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An Investigation of School Psychologists' Perceptions of Their Future Roles and Functions in Relationship to the School Reform Movement

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Loyola University of Chicago

AN INVESTIGATION OF SCHOOL PSYCHOLOGISTS'
PERCEPTIONS OF THEIR FUTURE ROLES AND FUNCTIONS
IN RELATIONSHIP TO THE SCHOOL REFORM MOVEMENT

A Dissertation Submitted to the Faculty of the Graduate
School in Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy

Department of Counseling and
Educational Psychology

by

David J. Goodman

January 1994

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To my mother
Who several years ago told me
I should go back to school
And when I did
Never doubted my ability
For a second

&

To the memory of my father
Who never had a chance to say
"Good-bye"

Chapter I

INTRODUCTION

In the past, one educational system addressed the needs of all children (Kauffman, 1988). Eventually, a second system emerged that segregated children with special needs into residential and day school facilities. Beginning in the 1960's, a wider range of services were offered to children with special needs, such as self-contained classrooms and resource programs. In addition, requests were made for these children to be placed into settings no more restrictive than absolutely necessary. This push for placement in the least restrictive environment marked the beginning in the history of special education of progressive inclusion (Reynolds, 1989).

Laws and mandates surfaced in the 1970's recognizing that each child had the right to an appropriate education (Reynolds, 1989). During the 1980's, the least restrictive environment became significant in terms of both policy and classroom practice (Sailor, 1991; Welch, 1989). Many professionals began to claim that special education was a failed system and that the regular education classroom was the most appropriate form of education for all children (Kovaleski, 1988). This belief helped pave the way for the regular education initiative (REI) and inclusion movement

(Sailor, 1991).

During the 1980's, regular education professionals had radically shifted their focus on improving schools from state regulation and control to individual school-based management and parent/community involvement. Today, these changes help support an ever-diversifying student body demography (i.e., the REI, multi-cultural education, and inclusion) (Sailor, 1991). Also, schools are seeking methods to better prepare their students for the "real-world" (Archbald, 1991), which has led to the authentic assessment movement.

The REI, inclusion movement, performance-based education (PBE), and multicultural education (MCE) are essentially efforts to integrate all students in the mainstream. As a result, a link exists between special and regular education, which presents a "window of opportunity" for one shared educational agenda (Sailor, 1991). Its success will depend on a paradigmatic shift from the traditional bureaucratic structure, which promotes homogeneity and segregation, to the adhocratic structure, which promotes diversity and integration (Thousand, Villa Paolucci-Whitcomb, & Nevin, 1992).

It is a particularly exciting time for school psychologists because many of the services (assessments and recommendations for special education placements) they have been providing and the system (i.e., special education) in

which they have served during the past thirty years are now under siege. The school reform movement and the field of school psychology are in large measure dependent upon one another. Will school psychologists employ non-traditional forms of service delivery (e.g., direct intervention, consultation, and alternative forms of assessment) and promote school reform efforts? Or, will they "cling defensively" to their past and perhaps undermine school reform efforts and even their own professional existence (Reschly, 1988a)?

It is important and timely that school psychologists' perceptions of their future roles and functions are systematically investigated with respect to the school reform movement. The theoretical implications of this study and its contributions to the field of school psychology rest on its potential to add to a growing knowledge base which integrates school reform efforts, experience, training, and preference factors with school psychological roles and functions.

Eighty-eight school psychologists working for the Chicago Public Schools responded to a 47-item questionnaire grid survey. The questionnaire was designed to measure school psychologists' perceptions of their future roles and functions (i.e., assessment, consultation, intervention, inservice, and research) with respect to school reform efforts (i.e., REI, inclusion, PBE, and MCE). Other

variables employed consisted of type of training emphasis (assessment or counseling), years of experience (<6, 6-16, or >16), and professional preference (assessment, consultation, or direct intervention).

Based on a review of the literature, it was expected that differences in school psychologists' perceptions of their future roles and functions (considered to be dependent measures) would be found across all the independent variables mentioned above.

The study was designed to address the following research questions:

1. Do school psychologists perceive differences in their future roles and functions (assessment, consultation, direct intervention, inservice, and research) across school reform efforts (inclusion, REI, PBE, and MCE)?
2. Do school psychologists perceive differences in their future roles and functions with respect to school reform efforts across varying levels of (<6, 6-16, or >16 years)?
3. Do school psychologists perceive differences in their future roles and functions with respect to school reform efforts across types of training (assessment or counseling)?
4. Do school psychologists perceive differences in their future roles and functions with respect to school reform efforts across varying professional preferences (assessment, consultation, or direct intervention)?
5. Do interaction effects exist between school reform

efforts and varying levels of experience?

6. Do interaction effects exist between school reform efforts and varying types of training?

Chapter II

LITERATURE REVIEW

The literature reviewed in this chapter is divided into four sections: (1) special and regular education school reform; (2) the process of school reform; (3) "revolution" in the field of school psychology; and (4) the relationships among school psychological roles/functions and the variables of pre-and inservice training, experience levels, preferences, and perceptions. The information presented in this chapter is either directly or indirectly related to what we know and do not know about school psychologists' changing perceptions of their roles and functions (assessment, consultation, direct intervention, research, and inservice) with respect to school reform efforts.

In section one, an attempt is made to describe the major historical roots and themes of those special and regular education school reform efforts [i.e., the regular education initiative (REI), multicultural education (MCE), performance-based education (PBE), and inclusion movement] that are the focus of this study. Additionally, the major issues regarding the debate between those who support special education reform and those who oppose it are presented. Particular attention is given to the benefits

and disadvantages of both traditional and alternative assessment techniques, including their possible link to instructional intervention strategies.

Section two was designed to focus on the processes involved in the school reform movement. The importance of changing peoples' attitudes, concepts, and perceptions vis-a-vis a paradigm shift, as well as obstacles posed by maintaining the status quo (i.e., traditional paradigm), are described in part one of this section. In part two of this section, a discussion is presented related to the use of collaborative consultation as a means to promote school reform values, overcoming status quo obstacles, and achieving a paradigm shift.

In section three, a discussion related to the revolution in school psychology, focusing on past, present, and future issues is presented. A discussion is presented related to the roles and functions of inservice and research activities and their possible relationship with respect to implementing school reforms.

Finally, in section four, a discussion is presented related to what we know about the relationships among school psychological roles/functions and school psychologists' and other education professionals' pre- and inservice training experience, preferences, and perceptions. The studies presented in this section here are directly related to the one at hand.

The School Reform Movement

The REI, inclusion movement, PBE, and MCE school reform efforts are similar in many respects. Some of the attitudes, expectations, and practices related to restructuring services for students with disabilities and multicultural/multi-ethnic backgrounds are identical and constitute a "marriage" between special education school reform and MCE (Amos and Landers, 1984). PBE complements mainstreaming and its newly emerging service delivery approaches that seek to strengthen the link between assessment and intervention (Archbald, 1991). Therefore, regular and special education professionals need to acquire exchangeable knowledge and skills and collaborate to promote mainstream educational opportunities for all students (Amos & Landers, 1984).

Because school psychologists interface with administrative and instructional units in regular and special education, they are particularly challenged in relationship to the school reform movement (Illback & Maher, 1984). School psychologists traditionally reflect the needs of education; but they should also assist in the development and implementation of appropriate educational objectives (Goodman, 1973).

Special Education: American public schools have not always provided services and programs for children with disabilities. Years ago, educators taught nearly all

students regardless of their intellectual, physical, or behavioral characteristics (Kauffman, 1988).

Eventually, children with disabilities were segregated into highly restrictive residential and day school facilities. A policy of segregation continued through the early 1960's, which was labeled by some a "two box operation," as children with disabilities were placed in one system and children without disabilities were placed in another system. In 1962, Reynolds proposed a continuum of services consisting of the regular education classroom and increasingly restrictive settings layered above it (e.g., pull-out program, resource room, self-contained classroom). Education professionals were asked to place children with disabilities no higher on the continuum of services than absolutely necessary, and to return them to the regular education classroom as soon as possible (Reynolds, 1989).

With the passage of the Education for Handicapped Children Act in 1975, mainstreaming students was officially recognized (Welch, 1989). Today, children with mild disabilities are being placed and/or retained in regular education and children with severe and low-incidence disabilities are being included in regular education (Reynolds, 1989).

Regular Education: In past years, regular education reform efforts attempted to improve curriculum and instruction (Sailor, 1991) by promoting state control and

power (Lipsky & Gartner, 1992). Efforts to improve education have recently shifted to promoting individual school-based management and parent/community participation and empowerment (Lipsky & Gartner, 1992). The new restructuring movement accommodates the interests and the needs of an ever-diversifying student body demography, thus linking special and regular education school reform efforts (Sailor, 1991).

This link forms a shared educational agenda (Sailor, 1991). Currently, the following themes are being seriously questioned: (a) the efficacy of services and the quality of students' lives; (b) instructional strategies; (c) teaching content; and (d) the value of traditional disciplines, including special education categories and programs (Miller, 1990).

According to school reform proponents, effective instructional methods can be "elucidated and implemented" (Kovaleski, 1988, p. 481) in order to effectively educate all children in integrated and mainstream settings. Currently, these methods are being applied (Berliner & Rosenshine, 1976; Englert, 1984; Reith & Evertson, 1988). In fact, by the year 2010 it is believed that most of the needs of special populations will be handled in regular education. If policy changes advocated by prominent agencies and professional groups continue at the current pace, this might occur well before then (Will, 1986).

It should be noted, however, that this may not be the future trend for deaf children. Today, prominent advocates for the deaf community embrace and espouse the notion that deafness is not a disability, but rather a culture with its own unique linguistic identity (i.e., American sign language). According to many leaders of the deaf community, deaf persons should be nurtured and allowed to grow on their own terms, much like any other culture (e.g., Jews, Mexican-Americans, Poles, etc.), instead of being "fixed" by the mainstream. These leaders argue that, "well-meaning attempts to integrate deaf people into hearing society may actually imprison the deaf in a zone of silence" (Dolnick, 1993, p. 43); in fact, mainstreaming may even serve to "mutilate" deaf children's educational, vocational, and emotional development (Dolnick, 1993).

The Regular Education Initiative and Inclusion Movement

The REI and inclusion movement are rooted in the right to an education mandate (PARC v. The Commonwealth of Pennsylvania, 1971; Public Law 94-142, 1975) and the philosophy of "zero-rejection" (Thousand, Villa, Paolucci-Whitcomb, & Nevin, 1992). PARC v. The Commonwealth of Pennsylvania (1971) required that schools educate all students with cognitive disabilities (Lily, 1971). Public Law (P.L.) 94-142, which during the past decade reached a level of "major significance" in terms of policy and classroom practices (Sailor, 1991), paved the way for the

integration of students with disabilities in regular education (Reynolds, 1989). As a result of P.L. 94-142, important changes have affected education, including curriculum, teaching methodology, and behavior management (Loucks-Horsley & Roody, 1990).

According to Thousand, Villa, Paolucci-Whitcomb, & Nevin (1992), the philosophy of "zero-rejection" promotes the idea that children, regardless of the severity and/or incidence of their disabilities, possess the civil right to an education with their non-disabled peers. Sailor (1991) states that during the 1980's, inclusion and the policy of the least restrictive environment reached the forefront of educational research and development.

REI: As mentioned above, education professionals are no longer merely concerned with the services they provide, but also with the quality of those services and their impact on students' educational experiences (Reynolds, 1989). The REI, a merger between regular and special education into a unitary system (Davis, 1989), addresses those concerns (Will, 1986; Wang, Reynolds, & Walberg, 1986). It is currently a central issue in education and causing much "ferment" (Reynolds, 1989). The REI asks "...special educators [to] reconsider common practices and widely held assumptions about the best way to educate mildly [disabled] youngsters; identification and grouping practices are particularly worthy of consideration" (Miller, 1990, pp. 20-

21). The REI reconceptualizes instruction and curriculum, and regular education interventions are used instead of special education interventions in order to help low achieving students. Thus, the REI de-emphasizes special education placements (Reschly, 1988a).

Much support is needed to create an environment for the successful mainstreaming of children with diverse needs. REI proponents do not advocate that, simply due to problems in special education, all students with disabilities be "dumped" or retained in regular education without additional assistance (Reschly, 1988b). They stress that professionals from both regular and special education must work together to maximize the availability of resources and services (Miller, 1990).

To that end, prereferral interventions designed to remediate students' problems in regular education are being implemented. In fact, at the local and state levels regulatory guidelines are requiring the use of these interventions, from design through implementation, prior to the initiation of a child study (Reschly, 1988a).

Inclusion: When children with disabilities are placed in residential schools, it often involves sending them great distances from their homes (Reynolds, 1989). These practices are now very rare (Lakin, Krantz, Bruininks, Clumpner, & Hill, 1982). Current efforts are being made to keep students with disabilities in their neighborhood

schools (Reynolds, 1989). Again, however, this may exclude the deaf community (see pp. 9-10). The deaf community reportedly desires to remain separate from the "dangerous" effects of mainstreaming, in order to foster its own unique cultural and linguistic identity (Dolnick, 1993).

According to Lipsky & Gartner (1992), students have traditionally been viewed as passive recipients or objects of teaching. The inclusion movement is a new educational paradigm placing students at the center of education, recognizing that they are active, engaged, and the producers of learning. Active participation, in which students work toward structuring their own environments, enhances development. Confronting, shaping, and changing their worlds help students become more competent learners. This has particular importance for students with disabilities who too often are merely helped instead of empowered. In this new paradigm students are asked to use their higher-level thinking skills to analyze, synthesize, and integrate information.

According to Sailor (1991) there is a growing body of evidence that suggests the inclusion model is gathering momentum throughout the country. The "zero-rejection" policy is being applied in some school districts, allowing for the inclusion of students with even the most severe physical and behavioral problems. The California State Department of Education (1989) found that fifteen school

districts are reportedly operating along the lines of a full-inclusion model. Colorado, Iowa, and Vermont are planning to initiate "some form" of this delivery system in the near future. California and other states are developing programs and policies that signify trends toward full-inclusion practices.

MultiCultural Education and Authentic Assessment

MCE: With respect to MCE, a premium is placed on individuality, uniqueness, and the philosophy of cultural pluralism. Policy makers and teachers are encouraged to sensitize themselves to the special academic and social needs of minority students, and to instill in all students an awareness of the importance of every person's cultural background (Wiese man, 1986). MCE fosters the whole development of individuals (Farmer, 1984), which includes their ethnicity (Cameron, 1984). The goal of MCE is the complete integration of all students (Williams, 1991).

Whaley & Swadener (1990) believe that MCE should begin with early childhood education. Early intervention nurtures self-esteem, introduces culturally diverse experiences, and instills the art of empathy.

To assure the success of MCE, professionals need to learn about and employ interventions designed to accommodate the learning styles of various groups of people (Wiese man, 1986). They also need to understand the potentially adverse results of strict ability grouping (Rich, 1987). Teachers

who understand each student's uniqueness will increase their teaching effectiveness through the creation of educational environments that promote positive self-concepts and maximum learning potential (Buckalew & Hickey, 1982). These teachers are able to assume many different reference points, apply cross-cultural instructional strategies, and promote positive and equitable interaction within diverse student populations (Valencia, 1992).

Insofar as racism in America serves to undermine the economic, psychological, and social well-being of both the majority and minority (Lee, 1983), MCE is believed to be one of several alternative approaches, as it helps promote relations among different cultural and racial groups (Rich, 1987); and, according to Lee (1983), fosters positive interaction and feelings among them and appears to alleviate racial, cultural, and religious tension. Payne (1984) believes that the research and classroom practices borne out of MCE help assuage the racism currently impacting many minority groups (i.e., African Americans, Mexican Americans, Asian Americans, Native Americans, and Puerto Ricans). In his view, MCE is socially progressive, since education professionals who embrace their students' cultural differences are teaching skills, attitudes, and values of racial equality.

Poplin & Wright (1983) state that cultural pluralism is the philosophy that all American students have the right to

maintain their cultural identities. Cultural pluralism opposes the idea that children from minority backgrounds need cultural and/or linguistic remediation. Unfortunately, school systems using this deficit model are placing minority students in special education on the erroneous premise that their cultural and/or linguistic differences are a form of learning disabilities. Collier & Hoover (1987) believe that many children from minority cultural backgrounds are being placed in special education because their behaviors, which may be perfectly normal relative to their respective cultural backgrounds and/or the natural result of the acculturative process, are being misdiagnosed as having learning disabilities symptomatology.

According to Collier & Hoover (1987), when children from minority backgrounds are referred for evaluation, their native cultures and languages must be considered. This will serve to reduce special education referrals and culture-biased special education placements. American values and the English language should be taught in conjunction with students' cultural and linguistic characteristics. For this reason, it is imperative that teachers acquire at least some bilingual/multicultural training.

Authentic Assessment: Authentic assessment approaches constitute one of the most important issues in today's school reform movement. Educators have been responding favorably to authentic assessment as it invites the

participation of teachers, parents, students, psychologists, and administrators (Elliott, 1991). While they are costly procedures and require judgement when scoring (Elliott, 1991), their advantages include the following: (a) they are direct measures of academic skills; (b) they emphasize higher order thinking skills and judgement; (c) they encourage active participation in the learning process; and (d) they allow teachers to teach to the tests without jeopardizing test validity (Hacker & Hathaway, 1991).

Authentic assessment is criterion-referenced. Using diverse human and material resources, authentic assessment techniques measure real academic skills through the use of multiple performance indicators such as students' work samples, self-evaluative reports, exhibits, and performances (Elliott, 1991). In this way, authentic assessment reflects the world outside of education (Archbald, 1991). Compared to traditional assessment approaches, which indirectly measure learning goals, authentic assessment approaches possess real-world validity (Kirst, 1991). They are contextualized, complex, and challenging, while traditional approaches are fragmented and static (Torney-Purta, 1990).

The development of scoring and evaluation procedures are perhaps the most challenging component of authentic assessment, and may therefore be an area in particular need of school psychologists' special skills (Elliott, 1991). Since they are viewed by many as being "measurement

experts," school psychologists could be significant contributors in the design and implementation of authentic assessment procedures (Kovaleski, 1988). Unfortunately, the reliability and validity of authentic assessment procedures are not well established at this time (Hacker & Hathaway, 1991). These problems, however, are not "insurmountable" since authentic assessment is grounded in behavioral psychology which possesses an established theoretical and empirical foundation (Elliott, 1991). Authentic assessment approaches improve learning and instruction because students benefit from the clarity of academic objectives they promote and from the engaging tasks inherent in these approaches. At the same time, teachers can assess educationally meaningful results and generate future instructional strategies (Wiggins, 1990). Authentic assessment approaches are consistent with the efficacy research on motivational and cognitive aspects of instruction: they help students construct their responses instead of merely recalling them verbatim from memorized text (Christenson, 1991).

Many people believe that the data obtained from authentic assessments reflect students' true academic strengths and weaknesses. In the future, as the assessment criteria broadens to include not only problem-related descriptions but problem-related interventions, these approaches will therefore become an essential school psychological service (Reschly, 1988a).

Special Education School Reform Support

Efficacy: Professionals who support special education school reform claim that the current special education system is failing its students at both the pre- and post-school levels. They assert that special education tracking fragments students' educational experiences and denies them full access to knowledge and ultimately a quality education (Miller, 1990).

Research on special education outcomes in the areas of learning, graduation, postschool education, employment, and community living have met with modest results at best (Lipsky & Gartner, 1992). The findings from the National Longitudinal Transition Study (NLTS) of standardized testing results indicate that students with disabilities are failing to acquire satisfactory levels of academic knowledge. Less than 50 percent of those disabled youth taking the minimum competency test passed (Wagner, 1991). The Department of Education stated that the dropout rates of students in special education are at least one-fifth greater than the dropout rates of students in regular education (Lipsky & Gartner, 1992). Based on the NLTS findings, nearly 10 percent of those disabled youth who stayed in school were retained at the end of the school year (Wagner 1991).

Few young adults with disabilities, formerly enrolled in special education, appear to be adjusting well to post-school community life. Of youth who had been out of school

for three to five years, only 20 percent were considered to have met the criteria for an "independent" life style, yet even these disabled youth earned on average less than \$12,000 per year. (Wagner, 1992a). It should be noted that "employment outcomes between [disabled youths and those from the general population]...in the early years after secondary school remained substantial three years later" (D'Amico & Blackorby, 1992, p. 44). Furthermore, while it was true that there were increases in the employment rate for disabled youth, these increases were significant only among youths with learning disabilities. Only modest gains were made among youths with hearing, visual, orthopedic, and multiple disabilities (D'Amico & Blackorby, 1992).

