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To the Graduate Council:

I am submitting herewith a dissertation written by Amanda M. Monville entitled "Intervention training in school psychology doctoral programs: a millennium mandate." I have examined the final electronic 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:

Tom George, Richard Saudargas, Chris Skinner

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

To the Graduate Council:

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Dr. Robert Williams

Dr. Tom George

Dr. Richard Saudargás

Dr. Chris Skinner

Accepted for the Coungil:

Vice Provost and

Dean of Graduate Studies

Intervention Training in School Psychology Doctoral Programs:

A Millennium Mandate

A dissertation presented for
the Doctor of Philosophy Degree
The University of Tennessee, Knoxville

Amanda M. Monville

December 2001

DEDICATION

This dissertation is dedicated to my parents

Brig. Gen. (Ret.) Daniel Montgomery

and

Mrs. Phyllis Montgomery

whose love, support, and sacrifices helped make this dream a reality

and to my husband, Michael,

whose awe-inspiring love is a constant source of strength

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I would like to thank my family for imparting in me the drive to excel and to be the best I can be. Perseverance pays off! I am especially grateful to my sister, Christa Gentry, for the lesson to never give up hope and whose love and friendship is a great blessing in my life. Finally, the greatest debt is owed to my husband and best friend, Michael Monville, for his unwavering love, patience, and understanding. Great adventures await us!

Abstract

The Individuals With Disabilities Education Act (IDEA) (P.L. 94-142) mandates that all children have a right to a free and appropriate public education (FAPE) in the least restrictive environment (LRE). Although implementation of the LRE has been successful, expectations for student performance within regular classrooms have remained low and "proven methods of teaching and learning" have been "insufficiently" used (IDEA Section 601(c)(4)). In an effort to encourage accountability and to improve teaching and learning, IDEA was reauthorized in 1997, thus introducing "some of the most sweeping changes in the federal law since the enactment of P.L. 94-142 in 1975" (Telzrow, 1999, p. 7).

Two overarching themes evident in the IDEA amendments are "increasing accountability and increasing intervention-based services" (Barnett et al., 1999, p. 358). This increased emphasis on the use of interventions for students with disabilities will require school psychologists to broaden their role in order to effectively practice within the guidelines of the law.

Due to the IDEA '97 amendments, there is a need for school psychology graduate training programs to incorporate intervention-related course work into their programs of study. To date, there is no known investigation of the degree of intervention-related training in doctoral programs in school psychology. Thus, the purpose of this study was to determine the extent and nature of intervention-related course work versus assessment-related course work in accredited doctoral programs in school psychology.

The study was limited to the evaluation of doctoral programs approved by the American Psychological Association (APA) and/or the National Association of School Psychologists (NASP). A list of approved programs was obtained from the most recent edition of the <u>Directory of School Psychology Training Programs in the United States</u> (Thomas, 1998). Upon identification of approved programs, a listing of each program's required course work and the descriptions of those courses were collected primarily via the Internet. Based on those course descriptions, I categorized only those courses that were primarily assessment- or intervention-related to determine the extent of training required by each university in these two domains.

To aid in the classification process and to increase the reliability of the study, I developed definitions of the various assessment and intervention categories. A second rater and I independently categorized the data from the university programs based on those definitions. I categorized all the data and the additional rater categorized the data from a random selection of 25% of the programs, yielding an inter-rater agreement of 93%. Furthermore, all data were collected within a one-month period (July 2000) to ensure that the time frame for curricular evaluation was equivalent for all programs.

The results of this study indicate that, on average, APA- and/or NASP-accredited school psychology doctoral programs require significantly more (p < .05) course work in intervention than in assessment. On average, 59% of the required course work in intervention is in consultation, counseling/psychotherapy, and behavioral intervention techniques. Within the broad category of assessment, the majority of the required course

work (77%) relates to indirect methods of assessment, such as IQ testing and other norm-referenced instruments, as opposed to direct assessment methods, such as curriculumbased assessment (CBA) and functional behavior assessment (FBA).

Overall, no significant differences emerged between accreditation type (i.e., APA, NASP, APA/NASP) with respect to required course work in assessment and/or intervention. However, differences emerged between type of doctoral degree offered and some subcategories of intervention and assessment. Programs awarding the Ed.D. degree required significantly more course work in neuropsychological assessment than did programs offering the Ph.D. degree although not more than programs offering the Psy.D. degree. Programs awarding the Ed.D. degree also required significantly more course work in family intervention then either the Ph.D. or Psy.D. degrees. Programs awarding the Psy.D. degree required significantly more course work in psychodynamic/psychoanalytic intervention than did either the Ph.D. or Ed.D. degrees.

This study is significant in its potential to inform the field of the degree to which school psychology programs are providing training in the design and implementation of interventions as mandated in IDEA '97. Moreover, school psychology trainers can gain a better understanding of the degree of intervention and assessment training being required in APA- and NASP-accredited school psychology doctoral programs and, in turn, evaluate their program in comparison to other programs. This comparison may serve as a catalyst for modifying curricular requirements where needed to provide graduate students with the skills necessary to practice productively in the field.

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Chapter 1

Background for the Research

In 1975, the Education of all Handicapped Children Act (P.L. 94-142) (amended in 1990 as the Individuals With Disabilities Education Act, or IDEA) mandated that all children have the right to a Free and Appropriate Public Education (FAPE). Moreover, Public Law 94-142 (P.L. 94-142) set forth the requirement that FAPE be provided in the Least Restrictive Environment (LRE). This legislation required that all children referred for special education receive comprehensive individual assessments in order to determine eligibility for such services.

Because "intelligence is a core element of many of the handicapping conditions defined in the new law, assessment of intelligence often has been a required part of this assessment" (Talley & Short, 1996, p. 9). Additionally, because school psychologists oftentimes are recognized as the only school-based professionals trained to administer such tests, school psychologists' role has become restricted to that of a "gatekeeper," with two thirds of their professional time devoted to testing students to determine eligibility for special education services (Fagan, 1981; Fagan & Wise, 1994; Knoff, 2000; Reschly & Ysseldyke, 1995; Talley & Short, 1996).

IDEA's LRE Mandate and Special Education

Historically, special education often meant special schools or self-contained classrooms set apart from regular education students. However, with the implementation of the LRE mandate, children with disabilities have become integrated increasingly into

general education classrooms. This began with widespread use of the term mainstreaming, which refers to students more or less earning their way from a special, self-contained classroom to that of a general education classroom. In other words, if a student with a disability is making progress academically in the self-contained classroom and educators determine that this progress would continue in a less restrictive environment, such as a general education classroom, the child may receive that change in placement. Thus, the child moves from a more restrictive to a less restrictive environment (Weatherly, 1999).

The term mainstreaming, now regarded as taboo among many in the field of special education, has been replaced with the term inclusion. Inclusion refers to the practice of placing the student first in a general education classroom and attempting to meet his or her needs in that environment. Inclusion begins with the least restrictive environment and then can move to a more restrictive environment if the student's needs cannot be met in the general education classroom (Weatherly, 1999).

Full inclusion has achieved significant support in schools across the country due, in part, to education reform and to the LRE requirement of IDEA (Bradley-Johnson, Johnson, & Jacob-Timm, 1995; McEllistrem, Roth & Cox, 1998 as cited in Ellis & Magee, 1999). Despite the fact that students with disabilities are taught increasingly within the general education classroom environment rather than in separate, self-contained classes, expectations for student performance within general education classrooms have remained low; and implementation of "proven methods of teaching and

learning" have been "insufficiently" used (IDEA Section 601(c)(4)). Furthermore, Bradley-Johnson et al. (1995) contend that school psychologists have not been involved in the implementation of inclusion because they have been "too busy testing to be a part of this process" (p. 191).

In an effort to encourage accountability and to improve teaching and learning, IDEA was reauthorized in 1997, thus introducing "some of the most sweeping changes in the federal law since the enactment of P.L. 94-142 in 1975" (Telzrow, 1999, p. 7). Telzrow insisted that "because the practice of school psychology remains strongly linked to special education, understanding the implications of these changes is critical for school psychologists" (p. 7).

Mandates/Guidelines of IDEA '97 (P.L. 105-17)

Two overarching themes evident in the IDEA amendments are "increasing accountability and increasing intervention-based services" (Barnett et al., 1999, p. 358). These two themes are inextricably linked because "good intervention design" is contingent upon evaluation of the intervention's outcomes (i.e., accountability) (p. 358). This increased emphasis on interventions for students with disabilities will require school psychologists to broaden their role beyond that of traditional testing.

The areas discussed below are major domains within IDEA where use of interventions for students with disabilities is essential for practice within the guidelines of the law. Documentation that appropriate interventions are being implemented must be provided in the individualized education program (IEP) of each child with a disability.

Interventions and access to the general curriculum. The new regulations emphasize student involvement in the general curriculum (Heumann & Hehir, 1997), "underscor[ing] the fundamental idea that students with disabilities should be learning what other children are learning in school" (p. 3). This conclusion is based on more than 20 years of research supporting the benefits of upholding high expectations for students with disabilities and involving them in the general curriculum to the greatest degree possible. (IDEA Section 601(c)(5)(A)).

Along with the increased responsibility for ensuring enhanced educational opportunities and access to the general curriculum for students with disabilities comes an emphasis on results and accountability. IDEA '97 is utilizing the Individualized Education Program (IEP) as the primary vehicle for holding educators, school psychologists, and administrators accountable for delivering FAPE to all students with disabilities (Heumann & Hehir, 1997; Office of Special Education and Rehabilitative Services, IDEA '97 Final Regulations, 1999). Results are measured by student attainment of goals and short-term objectives defined in each student's IEP.

IDEA '97 mandates that the IEP include "a statement of measurable annual goals, including benchmarks or short-term objectives" (IDEA Section 614(d)(1)(A)(ii)), and "a statement of how the child's progress toward the annual goals...will be measured" (IDEA Section 614 (d)(1)(A)(viii)(I)). Although annual goals and objectives have been an important component of IEPs since 1975, the new regulations are placing a much greater emphasis on the *measurability* of those goals and objectives (Drasgow, Yell, Bradley, &

Shriner, 1999), thereby raising the stakes on accountability. Accordingly, interventions must be monitored to provide on-going documentation of the child's progress in the general curriculum.

IEP meetings, which formally emphasized access to special education, now must address the means by which "high-quality education" will be provided to each child with a disability to help him/her participate and progress in the general curriculum (Heumann & Hehir, 1997, p. 2). As a part of this process, school psychologists aid in the determination of appropriate goals and objectives by utilizing "assessment tools and strategies that provide relevant information that directly assists persons in determining the educational needs of the child" (IDEA Section 614(b)(3)(D). The school psychologist must be able to link the results of his or her assessment to academic interventions and teaching strategies.

<u>IDEA '97 mandates behavioral intervention plans (BIP) based on functional behavior assessments (FBA).</u> Issues related to discipline, as well as the necessity of implementing "positive behavioral interventions" that address a child's "troubling behavior," are considered in depth in IDEA '97 (Office of Special Education and Rehabilitation Services, IDEAs that Work, 1999, p. 1). Appropriate help and instruction must be provided to children with disabilities who evidence problems in following rules and getting along with others in school (Office of Special Education and Rehabilitation Services, IDEAs that Work, 1999).

