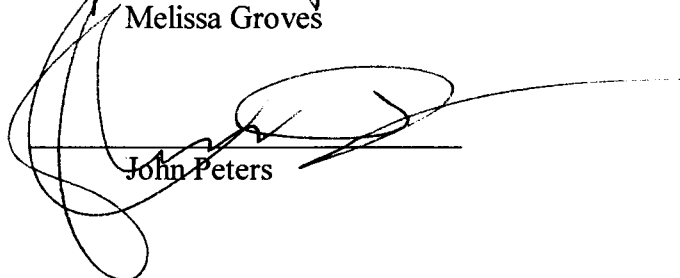
I am submitting herewith a dissertation written by Michael Nolan entitled "Educational Psychology at the Millennium: An Electronic Analysis of Doctoral Programs." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.


Robert Williams, Major Professor

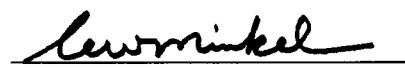
We have read this dissertation
and recommend its acceptance:


Charles Thompson


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Associate Vice Chancellor and
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**Educational Psychology at the Millennium:
An Electronic Analysis of Doctoral Programs**

**A Dissertation Presented for the
Doctor of Philosophy Degree
University of Tennessee, Knoxville**

Michael E. Nolan

December 1999

ABSTRACT

Students and professionals in both education and psychology need current information about doctoral training in educational psychology, because such closely related programs as school psychology, developmental psychology, and counseling psychology are competing with educational psychology for doctoral students and other resources. Moreover, because students and professionals are increasingly using the internet as their source of current information, the primary source of information used in this study was internet web sites for doctoral programs in educational psychology.

This dissertation provides programmatic data on the current doctoral programs in educational psychology, including demographic features (e.g., number of programs, most popular degrees, degree titles, length of programs, location of programs, job market for graduates) and conceptual features (e.g., content areas, conceptual models, primary goals, degree of structure, level of scholarship, and innovative features of programs). Next, the dissertation provides a ranking of top programs in the field of educational psychology based on size of faculty, level of faculty scholarship, and innovativeness of the respective programs. Finally, exemplary program web sites were evaluated and ranked. Finally, this study was framed around the millennium, with purposes of being reflective about the history of educational psychology and predictive about future trends in graduate study in this area.

This study found that a majority of educational psychology programs have web sites and are using the internet as a way of disseminating programmatic information. With respect to the demographic features of programs, the most popular degree offered was the

Ph.D., and the most common location of educational psychology doctoral programs was colleges of education rather than departments of psychology. The average length of a doctoral program was 60 credit hours from a masters degree and 85 credit hours from the bachelors degree. The most popular program titles and content areas were learning, cognition, and development.

The conceptual models of scholarly, practical, and scientist-practitioner were used in categorizing the goals, curricula, and job markets of the programs. The experimenter found that while a majority of programs described goals and curricula that reflected a scholarly emphasis, job markets had a scientist-practitioner emphasis. The structure of educational psychology doctoral programs, as represented in the web sites, generally provided an overview of requirements, but did not describe specific sequences of coursework or model programs to students. Also in regards to structure, the majority of programs described a process in which students and faculty together determined program objectives with some degree of flexibility in coursework.

Innovative features were also analyzed across programs, showing that programs often described job opportunities that differed from university teaching and research and had content areas that differed from general areas of educational psychology. Programs were less likely to have such innovative features as program application (e.g., internship, practica, or other research to practice opportunities), instructional delivery systems, and innovative systems of research.

Journal publications range for educational psychology faculty from .8 to 7.7, with the mean being 2.82 journal publications per faculty member from 1994-June 1999.

Faculties' publication citation ranges were 0 to 27, with the mean being 7.19 journal publications per faculty member from 1994-June 1999. A citation analysis revealed that educational psychologists are diverse in their publication sources and that core educational psychology journals account for less than ten percent of the total publications by educational psychologists. Also, core journals of educational psychology were identified via publication frequencies among all identified educational psychology faculties.

Programs were identified as exemplary educational psychology doctoral programs based on size of faculty, scholarly productivity, innovativeness, and composite ratings of doctoral programs. These rankings were then compared to prior rankings of prestigious educational psychology programs. The University of California at Los Angeles was rated as the most exemplary educational psychology doctoral program among the top ten universities identified. In addition, doctoral program web sites were evaluated on-line, and a top-ten list of exemplary web sites was generated. The rankings of web sites identified Brigham Young University and Indiana University as the most exemplary web sites in educational psychology. Top ten programs having exemplary web sites differed considerably from the top-ten exemplary programs based on faculty size, scholarly productivity, and innovativeness.

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CHAPTER 1

INTRODUCTION

This chapter provides a framework for this study. Specifically, this chapter describes the (a) statement of problem, (b) background of the problem, (c) purpose, (d) significance of the study, (e) overview of the methodology, (f) limitations, and (g) summary.

Statement of Problem

Some reported experts contend that educational psychology as an area of graduate training is not only declining but is on the verge of extinction (Grinder, 1989). Sternberg (1996) contends that this decline may be related to the problems that educational psychologists have had in defining their discipline (p. 176). Others have highlighted the diversity of career opportunities for graduates (Tobias, 1985) and pointed to the productivity of educational psychologists in journals (Smith et al., 1998). A mixture of optimism and pessimism is reflected in the recent literature on the field. Thus, there is a need to examine the current status of Educational Psychology as a viable area of doctoral training in education and psychology. Scheurman, Heeringa, Rocklin, and Lohman (1993) underscore the importance of this kind of study in their observation that “none of the available attempts to describe the field of educational psychology has addressed the training of students within the educational system itself” (p. 100).

It has been five years since any examination of graduate training in educational psychology has been conducted (Schuerman et al., 1993; West & Rhee, 1995). This study builds on the initial question posed by the Schuerman et al. study: “What general picture

does one get of the discipline by looking at the public descriptions of graduate programs preparing the next generation of educational psychologists?" (Schuerman et al., 1993, p. 99). Schuerman and West and Rhee also attempted to identify and describe highly prestigious programs in terms of curricular elements. Schuerman et al. concluded that students in high-prestige programs work closely with individual faculty members, tending toward an apprenticeship model.

In addition, no current data exists on graduate programs that are fostering new directions for educational psychologists. Researchers in the field have categorized dominant content areas as learning, cognition, and development, plus highlighted expanding content areas, such as artificial intelligence and information processing (Klausmeier, 1988; Scheurman et al., 1993). However, these examinations of new directions in the field have focused primarily on content areas of programs rather than unique strategies for program delivery. Thus, there is a need to examine programs not only in terms of unique content areas but in terms of unique instructional delivery systems, systems of research and application, and purported job opportunities for graduates. Although there are numerous guides to graduate programs commercially available (e.g., *Graduate Study in Psychology*, 1998; *Peterson's Guide to Graduate and Professional Programs*, 1998), these works are often general overviews that do not provide in-depth information about unique features of doctoral programs.

Finally, there is a need to evaluate the internet web sites of educational psychology doctoral programs. Over the last five years there has been a rapid increase in internet web sites as a primary means of disseminating information for college and

university programs. Evaluation tools have been proposed (Guidelines to Evaluating Web Sites, 1998; Guide to Business School Webs, 1999) for rating internet web sites. However, no studies are available that attempt to analyze internet web sites of educational psychology doctoral programs. An analysis of the features of educational psychology program web sites would assist prospective students, current students, faculty, and alumni in retrieving relevant information about these programs.

Background of the Problem

The identity of Educational Psychology as a unique and separate discipline has been a subject of much research in the last ten years. This research has focused on defining content areas in educational psychology (Calfee, 1992; Wittrock & Farley, 1989), including examination of content of educational psychology textbooks (Snowman, 1997), job markets for educational psychologists (Houtz, Alford, & Komura, 1994), and relationships to other disciplines (House, Bratton, & Gjerde, 1989). Some of these studies looked at the features of graduate programs in educational psychology (Schuerman et al., 1993; West & Rhee, 1995). One possible reason for an increase in research in this area is the continuing debate as to how to define a field as broad as educational psychology. Another impetus to increasing research about the field of educational psychology is the recent American Psychological Association centennial celebration of educational psychology, which resulted in special feature articles in The Journal of Educational Psychology (Walberg & Haertel, 1992).

Purpose of the Study

The purpose of this study was to describe the current status of doctoral programs in educational psychology as reflected in their internet web sites. The dissertation addressed three major questions: (a) What is the overall nature of doctoral training in educational psychology in American Universities? (b) What programs are most exemplary? and (c) What web sites are most exemplary?

Overall Nature of Doctoral Training

In dealing with the first question, the author addressed several specific questions related to the demographics and conceptual features of educational psychology doctoral programs.

Demographic Features

- How many American Universities currently offer doctoral programs in educational psychology?
- What is the most popular degree offered in the programs?
- What are the typical titles for the programs?
- What is the typical length of these programs?
- Where are the programs in educational psychology usually housed?
- What is the current job market for graduates of these programs?

Conceptual Features

- What are the primary content areas under the general label of educational psychology?
- What is the predominant conceptual model (i.e., scholarly, practical, or scientist-practitioner) for these programs?
- What are the primary goals for the doctoral programs?

- What degree of structure is typically provided in educational psychology doctoral programs?
- What level of scholarship is evident among the faculty of educational psychology doctoral programs?
- Overall, how innovative does educational psychology doctoral training appear to be?

Exemplary Programs

In addition to providing an overview of doctoral training in educational psychology, the study rated the status of specific programs with respect to the following parameters: the size of the faculty, the level of faculty scholarship, and the innovativeness of the program. From this information, a listing of the top ten program was generated.

Outstanding Web Sites

Finally, a listing of the top ten web sites was provided. There are a variety of ways to evaluate web-pages and specific criteria that focus on educational web sites (Abdullah, 1998) and specific schools of higher education (Bustos & Kirkwood, 1999). The following questions regarding web sites of educational psychology doctoral programs relate to previously established criteria for evaluating web sites:

- Organization: Are web sites well organized in terms of logical structure, links to sub-pages, and navigational features?
- Course Information: Does the web site provide course requirements, course syllabi, and general program requirements?
- Currency: Is there evidence of a recent update to the web site?

- Contact information: Does the web site identify faculty and staff who can be contacted about the program and provide contact information (e.g., e-mail, phone numbers, addresses)?
- Completeness: Are web sites complete (e.g., providing information on all sub-pages referred to)?
- Recruitment: Are potential students provided relevant information (e.g., application process, financial aid resources)?
- Faculty information: Are faculty identified with their own pages that include information regarding courses taught, research interests, and professional affiliations?
- Alumni information: Does the program provide information about former students (e.g., job positions of recent graduates)?

Significance of the Study

There is conflicting information in the literature about what content is subsumed under the discipline of educational psychology. Indeed, this has been an ongoing debate in the historical analysis of the field. The analysis of doctoral programs could yield important information regarding content areas typically subsumed under the educational psychology label. Specifically, the data on program goals and content areas in the program could provide valuable information to answer the question “what are the dominant content areas in educational psychology doctoral programs?” This study will provide students, faculty, and professionals easily referenced programmatic information on each educational psychology doctoral program in the United States.

Overview of Methodology

This study is primarily an electronic analysis of educational psychology doctoral program web-sites. An electronic analysis using the internet has several benefits. First,

public information about graduate programs is maintained by most universities on the internet and is easily accessed with minimal costs. Secondly, universities update internet web sites more frequently than other types of printed materials, such as graduate bulletins and catalogs. Also, internet web sites typically provide more detailed information regarding program concentrations and alternative course tracks than do hard copy publications. Also, additional information about research interests of faculty and recent graduates, department-wide research groups, and potential job markets for educational psychology graduates is readily available in internet web sites.

Another benefit of using the electronic analysis of web sites, as opposed to published graduate catalogs, is that the internet pages are more likely to provide greater insight into the "hidden curriculum" of each program. The hidden curriculum has been a widely discussed topic (Synder, 1971). Scheurman et al. (1993) differentiated the hidden curriculum from the formal curriculum in the following manner:

The formal curriculum is typically stated explicitly in printed materials provided to prospective and current students. The hidden curriculum, on the other hand, is ill-defined, left implicit, and can easily vary from faculty member to faculty member even within the same program. (p. 100)

Internet web sites provide insights into the hidden curriculum by offering such content as research emphasis, faculty research interests, and student pages that give updates on research in progress. Additional insights into the hidden curriculum could be gained from descriptions of positions recently obtained by graduates and detailed

descriptions of field work. Such insights about the hidden curriculum are less likely to appear in formal published university documents than program web pages.

Limitations

A principal limitation of the current study is the varying depth of information provided on college and university web sites. While a high percentage of college and universities offered an internet web site on their educational psychology doctoral programs, there were varying levels of detail (from one page to twenty plus pages). Another limitation is the absence of a uniform way of presenting information on an internet web site. The researcher encountered some web sites that grouped general description, program objectives, concentrations, faculty, and admission requirements under a general program description. Other sites clearly delineated major headings and sub-sections for important programmatic information.

Another limitation arose from the difficulty of clearly identifying the educational psychology programs. Criteria were developed to control for the wide variety of related programs sometimes grouped within an educational psychology department. For instance, many educational psychology departments contained such related fields as counseling psychology, counselor education and school psychology along with a specialization in educational psychology. In addition, some programs whose content was clearly identified as educational psychology did not use the label anywhere in their description.

CHAPTER 2

LITERATURE REVIEW

The literature review is organized around the following issues: (a) historical foundations of educational psychology programs, (b) definitions of educational psychology and content areas traditionally subsumed under educational psychology, (c) research on graduate programs in educational psychology, and (d) hypothesized future directions for training and job prospects in educational psychology.

Historical Foundations

It is imperative to understand the historical context of educational psychology before making statements about the current status of the doctoral programs. One comprehensive examination of the field, Glover and Ronning's Historical Foundations of Educational Psychology (1987), provides a relevant context for a current assessment of the field. Glover and Ronning (1987) indicate a clear rationale for a comprehensive study of educational psychology: "Educational psychology has suffered from an identity crisis since its formation. A comprehensive treatment of its history may prove fruitful in conceptualizing future directions of the discipline" (p. 4). Throughout this comprehensive work, a history of the field is given, with results indicating diversity of thought related to the unifying themes of educational psychology.

Robert Grinder in The Future of Educational Psychology (1989) states, "Fate has dealt unkindly with the discipline of educational psychology" (p. 4). He goes on to boldly ask in the first chapter, "Is the discipline of educational psychology actually on the verge of extinction?" (p. 4). Grinder's examination covers the history of educational psychology

in eras ending with what he calls the "reform of educational psychology." Although his discussion is devoid of any specific references to doctoral programs, he points out the fundamental problems in educational psychology as an academic discipline since its beginning in the early 20th century. The profession has been torn between different units in the university. It is sometimes seen as the "middle person" between various forces in colleges of education and departments of psychology.

What is Educational Psychology?

A committee of educational psychologists (the Committee on the Future of Educational Psychology) who belonged to Division 15 of the American Psychological Association stated in 1987 that educational psychology "is concerned with the development, evaluation, and application of (a) theories and principles of human learning, teaching, and instruction and (b) the theory-derived educational materials, programs, strategies, and techniques that can enhance lifelong educational activities and processes" (Wittrock & Farley, 1989, p. 196).

The discipline of educational psychology might also be further clarified in terms of the professional goals of educational psychologists. Broad goals of educational psychologists have been articulated by Snowman (1997): "Like the pioneer educational psychologists, contemporary educational psychologists seek to better understand how people learn, why people learn, how the process of development occurs, how individual differences affect learning and development and how various learning outcomes can be measured accurately as well as to clarify the basic purposes of education" (p. 153).