Social integration was another variable found to be associated with poor outcomes. Youths with disabilities evidenced a decline in the frequency with which they interacted with others and in group membership declined. Note that, youths with mild disabilities (i.e., learning disabled) fared far better than youths with severe and low-incidence disabilities (i.e., multiply disabled, deaf, and blind) (Wagner, 1992b). Given these findings, it is recommended that schools be encouraged to provide curricular and extra-curricular activities that appeal to a full-range of students, including students with disabilities. It is important for students with disabilities to become actively involved in community affairs (Lipsky & Gartner, 1992).

Finally, studies show that children educated in heterogenous and cooperative learning groups engage more in higher level thinking and they produce more novel solutions to problems than children educated in competitive/individualistic groups (Johnson and Johnson, 1989). In a study conducted by Tillona (1986), five elementary special education students showed very positive responses, both socially and academically, to being mainstreamed for parts of their school day. Mainstreaming efforts included support from a team consisting of a school psychologist, principal, guidance counselor, and peer tutors.

According to Reynolds (1989), schools are demonstrating that special education and related services can be delivered in regular education classrooms. Schools are therefore ready to discard the residential and day school facilities, and operate with a continuum of services in which the self-contained classroom constitutes the most restrictive educational setting.

Assessment/Intervention: Even if differential diagnoses between mild disabilities were possible, they would only be relevant if they could be linked to effective educational strategies (Reschly, 1988b). School psychological assessment should generate information not only for making eligibility placements, it should foster creation, implementation, and evaluation of instructional programs (Reschly, 1988a). Regular and special education

should prevent students' problems, a goal which is attainable via the assessment-intervention link. Thus, if school psychologists are going to make important contributions to the newly emerging service delivery system, their eligibility determination focus must shift to design, monitoring, and evaluation of classroom interventions (Reschly, 1988b).

Newly emerging assessment techniques link assessment data with an outcomes criteria. These techniques are not only as useful as traditional assessment with respect to eligibility determination, they also contribute in the area of intervention (Deno, 1985; German & Tindal, 1985; Shapiro, 1987; Shapiro & Lentz, 1985; Tucker, 1985). Traditional assessment, however, is not well-aligned with schools' instructional programs and are not typically used to inform teachers with regard to intervention strategies. They are used primarily for the purposes of special education screening and classification (Elliott, 1991).

Although the description of underlying processes that appear to be at the root of students' problems are currently the criteria for judging traditional assessment procedures, most, if not all, fail to meet those standards. That is because they do not possess discriminant nor treatment validity, resulting in unreliable special education classification decisions (Algozzine & Ysseldyke, 1983).

The Wechsler Scales are considered to be an adequate

measure of general intellectual functioning (Reschly, 1988a). However, intelligence is a limited construct and fails to provide much information related to instructional planning. It is usually defined in terms of test content (e.g., Wechsler's verbal/performance scales) or a combination of theories, but test content and theories provide little if any usefulness with respect to educational and psychological interventions (Naglieri & Braden, 1992). Greshman (1987) claims a failure exists to link the psychometric profiles of current assessment procedures with various educational responses, such as an aptitude-treatment-interaction (ATI) plan.

The classification system is also questionable. Categorical distinctions between students with mild disabilities [i.e., educably mentally handicapped (EMH), emotionally disturbed/behaviorally disordered (ED/BD), and learning disabled (LD)] are generally artificial. For example, school psychologists who use an IQ cutoff criterion of 70 to determine EMH eligibility are making an arbitrary judgement. There are no meaningful differences between students with IQ's of 69 and students with IQ's of 71 (Reschly, 1988a).

School psychologists who use an ability-achievement discrepancy criterion when determining LD eligibility are similarly making an arbitrary judgement. In fact, there is no support that assessment practices appropriately

differentiate LD students from non-LD students who are having academic problems. Due to the current inability to identify the variables underlying the LD construct, there exists a wide-range of differences among students classified as LD across school districts and states (Reschly, 1988b).

Any real differences between students with disabilities appear to be a matter of degree, not kind (Reschly, 1988a). In fact, many similarities between students with mild disabilities have been identified (e.g., Hallahan and Kauffman, 1977), as well as between LD students and economically disadvantaged students (Kavale, 1980). Evidence supports the presence of a continuum ranging from academic achievement levels in the average range to academic achievement levels in the EMH range. Therefore, any distinction made between adjacent IQ points is essentially irrelevant. Clear-cut differences between LD and low achiever, EMH and slow learner, etc., do not exist. However, even if they did, it would only be significant if they could be translated into differentially effective intervention strategies for LD, EMH, ED/BD, low-achiever, etc., students (Reschly, 1988a).

While the empirical evidence suggests that psychometric assessment procedures do not relate well to intervention, the medical model and neuropsychological explanations likewise fail to meet the standards of an outcomes criteria approach. The validity, reliability, and base rate data

fail to support a significant improvement over current LD assessment procedures. Thus, there is little if any basis to use neurological constructs in the diagnosis of children's problems, nor to link presumed neurologic strengths with remediation strategies (Reschly, 1988b).

Reynolds (1989) claims an outcomes criteria assessment/intervention approach is needed and should coincide with serious consideration of the differences in programs and individuals (i.e., an ATI approach). Curriculum-based assessment (CBA), for instance, can be used to measure the efficacy of a prereferral or special education intervention strategy. Eventually, the typical evaluative process will change from standardized testing procedures to a true, dynamic look at an educational program's relevance.

Students are expected to derive much benefit from the outcomes criteria approach, especially students with learning and behavioral problems. It is furthermore an approach that will evoke special education reform and a revolution in school psychology (Reschly, 1988b).

In the area of MCE, examiners must become more aware of the influence of students' cultural and linguistic characteristics. Examiners' observations and measurements should be made from a culturally and linguistically sensitive vantage point, and they should accommodate students' individual needs (Santos-de-Barona & Barona,

1991). According to Westernoff (1991), when assessing a child whose native language is not English, it is important to note the time of exposure to, attitude toward, and current progress in English, as well as prior educational experiences, familial, medical, and social/historical factors. Santos-de-Barona & Barona (1991) state this requires the use of a wide variety of non-traditional assessment techniques.

Special Education School Reform Opposition

Philosophy: According to Mostert (1991), REI advocates represent a collective denial of the differences between disabled and non-disabled children and the profound impact regular education placement has on disabled children. Kauffman (1988) points out that services for mildly disabled and at-risk students were developed by people who care for and recognize that children with disabilities have different needs from most other students and therefore require and deserve special programs.

Special education exists because it is not possible to accommodate both non-disabled and disabled students in regular education while providing appropriate services for the latter group (Kauffman & Pullen, 1989). If all students' needs were once again handled in regular education, then any student requesting special assistance would in theory be allowed to receive it. In this type of system students with disabilities would not be assured of

receiving appropriate educational services due to time and resource limitations (Kauffman, 1988). Kauffman (1988) rhetorically asks the following: "Have...teaching and the science of learning advanced so much that what a few decades ago was viewed as intolerable neglect of handicapped youth...should now be seen as the most beneficial option for these same students" (p. 493)?

Assessment: Current psychometric-oriented tests are desirable because they produce reliable, fairly precise scores which are consistent over time. These are important assessment features and are not always available in newer techniques (e.g., observational, dynamic, qualitative, and CBA approaches) (Naglieri & Braden, 1992).

Traditional assessment approaches appropriately underscore the importance of intelligence, since there is a strong relationship between this construct and achievement. Intelligence scores are shown to be more predictive of achievement in the long run than are clinically-based achievement scores (Jenson, 1980).

Contrary to the misguided view of the popular press, standardized tests are not biased if used by competent psychologists. Most popular intelligence tests accurately measure intellectual functioning among both majority and minority populations (Naglieri & Braden, 1992). Research demonstrates that standardized tests "exhibit little or no predictive bias for black and white students for measures of

academic success" (Brody, 1992, p. 353). Standardized tests can in fact be used constructively in the assessment of African- American children (Holmes, 1986).

Standardized tests are practical, requiring only an hour or two to administer, and can be given at times and in places convenient to both the examiner and child. On the other hand, some new assessment alternatives require repeated testing, fixed settings, and more time to administer than traditional assessments (Naglieri & Braden, 1992).

Although authentic assessment procedures, like CBA, are often used to identify children in need of intervention services, they remain highly complex methodologically. Also, no evidence exists to support the idea that CBA is a more valid screening and eligibility procedure than traditional approaches (Hynd, 1988). According to Kauffman (1988), "we may be surrendering a system of inadequate measures of questionable...validity for one with no demonstrated...validity (p. 488). Before normative tests are "dumped," an alternative that is at least as good should be developed (Kauffman, 1988). Brody (1992) asserts that "on balance...[IQ] tests are more nearly right than wrong and that placement in special education can be made with greater accuracy with the tests than without them" (p. 351). Taylor & Richards (1990), for example, found that the Estimated Learning Potential, an index derived from the

System of Multicultural Pluralistic Assessment, correlated less strongly with IQ tests than other, more traditionally used, learning potential measures (e.g., Standard Progressive Matrices and verbal abstraction items).

Zealous supporters of the authentic assessment approach have ignored a consistent literature demonstrating that, visible upon autopsy, 83-97 percent of those people with IQ's of less than 70 possess neurodevelopmentally anomalous brains (Crome, 1960; Freytag & Lindenberg, 1967); many dyslexic's brains are cytoarchitecturally disordered (Rosen, Sherman, & Galaburda, 1986); and deficits at the neurolinguistic level of learning disabled persons continue to affect learning into adulthood (Hynd & Sermund-Clikeman, 1988b). With advances in the brain sciences, a behavioral approach becomes increasingly "self defeating" because it is primarily descriptive and fails to resolve important issues (Kinsbourne, 1988). The considerable evidence supporting the presence of important physical differences between disabled and non-disabled children suggests that the biological-medical model remains appropriate for diagnostic purposes (Hynd & Willis, 1988). In order to curb the growth of the LD population (Hynd, 1988) and remedy the current failures (cited by school reform advocates) affecting LD diagnostic procedures (Reschly, 1988b), the traditional IQ-achievement discrepancy should continue being employed in conjunction with strict nationwide standards using the

concurrent neuropsychological impairment data (Hynd, 1988).

The School Reform Process

Many studies have been conducted on the school reform process, evolving from the actual complexities that underlie the decisions to reform to the mechanisms that integrate reforms into daily school-based operations (Loucks-Horsley & Roody, 1990). Applying their lessons can improve the odds of success (Fullan, 1982) for, depending on which mechanisms are implemented, some educational innovations stand a better chance than others (Loucks & Zacchei, 1983; Louis, Kell, Dentler, Corwin, & Herriott, 1984).

In general, the school reform process takes time and commitment from those within schools and their respective school districts (Miller, 1990). It does not occur overnight (Hall and Loukes, 1979), and, despite administrative mandates, real change occurs in classrooms and schools (Loucks-Horsley & Roody, 1990). Professionals must adopt attitudes and concepts supporting the school reform paradigm (Kovaleski, 1988). This is a very difficult process since their attitudes and concepts are firmly grounded in the old paradigm. Fortunately, collaborative consultation has proven effective at promoting the school reform ideals of diversity, integration, and individual involvement (Thousand, Villa, Paolucci-Whitcomb, & Nevin, 1992).

Attitudes, Concepts, and Perceptions: Educators need to

"rethink" and "remake" what they do and how they do it to assure the success of the school reform movement (Lipsky & Gartner, 1992). In Kuhn's (1962) terms, a "paradigmatic shift" is required (Lipsky & Gartner, 1992). A paradigm shift evolves by way of an organized and thorough investigation of current assumptions, beliefs, and practices at the individual school and classroom levels. School reform and a school psychology revolution depend on the modification of regular and special education professionals' views and attitudes regarding students with special needs and the services they require (Reschly, 1988b; Will, 1986).

Pontoretta (1988) characterizes the potential success of MCE as requiring the systematic analysis and acceptance of one's own cultural identity, which opens the way for the acceptance of others' minority cultural identities. According to Sue, Arrendo, & McDavis (1992), the Association of Multicultural Counseling recognizes that culturally skilled counselors must first become fully aware of their own assumptions concerning human behavior, and their biases, values, and shortcomings, before being able to non-judgementally understand the views of their culturally different clients. Das & Littrell (1989) argue that counselor trainees must thoroughly understand that their Western attitudes, perceptions, and beliefs concerning human nature are encapsulated in their psychotherapeutic orientations, which may need altering in order that they

become effective in cross-cultural settings.

In general, students would indeed benefit from working with counselors who are more sensitive of their respective cultural heritages. Unfortunately, counselors are making interpretations without fully considering influences related to students' cultural backgrounds. In particular, empathy is a construct in need of being revised so that counselors can address and accommodate cultural/historical factors (Ivey, 1987).

Changing people's attitudes, concepts, and perceptions requires leaders from various fields in education who champion the ideals and goals of school reform, provide support, and help sustain it. These leaders promulgate the vision and create "a culture of commitment, experimentation, collegiality, and support" (Miller, 1990, p. 22). The vision is a new way of organizing schools and teaching children, and it promotes integrated learning (Miller, 1990). Teachers who commit themselves to the vision engender positive behaviors and attitudes with respect to integration (Nell, 1992).

Paradigmatic Obstacles: Reforming schools is difficult. Maintaining the "status quo," or traditional paradigm, is far easier (Loucks-Horsley & Roody, 1990). In special education and allied fields diverse and strongly held views of scholars and associations are interfering with the use of newly emerging school psychological roles and

functions. Also, there are no immediate rewards to those who participate in school reform efforts (Kovaleski, 1988).

Education professionals acquire belief systems that, while becoming more elaborated and refined over time, are rooted in their early professional experiences (Smith, 1986). The new math of the 1960's was foiled and converted into "business as usual" by programs and behaviors that are grounded in conventional norms (Saranson, 1982). Despite the need for change, Kovaleski (1988) explains that current trends show the medical model remains a widely-held psychodiagnostic orientation, and strategies that do not fit the traditional paradigm, such as behavioral consultation and pre-referral interventions, are meeting with considerable resistance even though they address instructional problems.

With the passage of P.L. 94-142, parents were indoctrinated into the special education placement paradigm. They saw "P.L. 94-142 as a guarantee that children who faced school failure would receive needed services...and [they] often exercised their right to an assessment of [their children's] problems" (Kovaleski, 1988, p. 480). This generated a demand for psychological testing as well as other psychological services associated with special education eligibility determination (Kovaleski, 1988).

Parents' demand for services implied a certain attitude that children's disabilities would be uncovered and then remediated by what they perceived as the only viable form of

intervention: special education. Teachers and administrators who "bought" the premise that not every student could be educated in the regular education classroom consciously or unconsciously rewarded school psychologists for the following: (a) citing "unverifiable constructs" as the bases of students' learning problems; and (b) recommending special education placements (Kovaleski, 1988).

For example, in a survey of 381 special and regular education teachers' attitudes and perceptions with respect to the REI, it was found that they favor pull-out strategies in elementary schools and disagree with the idea that school psychologists should assume a proactive position at the expense of their traditional diagnostic/assessment roles (Semmel, Abernathy, Butera, & Lesar, 1991). Although teachers may have accepted the philosophy of mainstreaming, they are generally resistant to the actual practice of integrating students with disabilities in regular education classrooms (Welch, 1989). Finally, preservice resistance may undermine MCE and must therefore be avoided as much as possible to assure its success (Nell, 1992).

Collaborative Consultation: The traditional educational paradigm is a professional bureaucracy. It is an organizational system designed for homogeneity, and thus it promotes segregation between special and regular education (Thousand, Villa, Paolucci-Whitcomb, & Nevin, 1992). This current organizational structure in American

schools interferes with teachers' abilities to individualize instruction, which is an essential element of the school reform movement (Meyen & Skrtic 1988). The adhocracy is a newly emerging educational paradigm (Thousand, Villa, Paolucci-Whitcomb, & Nevin, 1992). It promotes diversity and integration via collaborative consultation and can be used to explore solutions that the bureaucratic school structure cannot address (Patterson, Purkey, & Parker, 1986).

Thus far, collaborative consultation is not a typical educational practice (Phillips & McCullough, 1990). However, with an ever-diversifying regular education student body demography, the need for collaborative consultation is quite compelling (Reynolds & Birch, 1982).

Teachers, like most other adults, respond well to collaboration, positive feedback, and support. In an environment that instills these norms teachers work well with children; and when teachers are actively involved in the process of learning and growth (i.e., collaborative consultation), they readily pass those values on to their students (Miller, 1990).

School reform depends on collaborative consultation since it is a process that encourages regular and special education teachers and administrators to work together in search of common strategies to improve both teaching and learning (Loucks-Horsley & Roody, 1990). No one teacher can

be expected to keep up with the explosion of information in today's highly complex, globally-oriented community (Benjamin, 1989). School personnel need to help each other by sharing their areas of expertise and by creating a wider-range of instructional methodologies designed to accommodate school reform efforts (Thousand, Villa, Paolucci-Whitcomb, & Nevin, 1992).

On the other hand, without collaborative consultation between special and regular education professionals, classroom teachers may view the REI as a policy requiring them to teach more without adequate resources and time, which might result in the failure of the REI (Miller, 1990). Purkey and Smith (1985) assert that time and human resources must be developed to insure the viability of collaborative consultation.

The use of the collaborative consultation Cultural Environment Transitions Model assists professionals in defining and resolving multicultural issues. This model is based on the premise that members of collaborative consultation teams each acquire knowledge and skills as a result of the inevitable challenges borne out of the process of working together (Manning & Coleman-Boatwright, 1991).

Miramontes (1991) investigated the efforts of itinerant instructional teams consisting of paraprofessionals and supervisory special education teachers. As a result of their using collaborative consultation, they were able to

help bilingual/bicultural school personnel make better use of their already limited resources and to more effectively service culturally and linguistically diverse students. Anderson & Cranston-Gingras (1991) studied the impact of collaborative consultation on 57 migrant high school students (ages 14-19) at-risk for dropping out and 39 culturally indifferent teachers. They found that their interaction successfully sensitized the teachers to the minority students' cultural characteristics, and it appears to have decreased drop-out rate potential for the 57 migrant students.

Professional cohesiveness is being reported by those who engage in collaborative consultation as a tool to integrate students with disabilities (Thousand, Fox, Reid, Godek, Williams, & Fox, 1986; Thousand, Nevin, & Fox, 1987). Professionals report being more involved in making programmatic decisions and feeling more at ease as a result of collegial support (Thousand, Fox, Reid, Godek, Williams, & Fox, 1986).

Staff development via collaborative consultation opens up dialogue and cooperation between professionals representing diverse areas of expertise because it is an interactive process (Idol, Paolucci-Whitcomb, & Nevin, 1986). Regular and special education teachers and administrators are therefore able to develop strategies to address students' needs in the regular education setting

(Thousand, Villa, Paolucci-Whitcomb, & Nevin, 1992). For example, behavioral consultation increases the success rate of prereferral intervention strategies, particularly as it results in "high consultee (teacher) involvement with all stages of the problem solving process" (Reschly, 1988a, p. 470). Also, collaborative consultation with parents is a vital process as parents greatly enrich the process with their "intimate, subjective, intensive, and lifelong" knowledge of their respective children (Lipsky & Gartner, p. 9).

As collaborative consultation continues to show its efficacy (Patterson, Purkey, & Parker, 1986), schools and whole communities will begin developing a sense of trust and value in collaborative consultation and shed their "old-world" views that well run schools must be bureaucratic (Thousand, Villa, Paolucci-Whitcomb, & Nevin, 1992). Some schools already are evidencing a paradigmatic shift in an effort to create meaningful educational experiences for an ever-diversifying student body demography (Thousand, 1990; Stainback & Stainback, 1990). Ad hoc teams are being successfully employed in inclusion-oriented schools (Nevin, Thousand, Paolucci-Whitcomb, & Villa, 1990; Thousand & Villa, 1989).

The goal of a mainstream education for all students requires "teams of educators and support staff who--through consultation, effective communications, and other forms of

cooperation and mutual help--can offer a full range of instructional benefits" (Reynolds, 1989, p. 9).

Collaborative consultation will continue to develop within the context of the school reform movement if it continues to be recognized "as the preferred process for human interaction within schools" (Thousand, Villa, Paolucci-Whitcomb, Nevin, 1992, p. 230). School personnel who practice collaborative consultation model an important technique for students who, in 21st century society, will benefit by using collaborative consultation to develop their own educational programs (Thousand, Villa, Paolucci-Whitcomb, Nevin, 1992).