Specifically, the new regulations require that the IEP team consider "strategies,

including positive behavioral interventions" for a child with a disability "whose behavior impedes his or her learning or that of others" (IDEA Section 614(d)(3)(B)(i)). If appropriate behavior intervention strategies are not provided and documented in the child's IEP, "then that failure would deprive the student of a free appropriate public education" (Drasgow et al., 1999, p. 245).

Moreover, when expulsion or suspension of more than 10 days occurs for a student with a disability, an FBA must be conducted to examine "the relationship between the child's disability and the behavior subject to disciplinary action" to determine if the behavior was a manifestation of the disability (IDEA Section 615(k)(4)(A)(ii)). If the problem behavior is a result of the child's disability and if an appropriate BIP is not in place, the IEP team must either "develop an assessment plan to address that behavior; or, if the child already has a behavioral intervention plan, the IEP team shall review the plan and modify it, as necessary, to address the behavior" (IDEA, 1415(k)(1)(B)(I-ii), as cited in Drasgow et al., 1999, p. 246).

Numerous authors have commented on the importance of the school psychologist's role in conducting FBAs and implementing BIPs prior to problem behaviors escalating to the level of suspension or expulsion (Drasgow et al., 1999; Hendrickson, Gable, Conroy, Fox, & Smith, 1999; Nelson, Roberts, Rutherford, Mathur, & Aaroe, 1999; Yell & Shriner, 1997). In an article addressing this issue, Wright (1999) offered the following perspective: "The inescapable conclusion is this: Whenever a student receiving special education services exhibits difficult behaviors, whether early or

late in an escalating behavior pattern, the IEP team must address the situation in a behavior plan" (p. 8).

Extension of "developmental delay" classification to promote intervention. The importance of early interventions is underscored in the new regulations with the option provided to states to extend use of the term developmental delay to include children through the age of nine (IDEA Section 602(3)(B)(i)). This decision was made in an effort to promote early intervention services for children with disabilities, while eliminating the necessity of classifying those children into one specific disability classification too early. Oftentimes children are not referred for special education or do not meet eligibility criteria for services under a particular disability classification until the third or fourth grade. However, children profit most from intervention services provided early. Thus, waiting until the child is eight or nine years of age may limit the academic and/or behavioral gains that would have been achieved had services been provided earlier (Heumann & Hehir, 1997). Academic and behavioral problems are likely to intensify the longer intervention services are delayed, making these problems more difficult to alleviate.

The new regulations provide a means for students up to age nine to receive intervention services without being labeled with a specific disability. This may reduce the extent of standardized testing required by the school psychologist, while increasing the need to recommend appropriate academic and behavioral interventions. In an article addressing early intervention for kindergarten and first graders, Gredler (2000) wrote that

"the introduction of new intervention programs for young children has been more influential than any other event within the last thirty years in reducing the need for individual assessments of young children by the school psychologist" (p. 74).

Perhaps of greatest significance in the expansion of the developmental delay classification is the potential effect it could have for slow learners (i.e., those children who fall short of meeting eligibility criteria for a more specific disability classification). The early intervention services that can now be provided to many of these children may prevent the "downward cycle of academic failure, grade retention, minimal educational support, lack of motivation, and added failure" (Shaw, 1999, p. 15) that has been documented for slow learners otherwise not eligible for IDEA services.

Despite the importance of providing intervention services for slow learners, educational policy has resulted in these children's falling between the cracks. Shaw (1999) reported the following observation with regard to the possibilities allowed through IDEA '97 to provide these children needed services:

IDEA '97 provides the freedom to develop expanded and improved services to slow learners by filling the crack between best practices and educational policy. Whether that opportunity is realized is up to states, LEAs, school psychologists and educators. (p. 15)

Early intervention for infants and toddlers with disabilities. In Part C (Infants and Toddlers With Disabilities) of the new regulations, considerable emphasis is placed on providing "early intervention services to infants and toddlers with disabilities and infants

and toddlers who would be at risk of having substantial developmental delays if early intervention services were not provided to them" (IDEA Section 674(a)(1)(B)). Furthermore, the regulations indicated that Congress would provide money to states that "develop and implement" a comprehensive system "that provides early intervention services for infants and toddlers with disabilities and their families" (IDEA Section 631(b)(1)). Congress asserted that "there is an urgent and substantial need" to provide these services early to prevent later exacerbation of problems (Section 631(a)(1)).

Similar to the IEP, an Individualized Family Service Plan (IFSP) must be provided to all children with disabilities birth through age three. The IFSP must include "a statement of specific early intervention services necessary to meet the unique needs of the infant or toddler and the family, including the frequency, intensity, and method of delivering services" (IDEA Section 636(d)(4)).

IDEA '97 emphasizes the importance of involving parents in the school's planning and decision-making process regarding their child. Parents must be provided training and information to help them better understand the disabilities of their child and to participate more fully in the education of their child. Additionally, parents must be informed of their rights and protections under IDEA to ensure improved educational services for their child (IDEA Section 681 (a)(3)(A-E)).

IDEA '97 and intervention-related assessment. IDEA '97 places a greater focus on the purpose of assessment as that which identifies a student's needs, as opposed to the classification and labeling of a student with a particular disability. Furthermore, the new

regulations explicitly require that "services provided to an eligible child must...be based on the identified needs of the child, and not the child's disability classification" (IDEA Section 300.300(a)(3)).

Of particular interest in the IDEA amendments is the significant change in the requirement for conducting three-year reevaluations for all children with disabilities in order to determine continued eligibility for special education services. Then OSERS Assistant Secretary Judith Heumann and Office of Special Education Programs (OSEP) Director Tom Hehir (1997) clarified that once it is determined that the child continues to have a disability, the reevaluation will focus on how to best teach the child according to his or her needs. They indicated that the child should "not be subjected to unnecessary reassessment to determine continued eligibility for special education" (p. 2).

Eligibility decisions may be determined by evaluating existing academic and/or behavioral interventions based on "good documentation of ongoing data collection (performance monitoring, standards testing, review of annual IEP goals, classroom performance data, etc.)" as an alternative to the traditional procedure of standardized testing (Canter, Hurley & Reid, 1999, p. 29). Utilizing existing data for eligibility decisions can substantially reduce the need for additional assessment.

The deemphasis of standardized testing in mandatory three-year reevaluations was extended in IDEA '97's requirements for conducting both initial evaluations and reevaluations for special education eligibility. The amendments mandate the use of "a variety of assessment tools and strategies to gather relevant *functional* and developmental

information...." (IDEA Section 614(b)(2)(A)), (italics added) "that directly assists persons in determining the educational needs of the child"(IDEA Section 614(b)(3)(D)). Furthermore, the regulations mandate that "each child's evaluation must be sufficiently comprehensive to identify all of the child's special education and related services needs, including any needs the child has that are commonly linked to a disability other than the disability in which the child has been classified" (IDEA Section 300.532(h)).

These amendments require the school psychologist to engage in "precisely the types of authentic, intervention-based assessment that the field has long advocated" (Telzrow, 1999, p. 20). The literature is replete with criticisms concerning the inefficiency of traditional psychometric assessment employed for classification and eligibility purposes (Cheramie & Sutter, 1993; Cole, 1996; Eckert, Hintze, & Shapiro, 1997; Haney & Evans, 1999; Kramer & Epps, 1991; Rosenfield & Reynolds, 1990; Ysseldyke, Reynolds, & Weinberg, 1984). Ysseldyke et al. (1984) underscores in School Psychology: A Blueprint for Training and Practice (Blueprint I) that the goal of school psychology should be "that it escape its entrapment in simple psychometrics and that it be given opportunities to offer the schools the broader and more thoroughly helpful aspects of psychology" (p. 12).

Those in the field who defend the use of intelligence tests oftentimes provide an argument similar to the following one made by Fagan and Bracken (1995):

Intelligence tests are designed to identify social or academic symptoms (e.g., intellectual deficiency) much as a thermometer is designed to

identify a symptom of an illness (i.e., fever). The thermometer is not intended to translate directly into treatment; nor are intelligence tests.

Intelligence tests are valid for their intended diagnostic and classification purposes. (p. 6, as cited in Gresham & Witt, 1997, p. 256)

Indeed, IDEA '97 still lists general intelligence tests as one component of special education assessment that should be utilized if it relates to the disability under consideration and aids in the determination of eligibility (Lopez, 1999). Additionally, many state departments of education require the administration of intelligence tests as one component of the eligibility process. However, the initial assessment and eligibility process is an expensive one, costing an estimated \$1,230 per student (Bradley-Johnson et al., 1995). The cost-effectiveness of this expense may be hard to justify, especially in light of the recent changes in IDEA '97 mandating the use of assessment that is directly linked to intervention and instructional goals.

The new regulations require the school psychologist to engage in more nontraditional forms of assessment that provide "detailed information necessary for planning effective intervention, such as curriculum-based measurement, systematic direct observation, criterion-referenced tests, and authentic assessment" (Bradley-Johnson et al., 1995, p. 192). Recognizing the extent to which school psychologists find such nontraditional methods of assessment as curriculum-based assessment (CBA) and FBA acceptable would likely yield important information regarding the ease with which the new regulations may be implemented in actual practice.

Shapiro and Eckert (1994) evaluated the acceptability of CBA and published norm-referenced tests (PNRT) of achievement among 249 school psychologists. The results revealed that "while both methods were found to be acceptable to school psychologists, CBA had significantly higher ratings" (as cited in Eckert et al., 1997, p. 152). Additionally, Eckert et al. examined the acceptability of behavioral assessment (BA) to that of traditional assessment (TA) among 339 school psychologists and found BA procedures to be significantly more acceptable than TA procedures.

The implications of the previous studies might suggest that the new regulations will be comfortably implemented by school psychologists. Instead, research suggests that despite the fact that many school psychologists prefer such nontraditional methods of assessment as FBA and CBA, "many school psychologists may not be prepared to take advantage of such opportunities due to lack of appropriate training and supervision" (Haney & Evans, 1999, p. 301). This finding was consistent with Lidz's (1992) study, which indicated that 23% of school psychology trainers did not include training in nontraditional assessment techniques because they "lacked the knowledge base" (as cited in Haney & Evans, p. 301).

The multicultural population and FAPE. IDEA reports a number of findings from Congress regarding the growing multicultural population and the importance of providing equivalent educational opportunities to all children. According to Congress' findings, the population of racial and ethnic minorities increased at a far higher rate than that of white Americans between 1980 and 1990. The Hispanic population increased by

53%, African-Americans by 13.2%, Asians by 107.8%, and white Americans by 6%. Moreover, findings from Congress indicate that almost half of the students entering kindergarten in the Nation's 2 largest school districts are limited English proficient. Additionally, the regulations state that special education services provided to students with limited English proficiency often times do not match students' primary academic needs. In an effort to more appropriately meet the needs of multicultural students, efforts are being made to recruit larger numbers of minority professionals into the field of special education (IDEA Section 601(c)(7)(A-F)). Due to this growing population, it is important for all school psychologists to be familiar with ethnic and cultural differences, being knowledgeable of appropriate assessment and intervention strategies that accurately identify and serve each child's individual needs.

Statement of the Problem

The changes mandated in the new regulations require school psychologists to broaden their role beyond traditional psychometric testing to include assessment directly related to interventions. Also, there is a far greater need for school psychologists to engage in the design, implementation, and evaluation of academic and behavioral interventions. Many practicing school psychologists, having received much of their training in the administration and interpretation of standardized intelligence tests, will have to seek additional training in areas related to intervention design and direct methods of assessment in order for their services to continue to be marketable and to practice within the guidelines of the law.