When it comes to identifying core subject matter in specific terms, educational

psychologists have not done well. Researchers have many times tried to identify a core subject matter. The elusiveness of the delineation of subject matter has been graphically illustrated by Ball: "Like the chameleon, there is a structure - a core of subject matter. But the emphasis, like the chameleon's coloring, clearly changes over the years" (Ball, 1984, p. 997).

Some have analyzed journal articles to try to delineate the specific themes in educational psychology. In "Educational Psychologists First Century," Walberg and Haertel (1992) reported a citation analysis for the predominant journals in the field of educational psychology. For the sixteen core journals in educational psychology the most common themes were educational research, general psychology, cognitive psychology, developmental psychology, methods of research, sociology, reading content, and science content (p. 7).

In another attempt to define "territory" associated with educational psychology, Snowman (1997) conducted an analysis of recent textbooks in educational psychology. The six topics that subsumed the majority of content in these texts were instructional methods and practices, motivation, information-processing theory, classroom measurement and evaluation, classroom management, and intellectual development (p. 157).

Relation to Graduate Study

This section first examines the relation of professional programs in educational psychology to other disciplines. Secondly, this section looks directly at content of educational psychology doctoral programs.

Jack Bardon has offered an important observation concerning the practice of educational psychology: "A distinction must be made between what individual persons do who are educated as educational psychologists and what others believe is done in the name of educational psychology" (Bardon, 1989, p. 132). Bardon's chapter entitled "Relation with Other Disciplines" in The Future of Educational Psychology is a discussion of fields that overlap educational psychology, a condition that calls for clearer delineation of educational psychology. Bardon also discusses the differences between educational psychology and the closely related fields of counseling psychology, industrial/organizational psychology, and school psychology. For example, many universities house counselor education and counseling psychology in departments of educational psychology. Others separate these programs as equals under a general label of "psychological studies." When comparing school and educational psychology programs, Bardon says, "Neither field has yet attempted a rapprochement with the other to try to determine the boundaries, lines, and ways in which the two can best cooperate toward the improvement of research and practice in and about education" (Bardon, 1989, p.135).

Educational psychology programs have not clearly differentiated their content from the content in the related fields of school psychology and counseling psychology. One could argue that the fields are not even comparable. "Unlike related professional programs - counseling, clinical, or school psychology - what constitutes professional training of the modern educational psychologist has remained ambiguous" (Scheurman et al., 1993, p. 99).

Related areas of study are also addressed in Glover and Ronning's 1987 work on

the historical foundations of educational psychology. They conjecture that much of what educational psychology had traditionally subsumed is now being taken over by other specialties within psychology:

The rise of developmental psychology, school psychology, counseling psychology, and measurement as independent areas with their own organizations, conventions, journals, research agendas, and applications would seem to suggest that very little "pure" educational psychology is left over - primarily the study of learning and cognition. (p. 9)

Glover and Ronning (1987) found a decrease in degrees awarded in educational psychology from 1973 to 1983. Their data also indicated a movement from "colleges of education" to "departments of psychology" for a greater percentage of degrees awarded. The authors speculated as to the meaning of this trend:

The significance of this trend in educational psychology is hard to determine, but we would expect that because a larger and larger proportion of new educational psychologists are matriculating in departments of psychology, there may be an increased emphasis on the theoretical end of the field. A similar speculation arises when we examine the type of doctoral degree being earned. (p. 12)

Concerning type of doctorate offered, Glover and Ronning found a trend away from Ed.D. to the Ph.D. degree. In 1973, approximately fifty-eight percent of the doctoral students were awarded the Ph.D. degree. In 1983 this number was eighty percent. Clearly this indicates a decrease in the availability or attractiveness of the Ed.D. doctoral degree. Glover and Ronning see an important distinction in this trend:

The meaning of the shift away from the Ed.D. to the Ph.D. is also difficult to determine. Traditionally, the Ph.D. has also been considered the research degree, whereas the Ed.D. has been thought of as suiting the needs of practitioners. If doctoral degree granting programs are indeed requiring more research of Ph.D. than Ed.D. students, it would seem to suggest that there should be an overall increase in research emphasis in the field. (p. 12)

Empirical assessment of the interests of doctoral students has also been conducted. In a survey of students, Goldberg and Houtz (1995) asked future educational psychologists "to identify five speciality areas within the field which described their current and future interests and involvement" (p. 115). The most frequent speciality was cognition/learning, followed by education of special populations, individual differences, learning strategies, motivation and efficacy (Goldberg & Houtz, 1995).

The most preferred speciality of cognition/learning in the Goldberg and Houtz study is similar to the primary speciality identified in the Schuerman et al. study. The most preferred speciality is the one that receives the most content coverage in graduate studies: "The traditional domains of learning/cognition and development are the areas of concentration most available to students across degrees. Statistics, research, and measurement is also a common specialization" (Scheurman et al., 1993, p. 104).

Researchers have also highlighted new areas of graduate study. These include artificial intelligence and information processing (Klausmeier, 1988). Klausmeier outlined a process that institutions could use to select areas of knowledge that might be included in each program.

Let us assume that performing educational functions and providing educational services in school settings and in other education-related settings represents the major family of career opportunities that will be addressed by a graduate program. The sequence faculty might follow in identifying the content of its graduate program is as follows:

1. Identify and prioritize the schooling processes and components that the graduate students should understand.
2. Identify and prioritize the areas of psychological knowledge that potentially contribute to understanding the processes and components.
3. Identify the educational and psychological knowledge regarding the processes and components that have been proven to be valid in the school setting.
4. Organize this content into a teachable-learnable pattern. (p. 206)

Course analyses provided by the Scheurman et al. (1993) article indicate that courses in graduate study in educational psychology were offered in the following subject areas: "general educational psychology; learning and cognition, development, motivation, personality and socialization; history, foundations, and philosophy of education, including professional seminars; research and measurement; and finally courses that fit none of these categories" (p. 105).

Publications of faculty associated with educational psychology programs have also been reviewed in the literature (Smith et al., 1998; West & Rhee, 1995). Criteria developed for evaluating programs were reported in each of these studies. The initial study on productivity conducted by West and Rhee was based on a limited sample of

educational psychology programs nominated as best programs by Holmes Group deans. The names of faculty from approximately 20 top-ranked departments were analyzed in terms of productivity in the ERIC system and the social sciences index. Recently, Smith et al. (1998) also ranked productivity of individuals publishing in educational psychology journals. This study examined both individual productivity and program productivity. However, the Smith et al. study was limited to core educational psychology journals and did not consider the faculty sizes of educational psychology programs. Moreover, a primary limitation noted by Smith et al. was "While many people consider themselves to be educational psychologists (and publish their work in educational psychology journals), they are not always affiliated with educational psychology departments of programs" (p. 179).

Prestige of Educational Psychology programs was also examined by the West and Rhee study (1995). West and Rhee's ranking strategy first involved contacting the dean at the University of Illinois at Urbana, Champagne. The University of Illinois was selected "because that college is ranked in the top two or three colleges of education in practically every prestige or productivity ranking published in the past twelve years, these chairs and heads should be expected to be leaders in their field and informed about how persons in the field judge quality, impact, and productivity" (West & Rhee, 1995, p. 155). This dean contacted the Holmes group (a consortium of 96 research universities with professional schools of education) deans and asked them to identify informants per departmental area to provide responses to the West and Rhee survey. Although West and Rhee's study involved multiple phases, for the issue of prestige universities informants were asked to

rank the 10 best educational psychology program in the U.S., identify the standards used in that ranking, and list up to five of the top journals in educational psychology.

U.S. News Online: Best Graduate Schools (1999) also involved contacting the deans of schools of education granting the Ph.D. or Ed.D. degree (188 graduate education programs) and asking them to rate the reputation of each graduate education program in the United States. In regards to specific programs in educational psychology, deans were asked to identify the 10 best programs in that area. Table 1 displays these recent rankings of educational psychology doctoral programs.

Table 1

External Rankings of Graduate Programs In Educational Psychology

Rank	West and Rhee (1995)	U.S. News (1998)
1	Stanford University	Stanford University
2	University of Illinois, Urbana	University of Wisconsin, Madison
3	Michigan State University	University of Illinois, Urbana-Champaign
4	University of Wisconsin, Madison	Michigan State University
5	University of California, Los Angeles	University of Michigan
6	University of Texas, Austin	University of California
7	University of Pittsburgh	University of Minnesota
8	University of California, Berkeley	** Columbia University
9	Harvard University	**University of Iowa
10	University of Minnesota, Twin Cities	*Harvard University
10		*University of California, Berkeley

** tied for 8th

* tied for 9th

Future Directions and Job Prospects

Another important issue in educational psychology doctoral programs is the job market for Educational Psychology graduates. In "New Directions for Educational Psychologists," Sigmund Tobias (1985) makes educational psychologists aware of the wide range of professional opportunities in educational psychology. His categorization of school-based roles included improved instruction, behavior modification, instructional systems design, promotion of comprehension, evaluation, and computer assisted instruction. Tobias also categorized new roles in business, industry, and government agencies, which include medical and allied health contexts (e.g., wellness programs), day-care contexts, and increased private training opportunities (1985). His optimism, however, is fettered by the following statement:

But despite these signs of vitality, the discipline of educational psychology is experiencing difficulties, as reflected by declining membership in the Division of Educational Psychology of the American Psychological Association and by the reduced number of graduate students in educational psychology doctoral programs. (p. 96)

On the other hand, the lack of a clearly delineated job market for educational psychologists may reflect healthy diversity in the field. In "Educating Educational Psychologists" Weinstein (1989) states:

The confusion of the public over the job categories filled by educational psychologists is just a reflection of the diversity of work settings and job responsibilities performed by educational psychologists. Some of us teach. Some

of us conduct research. Some of us design instructional materials or develop assessment instruments. Some of us work in schools. Some of us work in a mental health setting..." (p. 175)

In a 1995 survey, Goldberg and Houtz asked students about their job prospects in the immediate future and five years from the present. Thirty-seven percent indicated they would be employed in the university settings; whereas twenty-eight percent indicated a combination of school and university settings. The other category included such diverse work roles as owning a day-care center, personnel training, parent education, school psychology, educational and statistical consulting, teaching, and program administration.

In 10 years approximately 34.2% of doctoral respondents saw themselves in a university setting and a large portion (27.4%) projected they would work in a combination of settings... 11% of the doctoral students were unable or unwilling to project their place of employment. (Goldberg & Houtz, 1995, p. 118)

Goldberg and Houtz maintain that many students in doctoral programs are still primarily invested in becoming teachers and researchers at the higher educational level. Thus, the field is seen by most students as scholarly. Furthermore, Goldberg and Houtz hypothesize that institutions often maintain that opportunities abound in such non-traditional fields as business and industry, but faculty do not encourage the development of these areas. Goldberg and Houtz's statement is another example of the hidden curriculum of educational psychology programs: "It is possible that program faculty, being older, already published and tenured, having received their own training years ago, and having spent many years in settings, best emulate the model of the academic life and

thus communicate this model more effectively to their current students" (pp. 118-119).

The future of educational psychology as a discipline and area of graduate study has been thoughtfully examined in Merlin Wittrock's and Frank Farley's The Future of Educational Psychology (1989), which was written in cooperation with the American Psychological Association. In addition, a committee commissioned out of Division 15 of the APA during the late eighties to study the future of educational psychology found "between 1978 and 1988 there was a 40 percent reduction in membership of Division 15 of the APA" (Farley, 1989, p. 21). Moreover, there appeared to be a relationship between the decrease in professional membership in Division 15 and doctoral programs. Farley goes on to state: "Students who would study the training or teaching of thinking and intelligence in schools settings may take their graduate work in a cognitive psychology program in a psychology department rather than an educational psychology program" (p. 21).

Summary

The 1987 Committee on the Future of Educational Psychology commissioned by the APA and the self-reflective literature by educational psychologists cited in this study, supports the notion that educational psychology has had difficulty defining itself. There has been limited research on the formal curriculum of graduate training in educational psychology. Furthermore, the most recent comprehensive study found a great deal of diversity in graduate programs, with little consensus across programs as to how training should occur (Scheurman et al., 1993). The general agreement that diversity in the field is both a strength and a weakness is evidenced by the literature citing the expansion of job

opportunities (Tobias, 1985; Weinstien, 1989) and the diffusion of boundaries with other disciplines (Bardon, 1989). Thus, the content of doctoral programs should be included as part of the greater self-evaluative process that has occurred in the field.

CHAPTER 3

METHODOLOGY

Major sections in his chapter include: (a) Data Sources, (b) Data Analyses, (c) Validity/Reliability issues.

Data Sources

Reference guides published by the APA's Graduate Study in Psychology (1998) and Peterson's Guide to Graduate and Profession Programs (1998) vary on the total number and individual schools that have educational psychology doctoral programs. This confusion may be due to multiple reasons. First, there are many programs in graduate schools of education that have content similar to educational psychology but do not always use the general label of educational psychology. Secondly, students and faculty from these programs regularly publish in educational psychology journals, giving the impression of educational psychology research interests. Lastly, program identification is complicated by the difficulty educational psychologists have had in defining the boundaries of their discipline.

Using three sources, Peterson's Guide to Graduate and Professional Programs, Graduate Study in Psychology, and U.S. News Online: Best Graduate Schools, the investigator created a comprehensive list of educational psychology doctoral programs. The amount of diversity in the aforementioned sources was considerable. The APA guide consisted of 27 doctoral programs, while Peterson's list consisted of 75 schools.

The master list initially consisted of 77 schools, but 8 universities listed as having doctoral programs in educational psychology were found not to have such programs.

Out of the reduced list of 69 programs, seven schools did not have accessible information on the internet and an additional six schools were categorized as “quasi-educational psychology.” This additional categorization is explained below.

Sixty-two programs were analyzed for educational psychology, with 6 of these programs being analyzed for educational psychology-like content. Thus, 89% of the total number of educational psychology and quasi-educational psychology programs identified via the APA and Peterson’s lists had internet web sites.

Qualifying Programs

Most colleges and universities clearly identified their educational psychology doctoral program on their web sites by titling either a department, program, or concentration “educational psychology.” However, some programs on the master list did not use the general label educational psychology in describing their program or in their degree title, although these programs are reputed to be educational psychology programs by appearing on a master list and also included in previous studies of educational psychology programs. For example, West and Rhee (1995) studied highly prestigious programs in educational psychology, but Scheurman et al.’s (1993) analysis of the West and Rhee (1995) article discovered that “some of the institutions housing the most prestigious programs in educational psychology actually do not grant degrees in educational psychology” (p. 114).

The following criteria were developed to examine programs that did not use the label of educational psychology: (a) Is the program content consistent with educational psychology (i.e., the program meets the criteria for educational psychology described by

the APA committee on the future of educational psychology, or the program has content consistently cited in literature as being central to educational psychology graduate programs)? (b) Does the general program label describe another discipline identified as separate from educational psychology as defined by the APA (e.g., counseling psychology or school psychology)? If it was determined that the program content was consistent with the content of educational psychology and the label did not describe another APA program, then the university was deemed to have a "quasi-educational psychology" program.

Programmatic Information

Once it was determined that a university housed an educational psychology or quasi-educational psychology program, the next step was determining which programmatic information would be analyzed. Universities had different ways of grouping educational psychology and closely related fields (e.g., using educational psychology as general department label and placing related fields within the educational psychology department or making a general division label of psychological studies and listing educational psychology as a program within the division).

Again, criteria were developed to identify content related to educational psychology doctoral programs: 1) For any department that identified itself as Educational Psychology, all information subsumed under that department was considered to be a part of the educational psychology program for that university, unless other programs clearly identified with other APA approved disciplines were listed under that department. An example of the latter would be a University in which the Department of Educational

Psychology housed programs in Educational Psychology, Counseling Psychology, and School Psychology. In this case, only the program titled educational psychology was analyzed. 2) For any program identified as educational psychology, all information regarding the program was analyzed, unless the concentrations within the program were clearly identified with other APA approved disciplines. All program materials were printed in hard copy form during April 1999 and stored in their original form. Internet web sites were evaluated for their currency using written records that indicated when a site had been last updated. The currency of sites evaluated on the internet ranged from March 1995 until April 1999, with a mean date of July 1998. Thus, the majority of pages were updated within the last eight months.