The School Psychology Revolution

School psychologists lack a true professional direction. Traditionally, they have functioned as "gatekeepers" to and from special education: testing, interpreting, and reporting children's intellectual, academic, and/or social/emotional problems. Heavy assessment case loads and paperwork has "inhibited" fuller, more effective service delivery. This fact challenges the credibility of school psychologists' current roles and functions. The excitement concerning a revolution in school psychology is particularly due to school reform advocates who question the validity, efficacy, and relevance of these traditional roles and functions (Will, 1988). Reschly (1988a) claims that this school reform movement is different

than past efforts as it fosters less, not more, special education classification and placement.

The Past: During the 1950's, many different roles and functions were available to school psychologists and they had influence over a wide-range of professionals and students. Beginning in the 1960's and the emergence of issues and policies concerning disabled students' needs, school psychologists' roles and functions were relegated to special education. Thus their sphere of influence was significantly limited (French, 1985).

At the Olympia Conference held in 1981, concerns were raised regarding the connection between school psychology and special education classification and placement activities. In April, 1985, the National Association of School Psychologists (NASP) and the National Council of Advocates for Students issued a joint policy statement which greatly affected the intervention strategies designed for children with learning problems and the services school psychologists deliver. These associations endorsed less classification and separation between regular and special education and increased development and use of regular education options. These goals are now reflected in most NASP committees, publications, and convention programs (Reschly, 1988a).

As a result, students with mild disabilities, with whom school psychologists spend much of their time and energy,

have been greatly impacted. With the return of students with disabilities to regular education the field of school psychology has also been affected (Reschly, 1988a).

The Present: The majority of school psychologists, special education consultants, and school social workers do not strongly support current school psychological practices. Without strong support of even school psychologists, continuation of current school psychological service delivery patterns are not tenable (Reschly, 1988a).

Fortunately, roles and functions are being employed, such as collaborative consultation and authentic assessment (discussed above), which allow school psychologists to assume a more proactive role in students', parents', and teachers' lives. Changes in assessment techniques enable school psychologists to work with regular and special education teachers at the instructional level. If professionals continue to join forces, the future holds great potential for the school reform movement and for the future of school psychology.

Not surprisingly, new roles and functions are only gradually being adopted by school psychologists. In a nation-wide survey of 877 school psychologists, it was found that they are still spending the majority of their time doing assessments (54%), while much less time is being devoted to intervention (23%), consultation (19%), and research (1%). Also, they are spending nearly 85% of their

time with learning disabled and cognitively disabled students (Smith, 1984).

Benson & Hughes (1985) surveyed 165 school psychologists, 92 school superintendents, and 43 state education department officials, and found that assessment continues to represent the greatest amount of time devoted to the practice of school psychology. They found that school psychologists are involved in assessment or assessment-related activities about 65 percent of the time.

On the positive side, school psychologists indicate that they want to do more consultation, inservice, and research. Also, they reveal that other staff members have provided support in non-assessment related activities, which should assist them to continue developing and implementing their emerging roles and functions (Yoshida, Maher, & Hawryluk, 1984).

The Future: With current school reform efforts threatening to greatly limit school psychologists' special education-related roles and functions, school psychologists would benefit if given the chance to branch out into new, more relevant roles and functions (Elardo, 1979). In fact, if they do not, the current school reform movement may serve to eliminate school psychologists' professional existence (Reschly, 1988a). While in the past the field of school psychology has emphasized eligibility determination, in the future it will need to focus on intervention design.

Eventually, teachers will begin to view school psychologists as a valuable resource whom they can turn to for help in developing and implementing effective classroom strategies (Reschly, 1988a). Also, school psychologists will need to become more involved in treating students' social/emotional problems through preventative and therapeutic programs (Olson, 1987).

School psychology at the turn of the century will be influenced by the manner in which school psychologists handle today's school reform efforts (Reschly, 1988a). If school psychologists assume leadership positions, they will ensure themselves of continuing roles and functions in schools, and they will become important partners in the school reform movement. If they cling defensively to their traditional practices, while protecting their turf now, it may "lead at best to business as usual and at worst to the demise of a discipline" (Kovaleski, 1988, p. 483). Other professional groups less trained in psychology may claim for themselves the newly emerging and abdicated roles and functions (Kovaleski, 1988).

Research and Inservice

Research: School psychologists need to research their professional services and develop methods to insure that more educational opportunities are made available to students with school-related problems. Green & Stoner (1990) refer to schools as "experimental societies," in

which school psychologists should target and measure social and educational variables. According to Zacchei (1983), school-based experiments are needed to allow teachers to make immediate use of innovative practices and for whole schools to incorporate innovative principles into their day-to-day operations.

Loucks-Horsley & Roody (1990) claim an observable and describable innovation is geared for success and agree with Zacchei (1983) that still the REI does not meet those criteria. These facts indicate that school psychologists need to become more involved in research. For example, more information needs to be collected through field study methodology on the effectiveness of the various delivery plans of the REI, so that enough teachers and students accept it as a "credible system" (Lloyd, Crowley, Kohler, & Strain, 1988).

Maher (1978) believes that school psychology students should be trained in the complementary roles of researcher and practitioner and be allowed to specialize in either. Both types of specialists are vital and they must work together in order to assure that school psychology remains both a science and profession and that it is never designated as a mere component of education.

According to the IOWA survey research project, although school psychologists have much to offer with respect to pre-referral consultations, only 25% of their efforts are being

appropriately measured. School psychologists often fail to collect base rate data, develop systematic interventions, and measure outcomes for their behavioral consultations. Without these measures, the process is not behavioral and will typically fail to remedy problems occurring in natural settings. These efforts are vital, as poor implementation procedures could potentially undermine the pre-referral movement (Reschly, 1988a).

Research has not yet demonstrated unequivocal support for any particular service delivery system. Self-contained rooms, resource rooms, prereferral strategies, teacher assistants, cooperative learning, and full-inclusion have each worked, depending on the presenting problems and the nature of the resources and personnel addressing those problems. Therefore, more objective inquiry is needed in order to control school reform enthusiasts who may otherwise adopt ill-conceived plans and prematurely abandon beneficial service delivery models (Kauffman & Pullen, 1989). Indeed, the professional knowledge base and methods used in education change as the result of changes in the scientific foundational knowledge base (Meyen & Skrtic, 1988).

School psychologists need to develop a more precise system when describing students with disabilities. There are currently no consistent criteria for terms such as LD and BD, and researchers and practitioners using these terms frequently fail to convey reliable information. "Marker

variables" are needed so school psychology researchers and practitioners can understand one another and discuss issues concerning students with disabilities (Reynolds, 1989).

Inservice: Although mandates create the expectation and capture the attention of people that school reform is imminent, it will not likely occur without professional activities such as inservice education. Most practitioners and university faculty members indicate that more emphasis on skill development is needed, especially in the area of providing interventions for students with disabilities in the regular education.

While education professionals have apparently mastered general techniques, like behavior management, they are unfamiliar with more technical cognitive and behavioral techniques (Reschly, 1988a). Staff development and classroom support are very important since they give teachers time to learn new skills. Inservice assures effective collaborative consultation between school psychologists and teachers in the areas of curriculum, instruction, and behavior management (Miller, 1990).

In England, an ethnic and cultural plurality, educational psychologists have been slow to address and respond to MCE (Bryans, 1988). In America, special education administrators perceive a need for inservicing special education staff who work directly with African-Americans. They themselves admitted limited formal training

in multicultural issues. Quality, ongoing inservice training efforts related to MCE are therefore recommended (Ford, 1992). The following areas have been identified as needing particular attention: (a) institutional racism; (b) intra- and inter-group oppression; (c) support for oppressed groups and persons; and (d) the meaning of culture and the maintenance of cultural identity (Phillips, 1988).

In the areas of staff development and problem solving, initial inservice training and support need to be followed by ongoing training programs (Benjamin & McLaughlin, 1978). Education professionals who have modified their perspective worked through their separate concerns, each with the aide of inservice training, dissemination efforts, and other forms of technical support (Loucks-Horsley & Roody, 1990).

The Relationship Between School Psychology Roles/ Functions and Preservice and Inservice Training, Experience, Preferences, and Perceptions

The results of a survey of 425 school psychologists indicated that a strong relationship may exist between school psychologists' roles and functions and training, professional preferences, experience, and perceptions of competence (Fisher, Jenkins, & Crumbley, 1986). A study of 180 teachers demonstrated a positive correlation between what is emphasized in teachers' training programs and what they practice in the classroom (McDaniel, McDaniel, & McDaniel, 1988).

Curtis & Batsche (1991) reviewed the challenges facing school psychologists and recommended a national initiative to restructure school psychology training. In their view, trainers need to be more involved at the supervisory and professional practitioner levels; and they should more clearly link instruction to a set of objectives and goals. Lentz & Shapiro (1987) point out that, due to a lack of consensus with respect to school psychological roles and functions, field trainers are having difficulty developing a service delivery model to match university curricula. According to Conoley & Gutkin (1986), there are differences between what school psychology university professors teach and what school psychology practitioners do. They believe that university instructors should teach students how to modify their work environments in order to support the delivery of a wider-range of services.

In one study, school psychology program directors (N=139) cited that training programs overemphasize assessment, particularly as it limits trainees' opportunities to engage in consultation and behavioral interventions (Slate, 1986). In fact, consultation has been found to be a neglected area in most training programs (Carlson & Tombari, 1986). Most education professionals agree that school psychologists need more training in consultation (McKeller & Hartshorne, 1987).

Costenbader, Swartz, & Petrix (1992) surveyed 333 NASP

members (ages 20-62) in order to learn more about the following influences: (a) preservice training; (b) current practices; (c) self-perceptions of consultation skills; and (d) real and ideal time allotted to consultation. They found that members with more preservice training in consultation more favorably rated their own consultation skills than members with less consultation preservice training. Also, there was a significant difference between the actual amount of time and the preferred amount of time school psychologists allotted to consultation. Finally, the actual time allotted to consultation was not related to either training in consultation nor perception of consultation skill.

Another study showed that only 75 percent of NASP members are familiar with a minimum of 13 behavioral techniques, and far fewer members report having been supervised in the implementation of behavioral techniques. Also, there is a strong relationship between supervision and subsequent implementation. Thus, graduate training programs should provide more opportunities and direct supervision in the use of behavioral intervention strategies (Shapiro & Lentz, 1985), particularly as these techniques work well with LD, EMH, BD, slow-learning, low achieving, and economically disadvantaged students (Bickel & Bickel, 1986; Leinhardt & Bickel, 1987).

Erchul, Scott, Dombalis, & Schulte (1989) nation-wide

study showed that first and second year school psychology doctoral students clearly preferred the prospects of working directly with children and adolescents more than the prospects of working indirectly with them. Keith (1992) examined 91 school psychologists plus up to three teachers with whom each had worked providing either indirect or direct intervention. With respect to these teachers' perceptions, school psychologists who had worked with teachers in the context of direct intervention were rated as being more effective than school psychologists who had worked with teachers in the context of indirect intervention.

Salmon & Lehrer (1991) compared two groups of school psychologists: one with more (N=10) and one with less (N=9) consultation experience. They studied the way in which these groups organized consultation-related information through the use of a repertory grid interviewing technique. The findings demonstrated that more experienced school psychologists were able to organize both the student's behavior and the teacher's beliefs and attitudes into a working consultation model. Less experienced school psychologists were only able to organize the student's behaviors into a working consultation model. McKeller & Hartshorne (1987) found that, teachers needing consultative services in order to help a student with academic difficulty were more inclined to work with a school psychologist with

known expertise in the problematic area than a school psychologist with known expertise in consultation per se.

For many years, school psychology programs have been growing and changing. Unfortunately, the empirical data is rather limited (Slate, 1986).

The Rutgers University school psychology program phased out its education doctoral program and replaced it with a psychology doctoral program to better reflect the more important and relevant issues facing professional school psychology (Bennet, 1976). The Nebraska Psychology of Schooling Project was created to expose trainees to the changes in the delivery of psychological services in schools. The Nebraska Internship Consortium, working together with 13 agencies offering a variety of supervised experiences in the areas of clinical, counseling, and school psychology, was designed to ensure that high quality internship programs were being offered to psychology trainees (Kramer, Conoley, Bischoff, & Benes, 1991).

Due to a cooperative statewide 12-week continuing education program, 737 support services personnel acquired skills in behavioral consultation, referral-related consultation, and CBA (Reschly & Grimes, 1991). Students, teachers, and supervisors agree that, involvement in a multi-level consultation training with matched field experience was an effective program for learning consultation skills (Carlson & Tombari, 1986).

CHAPTER III

METHOD

Hypotheses

The following null hypotheses were tested with respect to school reform trends:

1. There will be no significant difference in the assessment domain rating scores between special and regular education school reform trends.

2. There will be no significant difference in the consultation domain rating scores between special and regular education school reform trends.

3. There will be no significant difference in the intervention domain rating scores between special and regular education school reform trends.

4. There will be no significant difference in the inservice domain rating scores between special and regular education school reform trends.

5. There will be no significant difference in the research domain rating scores between special and regular education school reform trends.

6. There will be no significant difference in the combined domain rating scores between special and regular education school reform trends.

7. There will be no significant differences in the assessment domain rating scores between the inclusion, performance-based education (PBE), multi-cultural education (MCE), and regular education initiative (REI) school reform trends.

8. There will be no significant differences in the consultation domain rating scores between the inclusion, PBE, MCE, and REI school reform trends.

9. There will be no significant differences in the intervention domain rating scores between the inclusion, PBE, MCE, and REI school reform trends.

10. There will be no significant differences in the inservice domain rating scores between the inclusion, PBE, MCE, and REI school reform trends.

11. There will be no significant differences in the research domain rating scores between the inclusion, PBE, MCE, and REI school reform trends.

12. There will be no significant differences in the combined domain rating scores between the inclusion, PBE, MCE, and REI school reform trends.

In addition to the 12 null hypotheses listed above, three sets of corresponding null hypotheses were tested with respect to school reform trends X school psychologists' years of experience; school reform trends X professional training; and school reform trends X professional preferences.

Subjects

The subjects used in this study consisted of 88 school psychologists employed by the Chicago Board of Education. At the annual school psychologists' banquet, an announcement was made by the Senior Advisor of the Psychological Services Division of the Chicago Board of Education that questionnaire grids would be mailed to all psychologists (N = 250). He asked them to "please complete the forms, as this is an important area of research, and may affect the nature of our jobs in the future." Five days later, the grids were mailed, along with postage-paid return envelopes. Of the 250 subjects who received questionnaire grids, 93 subjects (37%) returned their questionnaire grids; five were improperly completed and could not be used. Therefore, the data set consisted of a total of 88 (35%) usable questionnaire grids.

Description of the Questionnaire Grid

Subjects were asked to respond to two parts of the questionnaire grid. A copy of the questionnaire grid appears in Exhibit 1. Part one consisted of questions pertaining to subjects a) years of experience; b) professional training obtained in college; and c) professional preferences. Part two consisted of ratings of 11 school psychological services with respect to their relationship to each of four school reform trends (inclusion, PBE, MCE, and REI).

Within the "years of experience" question, subjects were asked the following: "On the line below, please indicate how many years you have been a practicing school psychologist and/or intern (please round to the nearest one-half year)." After all the questionnaire grids had been returned, the investigator developed three categories based on the distribution of the subjects' responses (0-5, 6-16, and >16). These categories were created to maximize the potential for cell size, cell equality, and cell homogeneity.

Adjacent to the "years of experience" question, was the "professional training" question. Subjects were asked the following: "If you had to choose one, which one would you say your college school psychology program emphasize most"? Three types of training programs were listed (assessment, consultation, and counseling). It should be noted that since only three subjects responded to the "consultation" category, it was not used for classification purposes in the study.

The final question of the first part of the questionnaire grid involved professional preferences. Subjects were asked the following: "If you had to choose, which one would you say you prefer doing most"? Three professional preference categories were listed (assessment, consultation, and direct intervention).

On the second part of the questionnaire grid, below the

above three questions and along a horizontal axis, 11 school psychological services were listed. These school psychological services comprised this study's dependent measures (see below). Along a vertical axis, four school reform trends were listed. These school reform trends comprised six of this study's 14 independent variables. Straight lines separating each service and school reform trend were drawn and extended, forming an 11 x 4 grid. Subjects were asked to do the following: 1) "rate each of the 11 school psychological services with respect to their relationship to each of the 4 educational trends," and 2) indicate their responses inside each of the 44 boxes. Subjects rated their responses using the numbers 1, 2, 3, and 4, according to the following criteria:

- 1 = Should not increase service delivery
- 2 = Should slightly increase service delivery
- 3 = Should moderately increase service delivery
- 4 = Should substantially increase service delivery

In parentheses, above the 11 school psychological services, subjects were informed that, "Should you need to clarify any of these services, see reverse side for a list of brief definitions" (see Exhibit 2). Also, below each of the four school reform trends, a brief definition of that trend was provided on the grid.

The 11 school psychology services used for this study were chosen to meet the following criteria: 1) familiarity,

due to their being frequently practiced and/or discussed (e.g., in literature, at professional meetings, etc.); and 2) coverage of five commonly identified school psychology professional domains (i.e., assessment, consultation intervention, inservice, and research). The 11 psychological services were as follows:

1. Norm-referenced testing
2. Curriculum-based testing
3. Utilizing teachers' observations
4. Instructional consultation with teachers
5. Behavioral consultation with teachers
6. Parent consultation
7. Individual counseling/psychotherapy
8. Group counseling/psychotherapy
9. Social skills training
10. Inservice
11. Research

Independent Variables

1. Special education school reform trend (aggregate mean values of the inclusion and REI school reform trends)
2. Regular education trend (aggregate mean values of the Performance-Based Education and Multi-Cultural Education school reform trends)
3. Inclusion school reform trend
4. Performance-Based Education school reform trend
5. Multi-Cultural Education school reform trend

6. Regular Education Initiative school reform trend
7. 0-5 years of professional experience
8. 6-16 years of professional experience
9. >16 years of professional experience
10. Assessment training program
11. Counseling training program
12. Assessment professional preference
13. Consultation professional preference
14. Direct intervention professional preference

Dependent Measures

1. Assessment domain rating scores. This dependent measure consisted of the aggregate mean values of the following three psychological services:
 - 1) norm-referenced testing, 2) curriculum-based testing, and 3) utilizing teachers' observations.
2. Consultation domain rating scores. This dependent measure consisted of the aggregate mean values of the following three psychological services: 1) instructional consultation with teachers, 2) behavioral consultation with teachers, and 3) parent consultation.
3. Direct intervention domain rating scores. This dependent measure consisted of the aggregate mean values of the following three psychological services:
 - 1) individual counseling/therapy, 2) group counseling/therapy, and 3) social skills

training.

4. Inservice domain rating scores. This dependent measure consisted of aggregate mean values of the inservice psychological service.
5. Research domain rating scores. This dependent measure consisted of the aggregate mean values of the research psychological service.
6. Combined domain rating scores. This dependent measure consisted of the aggregate mean values of all 11 psychological services.

Statistical Analysis

After the questionnaire grids had been returned to the researcher, rating scores were converted into mean values for all six respective dependent measures, in relationship to the 14 independent variables. They were then transcribed onto work sheets and entered into a computer for statistical analysis. A repeated measures analysis of variance (ANOVA) design was employed to test all 30 null hypotheses. Alpha was set at $p = < .01$.

Since much of the debate regarding school reform efforts and the school psychology revolution has focused on assessment issues, a more fine-grained analysis of the assessment domain data set was conducted. This fine-grained analysis involved repeated measures ANOVA and completely randomized ANOVA procedures on the following dependent measures: (a) norm-referenced testing; (b) curriculum-based

testing; and (c) teachers' observations. Alpha was set at $p = < .05$.

Figure 2
Back Side of Questionnaire Grid

BRIEF SERVICES DEFINITIONS

Norm-Referenced Testing: Psychologist evaluates a child's performance in relationship to his/her same-aged peers across the nation.

Curriculum-Based Testing: Psychologist evaluates a child's specific classroom-based skills.

Utilizing Teachers Observations: Psychologist uses teachers' impressions, opinions, etc. when assessing children.

Instructional Consultation with Teachers: Psychologist collaborates with teacher in an effort to address a student's/ students' needs via the teacher implementing instructional strategies.

Behavioral Consultation with Teachers: Psychologist collaborates with teacher in an effort to address student's/ students' needs via the teacher implementing behavioral strategies.

Parent Consultation: Psychologist collaborates with parent(s) in an effort to address child's/children's needs via the parent(s) implementing relevant strategies.