Therefore, in order for future school psychologists to meet the needs of teachers, parents, and students as mandated in the IDEA '97 amendments, it is important for graduate training programs to prepare their students in the areas of intervention and direct methods of assessment. However, a review of the literature reveals no study evaluating the extent to which school psychology graduate programs are providing training of this type.

Purpose of the Study

This study represents an attempt to inform the field of the relative emphasis on intervention and assessment in the training of doctoral-level school psychologists. The primary purpose is to determine the extent and nature of intervention-related course work versus assessment-related course work in accredited doctoral programs in school psychology. The study is limited to the evaluation of doctoral programs approved by the American Psychological Association (APA) and/or the National Association of School Psychologists (NASP). Thus, the results of the study are limited to programs that meet the school psychology profession's highest standards for training. Doctoral programs are those offering the Ph.D., Ed.D., or Psy.D. degree.

This research was designed to answer several specific questions related to the assessment and intervention training included in accredited doctoral programs in school psychology. The following questions examine the assessment- and/or intervention-related course work required in combined doctoral-level school psychology programs:

- 1. What is the relative emphasis given to assessment and intervention in the curricula of school psychology doctoral programs?
- 2. What types of intervention courses (e.g., behavior modification, cognitive, psychotherapeutic) are most emphasized within school psychology doctoral programs?
- 3. What is the relative emphasis given to direct assessment (e.g., curriculum-based assessment, functional behavioral assessment) and indirect assessment (e.g., intelligence, personality, projective, or neuropsychological testing) in the curricula of school psychology doctoral programs?
- 4. Do APA, NASP, and APA/NASP accredited programs differ with respect to training emphases in assessment and intervention techniques?
- 5. Do Ph.D., Ed.D., and Psy.D. programs differ with respect to training emphases in assessment and intervention techniques?
- 6. What programs place a greater emphasis on training in intervention than on training in assessment?
- 7. What programs place a greater emphasis on training in direct as opposed to indirect methods of assessment?

Importance of the Study

This study is important in its potential to inform the field of the degree and type of training school psychology doctoral students are receiving in intervention and

assessment. Results of this study may be used by school psychology program directors to evaluate how their program compares to that of others with respect to training in intervention and direct methods of assessment. In addition, those programs identified as placing a greater emphasis on training in intervention as opposed to assessment can serve as models for possible revision of other school psychology programs. Results of this study may also be useful to prospective graduate students when comparing and contrasting various school psychology doctoral programs.

Chapter 2

Method

Sample

Prior to the collection of curricular data, a list of approved programs was obtained from the most current edition of the Directory of School Psychology Graduate Programs by Alex Thomas (1998). This list was cross-referenced with the list of NASP-approved graduate programs in school psychology located in the May 2000 edition of the Communique (Prus & Rood), and the list of APA-approved graduate programs provided in the December 1999 edition of American Psychologist. A total of 62 school psychology programs met the criteria for inclusion in the study. Hofstra University has 2 program tracks leading to different degrees (i.e., Ph.D. and Psy.D.). Because each track has different curriculum requirements in the intervention categories, the Ph.D. and Psy.D. programs were analyzed as separate programs in this study. A total of 9 programs were strictly APA-accredited, 11 programs were strictly NASP-accredited (this includes the 2 programs out of Hofstra), and 42 programs held both APA- and NASP-accreditation. New York University (APA- and NASP-accredited) was the only school psychology program that could not be analyzed because of insufficient information regarding required course work.

Procedures

After identification of approved programs, a listing of each program's required course work, and the descriptions of those courses were collected primarily via the

program's website on the Internet. The following steps were taken to gain access to each program's website. First, the list of school psychology graduate programs compiled by and located on the University of California, Berkeley's, school psychology website was accessed (http://www-gse.berkeley.edu/program/SP/html/sp_gradprograms.html). This list provides a direct link to most university school psychology programs' homepages. Second, each program's homepage was compared to the web address provided for that program in the <u>Directory of School Psychology Graduate Programs</u> (Thomas, 1998). Third, if there was a discrepancy between the two addresses, both were accessed to determine the most current site. Fourth, programs not accessible through UC Berkeley's list or the <u>Directory of School Psychology Graduate Programs</u> were located by a search conducted from the respective universities' homepages.

Upon access to each program's homepage, I took the following steps to collect the curricula information needed to answer the research questions. First, a list of the required courses for earning a doctorate in school psychology was located. Second, a complete list of course descriptions was obtained from the graduate course catalog available through the university's homepage. If necessary, a graduate course catalog was requested by e-mail from an appropriate official in the graduate admissions office. Third, a listing of required courses and/or descriptions of those courses not accessible through the previous steps were requested by an e-mail to the program directors of the respective school psychology programs.

The e-mail message consisted of two short paragraphs. I first identified myself as

a school psychology graduate student at the University of Tennessee, Knoxville, conducting research for my dissertation. I then requested "a complete listing of the names and descriptions of the courses typically taken by school psychology students in your program." Finally, I briefly described the purpose of the study as "an evaluation of the extent and nature of assessment- and intervention-related course work required in school psychology doctoral programs." In addition, I mentioned that part of the evaluation was the identification of programs that place a greater emphasis on training in intervention as opposed to assessment (see Appendix A).

Strategies for Answering Research Questions

The questions within the two areas of intervention and assessment were answered in the manner described below: The first question ("What is the relative emphasis given to assessment and intervention in the curricula of school psychology doctoral programs?") was answered by analyzing the descriptions of required courses and classifying them as primarily assessment- and/or intervention-related. Only those courses that were primarily assessment- and/or intervention-related were classified. A course was determined to be "primarily" assessment or intervention if approximately 75% of the course's description reflected instruction in either assessment or intervention. If a course's description reflected an approximate 50/50 split between assessment and intervention, the course was classified as assessment/intervention, to signify the integration of training in the two areas. Where there was an apparent discrepancy between the course title and its descriptions, the course description was used as the

primary method for classification determination. The logistics of classification decision making are described in Appendix A.

The number of intervention and assessment credit hours (semester credit hours) required by each program was calculated and contrasted with the total number of intervention and assessment credit hours required in the program. These totals and percentages were then combined across programs to provide an overall picture of doctoral training in the intervention and assessment areas. The overall number of credit hours required for a doctoral degree was not used in this equation because of difficulties encountered in determining this number. For example, some programs listed a range of credit hours required (e.g., University of Northern Colorado requires 117-129 credit hours of course work). In other instances, it was not clear whether the total credit hours included the dissertation and/or internship hours. Therefore, only the assessment and intervention credit hours required by each program were used in the specified calculations.

The second and third questions ("What types of intervention courses are most emphasized within the school psychology doctoral programs?" and "What is the relative emphasis given to direct assessment and indirect assessment in the curricula of school psychology doctoral programs?") were answered by subcategorizing the assessment and intervention classifications into the specific type of assessment or intervention training provided in each course. No course was classified in more than one subcategory. In the event that a course could be classified in two different areas, the predominant theme of

the course description was used in choosing the category. The numbers of credit hours required in each intervention- and assessment-related subcategory, across all school psychology programs, were then converted into percentages to determine the emphasis placed on each type of intervention and assessment course within the main categories of intervention and assessment. These percentages provided an overall picture of the type of intervention and assessment courses required in school psychology doctoral programs.

After all program descriptions were analyzed with respect to questions one, two, and three, the fourth and fifth questions regarding intervention and assessment emphases in different types of programs were answered by first separating programs by accreditation type and then by type of doctorate earned. Comparisons determined if the training doctoral students received in intervention/assessment differed by type of program accreditation or doctorate earned.

The sixth and seventh questions from each area ("What programs place a greater emphasis on training in intervention as opposed to assessment?" and "What programs place a greater emphasis on training in direct as opposed to indirect methods of assessment?") were answered by examining each program's emphasis on and extent of training in the areas of intervention and direct assessment.

Reliability of Data Classification

To aid in the classification process and to increase the reliability of the results, definitions of the various assessment and intervention categories were developed (see Appendix A). These were formulated prior to collection of the data and modified as the

analysis of the curriculum progressed. School Psychology: A Blueprint for Training and Practice II (Blueprint II)(Ysseldyke et al., 1997) provided the framework for the development of the assessment and intervention categories.

The Blueprint II is a "statement on the future of training and practice in school psychology" and "was produced by a Task Force of six school psychologists in response to a request for revision [of the Blueprint I, published in 1984] from Bill Pfohl, President of the National Association of School Psychologists" (Ysseldyke et al., 1997, p. iii). The Blueprint II describes "a set of 10 interrelated domains of training and practice" that "can be used by trainers to develop coursework" and are "written to be a stimulus for discussion by school psychologists and those who educate them" (p. iii). The domains described in the Blueprint II provided the framework for category development. However, definitions for each of the categories were developed by referencing a variety of different sources (see Appendix A for classification definitions and their sources).

In addition to the author, a second rater (also a doctoral student in school psychology) independently categorized a sample of the programs based on the definitions of the intervention and assessment categories, permitting assessment of interrater agreement. This sample was obtained by first assigning a number to each of the university's programs. Next, 25% of the programs were randomly selected, using a table of random numbers. Interrater agreement was calculated according to the method described by Kazdin (1994) by dividing the total number of credit hours agreed upon by the total number of credit hours agreed upon plus the number of credit hours disagreed

upon, and multiplying by 100 (p. 93). Kazdin reports that acceptable levels of interrater agreement should be between 80 and 100 percent (p. 91).

Disagreements were judged in two ways: (a) the number of credit hours in the broad categories of assessment and intervention were different for a particular program and (b) credit hours were different for subcategories of intervention and/or assessment for a particular program. The first method yielded an interrater agreement of 93%. In other words, raters agreed 93% of the time on the number of credit hours required by university programs as intervention and/or assessment. The second approach yielded an interrater agreement of 81%. This reduced percentage is due, in large part, to disagreements within the categories of intervention or assessment. For example, although both raters included a course under the category of intervention, they may have disagreed as to the subcategory location for that course (e.g., the first rater may have classified a course as cognitive-behavioral and the second rater may have classified that same course as a multiple approach intervention course).

<u>Limitations of the Data Collection</u>

Because this study was limited to APA- and NASP-accredited programs, comparisons can only be made for programs that met the school psychology profession's highest standards for training. This delimitation excluded approximately 93 nonaccredited school psychology training programs. These programs are not required to conform to the same standards as do APA- and NASP-accredited programs, thereby possessing more flexibility to offer nontraditional training programs to their graduate

students. Therefore, this study may have missed some programs offering extensive training in intervention and/or direct assessment.

This study also was limited to the evaluation of required coursework as indicated on each program's website. This information may be inaccurate to the extent that changes in the program's required course work were not updated on the university's website. Additionally, category assignments were based on course descriptions, thus necessitating some degree of inference. Furthermore, areas of intervention or assessment "may be embedded in courses not evident from course descriptions" (Minke & Brown, 1996, p. 632), thereby being overlooked in the classification process. However, obtaining hard data directly from formal program descriptions was likely to be more objective than relying on the responses sometimes obtained through surveys.