Scholarly Productivity

Educational psychology web sites were evaluated to determine whether educational psychology faculty lists could be differentiated from related programs. The investigator determined that 19 universities did not clearly differentiate educational psychology faculty and were excluded from the evaluation. The remaining 43 universities provided lists of educational psychology faculty which were used in evaluating scholarly productivity. Thus 70 percent of the educational psychology doctoral programs with web sites were evaluated. Faculty lists were then compiled and screened for individuals who would not be considered full time faculty members.

The social science-citation index was used to evaluate scholarly productivity of educational psychologists from 1994-1999. A citation analysis was conducted to obtain data on a faculties' productivity (average number of publications per faculty member) and

overall impact in the field (number of citations resulting from published articles). In a second phase of the analysis, the search was limited to core journals in the field identified by Smith et al. (1998) to determine what percentage of journal publications occurred in core journals. Finally, the citation analysis was used to determine whether the core journals identified by Smith et al. were the top publication choices of educational psychologists in this study.

Data Analyses

The previously described data sources were used in delineating the overall features of doctoral training in educational psychology, identifying the top ten doctoral programs in educational psychology, and identifying the top ten web sites for educational psychology doctoral programs.

Overall Doctoral Training

As a beginning framework for delineating the primary demographic and conceptual features of educational psychology doctoral programs in this country, the investigator constructed a master chart of basic program information (see Appendix). Although this chart contains some information related to the conceptual features of these programs, it mainly highlights demographic features (e.g., title of program, location of program, degree offered). The chart incorporated information from all available program web sites. The investigator evaluated the doctoral program web sites and retrieved information related to the variables listed in the chart.

Demographic Features

Using the information categorized in the chart, the investigator addressed the following demographic issues: total number of educational psychology doctoral programs, types of degrees awarded, titles of programs, length of programs, location of programs within universities, and job market for graduates of programs.

Total number of educational psychology doctoral programs. Using the aforementioned qualifying criteria for educational psychology doctoral programs, total numbers of educational psychology and quasi-educational psychology programs were calculated.

Types of degrees awarded. Programs were analyzed as to whether they award the Ph.D. or the Ed.D. degree or both degrees.

Title. Programs were analyzed as to whether they use either the actual program title of educational psychology or an alternate title that characterizes a content area (e.g., Cognitive Studies) or a broader field (e.g., Psychological Studies in Education).

Length. Universities often vary in their expectations for credit hour requirements. Total semester and quarter credit hour requirements were listed in this category and averaged across universities.

Program location. This is an important feature to describe, because many universities house educational psychology programs differently. The method developed by Schuerman et al. characterized three types of organizations: Type A consists of a department of educational psychology awarding a degree in educational psychology; type B has a specialization in educational psychology that is equal with other specializations

under a division of education; and type C has a specialization in educational psychology that is equal with other specializations but breaks down educational psychology further into specialized concentrations. This procedure was conducted “to help ascertain whether educational psychology is regarded as an area of concentration within a more broadly defined domain or whether it has achieved the status of a distinct discipline” (Scheurman et al., 1993, p.102). Thus, it is important to understand how universities categorize their doctoral programs in order to identify program location. Specifically, this study identified the location of program by starting with program or concentration name, and then moving hierarchically up to the university level, documenting departments, divisions, colleges, and schools.

Job market. Stated job possibilities of graduates were sometimes described in web sites. This category was included to determine the extent to which programs track employment opportunities. Some programs list actual job positions of recent graduates but most list purported job positions. The importance of this category is highlighted in recent studies: “On a less comprehensive scale, any faculty that offers a masters or a doctoral program in educational psychology might identify the positions for which it is preparing candidates” (Klausmeier, 1988, p. 216).

Conceptual Features

The conceptual features of the doctoral programs were mainly determined by examining and rating program information directly from the web sites. Dimensions included content areas, conceptual model of programs, program goals, degree of program structure, level of faculty scholarships, and innovativeness of programs.

Content. The content of the programs was determined by examining descriptions of curriculum. This included a general analysis of the program from written narratives or outlined programs of studies, including primary specializations, if any, available to doctoral students. These narratives were compiled on the master chart of educational psychology doctoral programs. Using descriptors from concentrations and research areas, the researcher generated a frequency count by counting occurrences of major themes (e.g., cognition, instruction, measurement). The content areas were identified by the investigator and summarized in the chart included in the Appendix.

Conceptual model. Programs in educational psychology have traditionally been concerned with educational psychology as either a scholarly pursuit, or a practice-orientated profession, or a blend of the two in a scientist-practitioner model. The following criteria were developed to determine if a conceptual label of either scholarly, practical, or scientist-practitioner could be applied to individual programs or across programs: (a) Did the purpose of the program appear to be scholarly (training researchers), practical (preparing practitioners to solve problems in specialized areas), or scientist practitioner (applying research in educational settings)? (b) Was the emphasis of the curriculum scholarly (conducting research), practical (demonstrating field knowledge), or scientist-practitioner (equal weight given to research and practice)? (c) Did the reported job opportunities available for graduates reflect scholarly (teaching and conducting research in a university), practical (working in school based positions), or scientist-practitioner (working in state/federal departments of education, consulting, or training in schools and business)?

The conceptual model of programs was evaluated by two independent raters. A rating system was developed to permit the determination of inter-rater agreement in regards to conceptual model. Procedures for Inter-rater reliability are described later in this chapter. See Table 2 for the conceptual model rating form.

Goals of the program. Educational psychology programs often list within their description of the program mission statements, philosophy, program emphases, objectives and goals. These were categorized by the investigator under the label of goals of the program.

Structure. Degree of program structure relates to whether programs have common program requirements for all students or allow students considerable freedom in designing their own program. Scheurman et al. described this dimension as “an assessment of whether students appeared to be led through a highly structured program, with very little discretion concerning program requirements” (Scheurman et al., p. 108). The criteria in Table 2 were developed to determine an overall structure rating between one and six, with one representing a high external structure and six representing more student-determined structure. The degree of structure was evaluated by two independent raters. A rating system was developed to permit the determination of inter-rater agreement in regards to structure. Procedures for Inter-rater reliability are described later in this chapter. See Table 3 for the degree of structure rating form.

Table 2

Rating Criteria for Conceptual Model

Category	Scholarly	Practical	Scientist-Practitioner	Not enough info to judge
The majority of program goals, objectives, and mission statements, reflect the purpose of the program to be:	training researchers	preparing practitioners to solve problems in specialized areas	applying research in educational settings	NI
The emphasis of the curriculum is on:	conducting research	demonstrating field knowledge by practica and internship in specialized settings (e.g., schools, one's own work setting)	conducting research and practice to a similar degree	NI
Reported job opportunities available reflect primarily:	teaching and conducting research in a university position	working in specific school based positions	working in state/federal departments of education, or consulting, or training in schools and business	NI

Table 3

Rating Criteria for Degree of Structure

Item	High Structure (1-2)	Medium Structure (3-4)	Low Structure (5-6)	Not enough info.
Model programs available to students	A sample program of studies demonstrates a completed program from coursework to candidacy and guidelines for doctoral dissertations.	A program of study demonstrates general coursework required in each major area (e.g., core, elective, research) but no specific sequences or courses.	No program of study is available that demonstrates coursework required for proceeding from coursework to candidacy and conducting the dissertation.	NI
Processes that determine coursework	Program of studies is predetermined (i.e., an outline of program of study is given with student choices fitting within a restricted menu of core and elective courses).	Process is described in which the faculty and student together determine program objectives and course of study (i.e., apprentice model) and program requirements are somewhat vague.	Emphasis is on student autonomy in creating an individual program of study (i.e., uses adjectives such as individualized, flexible, student-directed) and does not describe the process by which the program of study is created (i.e., program requirements are vague).	NI

Faculty productivity. This area quantifies the scholarly productivity of each educational psychology program. Although some universities use the general label of educational psychology faculty to include counseling or school psychology or other related programs, only faculty specifically listed for the educational psychology program or concentration were included in the current analysis. A principal limitation in this database was that many universities did not identify faculty on their web site. Previous studies have also failed to identify faculty members who are strictly aligned with an educational psychology program (Smith et al., 1998). Programs that clearly identified faculty in the specific area of educational psychology were analyzed in terms of individual faculty members' scholarly productivity. Listings of part-time, adjunct, and emeritus rankings were excluded. Complete names of faculty members were used to calculate the number of publications (a) in all professional journals and the number of citations of their works in the last five years, and (b) in the core journals of educational psychology (as identified by Smith et al.).

For universities that provided lists that clearly identified educational psychology faculty, a citation analysis was conducted to identify the total number of journal publications from 1994 to June 1999. The measure of total number of publications and total citations was obtained by entering the faculty member's name into the Web of Science, electronic reference source for the Social Science Citation Index. Occasionally, names entered resulted in records with multiple individuals with duplicate names. These cases were resolved by referencing the university name on the address field of the publication. In all cases, duplicate name entries were resolved. Thus, total publications

and total publication citations for each faculty member were analyzed for all journals and educational psychology core journals. The educational psychology core journals as identified by Smith et al. were Educational Psychologist, Educational Psychology Review, Contemporary Educational Psychology, Cognition and Instruction, and Journal of Educational Psychology. Numbers of publications and citations were summed per doctoral program and divided by the total number of faculty. The latter yields a comparable measure of the number of publications and citations per faculty member.

Additional data resulting from the search of the social science citation index was the frequency of publication in a particular journal across all educational psychology faculties. These data were compiled by taking the journal titles from all educational psychology publications and finding which journals are most frequent publication venues for educational psychology faculty.

Innovative features of programs. Criteria for innovative content were initially developed to contrast newer content with traditional content of educational psychology programs emphasized in studies of the field (Walberg & Haertel, 1992). Also, programs were examined in terms of instructional delivery system, research practices, opportunities for application of doctoral study, and purported job opportunities that differ from traditional university teaching and research. A rating system was developed to permit the determination of inter-rater agreement in regards to innovative features of programs. Procedures for assessing inter-rater reliability are described later in this chapter. See Table 4 for the innovative programs rating form.

Table 4

Rating Criteria for Innovative Features

Criteria	Response Options			Describe innovative features
Divergent areas or coursework are different from general educational psychology (e.g., learning and cognition, development, instructional design, program evaluation motivation, personality, and assessment).	Yes	No	NI	specializations/ coursework
Unique delivery systems for instruction are described (e.g., interdisciplinary focus, distance learning, collaborative processes).	Yes	No	NI	delivery systems
Unique approaches for conducting research (e.g., action research, ethnographic research, meta-analysis) or unique structures for conducting research prior to candidacy are identified.	Yes	No	NI	approaches for conducting research
Unique opportunities for applications of doctoral study (e.g., internship, one's own work setting) are highlighted.	Yes	No	NI	unique applications
Purported job opportunities that differ from university teaching and research are presented.	Yes	No	NI	job opportunities

Determination of the Top Ten Doctoral Programs

Although the aforementioned categories provide a general description of educational psychology doctoral programs, additional information is needed to make a determination of what programs are exemplary. This information includes the rating of innovativeness of the doctoral program, number of faculty in the program, and degree of scholarship across the program. Each program was ranked according to the above criteria, and this information was combined to determine an overall ranking of top doctoral programs.

Determination of the Top Program Web Sites

The educational psychology doctoral programs web sites were rated according to the issues identified in Chapter 1: organization, course information, currency, contact information, completeness, recruitment, faculty information, and alumni information. Two primary sources were consulted in developing criteria to evaluate the web sites: Guidelines for Evaluating Web Sites, (Abdullah, 1998), and Guide to Business School Webs, (Bustos & Kirkwood, 1999). The investigator evaluated all the web sites while one additional rater, a doctoral student in educational psychology evaluated 20 of the universities for reliability purposes. A rating system was developed to permit the determination of inter-rater agreement. Procedures for inter-rater reliability are described later in this chapter. See Table 5 for the Rating form for exemplary web sites.

Table 5

Rating Criteria for Web Sites

Criteria	Response Options	Criteria	Response Options
<u>Organization:</u> Has logical structure, links to sub pages, and navigational features that are easy to follow.	0 Poor 1 Satisfactory 2 Good	<u>Completeness:</u> Provides information on all-sub-pages that are referred to.	0 Not Evident 1 Present 2 Good
<u>Course Information:</u> Provides course requirements, course syllabi, and general program requirements.	0 Poor 1 Satisfactory 2 Good	<u>Recruitment:</u> Describes application process, application, housing options, and assistantships; electronic application is available.	0 Not Evident 1 Present 2 Good
<u>Currency:</u> Has up-to-date information and shows a date when page(s) were last updated.	0 Not evident 1 Satisfactory 2 Good	<u>Faculty information:</u> Faculty pages are present and display research interests of faculty; course syllabi are provided.	0 Not evident 1 Present 2 Good
<u>Contact information:</u> Gives addresses, phone numbers, and e-mail links and identifies faculty specifically within educational psychology.	0 Not Evident 1 Satisfactory 2 Good	<u>Alumni information:</u> Gives specific job positions of recent graduates or provides alumni pages.	0 Not evident 1 Present 2 Good

Validity/Reliability Issues

The scope of questions addressed regarding doctoral programs in educational psychology and the use of an innovative medium to answer those questions required careful scrutiny of validity and reliability issues. It is important that the information reported in the study directly addresses questions posed and that the conclusions reached regarding that information would be replicable by other researchers. This section first describes validity in terms of both content validity and the internal structure of the study. Second, the procedures for assessing inter-rater reliability are described, and results are reported across the variety of instruments and research assistants used in this study.

Validity

This study has content validity on three levels. First, the study examines issues similar to those reflected in the related literature on educational psychology: organizational patterns and content (Schuerman et al., 1993), productivity and prestige of programs (West & Rhee, 1995), and job market of graduates (Goldberg & Houtz, 1995). Second, this study reflects numeric data, such as length of program and size of faculty, and ratings of a variety of program features. The study also includes qualitative issues, such as degree of structure, conceptual model, and innovativeness. The use of both quantitative and qualitative data reflects a diversity of measurement techniques.

Lastly, in addition to the external influences on the structure of this study, the study benefitted from internal revisions dating back to 1995. An initial survey was sent via e-mail to 56 schools with educational psychology doctoral programs. The information gathered from this initial survey was based on responses of department heads/chairs of

educational psychology departments. This information was categorized, but its limited scope prevented the researcher from examining programs in terms of structure, conceptual label, and innovativeness. The current analyses give greater breadth to a study limited by the initial focus. Moreover, the experience in researching educational psychology programs gives the author a richer frame of reference for making judgements about these programs than would otherwise be the case.

Reliability

Inter-rater reliability was assessed for all of the rating scales. The three rating scales to measure degree of structure, conceptual model, and innovativeness provided varying types of data, including both interval and nominal data.

The degree of structure scale was constructed with three equal intervals and the response option of not enough information to judge. The degree of structure scale was spread out numerically between one and six across the intervals of high, medium, and low structure. In using the scale the raters targeted two items: 1) model programs available to students and 2) processes for determining coursework. For each item, examples were provided for descriptions matching each two-point interval. Agreement was assumed for each matching item on this instrument if the judges ratings were within one point of each other. See Table 3 for the Degree of Structure scale.