Individual Counseling/Therapy: Psychologist interacts with a child one-to-one and uses any number of techniques, or a combination thereof, to help the child function better in targeted area(s).

Group Counseling/Therapy: Psychologist interacts with 2 or more children and uses any number of techniques, or a combination thereof, to help the children function better in targeted area(s).

Social Skills Training: Psychologist teaches child/children pro-social behavior.

Inservice: Psychologist makes informed presentations to interested groups of people (e.g., parents, teachers, psychologists, etc.).

Research: Psychologist conducts empirical investigations in an effort to foster his/her and others' professional growth.

CHAPTER IV

RESULTS

To test null hypothesis 1, a one-way (special and regular school reforms) repeated measures analysis of variance (ANOVA) procedure was performed on the dependent measure of the assessment scores (see table 1). The results ($F = 1.86$, $p = .18$) indicated that there were no significant differences in the assessment domain rating scores between the special and regular education school reform trends. Given these findings, null hypothesis 1 was not rejected.

Table 1

Means, Standard Deviations, and Sample Sizes of the Assessment Scores Across the Special and Regular Education School Reforms

	Sp. Ed. Reform Trend	Rg. Ed. Reform Trend
n =	88	82
Mean =	2.38	2.31
SD =	.67	.65

To test null hypothesis 2, a one-way (special and regular school reforms) repeated measures ANOVA procedure was performed on the dependent measure of the consultation

scores (see table 2). The analysis of the results indicated that there were significant between groups' differences ($F_{1,87} = 50.76, p = <.0001$). That is to say that there were significant differences in the consultation domain rating scores between the special and regular education school reform trends. Given these findings, null hypotheses 2 was rejected.

Table 2

Means, Standard Deviations, and Sample Sizes of the Consultation Scores Across the Special and Regular Education School Reforms

	Sp. Ed. Reform Trend	Rg. Ed. Reform Trend
n =	88	85
Mean =	3.20	2.70
SD =	.66	.77

To test null hypothesis 3, a one-way (special and regular school reforms) repeated measures ANOVA procedure was performed on the dependent measure of the direct intervention scores (see table 3). The analysis of the results indicated that there were significant between groups' differences ($F_{1,87} = 31.82, p = <.0001$). That is to say that there were significant differences in the direct intervention domain rating scores between the special and regular education school reform trends. Given these

findings, null hypothesis 3 was rejected.

Table 3

Means, Standard Deviations, and Sample Sizes of the Direct Intervention Scores Across the Special and Regular Education School Reforms

	Sp. Ed. Reform Trend	Rg. Ed. Reform Trend
n =	88	82
Mean =	2.76	2.30
SD =	.82	.91

To test null hypothesis 4, a one-way (special and regular school reforms) repeated measures ANOVA procedure was performed on the dependent measure of the inservice scores (see table 4). The analysis of the results indicated that there were significant between groups' differences ($F_{1,87} = 22.87$, $p = <.0001$). That is to say that there were significant differences in the direct intervention domain rating scores between the special and regular education school reform trends. Given these findings, null hypothesis 4 was rejected.

Table 4

Means, Standard Deviations, and Sample Sizes of the
Inservice Scores Across the Special and Regular Education
School Reforms

	Sp. Ed. Reform Trend	Rg. Ed. Reform Trend
n =	87	77
Mean =	2.89	2.45
SD =	.94	.99

To test null hypothesis 5, a one-way (special and regular school reforms) repeated measures analysis of variance (ANOVA) procedure was performed on the dependent measure of the research scores (see table 5). The results ($F_{1,86} = 2.71$, $p = .10$) indicated that there were no significant differences in the research domain rating scores between the special and regular education school reform trends. Given these findings, null hypothesis 5 was not rejected.

Table 5

Means, Standard Deviations, and Sample Sizes of the Research Scores Across the Special and Regular Education School Reforms

	Sp. Ed. Reform Trend	Rg. Ed. Reform Trend
n =	86	80
Mean =	2.41	2.29
SD =	1.05	1.09

To test null hypothesis 6, a one-way (special and regular school reforms) repeated measures ANOVA procedure was performed on the dependent measure of the combined scores (see table 6). The analysis of the results indicated that there were significant between groups' differences ($F_{1,87} = 41.16$, $p = <.0001$). That is to say that there were significant differences in the combined domain rating scores between the special and regular education school reform trends. Given these findings, null hypothesis 6 was rejected.

Table 6

Means, Standard Deviations, and Sample Sizes of the Combined Scores Across the Special and Regular Education School Reforms

	Sp. Ed. Reform Trend	Rg. Ed. Reform Trend
n =	88	86
Mean =	2.76	2.43
SD =	.53	.63

To test null hypothesis 7, a one-way [inclusion (INC), performance-based education (PBE), multi-cultural education (MCE), and regular education initiative (REI) school reform trends] repeated measures ANOVA procedure was performed on the dependent measure of the assessment scores (see table 7). The analysis of the results indicated that there were significant between groups' differences ($F_{3,87} = 8.43$, $p = <.0001$). Post Hoc Sheffe comparisons indicated that there were significant differences ($p = <.01$) between the following:

PBE > MCE, $F = 6.90$

MCE < REI, $F = 5.41$

Taken together, these results indicate that there were significant differences in the assessment domain rating scores across the school reform trends. Given these findings, null hypothesis 7 was rejected.

Table 7

Means, Standard Deviations, and Sample Sizes of the
Assessment Scores Across the School Reforms

	INC	PBE	MCE	REI
n	= 88	87	88	83
mean	= 2.37	2.47	2.13	2.44
SD	= .75	.72	.79	.76

To test null hypothesis 8, a one-way (INC, PBE, MCE, and REI school reform trends) repeated measures ANOVA procedure was performed on the dependent measure of the consultation scores (see table 8). The analysis of the results indicated that there were significant between groups' differences ($F_{3,87} = 28.39$, $p = <.0001$). Post-hoc Sheffe comparisons indicated that there were significant differences ($p = <.01$) between the following:

INC > PBE, $F = 22.31$

INC > MCE, $F = 15.98$

PBE < REI, $F = 9.41$

MCE < REI, $F = 5.48$

Taken together, these results indicate that there were significant differences in the consultation domain rating scores across the school reform trends. Given these findings, null hypothesis 8 was rejected.

Table 8

Means, Standard Deviations, and Sample Sizes of the
Consultation Scores Across the School Reforms

	INC	PBE	MCE	REI
n	= 88	87	88	86
mean	= 3.32	2.64	2.74	3.08
SD	= .71	.77	.92	.74

To test null hypothesis 9, a one-way (INC, PBE, MCE, and REI school reform trends) repeated measures ANOVA procedure was performed on the dependent measure of the direct intervention scores (see table 9). The analysis of the results indicated that there were significant between groups' differences ($F_{3,87} = 19.22$, $p = <.0001$). Post-hoc Sheffe comparisons indicated that there were significant differences ($p = <.01$) between the following:

INC > PBE, $F = 16.36$

PBE < MCE, $F = 6.07$

PBE < REI, $F = 11.61$

Taken together, these results indicate that there were significant differences in the direct intervention domain rating scores across the school reform trends. Given these findings, null hypothesis 9 was rejected.

Table 9

Means, Standard Deviations, and Sample Sizes of the Direct Intervention Scores Across the School Reforms

	INC	PBE	MCE	REI
n	= 88	87	88	83
mean	= 2.81	2.13	2.55	2.71
SD	= .92	1.02	1.00	.92

To test null hypothesis 10, a one-way (INC, PBE, MCE, and REI school reform trends) repeated measures ANOVA procedure was performed on the dependent measure of the inservice scores (see table 10). The analysis of the results indicated that there were significant between groups' differences ($F_{3,85} = 9.26$, $p = <.0001$). Post-hoc Sheffe comparisons indicated that there were significant differences ($p = <.01$) between the following:

INC > PBE, $F = 7.17$

INC > MCE, $F = 4.84$

Taken together, these results indicate that there were significant differences in the inservice domain rating scores across the school reform trends. Given these findings, null hypothesis 10 was rejected.

Table 10

Means, Standard Deviations, and Sample Sizes of the
Inservice Scores Across the School Reforms

	INC	PBE	MCE	REI
n	= 86	84	86	74
mean	= 2.98	2.46	2.56	2.82
SD	= 1.00	1.07	1.11	1.06

To test null hypothesis 11, a one-way (INC, PBE, MCE, and REI school reform trends) repeated measures ANOVA procedure was performed on the dependent measure of the research scores (see table 11). The analysis of the results indicated that there were no significant between groups' differences ($F_{3,86} = 2.26$, $p = <.082$). Given these findings, null hypothesis 11 was not rejected.

Table 11

Means, Standard Deviations, and Sample Sizes of the Research
Scores Across School Reforms

	INC	PBE	MCE	REI
n	= 87	85	87	86
mean	= 2.49	2.33	2.24	2.38
SD	= 1.15	1.13	1.21	1.17

To test null hypothesis 12, a one-way (INC, PBE, MCE, and REI school reform trends) repeated measures ANOVA procedure was performed on the dependent measure of the combined scores (see table 12). The analysis of the results indicated that there were significant between groups' differences ($F_{3,85} = 20.10$, $p = <.0001$). Post-hoc Sheffe comparisons indicated that there were significant differences ($p = <.01$) between the following:

INC > PBE, $F = 14.21$

INC > MCE, $F = 11.43$

PBE < REI, $F = 7.54$

MCE < REI, $F = 5.56$

Taken together, these results indicate that there were significant differences in the combined domain rating scores across the school reform trends. Given these findings, null hypothesis 12 was rejected.

Table 12

Means, Standard Deviations, and Sample Sizes of the Combined Scores Across School Reforms

	INC	PBE	MCE	REI
n	= 88	87	88	86
mean	= 2.81	2.41	2.45	2.71
SD	= .55	.60	.75	.64

To test the null hypothesis that no differences exist between school reform trends X years of experience with respect to the assessment domain, a repeated measures ANOVA procedure was performed on the assessment ratings (see table 13). The analysis of the results indicated that there were significant differences between the years of experience groups ($F_{2,257} = 7.39$, $p = .0008$); there were significant differences between the school reforms ($F_{3,257} = 63.25$, $p = <.0001$); and there were significant interaction effects ($F_{6,774} = 16.38$, $p = <.0001$) (see figure 3). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

0-5/PBE > 0-5/MCE , $F = 5.37$

0-5/MCE < 0-5/REI , $F = 4.72$

0-5/MCE < 6-16/Inc, $F = 4.05$

0-5/MCE < 6-16/PBE, $F = 7.78$

0-5/MCE < 6-16/REI, $F = 5.17$

0-5 MCE < >16/Inc , $F = 7.07$

0-5/MCE < >16/PBE , $F = 3.88$

0-5/MCE < >16/MCE , $F = 3.39$

0-5/MCE > >16/REI , $F = 3.81$

Taken together, these results indicate that there were significant differences in the assessment domain rating scores across years of experience, school reform trends, and interaction effects. Given these findings, this null hypothesis was rejected.

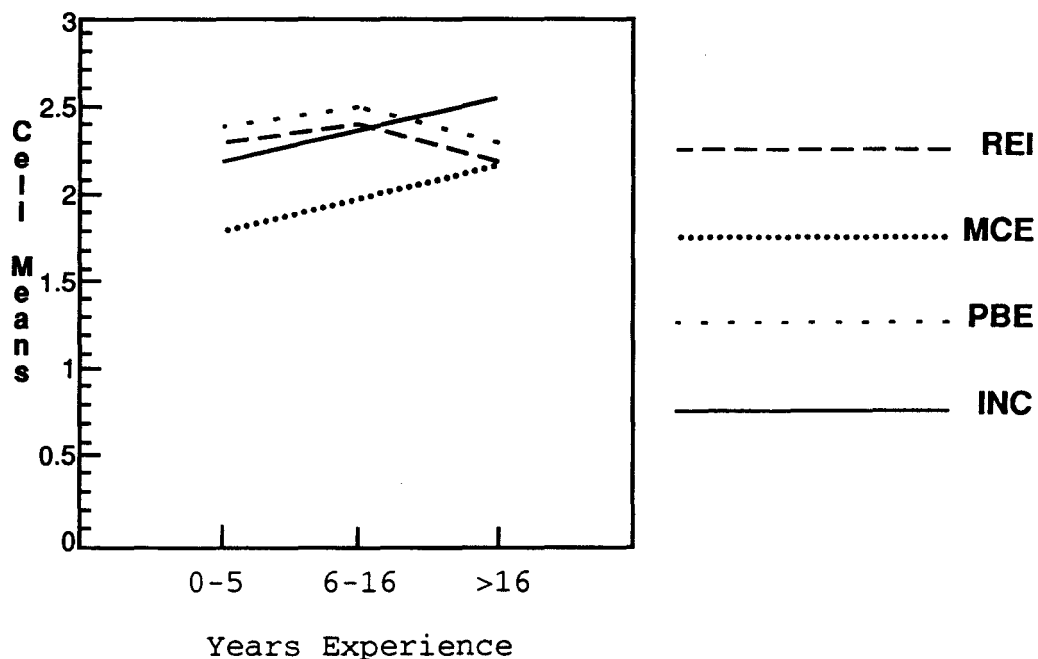
Table 13

Means, Standard Deviations, and Sample Sizes of the
Assessment Scores Across School Reforms X Experience

Exp. X Reform	n	Mean	SD
0-5 X INC	38	2.25	.71
0-5 X PBE	38	2.39	.71
0-5 X MCE	38	1.91	.69
0-5 X REI	38	2.36	.73
6-16 X INC	24	2.39	.75
6-16 X PBE	23	2.58	.71
6-16 X MCE	24	2.19	.89
6-16 X REI	23	2.46	.85
>16 X INC	24	2.54	.82
>16 X PBE	23	2.38	.70
>16 X MCE	24	2.35	.77
>16 X REI	24	2.37	.69

Figure 3

Interaction of the Assessment Scores Across School Reforms X Experience



To test the null hypothesis that no differences exist between school reform trends X years of experience with respect to the consultation domain, a repeated measures ANOVA procedure was performed on the consultation ratings (see table 14). The analysis of the results indicated that there were significant differences between the years of experience groups ($F_{2,257} = 19.15, p = .0001$); there were significant differences between the school reform trends ($F_{3,257} = 240.64, p = <.0001$); and there were significant interaction effects ($F_{6,774} = 21.46, p = <.0001$) (see

figure 4). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

0-5/INC > 0-5/PBE , $\underline{F} = 14.02$

0-5/INC > 0-5/MCE , $\underline{F} = 9.65$

0-5/PBE < 6-16/INC, $\underline{F} = 9.37$

0-5/MCE < 6-16/INC, $\underline{F} = 6.25$

0-5/MCE < 6-16/REI, $\underline{F} = 3.32$

0-5/MCE < >16/INC , $\underline{F} = 5.01$

0-5/REI > >16/PBE , $\underline{F} = 5.29$

0-5/REI > >16/MCE , $\underline{F} = 5.83$

6-16/INC > >16/PBE, $\underline{F} = 6.66$

6-16/INC > >16/MCE, $\underline{F} = 7.21$

6-16/INC > >16/REI, $\underline{F} = 3.43$

6-16/MCE > >16/PBE, $\underline{F} = 2.87$

6-16/MCE > >16/MCE, $\underline{F} = 3.20$

6-16/REI > >16/PBE, $\underline{F} = 3.90$

6-16/REI > >16/MCE, $\underline{F} = 4.30$

>16/INC > >16/PBE, $\underline{F} = 5.51$

>16/INC > >16/MCE, $\underline{F} = 6.00$

Taken together, these results indicate that there were significant differences in the consultation domain rating scores across years of experience and school reform trends. There were also some interaction effects. Given these findings, this null hypothesis was rejected.

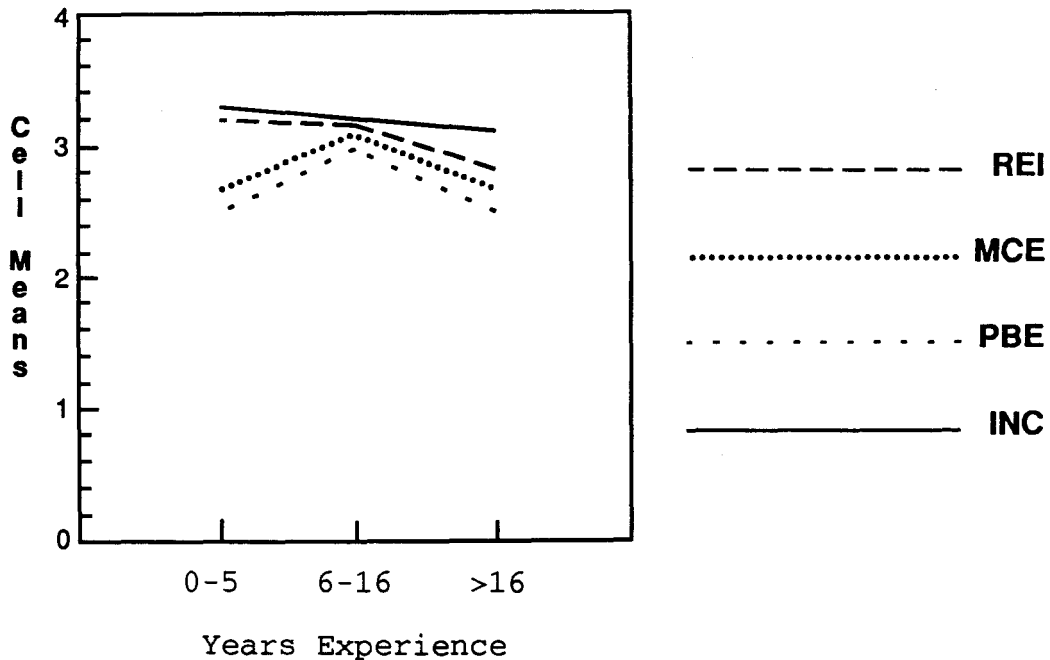
Table 14

Means, Standard Deviations, and Sample Sizes of the
Consultation Scores Across School Reforms X Experience

Exp. X Reform	n	Mean	SD
0-5 X INC	38	3.37	.65
0-5 X PBE	38	2.49	.67
0-5 X MCE	38	2.64	.80
0-5 X REI	38	3.16	.77
6-16 X INC	24	3.31	.69
6-16 X PBE	23	2.91	.77
6-16 X MCE	24	3.04	1.00
6-16 X REI	24	3.13	.67
>16 X INC	24	3.24	.85
>16 X PBE	23	2.54	.86
>16 X MCE	24	2.51	.94
>16 X REI	23	2.75	.78

Figure 4

Interaction of the Consultation Scores Across School Reforms
X Experience



To test the null hypothesis that no differences exist between the school reform trends X years of experience with respect to the direct intervention domain, a repeated measures ANOVA procedure was performed on the direct intervention ratings (see table 15). The analysis of the results indicated that there were no significant differences between the years of experience groups ($F_{2,257} = 2.05$, $p = .131$); there were significant differences between the school reform trends ($F_{3,257} = 180.02$, $p < .0001$); and there were significant interaction effects ($F_{6,774} = 12.03$, $p =$

<.0001) (see figure 5). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

0-5/Inc > 0-5/PBE, $F = 10.78$

0-5/PBE < 0-5/MCE, $F = 3.36$

0-5/PBE < 0-5/REI, $F = 6.96$

0-5/Inc > 6-16/PBE, $F = 5.04$

0-5/PBE < 6-16/Inc, $F = 5.88$

0-5/PBE < 6-16/MCE, $F = 5.04$

0-5/PBE < 6-16/REI, $F = 3.79$

0-5/Inc > >16/PBE, $F = 6.63$

0-5/Inc > >16/MCE, $F = 4.32$

0-5/PBE < >16/Inc, $F = 4.84$

0-5/PBE < >16/REI, $F = 4.83$

0-5/REI > >16/PBE, $F = 4.02$

6-16/Inc > >16/PBE, $F = 3.63$

6-16/MCE > >16/PBE, $F = 3.04$

>16/Inc > >16/PBE, $F = 2.90$

>16/PBE < >16/REI, $F = 2.90$

Taken together, these results indicate that there were no significant differences in the direct intervention domain rating scores across years of experience; there were significant differences across school reform trends; and there were significant interaction effects. Given these findings, this null hypothesis was rejected.