Chapter 3

Results

The results of this study are presented in the order of the research questions. A total of 62 university programs were either APA-, NASP-, or APA/NASP-accredited. Only one of those programs, New York University, could not be analyzed due to insufficient information regarding required course work. Percentages refer to the relative emphasis of a program's training in either assessment, intervention, or the integration of assessment/intervention to that of the three categories combined. In other words, percentages do not include the entirety of the program's required course work (e.g., foundation courses, dissertation, general practicum, or internship credits). Additionally, program averages of required credit hours within the subcategories of assessment and intervention are based only on the programs requiring coursework in those areas. For a listing of all school psychology doctoral programs within their accreditation type, including the college where the program is housed, degree offered, total credit hours required in intervention and assessment, and the percent of intervention and/or assessment required, refer to Appendix B.

The first question involves the degree of emphasis given to intervention versus assessment in the required curricula of school psychology doctoral programs. This question is answered by addressing all 61 programs together, regardless of accreditation type. As shown in Figure 1, training in intervention accounts for a significantly greater (p < .05) portion of the programs' required course work, than does training in

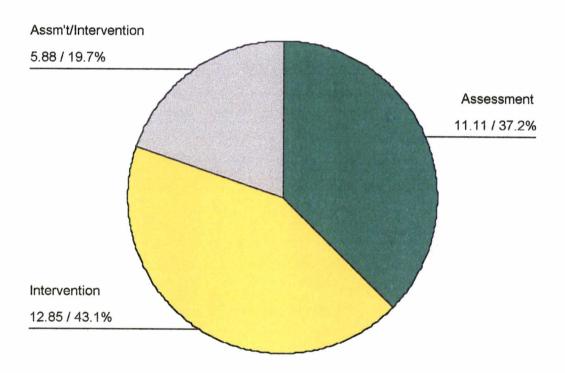


Figure 1. Averages and percentages of required assessment and intervention credit hours in all NASP- and/or APA-accredited doctoral programs.

assessment. Figure 1 also reports the average number of credit hours required across programs in the three classifications of training. It may be interesting to note that, overall, university programs require an average of about 6 credit hours in course work that integrates assessment and intervention. Additionally, university programs require an average of two more credit hours in intervention than in assessment.

The second and third research questions relate to the specific types of intervention and assessment courses included in the required course work. To answer this question, the percentage of required credit hours from each subcategory of intervention and assessment were calculated for all 61 programs. For the category of intervention, 75% of the required credit hours came from consultation (29%), psychotherapy/counseling (18%), intervention approaches not specified (16%), or behavioral intervention courses (12%). The remaining 25% came from the following areas: multiple areas (9%), family (6%), cognitive-behavioral (4%), academic (3%), multicultural (2%), and psychodynamic/psychoanalytic (1%) intervention courses.

For the category of assessment, 77% of the required credit hours came from courses in indirect methods of assessment. The three most common indirect assessment courses, comprising 67% of the indirect assessment course work, were the following: (a) multiple areas of indirect assessment, such as intelligence, behavior, and achievement (26%); (b) assessment of intelligence (22%); and (c) assessment of personality, behavior and/or emotional disorders (19%). The remaining 10% of indirect assessment course work occurred in the following areas: academic (2%), neuropsychological (4%),

multicultural (1%), and indirect assessment domains not specified (3%).

Courses providing instruction in both indirect and direct methods of assessment were the fourth most required type of assessment course, comprising 10% of the required assessment course work across programs. Courses providing instruction primarily in direct assessment comprise 7% of the required course work across all programs.

Descriptions for 6% of the assessment courses did not specify the type of assessment instruction.

The fourth question was whether there were differences between accreditation types with respect to training emphases in assessment and/or intervention. Three one-way ANOVAs were calculated in answering this question. The first examined differences between APA-, NASP-, and APA/NASP-accredited programs with respect to required course work in assessment. The second and third ANOVAs examined the same question regarding intervention and assessment/intervention course work.

As Tables 1 and 2 reveal, no significant differences emerged between accreditation types regarding the number of assessment or intervention credit hours required. However, as seen in Table 3, there was a significant (p < .05) overall difference with respect to credit hours in courses integrating instruction in assessment and intervention. But, follow-up post hoc comparison by pairs revealed no significant differences (Table 4). In summation, there were no significant linkages between the accreditation types and the average number of credit hours required in either assessment and/or intervention. Moreover, ANOVAs were also calculated to determine if differences

Table 1. Differences Between APA-, NASP-, and APA/NASP-Accredited Programs and Required Assessment Course Work

Tests of Between-Subjects Effects

Dependent Variable: Assessment

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8.402 ^a	2	4.201	.280	.757
Intercept	4693.428	1	4693.428	312.969	.000
TYPE	8.402	2	4.201	.280	.757
Error	869.795	58	14.996		
Total	8414.000	61			
Corrected Total	878.197	60			

a. R Squared = .010 (Adjusted R Squared = -.025)

Table 2. Differences Between APA-, NASP-, and APA/NASP-Accredited Programs and Required Intervention Course Work

Tests of Between-Subjects Effects

Dependent Variable: Intervention

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	96.850 ^a	2	48.425	1.714	.189
Intercept	6052.259	1	6052.259	214.197	.000
TYPE	96.850	2	48.425	1.714	.189
Error	1638.822	58	28.256		
Total	11812.000	61			
Corrected Total	1735.672	60			

a. R Squared = .056 (Adjusted R Squared = .023)

Table 3. Differences Between APA-, NASP-, and APA/NASP-Accredited Programs and Required Assessment/Intervention Course Work

Tests of Between-Subjects Effects

Dependent Variable: Assm't/Intervention

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	90.080 ^a	2	45.040	3.253	.050
Intercept	663.040	1	663.040	47.887	.000
TYPE	90.080	2	45.040	3.253	.050
Еггог	512.295	37	13.846	,	
Total	1983.000	40			
Corrected Total	602.375	39			

a. R Squared = .150 (Adjusted R Squared = .104)

Table 4. Post Hoc Comparison by Accreditation Pairs and Required

Assessment/Intervention Course Work

Multiple Comparisons

Dependent Variable: Assm't/Intervention

Tukey HSD

(I) Type of Accreditation	(J) Type of Accreditation	Mean Difference (I-J)	Std. Error	Sig.
APA	APA/NASP	-2,6282	1,68528	.276
	NASP	.8333	2.00957	.910
APA/NASP	APA	2.6282	1.68528	.276
	NASP	3.4615	1.50441	.068
NASP	APA	8333	2.00957	.910
	APA/NASP	-3.4615	1.50441	.068

Based on observed means.

emerged between subcategories of assessment and intervention and the three accreditation types (APA, NASP, APA/NASP). No significant differences emerged between the three accreditation types with respect to required course work within the subcategories of assessment and intervention.

The fifth question was whether the type of doctoral degrees offered (i.e., Ph.D., Psy.D., Ed.D.) was related to training emphases in assessment and/or intervention. From the 61 university programs analyzed, only 5 awarded a Psy.D. and only 3 awarded an Ed.D. One-way ANOVAs, in addition to post hoc comparisons, were calculated to ascertain whether significant differences appeared between the type of doctorate earned and the categories and subcategories of intervention and/or assessment course work required. No significant differences emerged between the type of doctorate earned and the major categories of intervention and/or assessment. However, within the subcategories of intervention and/or assessment, results were significant in some areas.

Within the category of assessment, programs awarding Ed.D. degrees required significantly more course work in neuropsychological assessment than did Ph.D. degrees (p < .006) but not significantly more than did Psy.D. degrees. Ed.D. programs required 2 more credit hours in neuropsychological assessment than did Ph.D. programs. Within the category of intervention, programs awarding the Ed.D. degree required significantly more course work in family intervention than either the Ph.D. or Psy.D. degrees (p < .001 and p < .04, respectively). Ph.D. and Psy.D. programs required 3.5 and 3.0 fewer credit hours, respectively, in family intervention than did Ed.D. programs. Programs awarding

the Psy.D. degree required significantly more course work in psychodynamic/psychoanalytic intervention than either the Ph.D. or Ed.D. degrees (p < .000 and p < .003, respectively). Psy.D. programs required 2 more credit hours of course work in psychodynamic/psychoanalytic intervention than did the Ph.D. and Ed.D. programs. (See Appendix B for the specific number of credit hours required within each subcategory of intervention and assessment for all accredited university programs analyzed.)

The sixth question of this study was "What programs place the greatest emphasis on training in intervention as opposed to assessment?" This question was answered by first subtracting the number of credit hours required within the category of assessment from the number of credit hours required within the category of intervention for each program. Then programs showing the greatest difference between the two were identified: University of Cincinnati, University of Missouri-Columbia, North Carolina State University, University of Nebraska-Lincoln, Lehigh University, University of Utah, University of Iowa, and the University of South Florida. With regard to the number of credit hours in intervention courses per se, the following programs required the largest number of credit hours in intervention: University of Cincinnati (27 credit hours); Yeshiva University (24 hours); University of South Florida (23 hours); and Indiana University of Pennsylvania, Northern Arizona University, University of Iowa, and University of Missouri-Columbia (each requiring 21 credit hours).

The seventh question of this study was "What programs place the greatest emphasis on training in direct as compared to indirect methods of assessment?" Analyses

of each of the university programs with regard to courses in direct versus indirect assessment revealed a total of only 9 programs requiring at least one course explicitly in direct assessment techniques. These programs and the number of direct assessment credit hours each required follow: University of Oregon (12 credit hours); Lehigh University (4 credit hours); and Indiana State University, Louisiana State University, Syracuse University, University of Iowa, University of Minnesota, University of Southern Mississippi, and Western Michigan University (each requiring 3 credit hours). Only one of these programs, the University of Oregon, placed greater emphasis on training in direct as compared to indirect methods of assessment.

The following programs also deserve noting as they require the greatest number of credit hours in course work integrating assessment and intervention: Temple University (19 credit hours), University of Nebraska-Lincoln (16 credit hours), University of Cincinnati (12 credit hours), Arizona State University (12 credit hours), and the University of Texas at Austin (12 credit hours). Across all 61 university programs analyzed, 66% require training in the integration of assessment and intervention (see Figures 2-4).

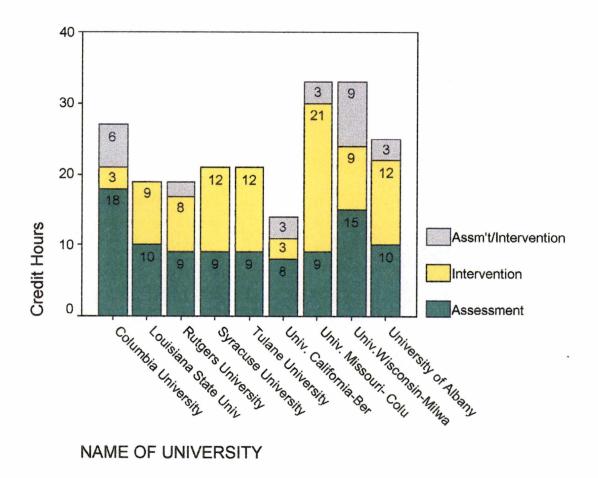


Figure 2. Credit hours required in only APA-accredited school psychology doctoral programs in the areas of assessment and/or intervention.