The conceptual model scale was constructed as a nominal scale, which examined whether a program could be classified as scholarly, practical, or scientist-practitioner in focus. Three aspects of a doctoral program description were addressed in this scale. The first item classified program goals, objectives, and mission statements; the second item

classified the emphasis of the curriculum; and the third item classified reported job opportunities. For each of these items the choices of scholarly, practical, scientist-practitioner, or not enough information to judge were given. Scholarly programs were those with the purpose to train researchers, a curriculum that emphasized conducting research, and a job market that primarily focused on university teaching and research. The practical programs were those with the purpose of preparing practitioners to solve problems in specialized areas, a curriculum that emphasized demonstrating field knowledge, and a job market that primarily focused on working in school-based positions. Finally, the scientist-practitioner programs were categorized as those with the purpose of applying research in educational settings, a curriculum that gave equal weight to research and practice, and a job market that focused primarily on working in state/federal departments of education, consulting, and training in schools and businesses. Agreement was calculated as an exact match for each item. See Table 2 for the Conceptual model scale.

The innovativeness scale was constructed as a nominal scale with five items. The first item asked the rater to decide if areas of study, concentrations, specializations or research areas were divergent from general educational psychology. Examples of these traditional areas were given to include learning and cognition, development, instructional design, program evaluation, motivation, personality, research, and measurement. The second item evaluated unique delivery systems for instruction. Examples of innovative delivery systems included interdisciplinary focus, distance learning, and collaborative

processes. The third item examined unique approaches and structures for conducting research. Examples of innovative research arrangements included research begun prior to candidacy, action research, ethnographic research, and meta-analysis. The fourth item evaluated unique opportunities for applications of doctoral study. Examples were internship and application of educational psychology training to one's own work setting. The fifth item evaluated whether the purported job opportunities differed from university teaching and research. The possible responses were yes or no to indicate whether an innovative feature was present or not for each item, or NI, for no information available or not enough information to judge. Agreement was calculated as a match for each item. See Table 4 for the innovative programs rating scale.

Multiple raters were used and inter-rater agreement was addressed for the variables of structure, conceptual model, and innovativeness. Both raters had a Ph.D. in education, one in Educational Psychology and the other in Curriculum and Instruction with a program evaluation background. These two raters were also faculty at a southeastern university. The coders were given copies of the doctoral program descriptions from the web sites in hard copy format. In instances where extraneous material was included on the same page as a description of the doctoral program, the extraneous material was blocked out. Examples of extraneous information included descriptions of programs other than educational psychology doctoral programs (e.g., counseling or school psychology) and other irrelevant information (e.g., description of a masters' program).

An initial training session conducted by the investigator provided an opportunity

for the raters to familiarize themselves with the instruments and ask questions of the investigator. This training session was necessary due to the great variability in the way educational psychology programs are organized and described. During the training session, minor adaptations were made to the conceptual model instrument and the innovative programs instrument. This included modifying the language for a definition of scientist-practitioner focused curricula. Thus, for criteria #2 on conceptual model, the scientist-practitioner dimension was changed to "equal weight is given to research and practice." An addition was made to the examples of educational psychology in item #1 on the innovative programs instrument, adding "program evaluation" as an example of content subsumed under general educational psychology.

During the training sessions, participants discussed their understanding of each item with the investigator. Three universities were rated during the training session. Following each rating the investigator discussed and resolved disagreements with the raters and answered questions concerning the coding process. Although disagreements were resolved through discussion, the ratings were not altered in the calculation of inter-rater reliability. Thus, reliability for the three schools rated during this session was 57%. However, through discussions the raters were able to resolve differences and obtain high degree of confidence for future ratings. Immediately following this training session the raters received identical descriptions of web site descriptions, with rating forms for each university. Over the course of three weeks, the raters coded an additional 59 educational psychology programs.

When ratings were completed, reliability was calculated using the aforementioned criteria for agreement for each rating scale. For the degree of structure scale reliability was at 68%. For the conceptual model scale reliability was 58%. For the innovative programs scale reliability was calculated at 78%. Total reliability was calculated at 70% across all ten items within all domains.

Educational psychology doctoral program web sites were evaluated using the criteria already described in this section. Inasmuch as web sites are dynamic, evaluation could not occur through printed descriptions of web pages. Web sites needed to be evaluated through a live connection to the internet in order to test navigational features and completeness. Moreover, web sites needed to be evaluated within a short time frame to ensure pages were not updated or deleted between ratings. Thus, the investigator evaluated all 62 web sites for educational psychology doctoral programs. Also, an educational psychology doctoral student evaluated 20 of the web sites for reliability purposes. For those 20 sites, a correlation was computed between the two sets of ratings, yielding a .67 correlation coefficient across all twenty universities.

CHAPTER 4

RESULTS

The results section follows the order of research questions listed under the purpose of this study. Therefore, results will first describe the overall nature of doctoral training in educational psychology in American Universities. Each specific question will be answered and the initial data chart for all universities will be given. Secondly, the chapter will describe the programs that are most exemplary, providing a top ten list of doctoral programs. Third, the chapter will describe the ranking of program web sites, again providing a top ten list.

Overall Nature of Doctoral Training in American Universities

This first section provides general program demographics: number of programs, number with web sites, most popular degree programs offered, typical degree titles, typical length of programs, location of programs within university, and employment opportunities for graduates. The second section then describes the conceptual nature of doctoral training: concentrations within programs, program goals, conceptual models of program, program structure, scholarship, and innovativeness of programs.

Program Demographics

Sixty-nine overall doctoral programs in educational psychology were initially identified. From the composite list of these 69 programs, 62 were found to have web sites, with 56 having clearly identifiable educational psychology doctoral programs and 6 schools having quasi-educational psychology programs. Among the programs, the most popular degree was the Doctor of Philosophy, which was offered at 61 of the 62

universities. The Ed.D. degree was offered at 20 of the universities. Six universities offered both degree options. This information is referenced on the demographic chart for educational psychology doctoral programs in the Appendix.

Programs primarily used the general label of “educational psychology” (46 programs). Included under this general label were educational psychology and educational psychology foundations. The next most frequent term included in program titles was “developmental,” which appeared in 9 program titles. This word was used in conjunction with descriptive labels: human development, lifespan development, and developmental psychology. The word “learning” appeared 7 times in program titles. This word was typically used in the following contexts: learning and cognition, collaborative learning, learning and teaching, adult learning, learning and development, and learning and instruction. The word “cognition” appeared 4 times in the following contexts: learning, cognition, and development; cognitive science; cognition and instruction, and cognitive studies in education. Also of note, the program title instructional psychology and technology appeared two times as program titles of reputed educational psychology programs and thus were classified as quasi-educational psychology programs. The distribution of these content areas is displayed in Table 6.

Table 6

Descriptive Labels Used in Program Titles

Label	Number of Occurrences
educational psychology	47
developmental	9
learning	7
cognition	4

The mean length of doctoral programs was 80 semester hours, with a range of 50 hours (from masters) to 143 hours (from bachelors). In making these calculations, the investigator converted quarter-hours to semester credit hours: 1 quarter hour = .67 semester hour. For students entering with the Masters, the range of doctoral hours required across programs was between 50 and 66 credit hours, and the mean was 60 credit hours. For students entering with the bachelors degree, the range of doctoral hours required across programs was from 61 to 120 credit hours and the mean was 85 credit hours. This information is referenced on the demographic chart for educational psychology doctoral programs in the Appendix.

Fifty-nine programs were located in colleges of education. Two programs were described as joint programs between schools of education and psychology. One program was located in the college of arts and sciences.

Using Scheurman et al.'s (1993) categorizations, Type A institutions were those in which "there is no distinguishable difference between departmental or divisional distinction and the degree itself" (p. 104). This occurred for four of the sixty-two

universities, three of these were joint doctoral programs between schools of education and schools of psychology and one was located in the college of education. The type B universities were described as programs where educational psychology “is one of several specializations that share equal status within at least one but no more than two subsuming hierarchical units” (p. 103). Eleven of these programs matched the above criterion, with ten located in colleges of education and one program in arts and sciences. Type C, which occurred most frequently in the analysis, is described as programs in which “educational psychology shares degree status with other domains, but then it breaks down into specialized concentrations” (p. 104). Fifty-two type C educational psychology programs were identified, all located in colleges of education. This information is referenced on the demographic chart for educational psychology doctoral programs in the Appendix.

The job market for educational psychologists was analyzed from the chart in the Appendix. Excerpts from university web sites were analyzed across programs for frequency count of major job areas for educational psychologists. Results are included in the Table 7. The five most frequent references to job positions were (a) college and university teaching and research (44 incidences), (b) state, federal, and governmental agencies (25 incidences), (c) business and industry (20 incidences), (d) consulting roles (14 incidences), and (e) public and private positions in K-12 (13 incidences).

Table 7

Job Market Analysis

Job Market	Frequency Mentioned
Higher Education Teaching and Research	44
State and Federal Departments of Education and Governmental agencies	25
Business or Industry	20
Consultants (research, private, governmental)	14
Public and Private Schools, K-12	13
Private Sector or Private Research	11
Testing Companies	10
Work in Medical Settings	5
Human Service Positions	5
Curriculum Development	4

Conceptual Features

Content areas under the general label of educational psychology are presented in Table 8. In evaluating the descriptions of concentrations and areas of study the investigator did a frequency count of major areas of study from the master chart describing educational psychology content areas. The frequency count was conducted by using labels of traditional content areas subsumed within educational psychology (Walberg & Haertel, 1992) and courses from within educational psychology (Snowman, 1997).

Table 8

Frequency Count of Content Areas in Educational Psychology Doctoral Programs

Content Area Label	Incidences
Research = 20, measurement = 21, evaluation = 16	57
Development	46
Learning	45
Cognition	36
Instruction	31
Educational psychology = 11, foundations = 2	13
Social	9
Motivation	7
Technology	6
Assessment	5
Inquiry	5
Individual differences	4
Language	4

Research, Measurement, and Evaluation were the most commonly mentioned concentrations or areas of study offered, occurring 57 times and most commonly in the context of measurement and evaluation, and research methodology. The next most common concentration was development, which was listed 46 times, most commonly in the contexts of human development, development and instruction, developmental psychology, and lifespan development. Learning was cited 45 times, most commonly in

the following contexts: learning and development, learning and cognition, learning and instruction, teaching and learning, learning and memory, and human learning. Cognition or cognitive occurred 35 times, most commonly with respect to cognitive psychology, cognition and instruction, and cognition and memory. Instruction was mentioned a total of 31 times in the following contexts: instructional design, instructional psychology, cognition and instruction, and instructional technology.

Program Goals

Across doctoral programs, goals were analyzed from objectives, stated goals, mission statements, and other introductory material provided in the program descriptions on the web sites. Goals were analyzed on three levels in terms of what the doctoral program was designed to 1) provide to students, 2) develop in students, and 3) prepare students for. First, in goals stating what the programs “provide” to students, most often programs provided “skills for conducting research” and “a broad base of knowledge related to educational psychology.” Secondly, in goals where programs stated what they wanted to “develop” in students, the most common response was “develop theoretical and applied research skills” followed by “develop researchers and college and university teachers.” Third, in goals where programs stated what they wanted to “prepare” students for, programs were most likely to say they were preparing students for “working in teacher training institutions” and also serving as “specialists in empirical disciplines.” See Table 9 for the groupings of goal statements across programs.

Table 9

Goals of Educational Psychology Doctoral Programs

Word Stem		Word Stem		Word Stem	
Provide...	#	Develop...	#	Prepare...	#
skills for conducting research	4	theoretical and applied research skills	5	for teacher training institutions	5
students with a broad based of knowledge related to educational psychology	4	teachers that encourage inquiry and collaboration	2	specialists in empirical disciplines (educational professionals and researchers)	5
understanding for ethical decision making	1	researchers and college and university teachers	3	for human service and counseling	2
foundation for implementing instructional interventions to promote learning	1	instructional systems	1	for teaching in the field of human development	1
opportunities for studying human behavior in educational settings	1	develop ties across many disciplines	2	psychologists for licensure	1
		a framework for educational practice	1	students to apply principles, empirical methods, and research findings to practical problems	1
		specialists in human learning and development	2		
		the ability to conduct original research	2		

Conceptual Model of Programs

There appeared to be a scholarly focus in stated goals for most doctoral programs. The results in Table 9 were compared with the ratings of independent raters who categorized the goals for each program according to a scholarly, practical, or scientist-practitioner focus. These results in Table 10 also indicate a scholarly focus. Out of 62 rateable universities with clearly stated goals, 31 were characterized as scholarly, 17 were characterized as scientist-practitioner, 7 were characterized as practical, and 7 did not provide enough information to judge.

In a further delineation of the conceptual model of the programs, raters labeled the emphasis of the curriculum. These results indicated 20 scholarly, 13 scientist-practitioner and 9 practical; 20 could not be judged. The emphasis of a scholarly curriculum is on the conduct of research. Another question asked raters to classify whether the majority of reported job opportunities reflect a scholarly, practical, or scientist-practitioner focus. With respect to this dimension, 28 universities were rated as scientist-practitioner, 13 as scholarly, 9 as practical, and 12 could not be judged. A majority of universities reported that educational psychologists' employment opportunities are primarily in state/federal department of education, consulting, and training in schools and business.

As to the overall evaluation of a conceptual model across programs, the results indicated a majority of scholarly and scientist-practitioner programs, an average of 21.3 and 19.3 programs respectively, and a scarcity of programs with a practical focus, average of 6.6. Fifteen schools did not provide enough information across categories to permit a rating regarding conceptual model. The results are displayed in Table 10.

Table 10

Conceptual Model of Educational Psychology Doctoral Programs as Stated
in Goals, Curricular Emphases, and Job Market of Graduates

Conceptual Model	Question 1 Stated Goals	Questions 2 Curriculum Emphases	Question 3 Job Market	Total	Average
Scholarly	31	20	13	64	21
Scientist- Practitioner	17	13	28	58	19.3
Practical	7	9	4	20	6.6

Structure of Programs

The degree of structure of educational psychology programs was calculated across programs according to two dimensions. The first question asked whether programs provide models of courses of study available to students. The range for this item was from a high degree of structure (i.e., programs provided a sample program of study that demonstrated course work to candidacy and guidelines for doctoral dissertations) to medium structure (i.e., program of study demonstrates general coursework required in each major area, but does not provide specific sequences or courses) to low structure (i.e., programs with no identifiable program of study or clear program requirements). This item was rated on a six-point scale by two independent raters. The correlation coefficient for the first item was $r = .67$. Additional calculations using percent of agreement with a standard error of measurement of 1, yielded a reliability of 80%. The two independent raters' results were averaged across all universities, yielding an overall degree of structure

for this item. The average degree of structure across all universities was 3.1, indicating a medium degree of structure across 51 rateable educational psychology programs. Eleven universities did not provide enough information on their web sites to determine the degree of structure for this item. Results are displayed in Table 11.

The second item examined the process by which students determine their course of study. Once again, the item alternatives included a high degree of structure (i.e., an outline of program of study is given with student choices fitting within a restricted menu of core and elective course), medium structure (i.e., process is described in which the faculty and student together determine program objectives and course of study - apprentice model), and low structure (i.e., emphasis is on student autonomy in creating an individual program of study - such adjectives as individual, flexible, student-directed; or does not describe the process by which the program of study is created). This item was rated on a six-point scale by two independent raters. The correlation between the raters for this item was $r = .48$ and the inter-rater reliability for this item was 63%, using the standard error of measurement of 1. The two independent raters' results were averaged across all universities, yielding an overall degree of structure for this item. The average degree of structure across all universities was 3.6, indicating a medium degree of structure across 41 rateable educational psychology programs. Twenty-one universities did not provide enough information on their web site to determine the degree of structure for this item. Results are displayed in Table 11.