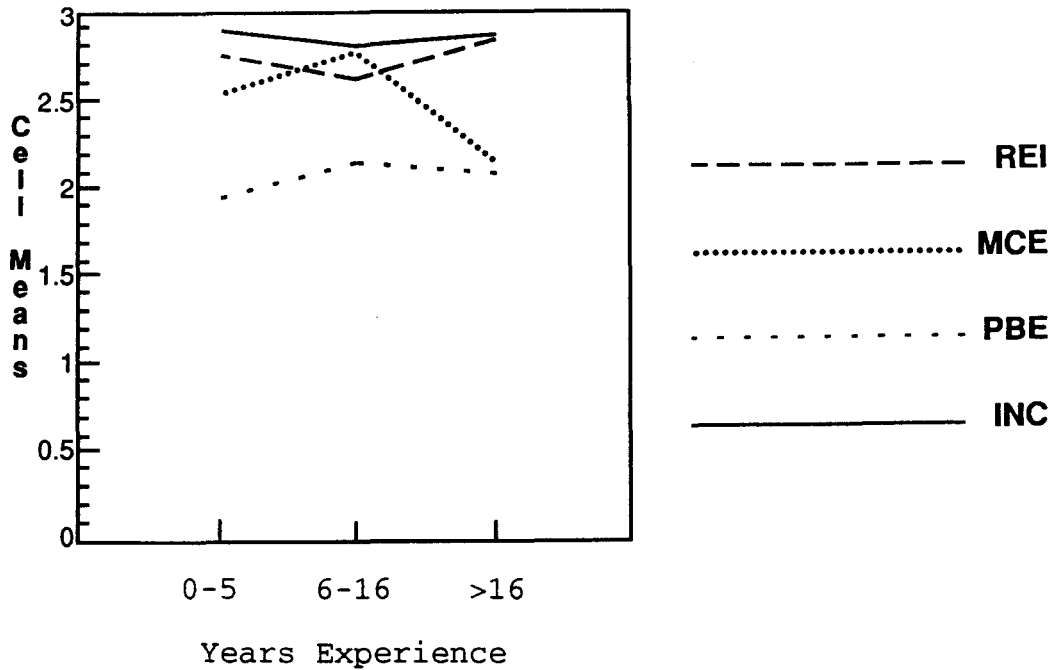
Table 15

Means, Standard Deviations, and Sample Sizes of the Direct
Intervention Scores Across School Reforms X Experience

Exp. X Reform	n	Mean	SD
0-5 X Inc	38	2.92	.81
0-5 X PBE	38	2.03	.96
0-5 X MCE	38	2.53	.91
0-5 X REI	38	2.75	.91
6-16 X Inc	24	2.78	.95
6-16 X PBE	23	2.22	1.10
6-16 X MCE	24	2.72	1.03
6-16 X REI	23	2.64	1.06
>16 X Inc	24	2.71	.99
>16 X PBE	24	2.12	1.02
>16 X MCE	24	2.28	1.08
>16 X REI	24	2.71	.85

Figure 5

Interaction of the Direct Intervention Scores Across School Reforms X Experience



To test the null hypothesis that no differences exist between school reform trends X years of experience with respect to the inservice domain, a repeated measures ANOVA procedure was performed on the inservice ratings (see table 16). The analysis of the results indicated that there were significant differences between the years of experience groups ($F_{2,254} = 5.30, p = .006$); there were significant differences between the school reform trends ($F_{3,254} = 122.28, p = <.0001$); and there were significant interaction effects ($F_{6,765} = 18.65, p = <.0001$) (see figure 6). Post-

hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

0-5/Inc > 0-5/PBE, $F = 4.30$

0-5/Inc > 0-5/MCE, $F = 4.30$

0-5/Inc > >16/PBE, $F = 8.01$

0-5/Inc > >16/MCE, $F = 5.01$

0-5/REI > >16/PBE, $F = 3.36$

6-16/Inc > >16/PBE, $F = 4.60$

6-16/PBE > >16/PBE, $F = 3.17$

6-16/REI > >16/PBE, $F = 4.60$

>16/Inc > >16/PBE, $F = 4.29$

>16/PBE < >16/REI, $F = 4.95$

>16/MCE < >16/REI, $F = 2.87$

Taken together, these results indicate that there were significant differences in the inservice domain rating scores across years of experience and school reform trends. There were also some interaction effects. Given these findings, this null hypothesis was rejected.

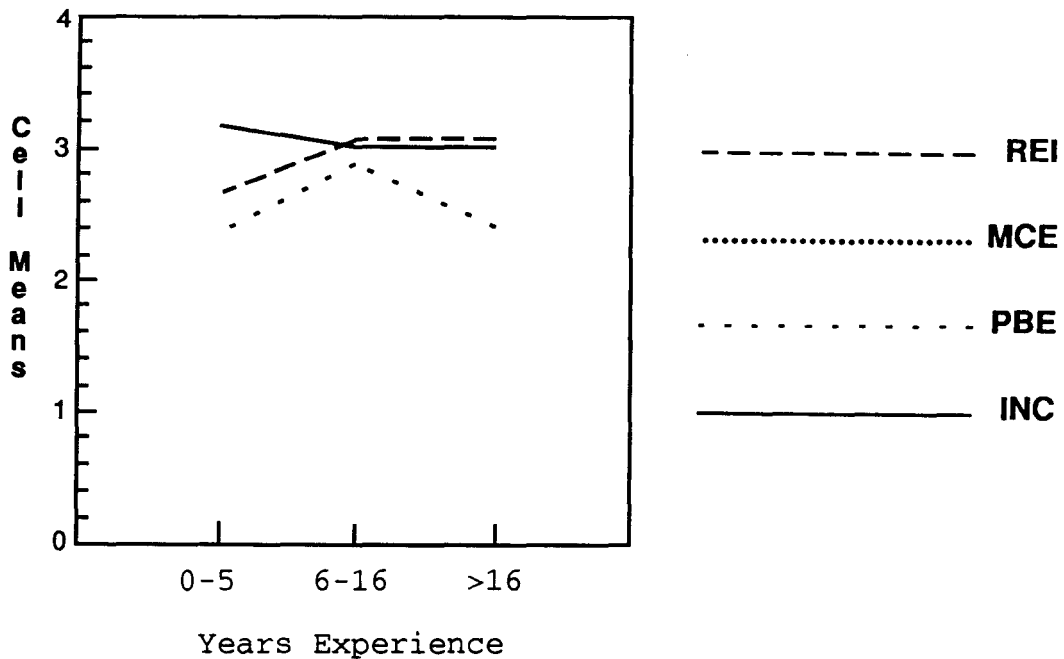
Table 16

Means, Standard Deviations, and Sample Sizes of the
Inservice Scores Across School Reforms X Experience

Exp. X Reform	n	Mean	SD
0-5 X Inc	37	3.08	.89
0-5 X PBE	37	2.43	.96
0-5 X MCE	37	2.43	1.09
0-5 X REI	37	2.72	1.07
6-16 X Inc	24	2.92	1.10
6-16 X PBE	23	2.78	1.17
6-16 X MCE	23	2.57	1.24
6-16 X REI	24	2.92	1.14
>16 X Inc	25	2.88	1.17
>16 X PBE	24	2.08	1.02
>16 X MCE	24	2.29	.95
>16 X REI	23	2.96	.88

Figure 6

Interaction of the Inservice Scores Across School Reforms X Experience



To test the null hypothesis that no differences exist between school reform trends X years of experience with respect to the research domain, a repeated measures ANOVA procedure was performed on the research ratings (see table 17). The analysis of the results indicated that there were significant differences between the years of experience groups ($F_{2,254} = 8.03, p = .0004$); there were significant differences between the school reform trends ($F_{3,254} = 18.47, p = <.0001$); and there were significant interaction effects ($F_{6,765} = 5.65, p = <.0001$) (see figure 7). Post-

hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

0-5/REI < >16/REI, $F = 3.15$

Taken together, these results indicate that there were significant differences in the research domain rating scores across years of experience and school reform trends. There were also some interaction effects. Given these findings, this null hypothesis was rejected.

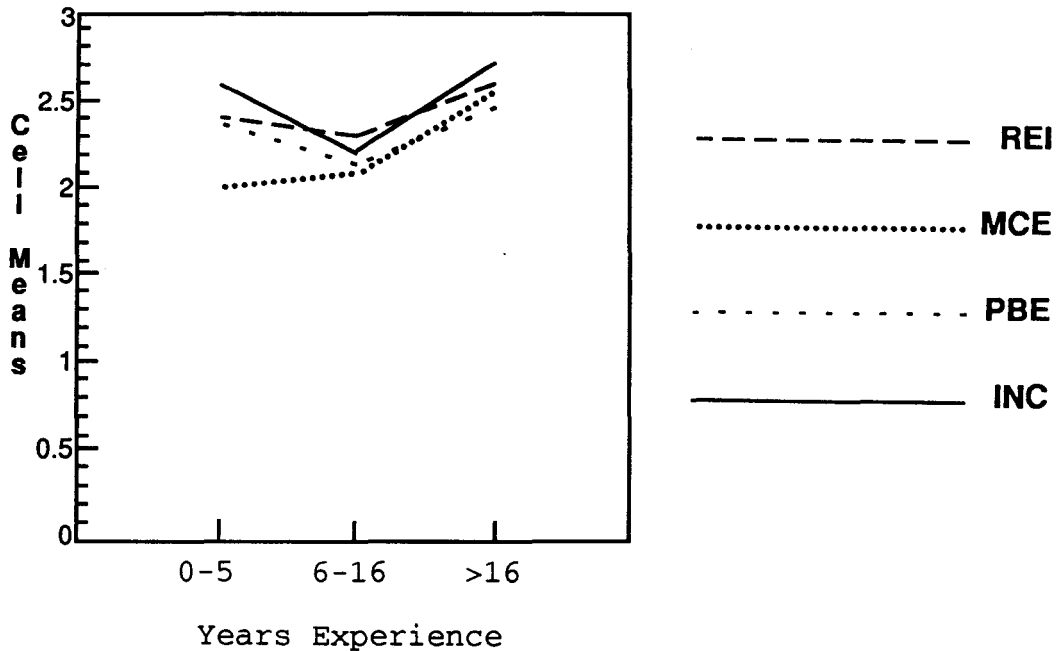
Table 17

Means, Standard Deviations, and Sample Sizes of the Research Scores Across School Reforms X Experience

Exp. X Reform	n	Mean	SD
0-5 X Inc	37	2.54	1.12
0-5 X PBE	37	2.35	1.21
0-5 X MCE	37	2.08	1.23
0-5 X REI	37	2.35	1.23
6-16 X Inc	24	2.21	1.14
6-16 X PBE	22	2.18	1.10
6-16 X MCE	24	2.13	1.15
6-16 X REI	23	2.26	1.21
>16 X Inc	24	2.67	1.17
>16 X PBE	24	2.42	1.02
>16 X MCE	24	2.5	1.14
>16 X REI	24	2.58	1.06

Figure 7

Interaction of the Research Scores Across School Reforms X
Experience



To test the null hypothesis that no differences exist between school reform trends X years of experience with respect to the combined services domain, a repeated measures ANOVA procedure was performed on the combined ratings (see table 18). The analysis of the results indicated that there were no significant differences between the years of experience groups ($F_{2,257} = 4.37, p = .033$); there were significant differences between the school reform trends ($F_{3,257} = 181.54, p = <.0001$); and there were significant interaction effects ($F_{6,774} = 11.67, p = <.0001$) (see

figure 8). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

0-5/Inc > 0-5/PBE, $F = 8.40$

0-5/Inc > 0-5/MCE, $F = 7.56$

0-5/PBE < 0-5/REI, $F = 4.40$

0-5/MCE < 0-5/REI, $F = 3.80$

0-5/PBE < 6-16/Inc, $F = 5.06$

0-5/PBE < 6-16/REI, $F = 3.37$

0-5/MCE < 6-16/Inc, $F = 4.49$

0-5/MCE < 6-16/REI, $F = 2.91$

0-5/Inc > >16/PBE, $F = 6.25$

0-5/Inc > >16/MCE, $F = 5.18$

0-5/PBE < >16/Inc, $F = 5.91$

0-5/PBE < >16/REI, $F = 3.18$

0-5/MCE < >16/Inc, $F = 5.29$

0-5/REI > >16/PBE, $F = 3.23$

6-16/Inc > >16/PBE, $F = 3.95$

6-16/Inc > >16/MCE, $F = 3.18$

>16/Inc > >16/PBE, $F = 4.62$

>16/Inc > >16/MCE, $F = 3.79$

Taken together, these results indicate that there were no significant differences in the combined domain rating scores across years of experience; there were significant differences across school reform trends; and there were significant interaction effects. Given these findings, this null hypothesis was rejected.

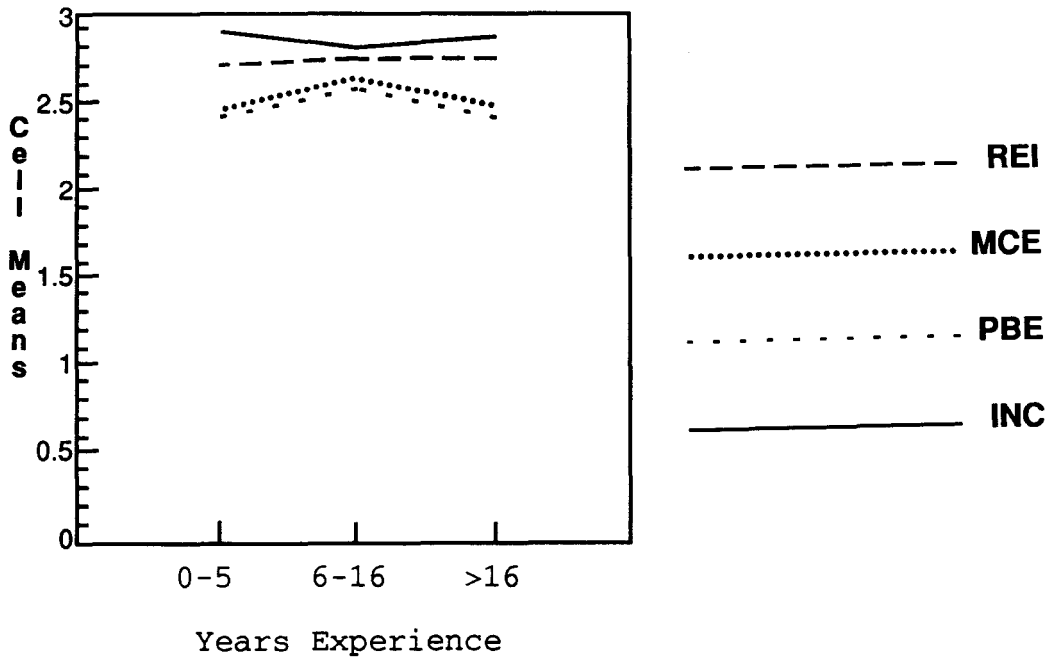
Table 18

Means, Standard Deviations, and Sample Sizes of the Combined
Scores Across School Reforms X Experience

Exp. X Reform	n	Mean	SD
0-5 X INC	38	2.84	.46
0-5 X PBE	38	2.33	.53
0-5 X MCE	38	2.35	.68
0-5 X REI	38	2.70	.68
6-16 X INC	24	2.78	.61
6-16 X PBE	23	2.55	.64
6-16 X MCE	24	2.60	.83
6-16 X REI	24	2.70	.62
>16 X INC	24	2.81	.62
>16 X PBE	24	2.34	.60
>16 X MCE	24	2.38	.73
>16 X REI	24	2.68	.55

Figure 8

Interaction of the Combined Scores Across School Reforms X
Experience



To test the null hypothesis that no differences exist between school reform trends and training programs with respect to the assessment domain, a repeated measures ANOVA procedure was performed on the assessment ratings (see table 19). The analysis of the results indicated that there were significant differences between the training groups ($F_{1,159} = 28.55, p = <.0001$); there were significant differences between the school reform trends ($F_{3,159} = 34.70, p = <.0001$); and there were no significant interaction effects ($F_{3,480} = 2.58, p = .053$) (see figure 9). Post-hoc Sheffe

comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/INC > Counselin./MCE, $F = 5.75$

Assessment/PBE > Assessment/MCE, $F = 4.35$

Assessment/PBE > Counselin./MCE, $F = 8.12$

Assessment/PBE > Counselin./REI, $F = 4.57$

Assessment/MCE < Assessment/REI, $F = 3.22$

Assessment/REI > Counselin./MCE, $F = 7.07$

Taken together, these results indicate that there were significant differences in the assessment domain rating scores across training; there were significant differences across school reform trends; and there were no significant interaction effects. Given these findings, this null hypothesis was rejected.

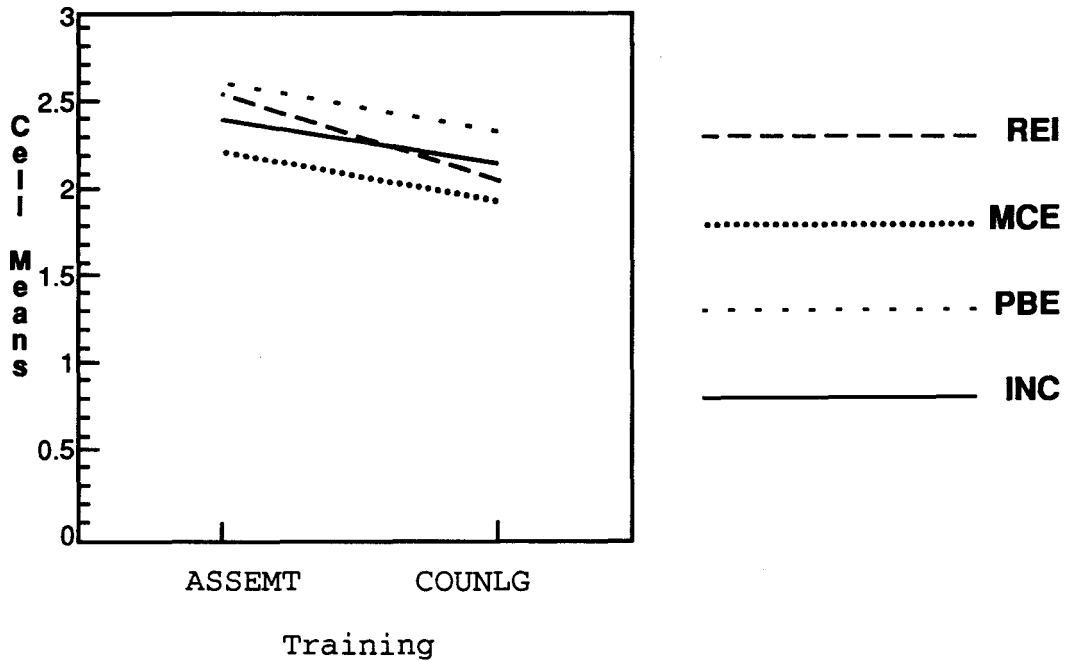
Table 19

Means, Standard Deviations, and Sample Sizes of the
Assessment Scores Across School Reforms X Training

Training X Reform	n	Mean	SD
Assessment X INC	63	2.41	.77
Assessment X PBE	62	2.51	.67
Assessment X MCE	63	2.19	.72
Assessment X REI	63	2.47	.65
Counseling X INC	17	2.08	.66
Counseling X PBE	17	2.26	.64
Counseling X MCE	17	1.84	.83
Counseling X REI	17	2.01	.82

Figure 9

Interaction of the Assessment Scores Across School Reforms X Training



To test the null hypothesis that no differences exist between school reform trends X training programs with respect to the consultation domain, a repeated measures ANOVA procedure was performed on the consultation ratings (see table 20). Analysis of the results indicated that there were significant differences between the school reform trends ($F_{3,159} = 124.85, p = <.0001$); there were significant interaction effects ($F_{3,480} = 15.75, p = <.0001$) (see figure 10); and there were no significant differences between the training programs groups ($F_{1,159} =$

.33, $p = .57$). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/Inc > Assessment/PBE, $F = 16.28$

Assessment/Inc > Assessment/MCE, $F = 8.24$

Assessment/PBE < Assessment/REI, $F = 6.94$

Assessment/Inc > Counselin./MCE, $F = 8.79$

Assessment/PBE < Counselin./Inc, $F = 8.96$

Assessment/PBE < Counselin./REI, $F = 3.95$

Assessment/MCE < Counselin./Inc, $F = 4.96$

Assessment/REI > Counselin./MCE, $F = 4.20$

Counselin./Inc > Counselin./MCE, $F = 7.01$

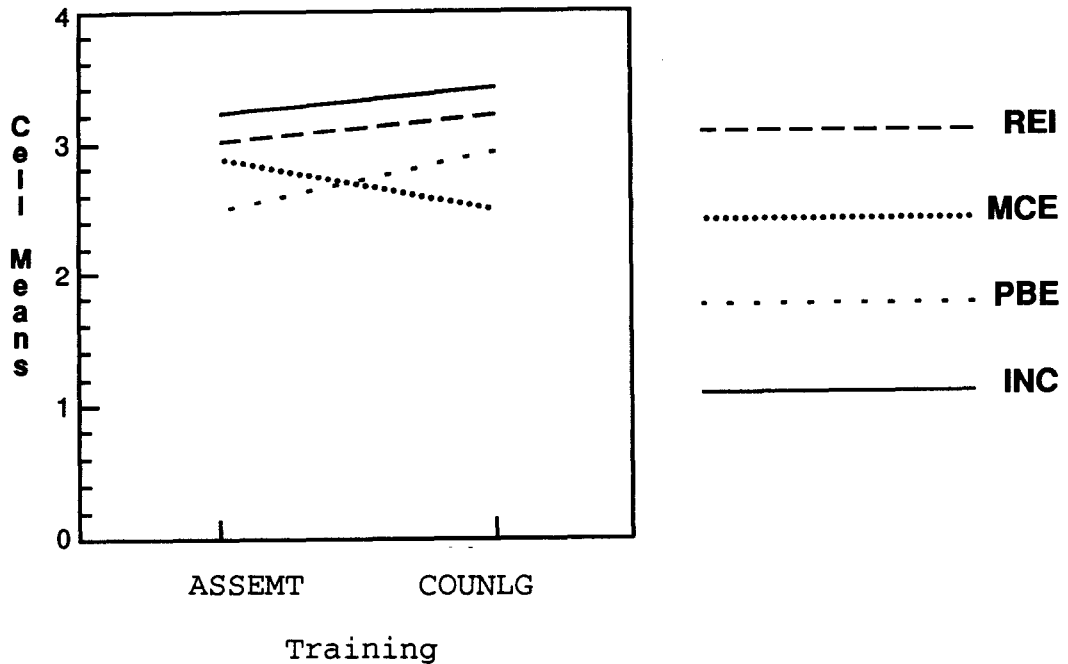
Taken together, these results indicate that there were no significant differences in the consultation domain rating scores across training programs and there were significant differences across school reform trends. Also there were some significant interaction effects. Given these findings, this null hypothesis was rejected.