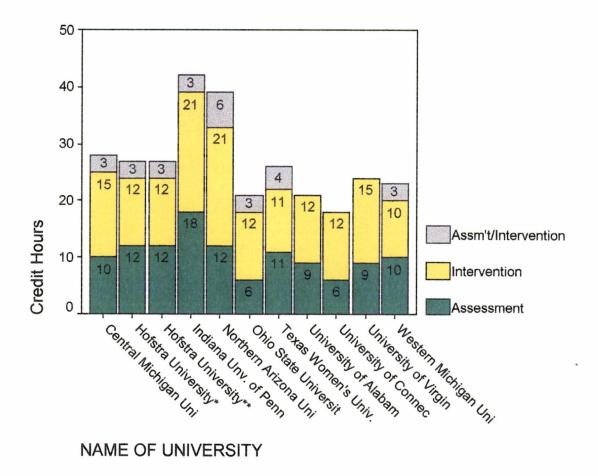


Figure 3. Credit hours required in only NASP-accredited school psychology doctoral programs in the areas of assessment and/or intervention.

- * Ph.D. program at Hofstra
- ** Psy.D. program at Hofstra

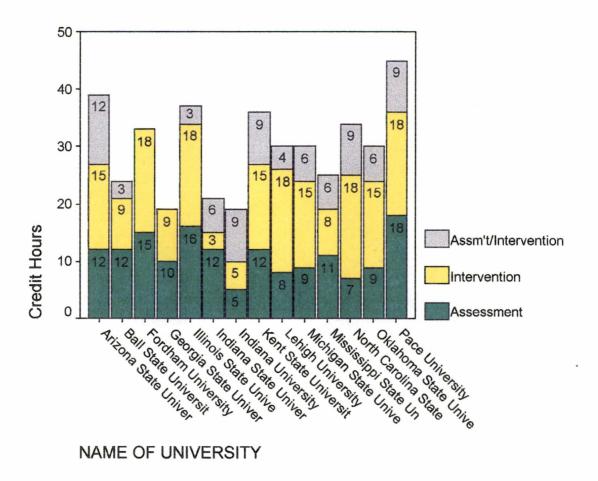
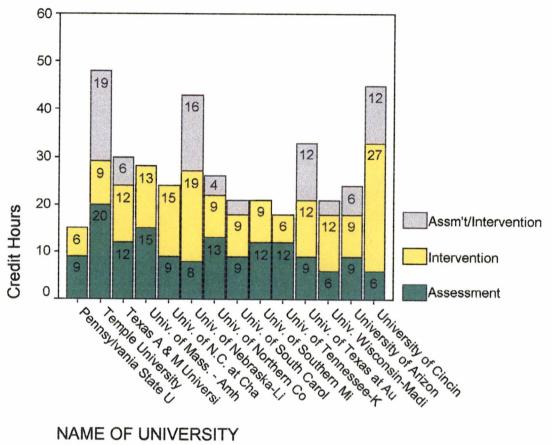
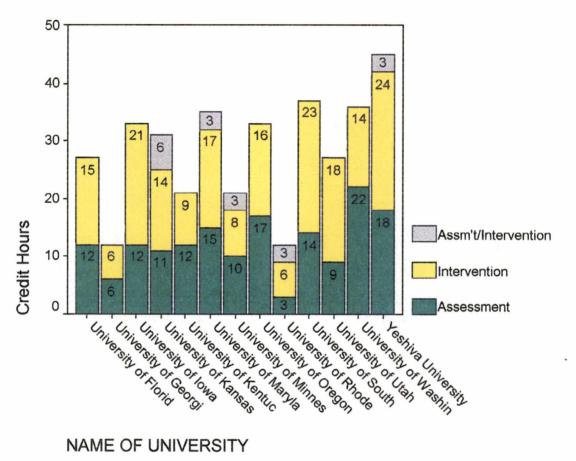


Figure 4. Credit hours required in the areas of assessment and/or intervention in school psychology doctoral programs accredited through both APA and NASP.



NAME OF UNIVERSITY

Figure 4. (Continued)



NAME OF UNIVERSITY

Figure 4. (Continued)

Chapter 4

Discussion

Overall, APA- and/or NASP-accredited school psychology doctoral programs require significantly more (p < .05) training in intervention than in assessment. Within the category of assessment, indirect assessment continues to be the primary focus of required training. Moreover, only a small percentage of programs require assessment and intervention course work related to the multicultural, early childhood, and family populations. A discussion of the extent and implications of university programs' assessment and intervention training follows, beginning with the current status of intervention training and proceeding to training in assessment. Finally, the limitations and broad implications of the study are developed.

The Status of Intervention Training in School Psychology Doctoral Programs

On average, APA- and/or NASP-accredited school psychology doctoral programs emphasize training in intervention to a greater degree than training in assessment. Within the broad category of intervention, university programs require some of the same types of intervention courses. On average, 59% of this required course work is in consultation, counseling/psychotherapy, and behavioral intervention techniques. Thus, most school psychology doctoral students, regardless of the university from which they earn their degree, likely have some exposure to intervention skills in these three areas.

However, the degree of emphasis placed upon particular areas of intervention (e.g., counseling, behavioral, family) varies considerably across programs. Overall,

training programs require an average of 13 credit hours of intervention course work.

Despite that average, some programs require far fewer hours and some require only one course in consultation. Students from these programs are not receiving the breadth of training that has long been advocated by our national association in publications such as the first (1984) and second (1997) "Blueprint," numerous articles from the Communique, and Best Practices I, II, and III (1985-1995) (Dwyer, 2001, p. 20).

Additionally, only 3% of the credit hours required within the broad category of intervention relate to academic interventions. This low percentage is due to the fact that only 8 university programs require course work in academic interventions and no university requires more than one course in this area. Reschly and Ysseldyke (1995) reported that over half of the students receiving special education services are classified as having a specific learning disability. Because most students who are referred for special education services have academic skills deficits, it is important for school psychologists to be trained in this area.

The low number of university programs requiring training in the remediation of academic skills deficits represents a discouraging finding in the overall training of school psychology doctoral students. Moreover, the extent to which direct instruction is emphasized is unclear because this term is not specifically used in any of the course descriptions. Despite this finding, a strength lies in the fact that 66% of APA- and NASP-accredited programs require intervention courses that provide instruction in multiple intervention areas or unspecified interventions. Apparently, trainers of school psychology

doctoral programs adhere to the importance of providing their students with training in intervention strategies.

A small number of school psychology programs require course work devoted to a specific area of intervention, thereby enabling their doctoral students to develop a level of expertise in those areas. Graduate students attending Indiana University of Pennsylvania's and North Carolina State University's school psychology programs presumably develop a strong knowledge base for working with families, given that these programs require a minimum of nine and six credit hours, respectively, in family intervention. Doctoral students at the University of North Carolina at Chapel Hill presumably develop expertise in behavioral interventions, given that they are required to take a minimum of nine credit hours in that area.

Graduate students from the following universities are acquiring expertise in counseling/psychotherapy as they are required to take a minimum of nine credit hours of course work within this area: Kent State University, Oklahoma State University, University of Iowa, University of Maryland, and the University of Missouri-Columbia. Many school psychology students are therefore entering the work force with differing areas and depths of expertise dependent upon the university program from which they graduated. More information specifying the credit hours required in various intervention and assessment categories is provided in Appendix B.

The Status of Assessment Training in School Psychology Doctoral Programs

The majority of the required assessment course work (77%) occurs in indirect

methods of assessment (such as IQ testing and other norm-referenced instruments) as opposed to direct assessment methods (such as CBA and FBA). Moreover, within the domain of indirect assessment, only four universities require training in multicultural assessment and only five universities require course work in early childhood assessment. This pattern is troubling, given the broad population of students school psychologists are required to assess. Alfonso, LaRocca, Oakland, and Spanakos's (2000) study on the characteristics of the cognitive assessment courses in accredited school psychology programs concluded that school psychology programs were not adequately preparing their graduate students with respect to the assessment of young children and culturally and linguistically diverse children. The results of the current study support their conclusion.

Furthermore, training in direct assessment continues to be less emphasized than training in indirect assessment. Despite this pattern, the following universities have emerged as possible trendsetters, emphasizing training in direct assessment at least to the degree of indirect assessment: The University of Oregon, Lehigh University, and Western Michigan University. However, upon analysis of course descriptions from the direct/indirect and assessment/intervention categories a more positive reflection of training in direct assessment emerges. More specifically, 5 of the 17 programs that required training in courses teaching both direct and indirect assessment techniques, specified the type of direct assessment taught (i.e., behavioral assessment, CBA, functional analysis). 13 of the 40 training programs that required course work in the

assessment/intervention category required courses that emphasized training in direct assessment techniques linked to the design of interventions. Although course work that combines training in assessment and intervention is heartening, the argument should be made that direct assessment techniques such as CBA do not readily point to an intervention that would remediate the skill deficit identified. FBA, on the other hand, does a better job linking the assessment results to appropriate interventions.

Nonetheless, when these direct/indirect and assessment/intervention courses are combined with those devoted primarily to direct assessment, the number of university programs requiring course work featuring direct assessment and/or the linkage of direct assessment to appropriate interventions increases from the 9 programs requiring course work explicitly in direct assessment (15% of the programs) to 23 (38% of the programs). Of the 23 training programs requiring course work that incorporates training in direct assessment, 10 require a course featuring direct academic assessment or CBA and 18 programs require at least one course that features behavioral assessment, applied behavior analysis, or FBA (refer to Tables 5 and 6 for a listing of these universities). Consequently, a more positive perspective emerges regarding the training in direct assessment provided to graduate students in school psychology doctoral programs. Nonetheless, the fact remains that training programs continue to place greater importance on indirect assessment than on direct assessment.

Assessment Linked To Intervention

Reschly (2000) in a recent article published in the School Psychology Review

Table 5. Accredited School Psychology Programs Requiring Course Work Featuring Curriculum-Based Assessment/Direct Academic Assessment

CBA or direct academic assessment	Accreditation
Arizona State University	APA/NASP
Indiana State University	APA/NASP
Lehigh University	APA/NASP
Louisiana State University	APA
Mississippi State University	APA/NASP
North Carolina State University	APA/NASP
Syracuse University	APA
Temple University	APA/NASP
Texas A&M University	APA/NASP
University of Oregon	APA/NASP

Table 6. Accredited School Psychology Programs Requiring Course Work Featuring Behavioral Assessment/Applied Behavior Analysis/FBA

Behavioral assm't/applied behavior analysis/FBA	Accreditation
Lehigh University	APA/NASP
Louisiana State University	APA
Indiana University	APA/NASP
Rutgers University	APA
Temple University	APA/NASP
Texas A&M University	APA/NASP
Texas Women's University	NASP
University of Cincinnati	APA/NASP
University of Iowa	APA/NASP
University of Kentucky	APA/NASP
University of Maryland	APA/NASP
University of Minnesota	APA/NASP
University of Nebraska-Lincoln	APA/NASP
University of Oregon	APA/NASP
University of South Carolina	APA/NASP
University of Southern Mississippi	APA/NASP
University of Texas at Austin	APA/NASP
Western Michigan University	NASP

stated that assessment of students with disabilities "appear to be changing in the direction of less emphasis on assessment of general cognitive or intellectual functioning accompanied by more emphasis on functional assessment for the purposes of intervention design, implementation, and evaluation" (p. 513). In light of the provisions set forth in the IDEA Amendments of 1997 mandating the use of assessment directly linked to intervention and instructional goals, school psychologists must have training in methods of direct assessment, such as CBA, FBA, and behavioral assessment, that are more readily linked to the design of interventions.