Table 11

Degree of Structure of Educational Psychology Doctoral Programs

Structure Questions	Correlation Between Raters	Degree of Structure across All Schools (1-6)	Interval Score (High, Medium, or Low Structure)
Model programs are available to students.	$r = .67$	3.1	Medium
Processes are described for determining coursework.	$r = .48$	3.6	Medium

Level of Scholarship

The level of scholarship was determined by accessing the social science citation index and calculating the cumulative publications and cumulative publication citations for each faculty member from 1994 to June 1999. These faculty members were identified from universities that clearly specified educational psychology faculty on their web site. Because some universities did not separate educational psychology from related areas (e.g., school and counseling psychology), only forty-four universities were included in this sample. Once faculty members' names were obtained, individual faculty data were summed across universities and divided by the total number of faculty members to control for varying sizes of faculties. Individually, James Algina from the University of Florida demonstrated the highest number of individual publications, totaling 31 publications across the last five years, while Richard E. Clark from the University of Southern California had the most citations of his publications, totaling 144 citations. A

master chart was created to group faculty information per university.

Total publications and publication citations were summed by university and divided by the total number of faculty to allow the following information to be reported as averages for educational psychology faculties: publication ranges were from .8 to 7.7 per faculty member between 1994 and June 1999; the mean number of publications was 2.82 and the median number was 2.25 publications faculty member between 1994-June 1999. Publication citations ranged from 0 to 27 per faculty member from 1994-1999; the mean number of publication citations across all universities was 7.19 and the median number was 4.28 citations per faculty member from 1994-1999.

Publications and citations were analyzed for five core educational psychology journals: Educational Psychologist, Educational Psychology Review, Contemporary Educational Psychology, Cognition and Instruction, and Journal of Educational Psychology. Individually Gregory H. Schraw from the University of Nebraska, Lincoln, had the most publications in the core educational psychology journals (11) and also the most citations of his publications for educational psychology core journals (60). A master chart was created to group faculty information per university. Total publications and publication citations for educational psychology core journals were summed by university and divided by the total number of faculty to allow the following information to be reported as averages for educational psychology faculties: average educational psychology journal publications ranged from 0 to 2.8 publications per faculty member from 1994-1999; the mean number of publications for educational psychology core journals was .31 and the median was .13 publications per faculty member. Educational

psychology core journal publication citations ranged from 0 to 10.75 citations per faculty member from 1994-1999; the mean number of publication citations for educational psychology journals was 1.08, and the median was .45 citations per faculty.

In addition, the publication sources for educational psychologists were analyzed. Results indicate a wide variety of

publication sources, totaling 369 different journals. The top ten journal publication sources for educational psychologists were

- 1) Journal of Educational Psychology - 66 publications,
- 2) Educational and Psychological Measurement - 61 publications,
- 3) Contemporary Educational Psychology - 45 publications,
- 4) Developmental Psychology - 38 publications,
- 5 and 6) Applied Psychological Measurement and Child Development - 30 publications each,
- 7) Journal of Educational Measurement - 24 publications,
- 8) Educational Psychology - 22 publications,
- 9) Journal of Applied Developmental Psychology - 21 publications,
- 10) Merrill Palmer Quarterly - 19 publications.

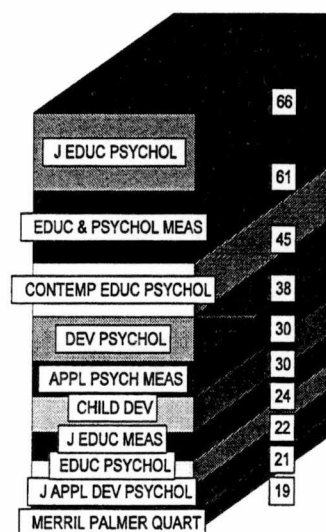


Figure 1. The top journal publication venues for educational psychologists. Journal name and frequency of publication are given.

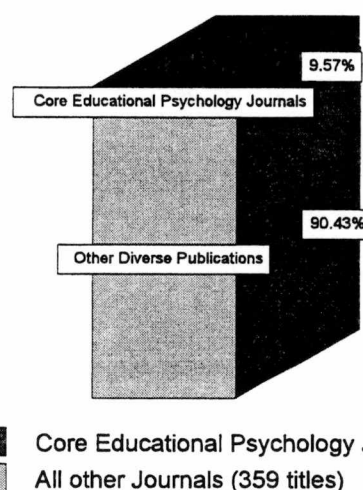


Figure 2. Diversity of journal publications in educational psychology 1994-1999. Publications in core educational psychology journals versus total publications in all journals.

publications, 8) Educational Psychologist - 22 publications, 9) Journal of Applied Developmental Psychology - 21 publications, and 10) Merril Palmer Quarterly - 19 publications (see Figure 1). In addition, 140 journals appeared just once, indicating a great diversity of publication venues for educational psychologists. Figure 2 indicates that a high percentage (90.43%) of publication sources for educational psychologists are in journals other than journals listed earlier.

Innovativeness of Programs

Doctoral programs were also rated in terms of innovativeness. An item analysis revealed the frequency of innovative features across all universities. The first criterion for innovativeness was program content that differed from traditional educational psychology (See Table 4 for rating criteria). Out of 62 rateable programs, 29 of the programs offered innovative content areas and 3 programs did not provide enough information to judge. The second area asked whether programs have unique delivery systems for instruction. Fifteen of these programs met the criterion of a unique way of delivering instruction and 20 programs did not provide enough information to judge. The third question asked whether the program had unique approaches or structures for conducting research. Twelve programs met the criterion for innovative approaches or structure for conducting research and 22 did not provide enough information to judge. The fourth question asked whether the programs provided unique opportunities for application of doctoral study. Twenty-five of the universities met this criterion, while 13 did not provide enough information to judge. The last question asked whether universities described job opportunities for educational psychologists that differed from university

teaching and research. Forty-one of the universities met this criterion, while 11 universities did not provide enough information to judge. Figure 3 represents the distribution of innovative areas across all universities.

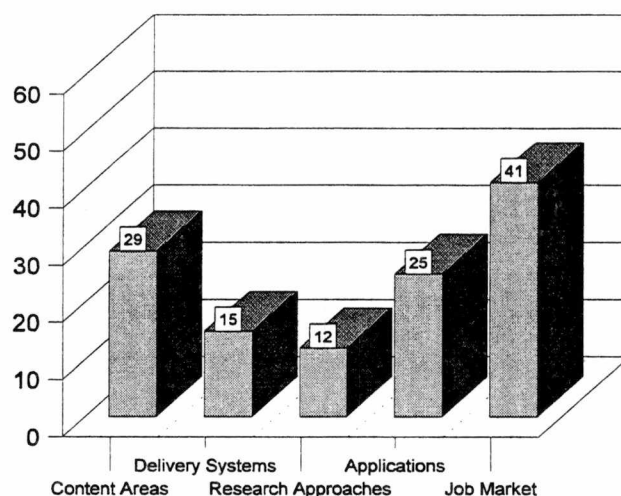


Figure 3. Innovative features of doctoral programs. Innovative areas and number of programs meeting criteria are given.

Results across universities for the five criteria of innovativeness revealed a range of 0 to 4 out of a possible range of 0 to 5. No university met all the criteria for innovative programs. The mean for innovative items was 1.95, and the median was 2. The distribution across universities was as follows: 4 of the universities met four of the five of the criteria, 16 met three of the five criteria, 21 met two of the five criteria, 17 met one of the five criteria, and 5 of the universities met zero of the five criteria for innovativeness.

Exemplary Programs in Educational Psychology

Exemplary programs were identified by ranking each program according to scholarly activity and innovativeness. These rankings were combined to produce an overall listing of top programs in educational psychology.

Most Scholarly Programs

First, the top ten rankings across all journals are displayed for publications in Table 12 and publication citations in Table 13. Also, top programs producing article publications and receiving article citations are reported for educational psychology core journals in Table 14 and 15.

Table 12

Top Ten Schools in Total Journal Publications Per Educational Psychology Faculty

Member 1994-1999

Average Journal Publications Per Faculty Member	School	Total Publications	Ed Psych Faculty
7.73	University of California, Los Angeles	116	15
7.62	University of Maryland	61	8
7.06	University of Wisconsin, Madison	113	16
4.8	University of Memphis	48	10
4.61	University of Nebraska	60	13
4.58	University of Minnesota	55	12
4.5	University of Southern California	54	12
4.5	University of Utah	18	4
4	Boston College	48	12
4	Texas A&M	52	13

Table 13

Top Ten Schools in Publication Citations in All Journals Per Educational PsychologyFaculty Member 1994-1999

Average Publication Citations Per Faculty Member	School	Total Citations	Ed Psych Faculty
27.06	University of Wisconsin, Madison	433	16
25.26	University of California, Los Angeles	379	15
24.12	University of Maryland	193	8
19.41	University of Southern California	233	12
16.63	Georgia State University	183	11
15.76	University of Nebraska	205	13
12.09	City University of New York	254	21
11	University of Utah	44	4
9.92	University of Pittsburgh	139	14
8.42	University of Iowa	59	7
8.4	University of Memphis	84	10

Table 14

Top Ten Total Publications in All Core Educational Psychology Journals Per Educational Psychology Faculty Member 1994-1999

Average Ed Psych Journal Publications Per Faculty Member	University	Total Publications	Ed Psych Faculty
2.87	University of Maryland	23	8
1.8	Mississippi State University	9	5
1.53	University of Nebraska	20	13
0.75	University of Kentucky	6	8
0.71	University of Iowa	5	7
0.68	University of Wisconsin, Madison	11	16
0.66	Purdue University	6	9
0.58	University of Minnesota	7	12
0.5	University of Utah	2	4
0.47	City University of New York	10	21

Table 15

Top Ten Schools in Total Publication Citations from Core Educational PsychologyJournals Per Educational Psychology Faculty Member 1994-1999

Average Publication Citations from Ed Psych Journals Per Faculty Member		Total Citations	Ed Psych Faculty
10.75	University of Memphis	86	8
8.76	University of Nevada Reno	114	13
5.2	Northern Illinois University	26	5
3.14	University of Kentucky	22	7
2.13	University of Florida	32	15
1.94	University of Hawaii	35	18
1.76	Columbia University, Teachers College	37	21
1.25	University of Wisconsin, Madison	5	4
1.25	University of Nebraska	15	12
1.11	Rutgers University	10	9

Most Innovative Programs

Programs were ranked across innovative features described previously in the conceptual nature of doctoral programs. While it was noted in that section that no one program attained a perfect score for innovative features, four programs were found to have 4 out of 5 (80%) of the criteria for an innovative educational psychology program. Thus, these programs are identified as the most innovative programs in Table 16.

Table 16

Most Innovative Educational Psychology Doctoral Programs

Totals	University
4	Baylor University
4	University of Connecticut
4	University of Denver
4	University of Tennessee

Composite Ratings of Programs

A top ten list was generated for exemplary programs by combining the rankings of total publications and total publication citations and rankings of innovativeness. Some universities were excluded from this ranking for either not clearly identifying their educational psychology faculty or not providing enough information on the university web site to rank any aspects of the aforementioned innovative program criteria. The three criteria of total publications, total citations, and rankings of innovativeness were weighed equally across 40 ranked universities. Results were reported in the form of a top ten list of for all programs in Table 17.

Table 17

Top Ten Programs Based on Publications, Publications Citations, and Innovative Criteria

Converted Overall Rank	Average Ranking	School	Publication Rank	Citation Rank	Innovative Rank
1	9.8	University of California, Los Angeles	1	2	26.4
2	10.46	University of Maryland	2	3	26.4
3	12.53	University of Minnesota	6	14	17.6
4	13.06	University of Wisconsin, Madison	3	1	35.2
5	14.13	University of Utah	8	8	26.4
7	14.5	University of Pittsburgh	17	9	17.6
6	14.8	City University of New York	11	7	26.4
8	15.2	University of Illinois, Urbana	16	12	17.6
9	15.4	University of Nebraska	5	6	35.2
10	18.3	University of Southern California	7	4	44

These results were used in combination with the data on size of faculty to generate separate size-alike lists of top programs. The range of faculty size was between 3 and 33; the mean faculty size was 11.7, with a standard deviation of 6.2. Using the standard deviation of scores from the mean, the distribution of universities were categorized as

small (faculty size < 6), medium (faculty size 6-18), and large educational psychology doctoral programs (faculty size > 18). The majority of programs were in the medium sized category between 6-18. The Top three programs across each size-alike group were listed for small programs in Table 18, medium in Table 19, and large in Table 20.

Table 18

Top Three Programs with Total Faculty Less Than 6

School	Publication Rank	Publication Citation rank	Innovative Ranking	Average Ranking
University of Utah	8	8	26.4	14.13
State University of New York, Buffalo	13	27	17.6	19.2
University of Tennessee, Knoxville	31	23	8.8	20.9

Table 19

Top Three Programs with Total Faculty Between 6-18

School	Publication Rank	Publication Citation rank	Innovative Ranking	Average Ranking
University of California, Los Angeles	1	2	26.4	9.8
University of Maryland	2	3	26.4	10.46
University of Minnesota	6	14	17.6	12.53

Table 20

Top Three Programs with Total Faculty Greater Than 18

School	Publication Rank	Publication Citation rank	Innovative Ranking	Average Ranking
City University of New York	11	7	26.4	14.8
University of Illinois, Urbana	16	12	17.6	15.2
University of Texas Austin	36	18	17.6	23.86

Exemplary Web Sites

Educational Psychology Doctoral Program web sites were rated according to organization, course information, currency, contact information, completeness, recruitment information, faculty information provided, and alumni information provided. Under each dimension a specific criterion was detailed on the rating form. After viewing each program on-line, the investigator assigned a score between 0-2 based on whether information was not evident/poor, satisfactory, or good. An independent rater also rated 20 of the universities. The results were tabulated and programs ranked according to their scores. No programs matched all of the criteria across all dimensions. Indiana University and Brigham Young University were tied with the highest rating of 15/16 (93%) of the criteria. The range of scores was between 1-15, and the mean score across all universities rated was 9.6 (60%) of the criteria.

Table 21

Top Web Sites for Educational Psychology Doctoral Programs

School	Raw Score
Indiana University	15
Brigham Young University	15
University of Nevada, Reno	14
Arizona State University	14
Washington State University	14
University of Kentucky	14
University of Connecticut	13
Southern Illinois University	13
University of Missouri	13
University of Hawaii	13
University of Texas, Austin	13
University Wisconsin, Madison	13

CHAPTER 5

DISCUSSION

The discussion of results highlights consistencies and inconsistencies within the study and with previous studies of the field. Directions for future research in the training of educational psychologists and limitations of this study are also explored.

Demographic Characteristics

In regards to the initial question, how many American Universities currently offer doctoral programs in educational psychology, there was great variance in published guides to graduate programs (Graduate Study in Psychology, Peterson's Guide to Graduate and Professional Programs). Perhaps this is due to the difficulty in separating related fields from educational psychology. Also, previous studies have identified prestigious programs as educational psychology, even when they did not use the label of educational psychology in describing their program. Thus, this study provided a methodology for including programs that appear to have the characteristics of an educational psychology program, but do not use the label of "educational psychology" in their description. This study developed the working label "quasi-educational psychology" in order to include those reputable programs as part of this study. Moreover, the selection criteria used in this study have the potential of helping to distinguish educational psychology from related fields of school psychology and counseling psychology.

The next finding that the Ph.D. is the most popular degree offered in educational psychology programs is directly comparable to the previous study conducted by Glover and Ronning (1987). Their study showed a significant decrease in the proportion of

programs offering the Ed.D between 1973 and 1983. In 1973, 58% of educational psychology doctoral programs offered the Ph.D. and 40% offered the Ed.D. In 1983, approximately 80% of the programs offered the Ph.D., while only 20% of the programs offered the Ed.D. Out of the programs identified in this study, 86% of the programs offered the Ph.D. degree and 14% offered the Ed.D. The Ph.D. appears to be the dominant degree offered.