Table 20

Means, Standard Deviations, and Sample Sizes of the
Consultation Scores Across School Reforms X Training

Training X Reform	n	Mean	SD
Assessment X Inc	63	3.31	.69
Assessment X PBE	62	2.58	.69
Assessment X MCE	63	2.79	.88
Assessment X REI	63	3.06	.72
Counseling X Inc	17	3.41	.64
Counseling X PBE	17	2.84	.72
Counseling X MCE	17	2.50	.89
Counseling X REI	16	3.15	.68

Figure 10

Interaction of the Consultation Scores Across School ReformsX Training

To test the null hypothesis that no differences exist between school reform trends and training programs with respect to the intervention domain, a repeated measures ANOVA procedure was performed on the direct intervention ratings (see table 21). The analysis of the results indicated that there were significant differences between the school reform trends ($F_{3,159} = 92.46, p = <.0001$); there were significant interaction effects ($F_{3,480} = 23.18, p = <.0001$) (see figure 11); and there were no significant differences between training programs groups ($F_{1,159} =$

4.64, $p = .033$). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/Inc > Assessment/PBE, $F = 10.29$

Assessment/PBE < Assessment/MCE, $F = 6.35$

Assessment/PBE < Assessment/REI, $F = 8.87$

Counselin./Inc > Assessment/PBE, $F = 13.68$

Counselin./Inc > Assessment/MCE, $F = 4.22$

Counselin./REI > Assessment/PBE, $F = 6.06$

Counselin./Inc > Counselin./PBE, $F = 4.49$

Counselin./Inc > Counselin./MCE, $F = 5.37$

Taken together, these results indicate that there were no significant differences in the direct intervention domain rating scores across training programs and there were significant differences across school reform trends. There were also some significant interaction effects. Given these findings, this null hypothesis was rejected.

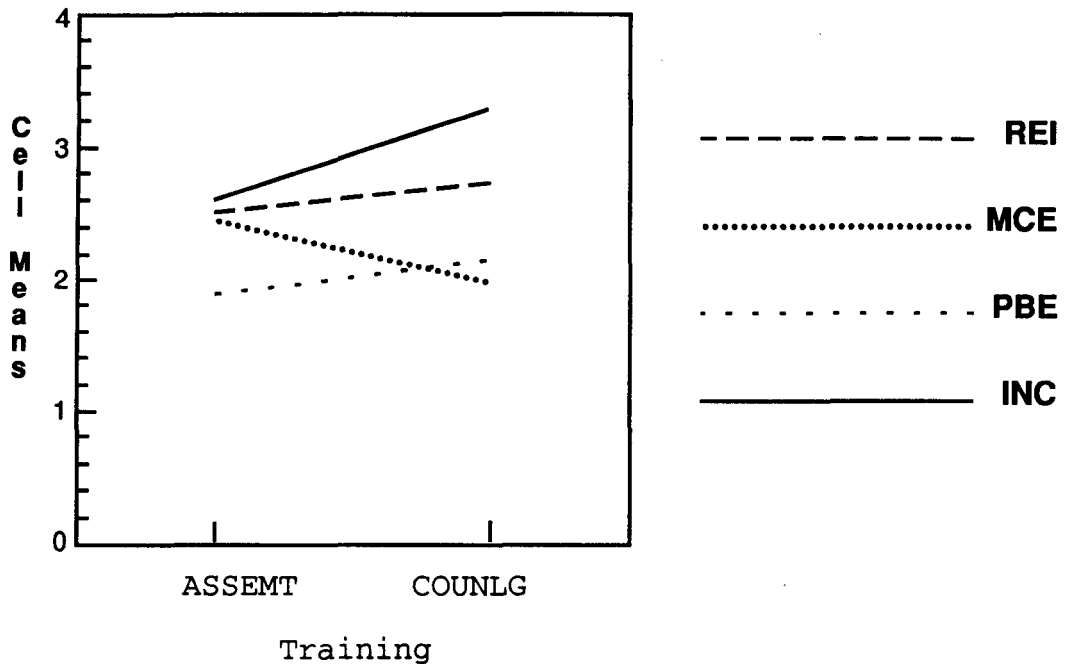
Table 21

Means, Standard Deviations, and Sample Sizes of the
Intervention Scores Across School Reforms X Training

Training X Reform	n	Mean	SD
Assessment X Inc	63	2.69	.89
Assessment X PBE	62	2.02	.94
Assessment X MCE	63	2.54	.93
Assessment X REI	63	2.64	.88
Counseling X Inc	17	3.20	.79
Counseling X PBE	17	2.35	1.12
Counseling X MCE	17	2.27	1.22
Counseling X REI	17	2.80	.99

Figure 11

Interaction of the Direct Intervention Scores Across School Reforms X Training



To test the null hypothesis that no differences exist between school reform trends X training programs with respect to the inservice domain, a repeated measures ANOVA procedure was performed on the inservice ratings (see table 22). The analysis of the results indicated that there were significant differences between school reform trends ($F(3,157) = 48.55, p = <.0001$); there were no significant differences between training programs groups ($F(1,157) = .15, p = .70$); and there were no interaction effects ($F(3,474) = 1.70, p = .17$) (see figure 12). Post-hoc Sheffe comparisons

indicated significant differences ($p = <.01$) between the following:

Assessment/INC > Assessment/PBE

Assessment/INC > Assessment/MCE

Assessment/INC > Counselin./PBE

Assessment/INC > Counselin./MCE

Assessment/REI > Assessment/PBE

Assessment/REI > Assessment/MCE

Counselin./INC > Assessment/PBE

Counselin./INC > Assessment/MCE

Counselin./INC > Assessment/REI

Counselin./INC > Counselin./PBE

Counselin./INC > Counselin./MCE

Counselin./INC > Counselin./REI

Counselin./REI > Assessment/PBE

Counselin./REI > Assessment/MCE

Counselin./REI > Counselin./PBE

Counselin./REI > Counselin./REI

Taken together, these results indicate that there were significant differences across the school reform trends; there were no significant differences across the training programs; and there were no were no significant interaction effects. Given these findings, this null hypothesis was rejected.

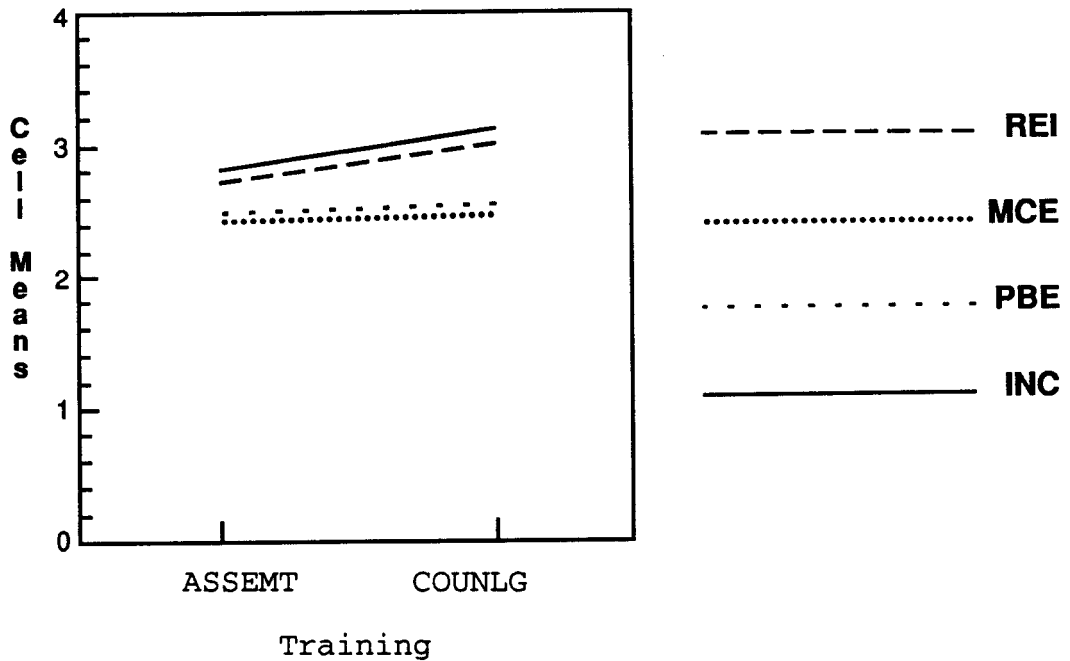
Table 22

Means, Standard Deviations, and Sample Sizes of the
Inservice Scores Across School Reforms X Training

Training X Reform	n	Mean	SD
Assessment X Inc	62	2.90	1.07
Assessment X PBE	61	2.43	1.04
Assessment X MCE	62	2.45	1.08
Assessment X REI	62	2.77	1.05
Counseling X Inc	17	3.06	.97
Counseling X PBE	17	2.47	1.07
Counseling X MCE	17	2.35	1.17
Counseling X REI	17	2.82	1.13

Figure 12

Interaction of the Inservice Scores Across School Reforms X Training



To test the null hypothesis that no differences exist between school reform trends X training programs with respect to the research domain, a repeated measures ANOVA procedure was performed on the research ratings (see table 23). The analysis of the results indicated that there were significant differences between training programs groups ($F_{1,157} = 19.23, p = <.0001$); there were significant differences between school reform trends ($F_{3,157} = 12.39, p = <.0001$); and there were significant interaction effects ($F_{3,474} = 5.68, p = .0008$) (see figure 13). Post-hoc sheffe

comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/Inc > Counselin./MCE, $F = 5.30$

Assessment/Inc > Counselin./REI, $F = 5.30$

Assessment/REI > Counselin./MCE, $F = 4.34$

Assessment/REI > Counselin./REI, $F = 4.34$

Taken together, these results indicate that there were significant differences in the research domain rating scores across training programs and school reform trends. There were also some interaction effects. Given these findings, this null hypothesis was rejected.

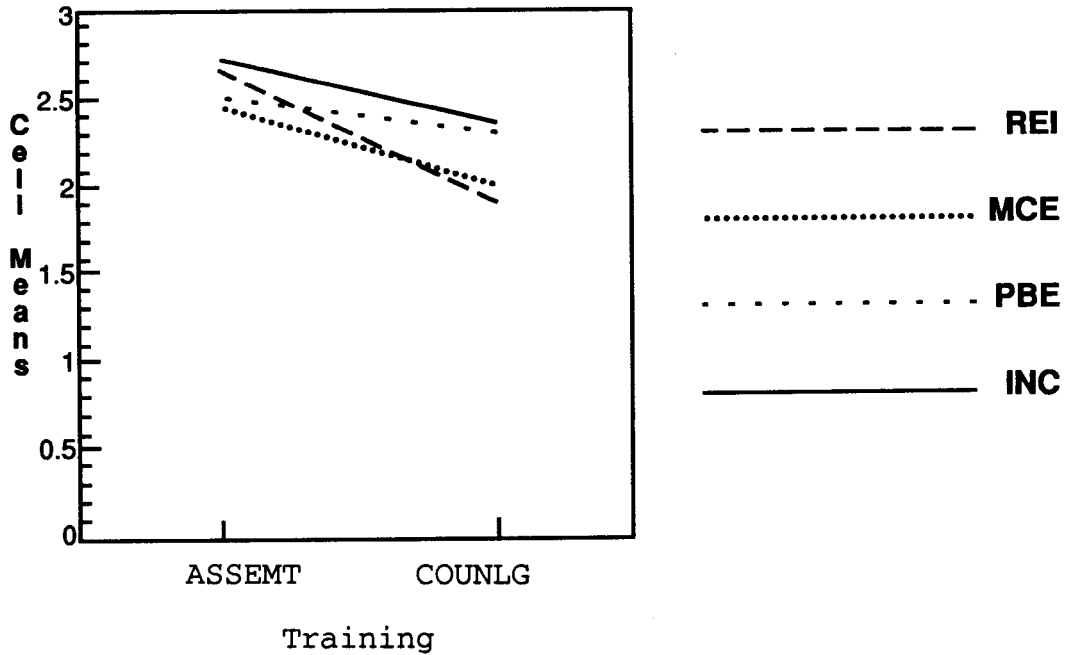
Table 23

Means, Standard Deviations, and Sample Sizes of the Research Scores Across School Reforms X Training

Training X Reform	n	Mean	SD
Assessment X Inc	62	2.60	1.15
Assessment X PBE	60	2.40	1.14
Assessment X MCE	62	2.34	1.19
Assessment X REI	61	2.52	1.15
Counseling X Inc	17	2.18	1.07
Counseling X PBE	17	2.12	1.05
Counseling X MCE	17	1.82	1.13
Counseling X REI	17	1.82	1.01

Figure 13

Interaction of the Research Scores Across School Reforms X Training



To test the null hypothesis that no differences exist between school reform trends X training programs with respect to the combined services domain, a repeated measures ANOVA procedure was performed on the dependent measure of the combined ratings (see table 24). The analysis of the results indicated that there were significant differences between school reform trends ($F_{3,157} = 95.25, p = <.0001$); there were significant interaction effects ($F_{3,474} = 15.03, p = <.0001$) (see figure 14); and there were no significant differences between training programs groups ($F_{1,157} =$

3.58, $p = .06$). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/Inc > Assessment/PBE, $F = 9.53$

Assessment/Inc > Assessment/MCE, $F = 5.21$

Assessment/PBE < Assessment/REI, $F = 5.89$

Assessment/PBE < Counselin./Inc, $F = 4.71$

Assessment/Inc > Counselin./MCE, $F = 9.46$

Assessment/REI > Counselin./MCE, $F = 6.98$

Consultat./Inc > Counselin./MCE, $F = 6.60$

Taken together, these results indicate that there were significant differences in the research domain rating scores across school reform trends and no significant differences across training programs. Also, there were some interaction effects. Given these findings, this null hypothesis was rejected.

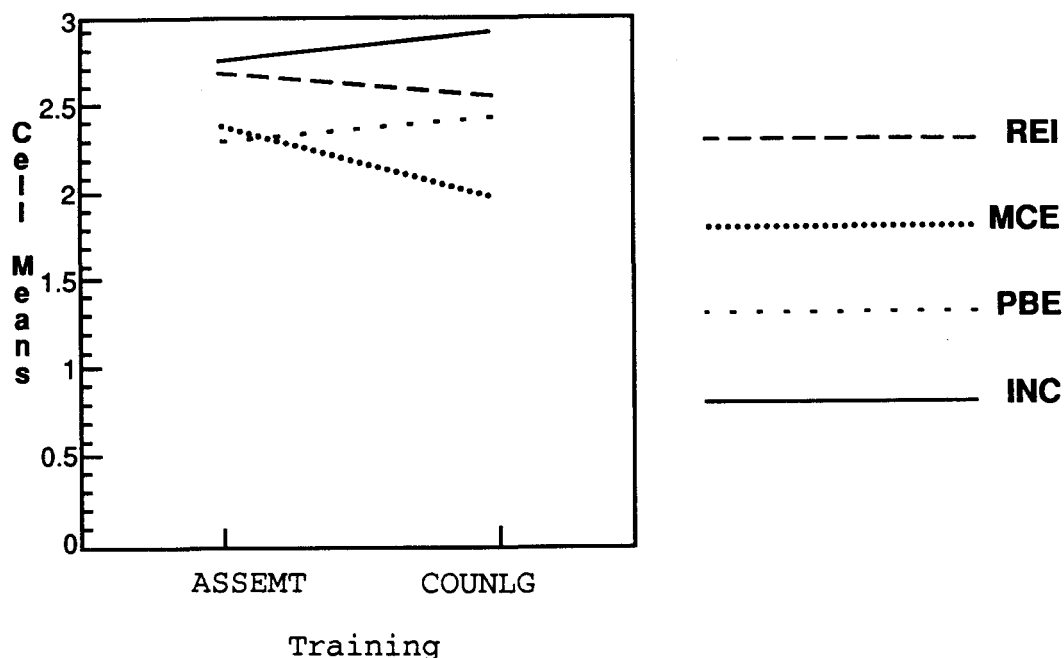
Table 24

Means, Standard Deviations, and Sample Sizes of the Combined
Scores Across School Reforms X Training

Training X Reform	n	Mean	SD
Assessment X Inc	62	2.82	.54
Assessment X PBE	61	2.41	.53
Assessment X MCE	62	2.52	.70
Assessment X REI	62	2.73	.57
Counseling X Inc	17	2.84	.47
Counseling X PBE	17	2.45	.56
Counseling X MCE	17	2.20	.76
Counseling X REI	17	2.56	.70

Figure 14

Interaction of the Combined Scores Across School Reforms X Training



To test the null hypothesis that no differences exist between the school reform trends X professional preferences with respect to the assessment domain, a repeated measures ANOVA procedure was performed on the assessment ratings (see table 25). The analysis of the results indicated that there were significant differences between professional preferences groups ($F_{2,257} = 16.92, p = <.0001$); there were significant differences between school reform trends ($F_{3,257} = 72.51, p = <.0001$); and there were significant interaction effects, ($F_{6,774} = 8.02, p = <.0001$) (see

figure 15). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/PBE > Assessment/MCE, $F = 5.44$

Assessment/MCE < Consultat./PBE, $F = 3.58$

Assessment/Inc > Intervent./MCE, $F = 3.54$

Assessment/PBE > Intervent./PBE, $F = 3.57$

Assessment/PBE > Intervent./MCE, $F = 8.36$

Assessment/REI > Intervent./MCE, $F = 4.93$

Consultat./PBE > Intervent./MCE, $F = 5.72$

Consultat./REI > Intervent./MCE, $F = 4.00$

Taken together, these results indicate that there were significant differences in the assessment domain rating scores across professional preferences and school reform trends. There were also some interaction effects. Given these findings, this null hypothesis was rejected.