Several authors have expressed concern that professionals are not adequately trained in direct assessment methods previously mentioned (Drasgow et al., 1999; Hendrickson et al., 1999). Shapiro and Eckert (1994) and Eckert et al. (1997) conducted research regarding the acceptability of CBA versus other norm-referenced tests and the acceptability of behavioral assessment (BA) to that of traditional assessment (TA). In commenting on the results of these studies, Haney and Evans (1999) suggested that despite the fact that many school psychologists preferred nontraditional methods of assessment such as FBA and CBA, "many school psychologists may not be prepared to take advantage of such opportunities due to lack of appropriate training and supervision" (p. 301). Graduate training programs must provide their students with the skills necessary to be competitive forces in the changing face of school psychology.

The University of Cincinnati serves as an example of a school psychology program emphasizing training in assessment linked to intervention rather than training in indirect

assessment. The University of Nebraska-Lincoln supplements its required assessment and intervention course work with practica, which are integrated throughout the program. Students from the University of Nebraska are thereby gaining a tremendous amount of supervised practice in integrating assessment and intervention skills learned through didactic course work. The practica, as described in the program's handbook, help students "develop and refine skills in ecological-behavioral assessment and intervention procedures, including both direct (e.g., child therapy) and indirect (e.g., parent training, consultation with teachers and families) services" (Graduate Study in School Psychology at the University of Nebraska-Lincoln, 1999, p. 11). It is important to receive this instruction through didactic course work, however, the University of Nebraska-Lincoln, by providing their students with structured, supervised, hands-on experiences, may better prepare them in the application of these skills.

The Catalyst for School Psychology's Emerging Role Change

Kevin Dwyer (2001), former president of NASP, reported in a recent article published in the <u>Communique</u> that, under the new regulations of IDEA, many opportunities exist for school psychologists beyond that of traditional testing (p. 21). Moreover, Dwyer contends that many school psychologists are spending more of their time directly responding to the needs of students by working with teachers in the design and implementation of academic and behavioral interventions (p. 20). This is likely considered a positive change by many in the field who have advocated such a role change for many years. The IDEA '97 amendments have served as a major catalyst for facilitating

this long advocated role change.

The following are among a few of the regulations mandated in the IDEA '97 amendments that will require the school psychologist to engage in more than indirect assessment: Functional behavioral assessments (FBAs) in conjunction with behavioral intervention plans (BIPs) for students exhibiting behavior problems (IDEA Section 614(d)(3)(B)(i)), early intervention as a means of remediating and preventing academic and behavioral problems (Section 631(a)(1)), and parent counseling and training to help parents "acquire the necessary skills that will allow them to support the implementation of their child's IEP or IFSP" (Section 300.24(b)(7)).

Broad Implications of Results and Model School Psychology Programs

Across the board, school psychology training programs could profit from requiring a greater variety of intervention and/or assessment courses. Graduates of all school psychology programs should be knowledgeable about assessment and intervention with the multicultural, early childhood, and family populations. Additionally, they should enter the work force with knowledge of how to conduct FBAs, CBAs, as well as how to link FBAs and CBAs to appropriate behavioral and academic interventions. In fact, Swerdlik and French's (2000) recent discussion regarding future trends in school psychology programs predicted that there will be an increasing emphasis on linking assessment and intervention. The results of the current study supported their prediction, demonstrating that two thirds of the training programs require at least one course linking assessment to intervention.

Unfortunately, only a small number of accredited school psychology programs require training in multicultural or early childhood assessment and intervention or in interventions with parents and families. Only 10 university programs require course work in multicultural assessment or intervention; 7 require course work in preschool/early childhood assessment and/or intervention; and 13 programs require at least one course that highlights family intervention (refer to Tables 7, 8 and 9 for a listing of these universities).

Despite the fact that all programs could benefit to some extent from curricular modifications, a few programs emerged as more comprehensive in the diversity of course work required, thereby serving as exemplars for other doctoral training programs. The University of Cincinnati places considerable emphasis on direct assessment and its relation to the design of interventions (separate courses are required in functional behavior assessments and in applied behavior analysis). This program also requires its graduate students to take separate courses in behavioral, academic, and family intervention in addition to a course providing training in early childhood assessment and intervention.

Northern Arizona University and the University of Utah both require its graduate students to take separate courses in behavioral, multicultural, and family intervention.

Northern Arizona University also requires a course in early childhood intervention. These programs provide their students with skills to help them be innovators in school psychology, armed with the knowledge to practice in accordance with the guidelines set

Table 7. Accredited School Psychology Programs Requiring Course Work in Multicultural Assessment and/or Intervention

Multicultural Assessment and/or Intervention	Accreditation	Type of Multicultural
		Course Required
Arizona State University	APA/NASP	assessment/intervention
Columbia University	APA	assessment
Fordham University	APA/NASP	assessment
Kent State University	APA/NASP	intervention
Northern Arizona University	NASP	intervention
Oklahoma State University	APA/NASP	intervention
University of Iowa	APA/NASP	intervention
University of Massachusetts-Amherst	APA/NASP	intervention
University of Texas at Austin	APA/NASP	assessment
University of Utah	APA/NASP	intervention

Table 8. Accredited School Psychology Programs Requiring Course Work in Preschool/Early Childhood Assessment and/or Intervention

Preschool/Early Childhood	Accreditation	Type of Early Childhood	
		Course Required	
Columbia University	APA	assessment	
Illinois State University	APA/NASP	assessment	
Northern Arizona University	NASP	intervention	
Pace University	APA/NASP	assessment/intervention	
University of Cincinnati	APA/NASP	assessment/intervention	
University of Kansas	APA/NASP	assessment/intervention	
University of Southern Mississippi	APA/NASP	intervention	

Table 9. Accredited School Psychology Programs Requiring Course Work in Family Assessment and/or Intervention

Family Assessment and/or Intervention	Accreditation	Type of Family	
		Course Required	
Hofstra University (Ph.D.)	NASP	intervention	
Indiana University of Pennsylvania (9 hrs req.)	NASP	intervention	
North Carolina State University (6 hrs. req.)	APA/NASP	intervention	
Northern Arizona University	NASP	intervention	
Pace University	APA/NASP	intervention	
Texas A&M University	APA/NASP	intervention	
University of Cincinnati	APA/NASP	intervention	
University of Missouri-Columbia	АРА	assessment/intervention	
University of Texas at Austin (6 hrs. req.)	APA/NASP	assessment/intervention and intervention	
University of Utah	APA/NASP	intervention	
University of Virginia	NASP	intervention	
University of Washington	APA/NASP	intervention	
Yeshiva University	APA/NASP	intervention	

forth in IDEA '97 and <u>Best Practices.</u> (Thomas & Grimes, 1995). Limitations of the Study

The results of this study are limited to APA- and/or NASP-accredited school psychology doctoral programs and are not reflective of non-accredited and/or Masters or Educational Specialist (Ed.S) level school psychology programs. In addition, analysis of training programs was based on the information provided via each program's website or by information provided directly from the program faculty, if the necessary information could not be obtained over the internet. Occasionally, the required course work listed appeared minimal and not reflective of the total course work that may actually be required (e.g., Pennsylvania State University, the University of California-Berkeley, and the University of Rhode Island). In these situations, e-mails and/or phone calls were sent to confirm the accuracy of the course work required. E-mail responses in the cases mentioned above did confirm that the information available accurately described the required course work for school psychology doctoral students.

Another potential limitation of this study was that some course descriptions may not have reflected actual content taught in those courses. However, interrater agreement was fairly high, contributing to considerable confidence in the category decisions made. A related limitation in classifying course themes is that some programs offered what appeared to be outstanding intervention and/or assessment courses that were not doctoral program requirements. Nevertheless, students may have chosen to take these courses, thus developing skills not reflected by the required course work at the doctoral level.

At the other end of the spectrum, requiring a sizable number of intervention credit hours does not guarantee adequate training in intervention. Other factors influence the quality of training students receive in their training program. For instance, oftentimes, assessment course work is tightly controlled, must be taken in sequence, and is taught by school psychology faculty. This allows for greater hierarchical training of specified skills and content areas. This may not be as feasible when courses must be taken outside of the department in which school psychology is housed or is taught by faculty other than the primary school psychology faculty.

Analysis of the university programs requiring the greatest number of intervention credit hours revealed that for counseling course work, in particular, students had to take these courses outside their school psychology home department. Moreover, course work was not required to be taken in a particular hierarchical sequence. A few exceptions were noted, however, and deserve mentioning. The University of Iowa, University of Missouri-Columbia, and the University of South Florida, each require a sequence of intervention and assessment courses (e.g., Psychoeducational Interventions with Children and Adolescents I, II, and III) thereby allowing for some degree of control with respect to intervention training skills and objectives.

Further Research Questions and Broad Implications of Study

This study has shed some light on the degree of intervention and assessment training required in APA- and NASP-accredited school psychology doctoral programs across the country. School psychology trainers may benefit from evaluating their program

in comparison to others and modifying curricular requirements, where needed, to provide graduate students with the skills necessary to practice effectively in the field. This unfortunately may be a difficult task as "it has been said that it is easier to move a cemetery than change a curriculum" (Rosenfield, 2000, p. 505). School psychology trainers lacking skills in important areas (e.g., FBA, CBA) should seek training in those skill areas, thereby enhancing the university program as a whole.

By developing a better understanding of training programs' similarities and differences across the country, we can have a better understanding of our profession as a whole. This understanding, however, comes not only with the knowledge of the training provided in school psychology programs but also with the knowledge of the actual job descriptions of recent school psychology graduates. Survey studies of the job descriptions of practicing school psychologists have been consistent, demonstrating that school psychologists spend approximately two-thirds of their time in activities related to special education eligibility and placement. These studies also reveal that school psychologists prefer to spend their time in intervention activities such as counseling and problem-solving consultation (Reschly, & Ysseldyke, 1995).

We know that, as a group, school psychology programs are requiring significantly more (p < .05) course work in intervention than in assessment. Additionally, programs do not differ significantly with regard to the specific type of assessment and/or intervention courses required. Therefore, the importance of whether a school psychology program is APA- or NASP- accredited is called into question. Particularly, with regard to training

requirements in assessment and intervention, these two associations appear more similar than different. This is an issue for continuing exploration in future studies.

Another possible area of interest, for school psychology trainers and practitioners alike, may be the extent to which recent graduates are utilizing the specific skills acquired in their university training programs. Of particular interest may be the extent to which graduates from programs emphasizing nontraditional assessment, interventions with families, or interventions with preschool/early childhood population, are practicing in accordance with that training. It seems likely that, within the profession of school psychology, many job roles continue to be described best by *test-diagnose-label-place* and many practitioners continue to ask the question, "What is the best *formula* for determining a *severe discrepancy*?" (Dwyer, 2001, p. 20). However, recent articles have reported that there are ever increasing numbers of school psychologists who are spending more of their time directly assessing academic and behavioral problems and designing, implementing, and evaluating interventions based on those assessments (Dwyer).

Who are these school psychologists? Where are they practicing and where did they receive their training? Are they more or less satisfied in their jobs than school psychologists with more "traditional" job descriptions? Are they making more or less of a difference in the lives of children who are in some way struggling academically and/or behaviorally? Perhaps this is the most important question we should ask if we are to positively advance the field of school psychology.