The typical titles of degree programs had not been examined directly by other surveys. However, previous studies have examined the popularity of specialities in content coverage given (Scheurman et al., 1993). The results of this previous study were clear: "The traditional domains of learning/cognition and development are the areas of concentration most available to students across degrees" (Scheurman et al., p. 104). Based on the previous studies regarding content coverage and the popularity of learning/cognition and development as a speciality, one might expect that learning and cognition and development would frequently appear in program titles. The general label of educational psychology was used most frequently in program titles, followed by the label of developmental, learning, and cognition. Thus, the results are somewhat consistent with the findings of Scheurman et al. on this point.

Although the typical length of programs was not addressed in previous studies of the field, the current results appear consistent with the length of doctoral programs in general. The doctoral degree averaged 60 hours from the masters degree and 85 hours from the bachelors. A small number of programs attempted to estimate the number of years it would take to graduate. It should be stated that no universities offered actual case

examples to support these claims of program lengths. For instance, a program may have obliquely provided this information by stating on the web site the number of credit hours actually taken by recent graduates.

The location of programs as analyzed by Glover and Ronning (1987) indicated a movement of doctoral programs to departments of psychology from colleges of education. This study did not identify any programs that were housed in departments of psychology. Instead, there was a minority of 3 programs that were joint doctoral programs between colleges of education and schools of psychology. The trend noted by Glover and Ronning in 1983 has apparently reversed itself.

The majority of job opportunities for educational psychology graduates, according to program web sites, are in university teaching and research (38%), state and federal departments of education and governmental agencies (21%), business or industry (18%), consultants (12%), and public and private schools K-12 (11%). Goldberg and Houtz's (1995) student survey indicated that a majority of doctoral students projected themselves working in a university setting (34%). Goldberg and Houtz (1995) concluded that universities often purport to provide such diverse job opportunities as working in business and industry, but do not encourage the development of these areas; consequently, these authors conclude that the majority of educational psychology doctoral programs have a scholarly emphasis. Other authors are more optimistic about the diversity of job opportunities for educational psychologists. For example, Sigmund Tobias (1985) describes the great diversity of school roles (e.g., instructional design, evaluation, computer assisted instruction) and business and industry opportunities (e.g.,

medical and allied health, private training opportunities) available to educational psychologists. There is a clear absence of longitudinal data tracking the career paths of educational psychologists. The little information that is presented on-line regarding the job positions of recent graduates predominantly reflected university positions. Thus, there appears to be considerable support for Goldberg and Houtz's (1995) assertion that programs typically prepare students for scholarly work opportunities. One reason may be the order in which university teaching and research appear in descriptions of the job markets as referenced in the Appendix. Although universities may list many job opportunities, university teaching and research is almost always presented first and foremost.

Conceptual Features

The most popular speciality areas within the field (Goldberg & Houtz, 1995) and the most available speciality areas (Scheurman et al., 1993) were compared to the frequency count of areas of study identified on doctoral program web sites. Results showed that measurement, evaluation, and research methodology were cited most frequently as content areas (57 times). The next most commonly identified content areas were development (46), learning (45), and cognition (36), and instruction (31), respectively. In the Goldberg and Houtz article, results indicated that the most popular speciality was cognition and learning, followed by education of special populations, individual differences, learning strategies, and motivation and efficacy. Although learning and cognition appeared with high frequency in the current study, the other popular areas of individual differences and motivation and efficacy did not appear as highly available

content areas. Educating special population areas did not appear on the list in the current study, because these programs were usually listed as separate concentrations from educational psychology. There appears to be general agreement between the results of the current study and Scheurman et al.'s finding that cognition and learning and development are the areas of concentration most available to students, followed by statistics, research, and measurement. Indeed, when frequency data for cognition, learning, and development are grouped together, the availability of specializations match the Scheurman et al. article.

The conceptual model of programs appeared primarily to be scholarly (50%), compared to 27% for scientist practitioner and 11% for practical. This conclusion was reached by examining program mission statements, objectives, and goals. Eleven percent of the programs did not provide enough information to determine the conceptual model. The majority of programs identified themselves as developing theoretical and applied research skills, providing a broad base of knowledge related to educational psychology, and preparing educational psychologists for working in teacher-training institutions. The percentage of programs that did not provide enough information (11%) about the goals of their programs is of particular concern, because of the difficulty it presents for potential students trying to efficiently evaluate programs.

In addition, 33% of the programs were rated as scholarly in their descriptions of the curriculum, 21% as scientist practitioner, and 14% as practical. Twenty-two percent of the programs did not provide enough description of their curricula to permit rating the conceptual model. These findings relate to the previous identification of the most frequent content areas of the programs. One would assume that programs that most

commonly offered the content areas of measurement, evaluation, and research methodology would be characterized as having a scholarly curriculum.

The scholarly label applied to program goals and curriculum was not consistent with the job opportunities listed for educational psychologists. Here the programs were categorized as scientist-practitioner (45%), scholarly (20%), and practical (15%). Twenty-percent of the programs did not provide enough information to be adequately judged. In identifying the scientist-practitioner job opportunities, universities stated that educational psychologists had opportunities in working in state and federal departments of education, consulting, or training in schools and business. This finding is consistent with Goldberg and Houtz's contention that although programs recognize that opportunities abound in non-traditional fields, the faculty do not encourage these opportunities in the curriculum directly. Thus, a scholarly emphasis of programs is not highly consistent with the more non-traditional job opportunities for educational psychologists.

Another conceptual feature of the programs analyzed in the current study was the degree of structure that a program provided on two levels: model programs and processes for determining program objectives. First, the results showed a medium range of structure in that programs generally provided an overview of the requirements (e.g., core, elective, and research requirements) but did not describe specific sequences of coursework or model programs to students. Secondly, programs generally described a process in which students and faculty determined program objectives together, with some degree of flexibility in coursework. Also of importance is the fact that 34% of programs did not provide enough information to judge the process by which coursework was determined.

This is significant because potential students may be very interested in knowing exactly how the program of studies is determined before beginning a doctoral program.

The level of faculty scholarship was examined for all journals and specifically for educational psychology core journals. It should be emphasized that the results are reported as averages across faculty members and that individuals who are exceptionally scholarly could skew program averages. The results show that educational psychology faculty are overwhelmingly choosing diverse publication sources, as evidenced by the difference in mean number publications for all journals (2.82) compared to educational psychology core journals (.31). Publication citations were also considerably higher for all journals than just educational psychology core journals. Figure 1 shows the top ten journals in the field. This listing of top-ten journals in the field differ from the core listing provided by Smith et al., 1995. Based on the frequency of publications by educational psychologists, it appears that Educational and Psychological Measurement, Applied Psychological Measurement, Child Development, and Journal of Educational Measurement are now among the core journals of the field, while both Educational Psychology Review and Cognition and Instruction are not. Figure 2 shows the overall picture of diversity in publications in the field. Publications in the core educational psychology journals account for less than 10% of the total publications in the field. It is clear that educational psychologists have diverse research interests as evidenced in total number of journals represented (369 titles).

The innovative features of doctoral programs had not been previously examined. The results of this study showed that 41 programs (66%) described job positions that

differed from university teaching and research. Unfortunately, this item may indicate little about innovative features of the program, because programs have been found to promote innovative job markets but not support them in the curricula. Forty-seven percent of the programs had content areas that were found to be innovative. These content areas differed from general educational psychology (learning and cognition, development, instructional design, program evaluation motivation, personality, and assessment). Another finding that lends added support to the finding that 47% of educational psychology doctoral programs have innovative content areas is the diversity of journals in which educational psychology faculty publish their work. Because educational psychologists are publishing in many diverse journals, programs have likely crafted innovative content areas. Adult learning and creativity, educational technology, collaborative learning, and gifted and talented education are a sampling of innovative content areas derived from the most innovative programs identified in Table 12.

The innovative application of doctoral training was another feature evaluated. Forty percent of the programs demonstrated some application of doctoral study, including practica, internship, or application in one's own work setting. Most programs demonstrated this innovative feature by simply indicating that a practicum or internship was required. However, one of the most innovative programs identified in Table 12, the University of Tennessee, Knoxville, encourages students to remain in their current job and apply doctoral work to their own work setting. The finding that 40% of programs do offer some level of application of doctoral study may support the case for programs preparing students for diverse job roles previously discussed.

The next item, innovative instructional delivery systems, was found in only 24% of the programs. In preparing educational psychologists, programs were analyzed for such innovative instructional delivery systems as interdisciplinary focus, distance learning opportunity, or collaborative processes. This item is supported by the findings of only a small number of interdisciplinary doctoral programs or programs housed in places other than colleges of education.

Finally, the item found least was innovative systems of research, which was reported by only 19% of the schools. Relatively small numbers of schools offered such research approaches as ethnographic research, action research, or meta-analysis. Also, programs did not appear to have a formal structure of engaging students in research activities prior to candidacy.

Exemplary Programs

In determining the top-ten list of exemplary programs in educational psychology, the investigator examined the faculty record of scholarship and innovative features of each program. Because some universities did not separate educational psychology faculty from other related areas within a general department, 22 universities were excluded from this ranking. Out of a list of 40 universities, a top-ten list was generated that weighted average publication, average publication citations, and innovative ranking equally. This top-ten list was then examined in comparison to the listing of prestigious universities provided by West and Rhee (1995) and U.S. News On-Line (1998). There were similarities in these lists, including the University of Wisconsin at Madison, University of Minnesota, University of California at Los Angeles, University of Illinois at Urbana, and

the University of Pittsburgh, which were on both of the prestigious lists and the top-ten list generated in this study. However, two universities previously cited as prestigious universities (Stanford and Michigan State University) were not included in this study because they did not clearly identify educational psychology faculty. Still other prestigious programs, such as University of Texas at Austin, Columbia University Teachers College, and University of California, Berkeley, did not appear on the top ten list of exemplary programs. However, when universities were put in size-alike groups based on the total number of faculty, the University of Texas at Austin was included as a top program in the large size faculty category.

The exclusion of prestigious universities from the top-ten list was due primarily to low publication production and publication citations from these universities rather than a lack of innovative features. Only the University of California, Berkeley, showed a small number of innovative features. Moreover, because there were two rankings, one for total publication and one for publication citations, scholarly production was weighted more heavily than overall innovativeness in the final analysis.

Conversely, several programs that were not included on the prestigious listing of universities appeared on the top-ten list of exemplary programs in the current study: University of Memphis, University of Nebraska, University of Utah, Texas A&M University, The City University of New York, and the University of Southern California. Also, programs that emerged when programs were grouped in size-alike groups were the State University of New York at Buffalo and the University of Tennessee, Knoxville, which are small exemplary programs. In general, programs included in the top ten listing,

but not on any previous listing of prestigious programs, showed good publication productivity with sufficient citations and an average number of innovative features. Only one university, the University of Southern California, was able to attain a top ten ranking (number 10), while not evidencing any innovative features of the program. Thus, it was extremely difficult to obtain a high ranking on scholarly productivity alone.

Exemplary Web Sites

Web sites were also ranked by university. While no university met every criterion for an exemplary web site, the top two programs (Indiana University and Brigham Young University) met 14 of the 15 criteria. These programs provided a complete web site with excellent organization and navigational features. Exemplary features of these programs include national listings of job opportunities accessible for all educational psychology students and professionals. Brigham Young University lists current positions of its alumni and even gives them their own pages with contact information. Courses are listed on-line and many courses provide full syllabi for prospective and current students. Another exemplary feature of the Brigham Young site is a step-wise description of the dissertation process. Both universities provide excellent contact information, including individual pages for faculty members, with e-mail, phone numbers and locations of their office on campus. Also, there are links provided to encourage students to submit on-line applications and to obtain financial aid information. The Brigham Young program is characterized as a quasi-educational psychology program. Its title, Instructional Psychology and Technology, perhaps informs

the development of its unique web site. Indiana University is more clearly identified as educational psychology and also includes many important features of a web site. These web site addresses are referenced in the Appendix.

The top ten lists for exemplary programs and exemplary program web sites differed significantly (only the University of Wisconsin, Madison was present on both lists). One reason for this disparity was the weighting of scholarly publication and publication citations in the rankings. A university faculty could have good overall scholarly productivity but a simplistic web page that merely listed programmatic information. Programs identified with exemplary web sites had to excel in navigational and organizational features and not simply describe basic programmatic features. Another reason may be that programs that have not traditionally been identified as prestigious or exemplary may develop their web sites to promote their programs. In short, programs that have traditionally been identified as prestigious may not see an urgent need to promote their program via an internet web site.

Future Trends in Graduate Study

In examining the history of graduate training and the current status of doctoral training as reported in this study, the investigator maintains that educational psychology as an area of graduate training will continue to blur its boundaries with other disciplines. The findings that educational psychologists are publishing in diverse sources and that core journals are not primary publishing sources for many educational psychologists support the prediction that educational psychology will continue to diffuse its boundaries. Specific areas likely to grow are the innovative programs identified in this study. Specific

content areas likely to grow are educational technology, adult learning, creativity, collaborative learning, and gifted and talented education. One reason for the prediction of an increase in these specific areas is that scientist-practitioner work roles sought by educational psychologists require graduates to have the tools to be effective facilitators and life-long learners. In the new millennium, educational psychologists will function in a variety of work roles, building their own capacity as they transfer research skills into practice. The prediction of an increase in educational technology content areas is a result of the rapidly changing structure of higher education. As evidenced in the internet web sites that provide course content, distance learning is an evolving instructional delivery system with implications for all future educational psychologists.

The conceptual model of educational psychology will eventually become a true scientist-practitioner model. However, the scholarly traditions of the field will anchor educational psychology in the new millennium. The core elements of educational psychology that will continue to define the field are learning, cognition, and development. Many programs will still espouse scholarly goals for students, which will primarily prepare graduates to be university teachers and researchers.

Future Directions for Research

The evolution of the internet will provide more opportunities for internet-based program analysis and evaluation in all areas of higher education. Certainly, universities are finding that the internet is becoming a primary source of information for prospective and current students in a variety of fields. As this area expands, future studies may examine the extent to which students use the web sites as their primary source of

information. Moreover, one might examine the specific ways students use the web site as a source of guidance in designing their courses of study and tracking their progress through their programs (e.g., tracking links within web sites, evaluating frequency of page use). Another avenue for research is to examine how graduate programs use their web pages (e.g., what is their explicit purpose versus implicit use). Researchers may also determine ways in which program web sites can be used for formal program evaluation.

Another area of research could be to determine if the missions of educational psychology programs are linked to missions of colleges of education (e.g., teacher preparation, empirical research) stated in their respective web-sites. Also, how well do web site descriptions define the boundaries of educational psychology programs (i.e., distinguish educational psychology from related disciplines)? Furthermore, to what extent are these web site descriptions of educational psychology programs consistent with the priorities of various educational consortiums (e.g., Holmes Colleges, Renaissance Group) and supervisory organizations (e.g., NCATE, APA).

Although non-traditional job opportunities appear to be available for educational psychologists, little attempt has been made to track graduates and evaluate their career progress. A study tracking individual graduates could be facilitated by using the internet as a primary source of communication.

Limitations of the Study

First, this study is primarily limited by the information provided on internet web sites and the scholarly production data obtained electronically via the social science citation index. No attempt was made to contact students, or faculty, or department

chairs to gain additional information about doctoral programs in educational psychology. Moreover, the information obtained on the web sites varied greatly in length and completeness, which substantially affected ratings about key dimensions of the programs. This dissertation is simply a snap shot of educational psychology doctoral training as viewed through the internet at the conclusion of the 20th century.

Another primary limitation was the difficulty in operationalizing some of the conceptual constructs in this study. This difficulty combined with the varying depth of information on web pages resulted in a high number of items being marked unable to judge by at least one of the raters and thus affected the overall inter-rater reliability. For instance, in evaluating the degree of structure of programs, an item that yielded a high number of "unable to judge" ratings was the description of processes that determine coursework.