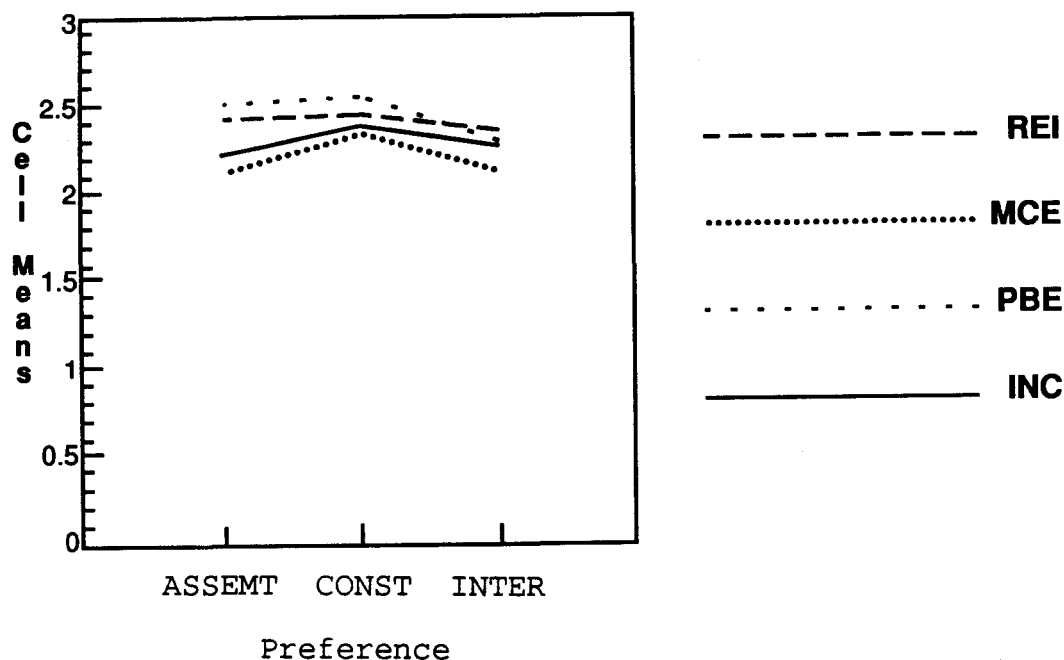
Table 25

Means, Standard Deviations, and Sample Sizes of the
Assessment Scores Across School Reforms X Preference

Preference X Reform	n	Mean	SD
Assessment X Inc	36	2.33	.75
Assessment X PBE	36	2.56	.66
Assessment X MCE	36	2.06	.82
Assessment X REI	36	2.41	.65
Consultat. X Inc	20	2.33	.56
Consultat. X PBE	19	2.54	.56
Consultat. X MCE	20	2.27	.66
Consultat. X REI	20	2.43	.64
Intervent. X Inc	30	2.19	.83
Intervent. X PBE	30	2.14	.67
Intervent. X MCE	30	1.92	.71
Intervent. X REI	29	2.21	.91

Figure 15

Interaction of the Assessment Scores Across School Reforms X Preference



To test the null hypothesis that no differences exist between school reform trends X professional preferences with respect to consultation, a repeated measures ANOVA procedure was performed on the consultation ratings (see table 26). The analysis of the results indicated that there were significant differences between the professional preferences groups ($F_{2,257} = 34.99$, $p = <.0001$); there were significant differences between the school reform trends ($F_{3,257} = 255.97$, $p = <.0001$); and there were significant interaction effects ($F_{6,774} = 8.48$, $p = <.0001$) (see figure 16). Post-

hoc Sheffe comparisons indicated significant differences, at $p = <.01$, between the following:

Assessment/Inc > Assessment/PBE, $F = 9.25$
Assessment/Inc > Assessment/MCE, $F = 6.20$
Assessment/Inc > Intervent./PBE, $F = 5.18$
Assessment/Inc > Intervent./MCE, $F = 5.58$
Assessment/PBE < Assessment/REI, $F = 4.51$
Assessment/PBE < Consultat./Inc, $F = 10.79$
Assessment/PBE < Consultat./MCE, $F = 4.95$
Assessment/PBE < Consultat./REI, $F = 11.55$
Assessment/PBE < Intervent./Inc, $F = 10.66$
Assessment/PBE < Intervent./REI, $F = 4.28$
Assessment/MCE < Consultat./Inc, $F = 7.95$
Assessment/MCE < Consultat./MCE, $F = 3.10$
Assessment/MCE < Consultat./REI, $F = 8.60$
Assessment/MCE < Intervent./Inc, $F = 7.50$
Consultat./Inc > Consultat./PBE, $F = 2.98$
Consultat./Inc > Intervent./PBE, $F = 6.97$
Consultat./Inc > Intervent./MCE, $F = 7.36$
Consultat./PBE < Consultat./REI, $F = 3.33$
Consultat./MCE > Intervent./MCE, $F = 2.86$
Consultat./REI > Intervent./PBE, $F = 7.56$
Consultat./REI > Intervent./MCE, $F = 7.97$
Intervent./Inc > Intervent./PBE, $F = 6.39$
Intervent./Inc > Intervent./MCE, $F = 6.82$

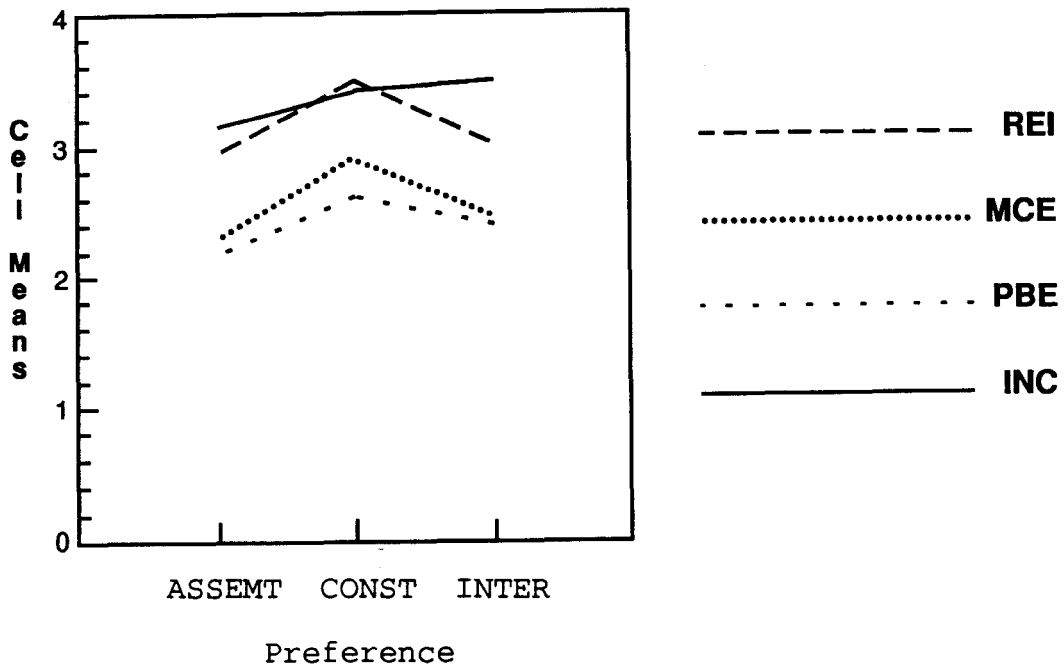
Taken together, these results indicate that there were significant differences in the consultation domain rating scores across professional preferences and school reform trends. There were also some interaction effects. Given these findings, this null hypothesis was rejected.

Table 26

Means, Standard Deviations, and Sample Sizes of the Consultation Scores Across School Reforms X Preference

Preference X Reform	n	Mean	SD
Assessment X INC	36	3.20	.79
Assessment X PBE	36	2.44	.55
Assessment X MCE	36	2.57	.92
Assessment X REI	36	2.97	.71
Consultat. X INC	20	3.42	.53
Consultat. X PBE	19	2.82	.70
Consultat. X MCE	20	3.10	.76
Consultat. X REI	20	3.45	.53
Intervent. X INC	30	3.30	.76
Intervent. X PBE	30	2.60	.90
Intervent. X MCE	30	2.58	.99
Intervent. X REI	29	2.99	.76

Figure 16

Interaction of the Consultation Scores Across School ReformsX Preference

To test the null hypothesis that no differences exist between school reform trends X professional preferences with respect to the intervention domain, a repeated measures ANOVA procedure was performed on the direct intervention ratings (see table 27). The analysis of the results indicated that there were significant differences between professional preferences groups ($F_{2,242} = 14.86$, $p = <.0001$); there were significant differences between school reform trends ($F_{3,242} = 162.98$, $p = <.0001$); and there were significant interaction effects ($F_{6,729} = 3.01$, $p = <.007$)

(see figure 17). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/INC > Assessment/PBE, $F = 4.36$
 Assessment/PBE < Assessment/REI, $F = 4.50$
 Assessment/PBE < Consultat./INC, $F = 8.25$
 Assessment/PBE < Consultat./MCE, $F = 3.57$
 Assessment/PBE < Consultat./REI, $F = 6.20$
 Assessment/PBE < Intervent./INC, $F = 12.94$
 Assessment/PBE < Intervent./MCE, $F = 4.24$
 Assessment/PBE < Intervent./REI, $F = 6.88$
 Assessment/MCE < Consultat./INC, $F = 2.92$
 Assessment/MCE < Intervent./INC, $F = 4.97$
 Consultat./INC > Intervent./PBE, $F = 3.92$
 Consultat./PBE < Intervent./INC, $F = 3.78$
 Intervent./INC > Intervent./PBE, $F = 6.29$

Taken together, these results indicate that there were significant differences in the direct intervention domain rating scores across professional preferences and school reform trends. There were also some interaction effects. Given these findings, this null hypothesis was rejected.

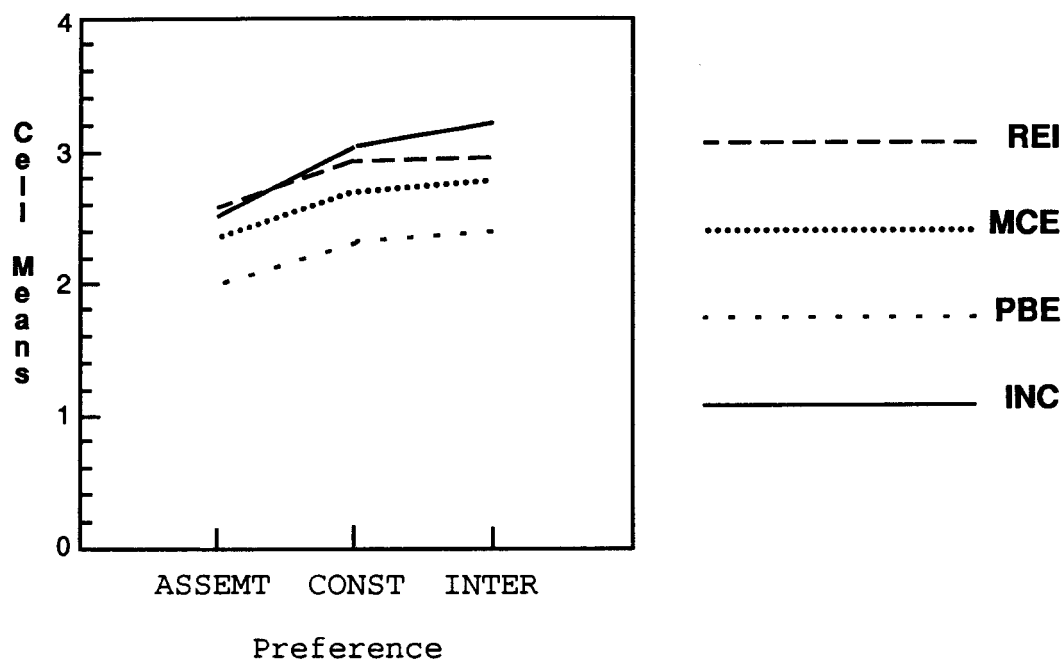
Table 27

Means, Standard Deviations, and Sample Sizes of the Direct
Intervention Scores Across School Reforms X Preference

Preference X Reform	n	Mean	SD
Assessment X INC	35	2.50	.86
Assessment X PBE	35	1.89	.87
Assessment X MCE	35	2.30	.85
Assessment X REI	35	2.50	.89
Consultat. X INC	17	2.92	.85
Consultat. X PBE	16	2.25	.97
Consultat. X MCE	17	2.57	1.00
Consultat. X REI	17	2.78	.80
Intervent. X INC	29	2.99	.91
Intervent. X PBE	29	2.18	1.10
Intervent. X MCE	29	2.52	1.10
Intervent. X REI	29	2.69	.98

Figure 17

Interaction of the Direct Intervention Scores Across School Reforms x Preference



To test the null hypothesis that no differences exist between school reform trends X professional preferences with respect to the inservice domain, a repeated measures ANOVA procedure was performed on the inservice ratings (see table 28). The analysis of the results indicated that there were significant differences between professional preferences groups ($F_{2,239} = 15.97, p = <.0001$); there were significant differences between school reform trends ($F_{3,239} = 102.90, p = <.0001$); and there were significant interaction effects ($F_{6,720} = 4.18, p = <.0004$) (see figure 18). Post-hoc

Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/PBE < Consultat./INC, $F = 2.90$

Assessment/PBE < Consultat./REI, $F = 3.98$

Assessment/PBE < Intervent./INC, $F = 7.15$

Assessment/PBE < Intervent./REI, $F = 4.56$

Assessment/MCE < Consultat./INC, $F = 3.40$

Assessment/MCE < Consultat./REI, $F = 4.57$

Assessment/MCE < Intervent./INC, $F = 8.06$

Assessment/MCE < Intervent./REI, $F = 5.39$

Assessment/REI < Intervent./INC, $F = 3.72$

Intervent./Inc > Intervent./PBE, $F = 3.49$

Taken together, these results indicate that there were significant differences in the inservice domain rating scores across professional preferences and school reform trends. There were some interaction effects. Given these findings, this null hypothesis was rejected.

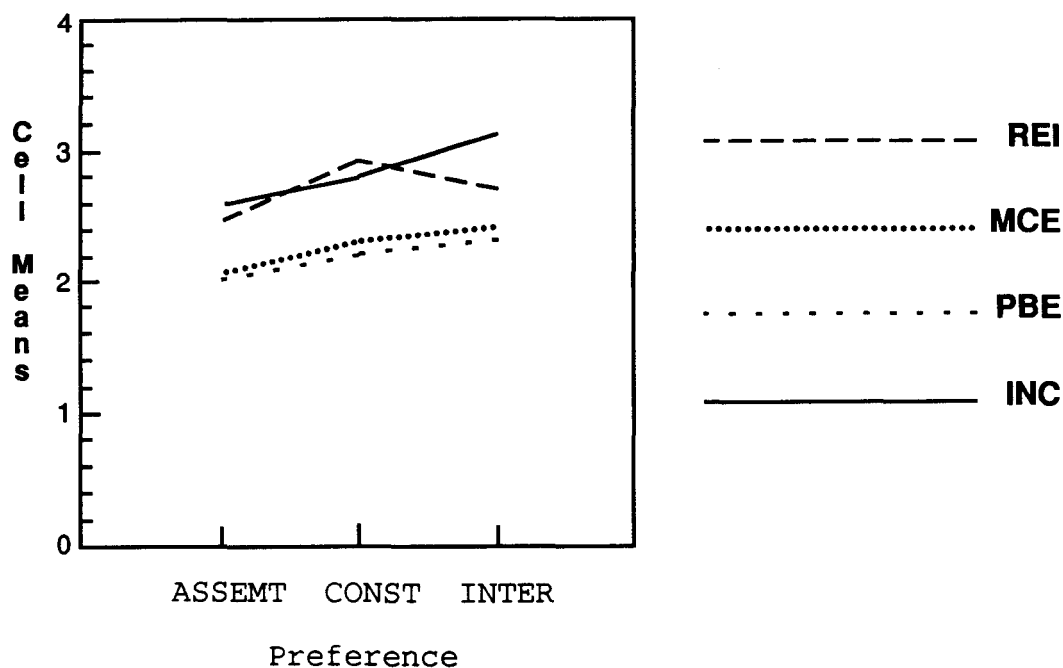
Table 28

Means, Standard Deviations, and Sample Sizes of the
Inservice Scores Across School Reforms X Preference

Preference X Reform	n	Mean	SD
Assessment X INC	35	2.74	1.07
Assessment X PBE	35	2.26	1.01
Assessment X MCE	35	2.20	1.05
Assessment X REI	35	2.51	1.04
Consultat. X INC	17	2.94	.97
Consultat. X PBE	16	2.50	.89
Consultat. X MCE	17	2.59	1.00
Consultat. X REI	17	3.06	.97
Intervent. X INC	28	3.18	1.02
Intervent. X PBE	28	2.50	1.20
Intervent. X MCE	28	2.64	1.19
Intervent. X REI	28	3.00	1.09

Figure 18

Interaction of the Inservice Scores Across School Reforms X Preference



To test the null hypothesis that no differences exist between school reform trends X professional preferences with respect to the research domain, a repeated measures ANOVA procedure was performed on the research ratings (see table 29). The analysis of the results indicated that there were no significant differences between the professional preferences groups ($F_{2,239} = 4.24$, $p = .016$); there were significant differences between the school reform trends ($F_{3,239} = 18.81$, $p = <.0001$); and there were significant interaction effects, ($F_{6,720} = 9.82$, $p = <.0001$) (see

figure 19). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/INC > Assessment/MCE, $F = 3.22$

Assessment/MCE < Intervent./INC, $F = 3.01$

Taken together, these results indicate that there were no significant differences in the research domain rating scores across professional preferences; there were significant differences across school reform trends; and there were significant interaction effects. Given these findings, this null hypothesis was rejected.

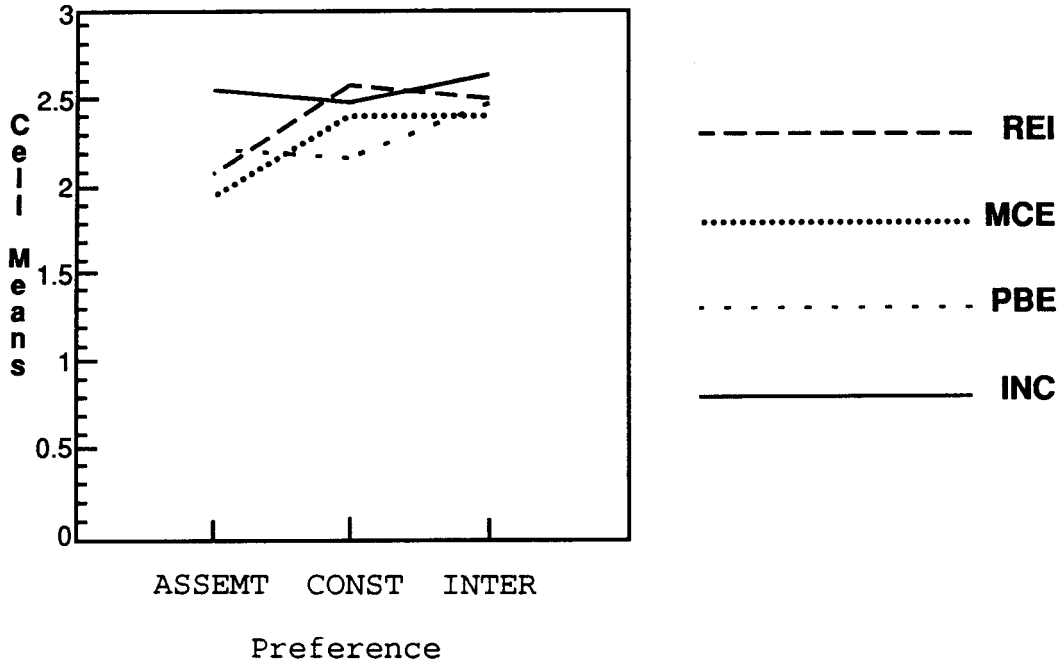
Table 29

Means, Standard Deviations, and Sample Sizes of the Research Scores Across School Reforms X Preference

Preference X Reform	n	Mean	SD
Assessment X INC	35	2.49	1.12
Assessment X PBE	35	2.20	1.05
Assessment X MCE	35	1.94	1.19
Assessment X REI	35	2.14	1.12
Consultat. X INC	17	2.41	1.12
Consultat. X PBE	15	2.20	.94
Consultat. X MCE	17	2.35	1.11
Consultat. X REI	16	2.50	1.21
Intervent. X INC	28	2.50	1.17
Intervent. X PBE	28	2.46	1.26
Intervent. X MCE	28	2.36	1.19
Intervent. X REI	28	2.46	1.23

Figure 19

Interaction of the Research Scores Across School Reforms X Preference



To test the null hypothesis that no differences exist between school reform trends X professional preferences with respect to the combined services domain, a repeated measures ANOVA procedure was performed on the combined ratings (see table 30). The analysis of the results indicated that there were significant differences between professional preferences groups ($F_{2,242} = 19.37$, $p = <.0001$); there were significant differences between school reform trends ($F_{3,242} = 181.27$, $p = <.0001$); and there were significant interaction effects ($F_{6,729} = 5.36$, $p = <.0001$) (see figure

20). Post-hoc Sheffe comparisons indicated significant differences ($p = <.01$) between the following:

Assessment/INC > Assessment/PBE, $F = 4.42$

Assessment/INC > Assessment/MCE, $F = 4.20$

Assessment/INC > Intervent./PBE, $F = 3.11$

Assessment/PBE < Consultat./INC, $F = 5.88$

Assessment/PBE < Consultat./REI, $F = 7.45$

Assessment/PBE < Intervent./INC, $F = 7.80$

Assessment/PBE < Intervent./REI, $F = 3.17$

Assessment/MCE < Consultat./INC, $F = 5.69$

Assessment/MCE < Consultat./REI, $F = 7.22$

Assessment/MCE < Intervent./INC, $F = 7.53$

Assessment/MCE < Intervent./REI, $F = 3.00$

Consultat./INC > Intervent./PBE, $F = 4.63$

Consultat./INC > Intervent./MCE, $F = 3.82$

Consultat./REI > Intervent./PBE, $F = 5.98$

Consultat./REI > Intervent./MCE, $F = 5.05$

Intervent./INC > Intervent./PBE, $F = 5.97$

Intervent./INC > Intervent./MCE, $F = 4.90$

Taken together, these results indicate that there were significant differences in the combined domain rating scores across professional preferences and school reform trends. There were also some interaction effects. Given these findings, this null hypothesis was rejected.