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Appendices

Appendix A

E-mail Message to School Psychology Program Directors

Requesting Curriculum Data

(Name of Program Director):

My name is Amanda Monville, and I am a school psychology graduate student at

the University of Tennessee, Knoxville. I am conducting research for my dissertation and

am looking for a complete listing of the names and descriptions of the courses typically

taken by school psychology doctoral students in your program. If you have a program

description (or course catalog) that provides such a listing and description of required

school psychology courses, please send a hard copy or an attachment with an e-mail reply.

I was unable to locate this information on your program website or through your

university's website.

The purpose of this study is to evaluate the extent and nature of intervention-

related course work required in school psychology doctoral programs. All APA- and

NASP-accredited school psychology doctoral programs will be evaluated and compared.

As a part of the analysis, those programs identified as placing a greater emphasis on

training in intervention as opposed to assessment will be identified.

I really appreciate your help with this matter.

My address is: Amanda Monville

3717 Mooers Street Knoxville, TN 37920

(865) 609-7910

E-mail address: monville@utk.edu

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Guidelines for Assessment and Intervention Category Decisions

Classifications:

- 1. Primarily assessment
- 2. Primarily intervention
- 3. Both assessment and intervention
- 4. Neither assessment nor intervention

Criteria for classification decisions:

1. Primarily assessment

- a. Approximately 75% of course description is devoted to the topic of assessment.
- b. Particular words may include: "administration and interpretation of..., norm-referenced, standardized, diagnosing."
- c. Examples of assessment courses include both direct (e.g., behavioral assessment, curriculum-based assessment, functional behavior assessment, criterion-referenced assessment, interviews) and indirect.(e.g., norm-referenced tests, such as intelligence, achievement, neuropsychological, projective, personality, rating scales, adaptive measures).

2. Primarily intervention

- a. Approximately 75% of course description is devoted to the topic of intervention.
- b. Particular words may include "modification of, application of, delivery of, methods of, remedial techniques, instructional design and strategies, accommodations, instructional adaptation, behavior support plans, educational planning."
- c. Examples of intervention courses include but are not limited to the following: applied behavior analysis, behavior modification, school-based consultation, prevention, counseling/psychotherapy, family, academic, cognitive-behavioral, crisis, preschool/toddler, multicultural.

3. Both assessment and intervention

- a. Approximately 50% of course description is devoted to the topic of assessment and approximately 50% of description is devoted to the topic of intervention.
- b. Particular words may include "interrelationship, assessment-linked."
- c. Examples of intervention courses include but are not limited to the following: assessment and intervention in educational consultation.

4. Neither assessment nor intervention

- a. Approximately 75% of course description is devoted to topics other than assessment and/or intervention.
- b. The following courses fall under the "neither" classification:
 - statistics, research, and ethics courses
 - seminar courses (i.e., where discussion of broad topic areas is focus of class despite the fact that assessment and intervention issues may be

mentioned as possible topics. Seminar courses devoted to the topic of assessment and/or intervention, however, would meet criteria for inclusion).

- internship and dissertation.
- practica courses that are not linked to a particular assessment or intervention course.
- foundation courses (e.g., biological bases of behavior, developmental, theories of learning, social psychology, history and systems). Occasionally programs will list courses under their "foundations" heading that are, in fact, unique requirements of that program (e.g., community psychology, psychological consultation, principles of behavior modification, multicultural assessment). In such instances, these required courses may fall under an intervention and/or assessment classification. Therefore, foundation courses should not be immediately disregarded but should be evaluated carefully.

Special considerations when categorizing

A list of elective courses is sometimes provided from which students are required to select a specified number of courses (or credit hours). In such instances, that list will be treated as if it were just one course.

For instance, each individual course will be classified according to the previously mentioned criteria. Next, after all courses from the list have been classified, one overall category will be decided upon based on the same criteria and how the majority of the courses were classified. For example, if approximately 75% of the courses from the list were classified as primarily assessment, then the required credit hours would be counted in the assessment category.

If approximately 75% of the courses from the list were classified as primarily intervention, then the required credit hours would be counted in the intervention category. If approximately 50% of the courses from the list were classified as primarily assessment and approximately 50% of the courses from the list were classified as primarily intervention, then the required credit hours would be counted in the "both assessment and intervention" category. If approximately 75% of the courses from the list were classified as "neither," then the required credit hours would be counted in the "neither assessment nor intervention" category.

The following is an example from the required course work for school psychology students at Lehigh University:

Classification given based on

Special Education Electives (3 hours)

(Students must select 1 course from the following options)

		Classification given based on
Course #	Course title	Course description
SpEd 418	Life Skills and Transition Strategies (3)	Intervention
SpEd 419	Academic and Curricular Strategies (3)	Intervention
SpEd 428	Positive Behavioral Support (3)	Intervention
SpEd 452	Assessment and Planning with Individuals	·
	With Disabilities (3)	Assessment
SpEd 465	Advanced Methods for Inclusion (3)	Intervention
	, · ·	

4 of 5 courses classified as "intervention"; or 12 hrs. intervention: 3 hrs. assessment

This is equivalent to 20% assessment and 80% intervention. Therefore, the special education requirement of 3 hours will be classified under the intervention category.

Additional notes of special consideration:

- Courses containing no descriptive information will be analyzed according to course titles.
- Three credit hours assumed for each course unless otherwise specified.

Guidelines/Definitions for Assessment and Intervention Subcategories

After required course work has been classified as primarily assessment or intervention, subcategories will be determined based upon the type of intervention or assessment that is the focus of the course. The following broad definitions will be utilized in the subclassification process:

Intervention: "doing something different to solve some perceived problem" (Lentz, Allen, & Ehrhardt, 1996, p. 121)
Intervention categories:

School-based consultation: "A method of providing preventively oriented psychological and educational services in which consultants and consultees form cooperative partnerships and engage in a reciprocal, systematic, problem-solving process within an ecobehavioral framework" (Zins & Erchul, 1995, p. 609-610).

Behavioral: Techniques for altering behavior and the factors that maintain behavior, documenting the role of these factors, and using the information to develop effective treatments (e.g., positive reinforcement, token economies, response cost, differential reinforcement); (Kazdin, 1994).

Cognitive-behavioral: A broad array of interventions that couple behavioral learning principles with cognitive factors (e.g., anger control programs, relaxation training, social problem-solving, self-instructional training programs); (Stage & Quiroz, 1997).

Psychotherapy/counseling: Courses on counseling theories and techniques involving individuals, groups, and families.

Academic: Courses focusing on educational interventions used to address academic skills deficits (e.g., reading, math), including curriculum and instruction techniques to improve academic skills as well as methods for monitoring progress.

Psychodynamic/psychoanalytic: Courses on the theories and techniques of interventions from psychodynamic perspectives. Issues may include transference and countertransference, object relations perspectives, and contemporary ego psychological approaches to child and adolescent treatment.

Specific population: Intervention courses targeting specific populations (e.g., family, multicultural, infants, preschool/toddler, community)

Multiple approaches: Courses teaching a variety of different intervention approaches, including some of the methods described above.

Assessment categories:

Direct: Measures of actual behaviors of concern gathered in their natural setting (Reschly & Grimes, 1995) and directly linked to the design and delivery of interventions.

Curriculum-based assessment (CBA): "A system for determining the instructional needs of a student based upon the student's on-going performance within existing course content in order to deliver instruction as effectively and efficiently as possible" (Gickling, Shane, & Croskery, 1989, pp. 344-345; as cited in Gickling & Rosenfield, 1995, p. 588).

Functional-behavioral assessment (FBA): A process primarily utilizing direct observation methods to identify specific environmental variables, including setting events, antecedents, and consequences, in an effort to determine the function of the target behavior's occurrence or nonoccurrence.

Criterion-referenced assessment: Measures used to identify an individual's status with respect to an established standard of performance. Helps determine the match between the student and the instructional program in which the student has been placed. Also identifies specific skills that have been mastered as a result of instruction.

Indirect: Standardized tests (e.g., intelligence and achievement) that measure samples of behavior occurring outside of the natural setting (Reschly & Grimes, 1995) with the primary purpose being the determination of special education eligibility.

Intelligence: Courses on the administration of standardized intelligence/cognitive tests.

Academic: Courses on the administration of standardized educational diagnostic instruments.

Personality: Courses on the administration of projective techniques (e.g., TAT, Roberts Apperceptive Story-Telling Test, word associations, sentence/story completions, and drawings), personality inventories, checklists, and scales.

Behavior: Courses on the evaluation of behavior problems utilizing behavior checklists and rating scales (Behavior Assessment Scale for Children, Child Behavior Checklist, Conners Rating Scales).

Adaptive: Courses on adaptive behavior instruments measuring a person's competence in meeting independent needs and the social demands of his or her environment (e.g., Vineland Adaptive Behavior Scales, Scales of Independent Behavior).

Neuropsychology: Courses on the administration of tests measuring a wide spectrum of psychological deficits, varying in nature and degree, accompanying brain injury in children.

Multicultural: Courses on psychoeducational assessment of children from culturally diverse backgrounds. Issues may include non biased assessment and legal and ethical considerations.

Multiple areas: Courses focusing on the administration of assessment instruments measuring multiple domains, which may include intelligence, achievement, adaptive behavior, personality and emotional disorders.

Appendix B

APA-Approved School Psychology Doctoral Programs: Demographics and Total Assessment & Intervention Hours Required

Name of University	ogram	Degree	Total Assm't &		Assessment	Courses integrating
	ls Honsed	offered	Interv. Hours	hrs. required /	hrs. required /	Interv. & Assm't -
			Required	% of total	% of total	hrs. req/ % of total
Columbia University	Teachers College	Ed.D.	27	3 hrs / 11%	18 hrs / 67%	6 hrs / 22%
Louisiana State University	Arts & Sciences	Ph.D.	19	9 hrs / 47%	10 hrs / 53%	
Rutgers University	Applied & Prof. Psyc.	Psy.D.	19	8 hrs / 42%	9 hrs / 47%	2 hrs / 11%
Syracuse University	Arts & Sciences	Ph.D.	21	12 hrs / 57%	9 hrs / 43%	
Tulane University	Lib.Arts & Sciences	Ph.D.	21	12 hrs / 57%	9 hrs / 43%	
Univ. of Albany	Education	Psy.D.	25	12 hrs / 48%	10 hrs / 40%	3 hrs / 12%
Univ. of California-Berkeley Education	Education	Ph.D.	14	3 hrs / 21%	8 hrs / 57%	3 hrs / 21%
Univ. of Missouri-Columbia Education	Education	Ph.D.	33	21 hrs / 64%	9 hrs / 27%	3 hrs / 9%
Univ. of WiscMilwaukee	Education	Ph.D.	33	9 hrs / 27%	15 hrs / 45%	9 hrs / 27%

NASP-Approved School Psychology Doctoral Programs: Demographics and Total Assessment & Intervention Hours Required