The labeling of programs as either scholarly, practical, or scientist-practitioner also presented problems. Although these labels were used to describe educational psychology programs in previous studies (Schuerman et al., 1993), there was no attempt to operationalize them in terms of features of the graduate programs. Efforts to operationalize these constructs focused the analysis on such areas as goals, mission-statements, objectives, curricula, and job opportunities. Also, the features of innovative programs presented particular items that were difficult to operationalize. Specifically, raters had difficulty judging whether programs had innovative instructional delivery systems and innovative research areas. These two items are referenced on the innovative programs rating form in Table 4. While it was difficult to determine whether rating these

items suffered more from lack of definition or simply inadequate information, it is assumed that both of these factors reduced the overall reliability of the ratings.

The overall reliability for this study using percent of agreement on the items of structure, conceptual model, and innovative features was in the moderate range (70%). Individually, the ratings on the conceptual features of programs was less reliable (58%), while degree of structure showed moderate reliability (68%), and innovative features showed the best reliability (78%). The disagreements on the conceptual model and innovative features were resolved by choosing to use the ratings of the Ph.D. in educational psychology over the rater with Ph.D. in curriculum and instruction. Moreover, the investigator also tested the ratings on 20 of the programs and found better overall agreement with the rater with a Ph.D. in educational psychology.

Another limitation was that the description of programmatic features was conducted exclusively by the investigator. Thus, the chart referenced in the Appendix consists of information extracted from the web sites by the investigator during the Spring of 1999. Every attempt was made not to alter the description provided by the university in regards to the general description of the programs. However, due to the dynamic nature of programs and web sites, readers are encouraged to use the web site addresses referenced in the Appendix to seek current information and/or make comparisons to the information provided in the Appendix.

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APPENDIX

APPENDIX

Master Chart for Educational Psychology Doctoral Programs

Referenced material was gathered in the Spring of 1999 and is included as a resource guide for students and professionals in educational psychology. Programmatic information contained on web sites are updated frequently; therefore users are encouraged to view web sites on-line for the most current information.

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Andrews University www.educ.andrew s.edu/ecpc/educati onal_psychology.h tm	Education and Counseling psychology	human development, personality, learning and instruction, measurement, statistics, and research design	Education and Counseling Psychology concentration within Division of Education	preparation for teacher training institutions	91 ^a	universities, schools, businesses, industries, human development settings	Ed.D. Ph.D.	NI
Arizona State University seamonkey.ed.asu. edu/~gail/division/ divintro.htm	Lifespan Developmental Psychology	human development	Educational Psychology Concentration within Division of Psychology in Education	course selection should reflect all stages of development	98 ^a	academic positions, administrative roles	Ph.D.	5 ^c

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Baylor University www.baylor.edu/~Education/edp/phd.html	Interdisciplinary studies in Adult Learning and Creativity	adult learning and creativity	Department of Educational Psychology within Department of Education	improve quality of instruction in higher ed, develop teachers who encourage inquiry, develop researchers with multi-disciplinary perspectives	75 ^a	teach in higher ed., coordinate professional development, develop honors program at higher ed level, develop field based adult education program	Ph.D.	6
Brigham Young University www.byu.edu/ipt/	Ed-Psych Like Instructional Psychology and Technology	instructional design or research and evaluation or second language acquisition	Department of Instructional Psychology and Technology in School of Education	give student the knowledge, methods, and technologies necessary for disciplined research into instructional issues	94 ^a	NI	Ph.D.	9 ^c
Catholic University of America arts-sciences.cua.edu/educ/overviewdoc.htm	Educational Psychology	cognition and instruction, research and evaluation, human development	Ed. Psych Degree part of Department of Education in College of Arts and Sciences	individualized programs of study done with faculty mentor	61 ^a	college and university professors, educational researchers, researchers for government and industry, statisticians and research consultants, instructional designers and developers, program evaluators, and directors of research for school systems.	Ph.D.	NI

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Cornell University www.gradschool.cornell.edu/grad/fielids_1/educ.html	Educational Psychology	focuses on human learning, life span development, interpersonal and group processes in both formal and informal educational settings; educational measurement and psychological assessment	Educational Psychology program in the Graduate School of Education	NI	NI	NI	NI	11
Florida State University www.fsu.edu/~edres/psychology/welcome.html	Educational Psychology	learning and cognition, measurement, statistics, program evaluation and sport psychology	Educational Psychology is part of Department of Educational Research in College of Education	emphasis is on selecting a specialization	NI	universities, research directors, testing specialists, evaluation/auditor for state agency, evaluation specialist for school system, researchers in sport related organizations, consultant in rehabilitation programs.	Ph.D.	6

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Fordham University www.fordham.edu /gse/pes.htm	Educational Psychology	cognition, motivation, individual differences, cognitive technologies and instructional design, research, evaluation and professional issues	Educational Psychology Program in Psychological and Educational Services Unit, Graduate School of Education	give skills to develop, design, evaluate instructional systems and educational training programs/ students see how research improves practice	75 ^a	work in educational, instructional, and training systems in schools, universities, businesses, health services, communications	NI	16 ^c
Georgia State University education.gsu.edu/ epse/	Educational Psychology	foundations, learning, human development, instructions, aging, applied behavior analysis, motivation, social psychology and cognitive psychology	Department of Educational Psychology and Special Education in College of Education	apply principles of psychology to the systematic study of education	69 ^b	teaching in universities, schools, and researchers in state and city departments of ed, professionals in training research programs in government and industry	NI	11
Graduate School and University Center of the City/Univ. Of New York www.gc.cuny.edu/ ACADEMICPRO GRAMS/acad.htm #anchor562348	Educational Psychology	learning, development and instruction, quantitative methods in educational and psychological research, and educational policy analysis	Educational Psychology program within the Graduate School	educate students to conduct basic and applied research, to analyze instructional methods and techniques and to formulate educational policies and programs	60 ^b	teaching, research, and consultative positions in higher education, and positions in departments of education, curriculum development programs, and research and development centers in education	Ph.D.	21

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Harvard University gseweb.harvard.ed u/~admit/_private/ doctoral.html	1) Human Development and Psychology and 2) Learning and Teaching	human development and psychology, language and literacy, critical inquiry	Human Development and Psychology, and Learning and Teaching; separate programs in College of Education	training investigators and practitioners in research on child and adult development as it relates to educational problems and	NI	universities, public schools systems, federal education, curriculum development and research centers, museums, foundations,	Ph.D.	Unclear
Indiana University Bloomington www.indiana.edu/ ~educpsy/	Educational Psychology	human development, educational inquiry methodology, learning, cognition and instruction	Department of Counseling and Educational Psychology in College of Education	prepare scholars, researchers, inquiry based-practitioners	90 ^a	university faculty, psychological and educational researchers, program evaluators in research and consulting firms, foundations, public schools, industry, state and federal departments of ed, and the military	Ph.D.	15
Kansas State University www.educ.ksu.edu /Departments/EdP sych/Degrees.html	Educational Psychology	applied learning psychology, relevant research methods, educational measurements, program evaluation	Student Counseling and Personnel Services in College of Education	students will be instrumental in the resolution of concrete problems in a variety of educational settings	94 ^a	public schools, higher education, military, business and industry	Ed.D.	14 ^c
Loyola University Chicago www.luc.edu/scho ols/grad/education /edpsych.htm	Educational Psychology	development, special populations, multiculturalism, research methodology	Department in College of Education	prepare specialists in theoretical and empirical disciplines that support, interpret and evaluate educational practices	72 ^a	diverse locations	Ph.D.	5

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Michigan State University ed- web3.educ.msu.ed u/CEPSE/	Educational Psychology	student inquiry, learning & development from lifespan perspective and research into practice	Department of Counseling, Educational Psychology, and Special Education	research experiences, participating in intellectual communities, course work, teaching	3-4 years	NI	Ph.D.	NI
Mississippi State University www.educ.msstate .edu/CEdEPy/cede py.html	Educational Psychology	meet general requirements in 1) professional orientation, 2) cognition, learning and instruction, 3) measurement, statistics, and testing, 4) individual differences and social foundations 5) research and program evaluation and master skills and issues in one of the above areas	Department of Counselor Education and Educational Psychology	give students opportunities to meet requirements in the classroom and during practicum and applied settings/ goals are to have skills, knowledge in five areas listed under content	120 ^a	NI	Ph.D.	5
National Louis University www.nl.edu/nlu_n ce/programs/gradu ate/ed_psych/inde x.html	Educational Psychology	focuses on understanding the nature of individuals' learning and conditions and contexts that maximize learning and development.	Program in Educational Psychology as part of National College of Education	help students integrate theory, research and practice in psychology and education	NI	NI	Ed.D.	NI

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Northern Illinois University coe.cedu.niu.edu/e pcse/epcse.htm	Educational Psychology	overall emphasis on cognition with areas of study in human learning and development in educational settings, quantitative and qualitative research methodology, measurement and assessment, and program evaluation	Department of Educational Psychology, Counseling, and Special Education	discover, extend, apply, disseminate knowledge about human behavior and cognition	NI	research, consulting, program evaluation, educational leadership, college or university teaching	Ed.D.	10
Penn State University espse.ed.psu.edu	Educational Psychology	applied cognitive studies in instruction and school learning educational and psychological measurement	Department of Educational, School Psychology, and Special Education within Department of Education	provide a wide variety of opportunities for studying human behavior in educational and related situations	4 years from B.A.	Colleges & Universities, testing organizations, state and federal government agencies, private research and development organizations	Ph.D.	14
Purdue University www.soe.purdue.edu/edst/	Educational Psychology	cognitive development, gifted and talented education, learning memory, and cognition, measurement and evaluation, motivation, research methodology	Educational Psychology Program in Department of Educational Studies in School of Education	prepare to teach college courses in educational psychology and to direct and participate in research on educational problems	60 ^b	university teaching and research	Ph.D.	9

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Rutgers University www.gsc.rutgers.edu/edpsych/edpsyc.htm	Learning Cognition and Development program	study in psychology of human learning, cognition, and development as it applies to education, training in statistics and research, minor in applied educational area of interest, development of specializations	Program in Learning, Cognition, and Development in Department of Educational Psychology within college of education	inform and improve educational practice through the creation and application of knowledge through the preparation of educational professionals and researchers and through constructive engagement with educational agencies and institutions at the local, state and national levels	72 ^a	NI	Ed.D.	16
Southern Illinois University at Carbondale www.siu.edu/departments/coe/epsel/	Educational Psychology	foundations coursework required plus specialization in educational statistics and measurement, human learning and development, or special education	Department of Educational Psychology and Special Education in College of Education	prepare counselor educators, supervisors, develop specialists in human learning and development, develop specialists in the field of statistics, measurement, evaluation, develop college level teachers of special education, special education administration, and research in special education	NI	universities, training, management, research, mental health, business and industrial organizations, government agencies, public and private research centers, public schools, testing companies, rehabilitation, corrections	Ph.D.	18

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Stanford University www.stanford.edu/ dept/SUSE/navigation/ programsnavf rm.html	Educational Psychology	students pick concentrations in learning and instruction, the cognitive psychology of school subjects, teaching and teacher education, the psychology of individual differences, educational measurement, statistical methods	Educational Psychology Program in Psychological Studies in Education in College of Education	provide opportunities for direct participation in on- going research	72 ^a	faculty at universities, researchers in k-12 and higher education corporations, consultants to governments and corporations	Ph.D.	15 ^c
State Univ. Of NY at Buffalo www.gse.buffalo.edu/ DC/CEP/CEP_ EP2.htm	Educational Psychology	learning, cognition, development, assessment, and educational technology	Department of Counseling and Educational Psychology, College of Ed.	expand and apply knowledge of human behavior in diverse educational settings	3-4 years	universities, research, development, testing organizations, public schools	Ph.D.	4

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Teachers College Columbia University www.tc.columbia. edu/academic/cog nitive/	Educational Psychology: Cognitive Studies in Education	cognition and learning, intelligent technologies, reading research, cognitive studies of educational practice, psychology of training and performance support in the workplace	Department of Human Development in the Teachers College	overall: integrate perspectives from cognitive psychology, developmental psychology, educational psychology and computer science to investigate the cognitive mechanisms underlying thinking and learning Ph.D. -to train students to do theoretical research in cognitive science in education Ed.D. - to become a researcher or gain knowledge and skills necessary to achieve more applied professional goals in education-related fields	NI	college teaching and research, research and development for commerce and industry, evaluation and curriculum development for school systems, educational software design.	Ph.D. Ed.D.	11
Texas A&M University - College Station www.coe.tamu.ed u/epsy	Educational Psychology Foundations	learning, development, intelligence, creativity and giftedness, research, measurement and statistics	Department of Educational Psychology in College of Education	afford each student the opportunity to develop a program of study tailored to one's professional needs and interests	NI	page not completed	Ph.D.	26 ^c

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Texas A&M - commerce www.tamu- commerce.edu/coe /psy/etsu.html	Educational Psychology	cognition and learning, research methodology and evaluation, instructional design and learning technologies	Educational Psychology program in Department of Educational Psychology and Special Education in College of Education	1) provide students with an understanding of the past, present, and future development of the science of psychology and the discipline of educational psychology, 2) provideunderstanding required for ethical decision- making and practices in roles of researcher, student, and educational- psychologist, 3) provide ...understanding of the processes and principles that underlie science of human perception, cognitive development, learning, and cognition, 4) provide...skills and understandings needed o conceptualize, plan, and execute research and program evaluation, 5) provide...understanding of pedagogy...and evaluate instructional programs and implement educational technology to assist learning, teaching, and training.	90 ^a	federal and state educational agencies, national and state legislative groups, regional educational laboratories and research centers, higher education, public and private schools, professional organizations, high technology companies, military, publishers, private funding agencies, medical organizations and private consulting	Ph.D.	13

^a average length in program with bachelors degree. ^b average length in program with masters degree. ^c unable to differentiate educational psychology faculty from faculty in related program(s)

university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
Texas Tech University www.educ.ttu.edu/ epsy/index.html	Educational Psychology	foundation coursework required plus a diverse area of emphasis	Division of Educational Psychology and Leadership in College of Education	to employ a reflective analysis approach to assist highly motivated students in developing the vision and skills to conduct basic applied research that ultimately may leader to the improvement of educational practice	99 ^a	general - prepare researchers and practitioners	Ph.D.	13
University of Alabama www.bamaed.ua.e du/Edupsy.htm	Educational Psychology	learning and instruction, human development, or learning, instruction and development	Educational Psychology program in College of Education	provide exemplary graduate training in research, application, and practice related to learning, development, and mental well being of people of all ages	60 ^b	teaching at colleges and universities, schools, research and training in business and industry, state departments of education	Ed.D. Ph.D.	10
University of Arizona www.ed.arizona.e du/edpsych/	Educational Psychology	measurement and research methodology, or teaching, learning and development	Department of Educational Psychology in College of Education	to acquire a balanced knowledge of both the scholarly and applied aspects of the field	NI	teaching or research careers in educational research, measurement and evaluation in universities, testing firms, industry, research organizations and school settings	Ph.D.	12

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university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
University of California, Berkeley www- gse.berkeley.edu/p rogram/CD/cd.htm 	Human Development and Education	research methods and foundations, early childhood development, the development of cognitive processes, the development of social cognition and moral judgement, language and literacy development, children's mathematical and scientific concepts, and psychology of exceptional children	Human Development and Education program in area of Cognition and Development in Graduate School of Education	prepare students to analyze and investigate developmental phenomena and their relations to educational practice	NI	school teachers, consultants for school districts, university professors and researchers.	Ph.D.	25
University of California, Los Angeles www.gseis.ucla.ed u/division/psych/p sych.html	Learning and Instruction (Ed-Psych Like)	learning and motivational processes for normal individuals and the implication of these processes for instruction and uses of technology	Program in Learning and Instruction in Division of Psychological Studies	engagement in educational settings, practitioners, practical training and practice- orientated professional orientations.	72 ^a	NI	Ed.D.	15
University of Colorado at Boulder www.colorado.edu /education/graduat e/programs.html	Educational/ Psychological Studies	human learning, child and adolescent development, culture, cognition, and schooling, cognition and metacognition, instructional psychology and research on teaching	Educational Psychological Studies program in School of Education	integrate both theoretical and professional knowledge with special emphasis on issues of learning and teaching in the classroom	NI	universities, teacher education programs, research and development laboratories, school districts, state and federal agencies	Ph.D.	NI