Name of University	College Program Degree Is Housed offered	Degree offered	Total Assm't & Intervention Interv. Hours hrs. required % of total	Intervention hrs. required / % of total	Assessment hrs. required / % of total	Courses integrating Interv. & Assm't - hrs. req./ % of total
Central Michigan Univ.	Human.&Soc/BehSci.	Ph.D.	28	15 hrs / 54%	10 hrs / 36%	3 hrs / 11%
Hofstra University	Lib. Arts & Sciences	Ph.D.	27	12 hrs / 44%	12 hrs / 44%	3 hrs / 11%
Hofstra University	Lib. Arts & Sciences	Psy.D.	27	12 hrs / 44%	12 hrs / 44%	3 hrs / 11%
Indiana Unv. of Penn.	Education	Ed.D.	42	21 hrs / 50%	18 hrs / 43%	3 hrs / 7%
Northern Arizona Univ.	Educational Psyc.	Ed.D.	39	21 hrs / 54%	12 hrs / 31%	6 hrs / 15%
Ohio State University	Education	Ph.D.	21	12 hrs / 57%	6 hrs / 29%	3 hrs / 14%
Texas Women's Univ.	Arts & Sciences	Ph.D.	26	11 hrs / 42%	11 hrs / 42%	4 hrs / 15%
University of Alabama	Education	Ph.D.	21	12 hrs / 57%	9 hrs / 43%	
University of Connecticut	Educational Psyc.	Ph.D.	18	12 hrs / 67%	6 hrs / 33%	
University of Virginia	Education	Ph.D.	24	15 hrs / 63%	9 hrs / 38%	
Westem Michigan Univ.	Soc. & Nat. Sciences	Ph.D.	23	10 hrs / 43%	10 hrs / 43%	3 hrs / 13%

NASP- and APA-Approved School Psychology Doctoral Programs: Demographics and Total Assessment & Intervention Hours Required

Name of University	College Program	Degree	Total Assm't &	Intervention	Assessment	Courses integrating
	Is Housed	Offered	Interv. Hours	hrs. required /	hrs. required /	Interv. & Assm't -
			Required	% of total	% of total	hrs. req./ % of total
Arizona State University	Education	Ph.D.	39	15 hrs / 38%	12 hrs / 31%	12 hrs / 31%
Ball State University	Teachers College	Ph.D.	24	9 hrs / 38%	12 hrs / 50%	3 hrs / 13%
Fordham University	Education	Ph.D.	33		15 hrs / 45%	ļ
Georgia State University	Education	Ph.D.	19	9 hrs / 47%	10 hrs / 53%	
Illinois State University	Arts & Sciences	Ph.D.	37	18 hrs / 49%	16 hrs / 43%	3 hrs / 8%
Indiana State University	Education	Ph.D.	21	3 hrs / 14%	12 hrs / 57%	6 hrs / 29%
Indiana University	Education	Ph.D.	19	5 hrs / 26%	5 hrs / 26%	9 hrs / 47%
rsity	Education	Ph.D.	36	15 hrs / 42%	12 hrs / 33%	9 hrs / 25%
1	Education	Ph.D.	30	18 hrs / 60%	8 hrs / 27%	4 hrs / 13%
Michigan State University	Education	Ph.D.	30	15 hrs / 50%		
. 1	Education	Ph.D.	25	8 hrs / 32%	11 hrs / 44%	6 hrs / 24%
	Educ. & Psyc.	Ph.D.	34	18 hrs / 53%	7 hrs / 21%	
Oklahoma State University	Education	Ph.D.	30	15 hrs / 50%	9 hrs / 30%	6 hrs / 20%
Pace University	Arts & Sciences	Psy.D.	45	18 hrs / 40%	18 hrs / 40%	9 hrs / 20%
Pennsylvania State Univ.	Education	Ph.D.	15	6 hrs / 40%		
Temple University	Education	Ph.D.	48	9 hrs / 19%	20 hrs / 42%	19 hrs / 40%
ersity	Education	Ph.D.	30	12 hrs / 40%		6 hrs / 20%
Univ. of Arizona	Education	Ph.D.	24	9 hrs / 38%	9 hrs / 43%	6 hrs / 29%
nati	Education	Ph.D.	45	27 hrs / 60%	6 hrs / 13%	12 hrs / 27%
Univ. of Florida	Education	Ph.D.	22	15 hrs / 56%	١. ا	
Univ. of Georgia	Education	Ph.D.	12	6 hrs / 50%	6 hrs / 50%	
	Education	Ph.D.	33	21 hrs / 64%	12 hrs / 36%	
	Education	Ph.D.	31	14 hrs / 45%	11 hrs / 35%	6 hrs / 19%
Univ. of Kentucky	Education	Ph.D.	21	9 hrs / 43%	12 hrs / 57%	
ŀ	Education	Ph.D.	35	17 hrs / 49%	15 hrs / 43%	3 hrs / 9%
nherst	Education	Ph.D.	28	13 hrs / 46%	15 hrs / 54%	
Univ. of Minnesota	Educ. & Hum.Dev.	Ph.D.	21	-1	10 hrs / 48%	3 hrs / 14%
Univ. of N.C. at Chapel Hill Educat	Education	Ph.D.	24	15 hrs / 63%	9 hrs / 38%	

NASP- and APA-Approved School Psychology Doctoral Programs: Demographics and Total Assessment & Intervention Hours Required

Name of University	College Program	Degree	Degree Total Assm't &	Intervention	Assessment	Courses integrating
-	Is Housed	Offered	Offered Interv. Hours	hrs. required /	hrs. required /	Interv. & Assm't -
			Required	% of total	% of total	hrs. req./ % of total
Univ. of Nebraska-Lincoln	Teachers College	Ph.D.	43	19 hrs / 44%	8 hrs / 19%	16 hrs / 37%
Univ. of Northern Colorado Education	Education	Ph.D.	26	9 hrs / 35%	13 hrs / 50%	4 hrs / 15%
Univ. of Oregon	Education	Ph.D.	33	16 hrs / 48%	17 hrs / 52%	
Univ. of Rhode Island	Arts & Sciences	Ph.D.	12	6 hrs / 50%	3 hrs / 25%	3 hrs / 25%
Univ. of South Carolina	Liberal Arts	Ph.D.	21	9 hrs / 43%	9 hrs / 43%	3 hrs / 14%
Univ. of South Florida	Education	Ph.D.	37	23 hrs / 62%	14 hrs / 38%	
Univ. of Southern Miss.	Educ. & Psyc.	Ph.D.	21	9 hrs / 43%	12 hrs / 57%	
Univ. of Tennessee-Knox.	Education	Ph.D.	18	6 hrs / 33%	12 hrs / 67%	
Univ. of Texas at Austin	Education	Ph.D.	33	12 hrs / 36%	9 hrs / 27%	12 hrs / 36%
Univ. of Utah	Education	Ph.D.	27	18 hrs / 67%	9 hrs / 33%	
Univ. of Washington	Education	Ph.D.	36	14 hrs / 39%	22 hrs / 61%	
Univ. of WiscMadison	Education	Ph.D.	21	12 hrs / 57%	6 hrs / 29%	3 hrs / 14%
Yeshiva University	Psychology	Psy.D.	45	24 hrs / 53%	18 hrs / 40%	3 hrs / 7%

Credit Hours Required for Intervention and Assessment Categories: APA-Approved Programs

Name of University		E I	NTERVEN	ENT	NO.	S	TION CATEGORIES)RIE	S			AS	ASSESSMENT CATEGORIES	SME	Ę	SAT	100	뿚	ပ္သ		Assm't/Interv
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Note: University programs arranged alphabetically

Key to Intervention and Assessment CategoriesINTERVENTION CATEGORIESASSESSMENT CATEGORIESA: ConsultationJ: Indirect AssessmentN: Both Assessment and InterventionB: BehavioralJ: IntelligenceC: Cognitive-BehavioralJ2: Personality, Behavior, and/or EmotionalD: Psychotherapy/CounselingJ3: Multiple AreasE: AcademicJ4: AcademicF: Psychodynamic/PsychoanalyticJ5: NeuropsychologicalG: Specific PopulationJ7: Not SpecifiedG2: MulticulturalK: Direct AssessmentH: Multiple ApproachesL: Both Direct and Indirect AssessmentI: Not Specified/Other*M: Not Specified/Other

Credit Hours Required for Intervention and Assessment Categories: NASP-Approved Programs

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Note: University programs arranged alphabetically

Key t	Key to Intervention and Assessment Categories
INTERVENTION CATEGORIES	ASSESSMENT CATEGORIES
A: Consultation	J: Indirect Assessment N: Both Assessment and Intervention
B: Behavioral	
C: Cognitive-Behavioral	J2: Personality, Behavior, and/or Emotional
D: Psychotherapy/Counseling	J3: Multiple Areas
E: Academic	J4:Academic
F: Psychodynamic/Psychoanalytic	J5: Neuropsychological
G: Specific Population	J6: Multicultural
G1: Family	J7: Not Specified
G2: Multicultural	K: Direct Assessment
H: Multiple Approaches	L: Both Direct and Indirect Assessment
I: Not Specified/Other*	M: Not Specified/Other

* Northern Arizona University: Early Childhood Hofstra University: Community Ohio State University: Social Skills

Credit Hours Required for Intervention and Assessment Categories: NASP- and APA-Approved Programs

NAME OF UNIVERSITY	INTERVENTION CATEGORIES	RV	Ë	O N	S	TEG	ORI	ES		1SS	ES	SME	Z	ASSESSMENT CATEGORIES	川川	Š	Ä	5	Assm't/Interv.
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Credit Hours Required for Intervention and Assessment Categories: NASP- and APA-Approved Programs

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Note: University programs arranged alphabetically

recessing programs arianged approached by	Key to Intervention and Assessment Categories	INTERVENTION CATEGORIES ASSESSMENT CATEGORIES	Sonsultation J: Indirect Assessment N: Both Assessment and Intervention	J1: Intelligence	Sognitive-Behavioral J2: Personality, Behavior, and/or Emotional				•	G1: Family J7: Not Specified	G2: Multicultural K: Direct Assessment	Aultiple Approaches L: Both Direct and Indirect Assessment		* Univ. of Nebraska-Lincoln: Ecobehavioral	Pace University: Learning Theories	Univ. of Southern Miss.: Early Childhood	Univ. of South Carolina: Academic or Family Intervention option	
Total Cilifornity programs an arrange	Key	INTERVENTION CATEGORIES	A: Consultation	B: Behavioral	C: Cognitive-Behavioral	D: Psychotherapy/Counseling	E: Academic	F: Psychodynamic/Psychoanalytic	G: Specific Population	G1: Family	G2: Multicultural	H: Multiple Approaches	I: Not Specified/Other*	* Univ. of Nebraska-Lincoln: Ecol	Pace University: Learning Thec	Univ. of Southern Miss.: Early (Univ. of South Carolina: Acade	

VITA

Amanda Monville was born in El Paso, Texas on April 12, 1972. Because her father was in the military, she attended schools in 5 states and in Europe. She graduated from Robinson Secondary in Fairfax, Virginia, in June 1990. She entered the University of Texas, El Paso in August 1990. She transferred to George Mason University in January 1992 where in December, 1994 she received the Bachelor of Arts in Psychology and graduated with honors. She moved to Lapeer, Michigan, where she was a full-time substitute teacher and summer school teacher for approximately 2 years. She then entered the doctoral program in School Psychology at the University of Tennessee, Knoxville in August of 1996, officially receiving the doctoral degree in December, 2001. She is presently working for Cherokee Health Systems in Talbott, Tennessee, as a school psychologist for 1 middle and 3 elementary schools.