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university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
University of Connecticut www.epsy.uconn.edu	Cognition and Instruction	educational technology, measurement and evaluation, instructional psychology	Cognition and Instruction Program, Department of Educational Psychology, College of Education (works cooperatively with department of psychology and liberal arts and sciences)	merge psychological theory and research with educational practice	NI	(general) public school positions, universities	Ph.D.	36 ^c

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university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
University of Denver www.du.edu/education/ed_psych/programs.html	Educational Psychology	quantitative research methods and child and family studies	Department of Educational Psychology in College of Education	quantitative methods concentration: provide training in applied statistics, applied measurement, research methods and evaluation, 2) contribute original work in applied measurement and statistics, 3) provide consultation to students, colleagues, schools, and organizations regarding effective research	NI	quantitative methods: faculty positions in higher education, consultation positions in private industry, assessment and evaluation positions in state and local school systems, and positions in testing organizations	Ph.D.	NI
University of Florida nersp.nerdc.ufl.edu/~founded/index.htm	Educational Psychology	cognition and learning, especially as they relate to problems of instruction, and on psychological development, relationships, and adjustment of the individual	Educational Psychology Program in Foundations of Education department in College of Ed.	child and family studies: program development and evaluation and policy development and training	90 ^a	NI	Ph.D.	18

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university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
University of Georgia www.coe.uga.edu/ edpsych/	Educational Psychology	applied cognition and development, gifted and creative education, research evaluation, measurement and statistics	Department of Educational Psychology in College of Education	to explore the impact of human cognitive, developmental, and motivational processes on educational and o determine how that knowledge can be best applied to the classroom.	NI	universities, research positions	Ph.D.	24 ^c
University of Hawaii at Manoa www2.hawaii.edu/ edpsych/	Educational Psychology	inquiry of human learning and development in the context of education; emphasis on individualized programs of study	Department of Educational Psychology in College of Education	prepare individuals to conduct basic and applied research and evaluation in public and private educational settings and provide instruction and consultation appropriate for all educational levels	3- 5 years	educational program development and evaluation, research, policy development and consulting, and teaching in schools, colleges and universities in U.S. , Pacific Basin, and Asia	Ph.D.	9
University of Houston www.coe.uh.edu/c oe_kiosk/epsy/eps y_home.html	Educational Psychology	individual differences, quantitative and qualitative research strategies, research experiences; emphasis on individualized programs of study	Department of Educational Psychology in College of Education	acquisition of knowledge (Related to individual differences), acquisition of quantitative and qualitative research strategies, and develop the ability to conduct original research	69 ^a	faculty positions in universities, or academic leadership and research positions in school systems and other educational settings.	Ph.D.	17 ^c

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University of Illinois at Urbana-Champaign www.ed.uiuc.edu/EDPSY/MAIN/	Educational Psychology	divisions in 1) development and socializing processes, 2) learning and instruction, 3) quantitative and evaluative 4) research methodologies, and 5) sociocultural perspectives in education	Department of Educational Psychology in Graduate School of Education	Development and Social Processes division - 1) aim of research, teaching, services,	NI	NI	NI	33
University of Kentucky www.uky.edu/Education/edphead.html	Educational Psychology	human development, cognition, learning, memory, social aspects of development, and educational research and research design	Department of Educational and Counseling Psychology in College of Education	to produce researchers, college and university teachers or other professionals in the areas of human learning and cognition, assessment, human development and social processes, research and evaluation procedures, and instructional design. Programs are tailored to meet the needs and career aspirations of the individual	50 ^b	teaching and research in universities, administrators in higher education, work in medical education or medical research, develop and manage training departments in industry, work in various areas of publishing, conduct product design and research and program development, consult or head state and federal agencies, conduct measurement and evaluation in school districts and establish a private consulting firm	Ph.D.	8

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University of Maryland www.dc.net/david y/edpsych/	Human Development specialization in educational psychology	learning and development, cognition, social relationships, motivation, language and literacy, technology infusion, knowledge and belief systems, resilience	sub- specialization in Educational Psychology as part of Specialization in Human Development in Institute for Child Study	attract research-orientated students into human development, b) give students more experience and greater proficiency in research in such areas as human cognition, achievement, motivation, self-regulated learning, strategic processing, and the influence of parental and teacher beliefs on student achievement and self-concept	90 ^a	university professors, research scientists at state , federal, or private levels	Ph.D. Ed.D.	8
University of Memphis www.coe.memphis .edu/coe/CEPR/ce pr.html	Educational Psychology	developmental & learning/cognition, and Educational Research	Department of Counseling, Educational Psychology and Research	to prepare advanced educational leaders for university teaching, applied research, or other professional roles in the areas of human development, learning, educational research methods and statistics, measurement and program evaluation	54 ^b	college professors, educational statisticians	Ph.D.	10

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University of Michigan www.soe.umich.edu/ u/programs/comb. html	Education & Psychology (ed-psych like)	focus on instructional psychology broadly defined; interdisciplinary focus.	jointly housed program in College of Education and Department of Psychology	Students are trained to conduct research in school settings, on significant educational problems related to instruction, learning, motivation and social development, classroom and school organization, individual differences and special populations		teaching and research careers in academic positions and non- academic settings such as state and national agencies that deal with educational policy and practice	Ph.D.	23 ^c
University of Minnesota, Twin Cities edpsy.coled.umn.edu/	Educational Psychology	psychological foundations (including evaluation, computer applications, statistics, and research design, as well as learning, cognition, human relations, measurement, social psychology and educational technology.	Educational psychology within the College of Education and Human Development	not indicated for psychological foundations	NI	NI	Ph.D.	12

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University of Missouri tiger.coe.missouri. edu/~ecp/	Educational Psychology	learning and instruction, measurement and statistics	Educational and Counseling Psychology Department in College of Education	preparation of professionals who can facilitate the improvement of learning and instruction in a variety of educational contexts	72 ^a	college and university professor, director of research and evaluation in public schools, state education departments, or regional laboratories, consultant to the public and private sectors, professional work in test development, evaluation, and assessment, text publishing, public television	Ph.D.	26 ^c
University of Nebraska tc.unl.edu/program s/TCCGradPrgrms.ht ml#PCS	Psychological and Cultural Studies	cognition and learning, quantitative and qualitative methods in education, developmental psychology	Department of Educational Psychology within College of Education	NI	90 ^a	NI	Ph.D.	11
University of Nevada, Reno www.unr.edu/colle ges/edu/cep/cepin dex.html	Educational Psychology	human development and learning and informational technology in education	Counseling and Educational Psychology Department within College of Education	to prepare graduates for professional positions, leadership roles in schools and other institutions and settings	96 ^a	professional positions in human development and learning.	Ed.D. Ph.D.	7

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University of New Mexico www.unm.edu/~di vbse/edpsy.htm	Educational Psychology	research based curriculum covering basic concepts and theories of psychology as they relate to learning and instruction. Included are cognition, human development, social psychology, learning, linguistic processing, instructional models, motivation, measurement, assessment, and evaluation.	Educational Psychology program within Division of Individual, Family, and Community Education.	To provide a broad base of knowledge including theoretical perspectives from various fields of psychology, a strong research orientation and a solid understanding of an ability to use a variety of research methodologies, and a critical and scholarly approach to evaluating research theory and practice	90 ^a	NI	Ph.D.	11
University of North Carolina www.soe.unc.edu/ people/gray2/199c atalog/index.htm	Psychological Studies in Education (Ed Psych Like)	brings together fields previously pursued in isolation (educational psychology, special education, counseling, and technology)	Specialization in Psychological Studies in Doctor of Education program in School of Education	NI	62 ^b	NI	NI	NI
University of Northern Colorado www.edtech.univn orthco.edu/COE/e psy/epsy.htm	Educational Psychology	learning and cognitive processes, human development, and research statistics, and measurement	Educational Psychology Department in College of Education	to produce scholars capable of undertaking original basic and applied research in psychological processes as they apply to education; there is considerable emphasis on research training within the program	66 ^b	NI	Ph.D.	6

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university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
University of Oklahoma	Instructional Psychology and Technology	general areas of knowledge and competence identified as: psychology of learning, technology of instruction and tools for inquiry and implementation	Program in Instructional Psychology and Technology in Department of Educational Psychology	provide the foundation for designing, developing, producing, implementing, and managing theory- based instructional interventions to promote learning	90 ^a	higher education research and teaching, research and evaluation in public schools, business or industry	Ph.D.	10
University of Pittsburgh www.pitt.edu/~soe_forum/psyed/dept_pic_dep.html	Developmental and Educational Psychology	distinct life-span emphasis, family studies; focus on application of research and a multicultural focus	Program of Educational and Developmental Psychology in Department of Psychology in Education in college of education	1) develop students ability to understand the cognitive, socio- emotional and interpersonal development of individuals as they (a) learn in school, b) perform in the workplace, and (c) interact and function in peer, family and cultural context 2) enable graduates to apply their knowledge to research and practice	90 ^a	faculty in programs of psychology, educational psychology and human development and family studies, psychological consultants and specialists and research associates	Ph.D.	14

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University of South Dakota www.usd.edu/epsy /	Educational Psychology	multidisciplinary with focus in :measurement and testing, research methodology, human learning, and human development; instructional and research technologies is an integrated component of the program	Division of Educational Psychology in College of Education	to provide all students with foundation in human learning, instruction, development and measurement to foster competence in both applied and theoretical research to assist students in career development as related to Educational Psychology and instructional environments to foster acquisition of skills in measurement and statistics as applied to educational problem solving	60 ^b	university teaching, the mental health field, business, and variety of positions in k-12	Ed.D.	5
University of Southern California www.usc.edu/dept /education/ctse.ht ml#anchor478751	Learning and Instruction	study of new information and performance technologies that can be used for instruction; motivation, developmental and individual differences, social, cultural and group processes, instructional technology and the evaluation of instruction.	Division of Learning and Instruction in School of Education	NI	NI	NI	Ph.D.	12

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university name and web address	title of program	content areas/specializations	location within university	goals of the program	hrs.	job market of graduates	degrees offered	faculty
University of Tennessee, Knoxville	Educational Psychology: Collaborative Learning	collaborative learning, action research; interdisciplinary focus	concentration in Educational Psychology Department in College of Education	To develop skills in, better understand collaborative learning process, To practice reflectively to develop collaborative learning communities in work environments, to generate new knowledge in the field of collaborative learning	90 ^b	trainers in business organizations, government settings, teachers and administrators in schools systems and higher ed, teachers of community education organizations	Ed.D.	4

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University of Texas, Austin www.edb.utexas.edu/coe/depts/edp/	Educational Psychology	must establish and be admitted into specialization: 1) leaning, cognition and instruction, 2) human development and education, 3) quantitative methods	Department of Educational Psychology in College of Education	1) learning, instruction and cognition: to acquire strong theoretical understanding and methodological skills needed to conduct original research and development work on these topics, 2) human development and education: training students in theories of developmental, social and personality psychology in order to prepare them for teaching and research in the fields of human development and education, 3) quantitative Methods: sub-specializations in statistics and research methodology and psychometrics and program evaluation	120 ^a	university and college teachers, program evaluators, and psychological researchers	Ph.D.	23
University of Pacific www.uop.edu/education/cpsych.html	Educational Psychology	NI.	Educational Psychology in Department of Educational and Counseling Psychology	prepare psychologists for licensure	NI		Ed.D.	6 ^c

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University of Utah www.gse.utah.edu/ edpsych/edpsych.htm	Educational Psychology	cognitive psychology (skill acquisition, human intelligence, and memory) psychophysiology (including child psychopathology) and measurement, statistics, and research methodology.	Department of Educational Psychology in College of Education	to give students training and experience in conducting research so that they may contribute to developing new knowledge	75 ^a	teaching and research at the university level, research directors in school districts, program evaluators, testing companies, state and federal departments of education	Ph.D.	4
University of Virginia curry.edschool.virginia.edu/curry/dept/edtl/	Educational Psychology	Ph.D. = foundations courses with a required speciality area: assessment and testing, cognition and learning, development, or instructional applications Ed.D. = foundations courses, educational research courses and minor emphasis area	Educational Psychology program in Department of Leadership, Foundations, and Policy in College of Education	to prepare students to apply the principles, empirical methods, and research findings of psychology to practical problems faced by educators and to advance educational psychology as an area of inquiry	60 ^b	leadership positions in school systems, state agencies, medical schools, or businesses where application of psychological principles and empirical inquiry are needed, teach in higher education.	Ph.D. Ed.D.	4

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University of Wisconsin, Madison www.soemadison.wisc.edu/edpsych/index.htm	Cognitive Science in Education, Quantitative Methods, and Human Development	cognitive science, quantitative methods (statistics and measurement), human-development (social contexts and individual maturation)	Programs in Cognitive Science, Quantitative Methods, and Human Development, in Department of Educational Psychology in College of Education	1) cognitive science - develop strong foundation in research, principles, and theory, develop capacities and skills for applying cognitive science to issues in classroom instruction and the acquisition of knowledge and skills, develop high quality research capability 2) develop foundation in mathematics and statistical theory, develop expertise in application of statistics or psychometrics to educational research, develop ability to serve as a consultant to ed researcher, develop capability of conducting, publishing research, 3) give students strong grounding in life-span approach, implications of developmental processes for educational programs and practice, help students build expertise in specific facets of human development, to develop researchers, give individualized opportunities	4-5 years	1) cognitive science - college teaching and research, private research organizations, 2) quantitative methods - testing companies, national, state and local testing programs, teaching and research at the college level 3) human development - college and university teaching and research	Ph.D.	22

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Washington State University www.educ.wsu.edu/u/ELCP/index.shtml	Educational Psychology	core requirements and concentration in one area of choice: measurement and assessment, program evaluation, and data analysis	Educational Psychology program in Department of Educational Leadership and Counseling Psychology	include substantial work in theoretical as well as applied psychology and students are required to do substantial course work in other academic units	72 ^a	college or university teaching, public school service in the role of a testing program director or coordinator of curriculum and program evaluation, research or administration in research units	Ph.D., Ed.D.	26 ^c
West Virginia University www.wvu.edu/~hr/e/departments/index.htm	Educational Psychology	learning and development, instruction, and research	Department of Advanced Educational Studies in Graduate School of Education	develop competency in learning and development, instruction, and research	72 ^a	educational agencies at local, state, and federal levels, public and private human service centers, medical centers, and business and industrial settings	Ph.D.	NI

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VITA

Michael Edward Nolan was born in Tarrytown, New York on August 10, 1971. He attended high school in Stuart, Florida from 1985-1989. In September of 1989, he entered college at the University of South Florida. He graduated in May 1993 with a Bachelor of Science degree in Secondary Education. Upon completion of his undergraduate studies, Michael enrolled in the Counselor Education program at the University of South Florida. While working as a counselor in the school system, he completed his coursework and was awarded a Masters in Arts in May 1995. In August 1995, Michael enrolled in the doctoral program in Education at the University of Tennessee, Knoxville. His area of study was Educational Psychology. Other areas of study included Counselor Education and Early Childhood Education. Michael graduated with a Doctor of Philosophy degree in Education from the University of Tennessee in the Fall of 1999. Michael is presently working as an Assistant in Research at the University of South Florida. In this capacity he serves as a technical assistance specialist to school districts in Florida.