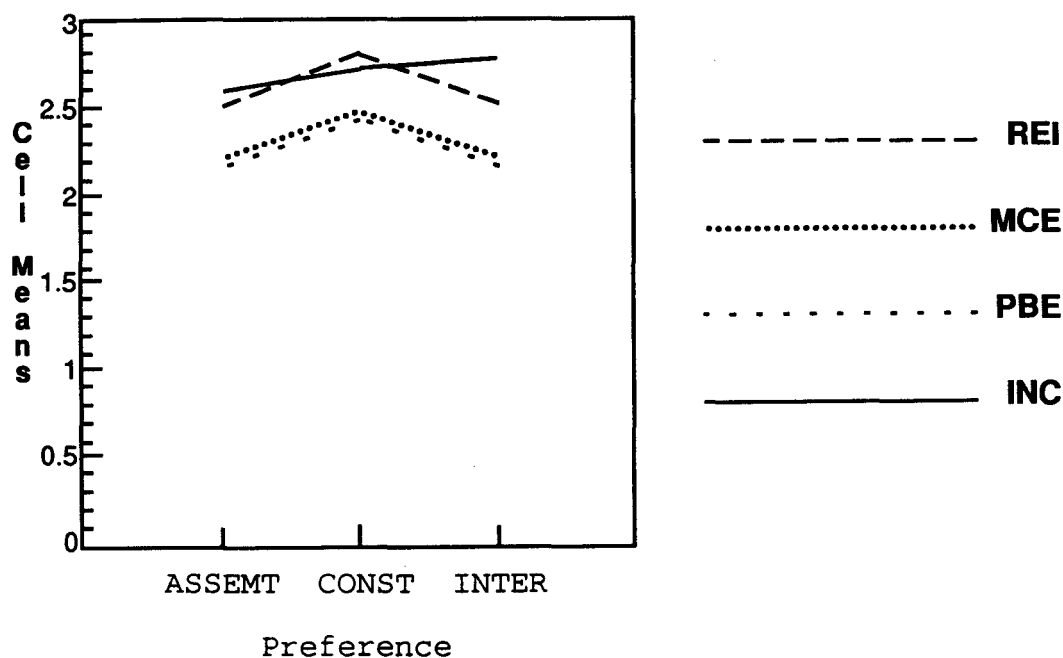
Table 30

Means, Standard Deviations, and Sample Sizes of the Combined
Scores Across School Reforms X Preference

Preference X Reform	n	Mean	SD
Assessment X INC	35	2.70	.45
Assessment X PBE	35	2.29	.45
Assessment X MCE	35	2.30	.68
Assessment X REI	35	2.58	.51
Consultat. X INC	17	2.87	.50
Consultat. X PBE	16	2.52	.49
Consultat. X MCE	17	2.61	.66
Consultat. X REI	17	2.94	.45
Intervent. X INC	29	2.85	.64
Intervent. X PBE	29	2.34	.68
Intervent. X MCE	29	2.39	.82
Intervent. X REI	29	2.65	.78

Figure 20

Interaction of the Combined Scores Across School Reforms X Preference



Results Related to the Fine-grained Analysis of the Assessment Domain Data Set

In the area of norm-referenced testing (NRT), no significant differences were found across the school reforms. The following mean values were obtained: REI = 1.84; PBE = 1.82; MCE = 1.80; INC = 1.94.

In the area of curriculum-based testing (CBT), significant differences were found across the school reforms ($p = <.0001$). The following mean values were obtained: REI = 2.42; PBE = 2.93; MCE = 2.15; INC = 2.49. Post hoc Sheffe

results indicated that CBT in the area of PBE was rated as being significantly higher than CBT in the area of INC ($p = <.01$), MCE ($p = <.01$), and REI ($p = <.01$).

In the area of utilizing teachers' observations (UTO), significant differences were found across the school reforms ($p = <.0001$). The following mean values were obtained: REI = 2.86; PBE = 2.69; MCE = 2.42; INC = 2.80. Post hoc Sheffe results indicated that UTO in the area of INC and REI were rated as being significantly greater than UTO in the area of MCE ($p = <.01$).

A completely randomized ANOVA procedure performed across the independent variable of experience (0-5, 6-16, >16) for the NRT, CBT, and UTO dependent measures (each separately analyzed) yielded no significant differences. However, a t-test comparing the 0-5 group (mean = 1.77) and >16 group (mean = 1.94) yielded a significant result ($p = .024$).

A completely randomized ANOVA procedure performed across the independent variable of training (assessment and counseling) for the NRT, CBT, and UTO dependent measures (each separately analyzed) yielded no significant differences.

A completely randomized ANOVA procedure performed across the independent variable of preference (assessment, consultation, and direct intervention) for the NRT, CBT, and UTO dependent measures (each analyzed separately) yielded no significant differences.

CHAPTER V
DISCUSSION

In this final chapter, a discussion of the results related to testing each of the null hypotheses is presented. An attempt is made to integrate past research findings with the results of the study at hand. Questions are posed in most sections. These questions are viewed as potential areas of future research.

As noted earlier, this study was designed to test for differences in school psychologists' perceptions of their future roles and functions with respect to school reform trends and the following psychological services: 1) assessment, 2) consultation, 3) intervention, 4) inservice, 5) research, and 6) the combined delivery of services one through five listed above. Comparative ratings of these services served as the dependent measure in the investigation. The independent variables consisted of the following: 1) the special education and regular education school reforms; 2) the inclusion, performance-based education (PBE), multi-cultural education (MCE), and regular education initiative (REI) school reforms; 3) the 0-5, 6-16, and >16 years of experience levels; 4) the assessment and counseling training programs; 5) and the assessment,

consultation, and direct intervention professional preferences. The overall focus of the study was directed at examining school psychologists' perceptions of their future roles and functions with respect to the school reform movement.

Discussion Related to Null Hypotheses One Through Six

The results of the study related to testing null hypotheses one through six indicated that school psychologists perceive a greater need to provide services at the special education level than at the regular education level in the following areas: (a) consultation, (b) direct intervention, (c) inservice, (d) research, and (e) the total delivery system. School psychologists apparently continue to view their role and function as primarily related to serving the needs of children with disabilities (French, 1985).

Discussion Related to Null Hypotheses Seven Through Twelve

The results of the study related to testing null hypotheses 7 through 12 indicated the following:

Consultation: Overall, consultation is rated the most needed school psychological service across all reforms. This supports Reynolds' and Birch's (1982) assertion that a "compelling need" exists for collaborative consultation. This result is very positive given that consultation is considered by many to be essential to the success of the school reform movement (Loukes-Horsley & Roody, 1990). It

should be noted that school psychologists perceive that more need exists for consultation with regard to special education efforts (i.e., REI and inclusion) than with regard to regular education efforts (i.e., PBE and MCE).

Currently, collaborative consultation is not a typical educational practice (Phillips & McCullough, 1990). However, the results reported here suggest that consultation may supplant assessment and assessment-related activities, which currently takes about 55 to 65 percent of school psychologists' time (Smith, 1984; Benson & Hughes, 1985), as the most frequently practiced school psychological role and function. Unfortunately, more training in this area is needed: only two school psychologists (i.e., two percent) reported being trained in a school psychology program emphasizing consultation. In fact, consultation has been found to be a neglected area in most training programs (Carlson & Tombari, 1986); and most education professionals agree that school psychologists need more training in consultation (McKeller & Hartshorne, 1987). In sum, it seems as though it will be a long time before consultation replaces assessment as a primary school psychological service.

Inservice: Overall, inservice was rated the second most needed school psychological service. School psychologists evidently believe that they and other education professionals, parents, etc., are in need of more

education-related experiences. Since school psychologists are actually devoting very little time to inservice (Smith, 1984), what can be done to stimulate inservice activities?

A familiar rift between special and regular education was evident in school psychologists' perceptions of inservice activities. That school psychologists viewed less need for inservice at the regular education level may reflect Smith's (1986) research findings that educational professionals' attitudes and beliefs are rooted in their early experiences, which for most or perhaps all school psychologists focused on the provision of special education services.

Direct Intervention: School psychologists perceived a need for a moderate to substantial increase in direct intervention across all reforms, except PBE, for which they perceived a need for only a slight increase. Given that PBE and direct intervention do not appear to be highly compatible, this result is understandable.

Research: School psychologists were fairly consistent across all reforms in their view that only a slight to moderate need exists to increase research activities. Recall that school psychologists are reportedly devoting only one percent of their time to research activities (Smith, 1984).

Interestingly, although school psychologists show a need for a moderate to substantial increase in inservice,

they evidently do not view themselves as a commensurate means to this end (i.e., by moderately to substantially increasing their own empirical investigations). Is the perception that, only a slight increase in research is needed, due to their lack of interest? Time? Energy? Training?

This finding is very disheartening. Given what is reported here, it appears as though school psychologists are failing to take full advantage of an invaluable resource (i.e., a large field-based data set). That is to say, school psychologists work daily with students, teachers, social workers, parents, administrators, etc., and therefore have an abundance of vital information at their disposal. Yet, school psychologists are not embracing the idea that schools are "experimental societies" in which they are in a position to assess and modify important social and academic variables (Green & Stoner, 1990).

If school psychology research is conducted primarily by professional researchers, then school psychologists' unique perspective "from the field" is lost. Practitioners and researchers must work together, in order that school psychology remains both a profession and a science; and more preservice level training is needed to instill in future school psychologists the idea that the practitioner and researcher roles complement one another (Maher, 1978). These efforts might also help narrow the gap between what

university teachers teach and what school psychology practitioners actually do (Lentz and Shapiro, 1987).

It is important that school psychological research efforts be promoted. Perhaps this could be achieved vis-a-vis other school psychological roles and functions that potentially accommodate the interests of research, such as: (a) collaborative consultation between researchers and practitioners; and (b) inservice to educate school psychologists with respect to the importance of research.

Total Delivery: School psychologists perceived a need for a moderate to substantial increase in the total delivery of services with respect to inclusion and REI, and only a slight to moderate increase in the total delivery of services with respect to PBE and MCE. Like the results above, this further supports the notion that since the early 1960's school psychologists' roles and functions and overall sphere of influence has been relegated to the field of special education (French, 1985).

Discussion of Null Hypotheses Related to School Reforms X Experience

The results of the study related to testing the hypotheses involving differences between school reforms X experience indicated the following:

Assessment: School psychologists in the beginning phase of their careers (0-5) did not perceive as much of a need as their more experienced cohorts (6-16 and >16) to

provide assessment services, particularly with respect to MCE. Might this be due to beginning school psychologists being less indoctrinated in the paradigm of special education assessment/eligibility determination (Kovaleski, 1988)?

Results from the fine-grained assessment domain analysis revealed the presence of a school psychology paradigm shift. The oldest group perceived a significantly greater need to provide norm-referenced testing (NRT) than the youngest group. The oldest school psychologists' high NRT ratings may be due to their many years of experience in a strongly entrenched, assessment-oriented, large city system, in which they have been indoctrinated into the assessment role and function. Further supporting this idea is the fact that this group represents the largest percentage who were trained in assessment-oriented school psychology programs (90 percent). This number compares to 73 percent for the youngest group and 71 percent for the mid-phase group.

Consultation: Beginning school psychologists' (0-5) attitudes toward consultation were found to be actually very similar to the oldest group's (>16) attitudes, except that the former perceived a greater need than the latter to provide consultative services with respect to REI. The beginning group of school psychologists are apparently more aware than the oldest group of school psychologists of the

importance of consultation with respect to REI. This may be the result of the former group having more exposure to school reform issues such as mainstreaming and prereferral interventions (McDaniel, McDaniel, McDaniel, 1988), perhaps by virtue of their more contemporary exposure to the rapidly expanding field of professional school psychology. It is interesting, however, that only 14 percent of the school psychologists in this group indicated a preference for consultation, compared to 30.5 percent in the mid-phase group and 27 percent in the oldest group.

School psychologists in the mid-phase of their careers (6-16 years) showed less variability than their cohorts (0-5 and >16) in their attitudes toward consultation, and they perceived the greatest need for consultation. What factors are responsible for the 6-16 group's more consistent and higher ratings of consultation? In light of the fact that this group demonstrated the highest percentage for consultation preference (see the section above), does this finding support the idea that a relationship exists between the perception of need, experience, and professional preferences? This finding is consistent with past research. For example, the results of a survey of 425 school psychologists indicated that a strong relationship may exist, among other factors, between school psychologists' roles and functions, professional preferences, and experience (Fisher, Jenkins, & Crumbley, 1986).

Furthermore, do these school psychologists have more experience than their cohorts with respect to providing consultation services and are they therefore more likely to give a high rating to consultation? Recall that McKeller and Hartshorne (1987) found school psychologists' perceptions of their consultation skills to be rated more favorably as a function of experience.

Concerning the beginning group, it is interesting that only 14 percent indicated a preference for consultation. Nevertheless, they indicated that much need for consultation exists (particularly in the area of REI). Perhaps it can be inferred that, despite their low preference for consultation, they are aware of its importance due to their training. With respect to the oldest group, while they show a preference for consultation almost equal to the mid-phase group (i.e., 27 percent), perhaps they do not know to what extent consultation is needed due to their attitudes and expectations being presumably more rooted in the traditional special education assessment paradigm (French, 1985). Could it be that this statement and the one directly above it, provide evidence that an understanding of the need for consultation is less based on preference and more based on paradigmatic influences?

Direct Intervention: Beginning school psychologists (0-5) perceived a greater need than all other group X trend cells (significantly greater than 4 of 11 group X trend

cells) to provide direct intervention with respect to inclusion. This result appears to support the finding of Erchul, Scott, Dombalis, & Schulte (1989) that first and second year school psychology doctoral students, following graduation, clearly prefer the prospects of working directly with children and adolescents more than the prospects of working with them indirectly. Further corroborating this idea is the fact that 42 percent of beginning school psychologists indicated a preference for direct intervention (compared to 30.5 percent for the 6-16 age group and 32 percent for >16 age group).

This same group perceived less need than all other group X trend cells (significantly less than 7 of 11 group X trend cells) with respect to providing direct intervention in PBE. Beginning school psychologists are apparently discriminating more than the other two groups with regard to their perceptions of the need for direct intervention services. Fortunately, they are making appropriate distinctions.

Inservice: With regard to inservice, school psychologists in the beginning (0-5) and final (>16) phases of their careers demonstrated significant variability across the reform categories. The special education reforms were rated as being in significantly higher need of inservice than the regular education reforms. School psychologists in their mid-career (6-16) phase were consistent in the ratings

across the reforms. These ratings were generally higher than the other two groups' ratings. Apparently, there is a relationship (understandably so) between school psychologists' perceptions of the need to provide services and the need for inservice education. Do the youngest and oldest school psychologists, who perceive less need overall than the mid-phase group to provide consultative and direct intervention services, perceive less need than the mid-phase group for inservice education?

Research: Unlike the above results involving the proactive roles and functions of consultation and direct intervention, the mid-career (6-16) group perceived the least need to provide research. Conversely, the oldest school psychologists (>16) perceived the greatest need to provide research. Recall that this group also gave their highest ratings to assessment. Is there an indirect relationship between proactive school psychological roles and functions (i.e., direct intervention and consultation) and reactive roles and functions (i.e., research and assessment)? It is interesting to note that, with respect to teachers' attitudes, it was found that they favored pull-out strategies in elementary schools and disagreed with the idea that school psychologists should assume a proactive position at the expense of their traditional diagnostic/assessment roles (Semmel, Abernathy, Butera, & Lesar, 1991).

Might this relationship also highlight a larger issue? That is to say, do these results reflect a paradigmatic shift from a reactive mode to a proactive mode.

Total Delivery: The mid-phase (6-16) group displayed more consistency in its combined ratings across all reforms while at the same time generated the highest ratings. In particular, it recommended that greater efforts be made in the areas of consultation, direct intervention, and inservice activities with respect to the regular education school reforms (i.e., PBE and MCE). Apparently, this mid-career group is more amenable than their cohorts to face the challenges inherent in the regular education school reform movement. What factors account for these differences? It is interesting to note that, this group of school psychologists demonstrated the most consistency across training programs (71 percent for assessment and 29 percent for counseling) and professional preference (39 percent for assessment, 30.5 percent for consultation, and 30.5 percent for direct intervention). Given these findings, relationships do appear to exist between training, preference, and the perception of need.

Discussion of Null Hypotheses Related to School Reform

Trends X Preservice Training

The results of the study related to testing the null hypotheses involving school reforms X training indicated the following:

Assessment: Across all reforms, school psychologists whose training emphasized assessment perceived a greater need for assessment services than school psychologists whose training emphasized counseling. Apparently, there is a greater relationship between assessment training and the perception of the need for assessment services than there is between counseling training and the perception of the need for assessment services. Recall that a relationship exists between what is emphasized in teachers' training programs and what they do in the classroom (McDaniel, McDaniel, & McDaniel, 1988). This finding may also apply to school psychologists with respect to assessment.

Do students interested in doing assessment-related activities as school psychologists choose assessment-related training programs? It should be noted that students may not have much of a choice in the matter. According to Slate's (1986) survey of 139 program directors, school psychology programs overemphasize assessment. In the study at hand, 77 percent of the respondents indicated that they are products of programs that emphasized assessment.

Consultation: With respect to consultation, no significant differences between training groups were found. Does this finding support the idea that consultation is an altogether neglected area in most of today's training programs (Carlson & Tombari, 1986; McKeller & Hartshorne, 1987)? Are there no potential differences across training

programs in school psychologists' perceptions of the need for consultation? Recall that only two school psychologists reported being trained in a school psychology program that emphasized consultation.

Both groups demonstrate some significant intra-group differences between inclusion and REI vs. PBE and MCE, with the former reforms being perceived as in greater need of consultation services than the latter reforms. Regardless of training, school psychologists demonstrated a familiar pattern, perceiving that a greater need exists to serve at the special education level than at the regular education level. What can be done to stimulate school psychologists' interests in regular education areas like PBE and MCE? Above all, else, the school reform process requires a commitment (Hall & Loukes, 1979), particularly with respect to providing consultative services at all levels of education.

Direct Intervention: Concerning direct intervention, school psychologists from a counseling background rate inclusion and REI as being in greater need of direct intervention services than school psychologists from an assessment background. This result may reflect the presence of a positive relationship between training and practice (McDaniel, McDaniel, & McDaniel, 1988), given that counseling is a component of direct intervention.

However, with respect to PBE and MCE, no differences

between the training groups were found, and the ratings were significantly lower than those given to inclusion and REI. Are regular education (e.g., PBE) and multi-cultural (e.g., MCE) issues being overlooked by school psychology training programs? In England, it was found that psychologists have been slow to respond to multicultural issues (Bryans, 1988).

Inservice: No differences were found in the inservice ratings between the training groups nor were any interaction effects found to be significant. However, like the three designs above, relative to PBE and MCE, subjects' ratings indicated a significantly greater need for inservice in REI and inclusion, which again appears to reflect school psychologists' focus on children with disabilities. What implications does this result have with respect to the success of the larger school reform movement?

Research: A significant difference between the training groups is evident with respect to school psychologists' views of research activities. Across all reforms, school psychologists with an assessment-training background perceived a greater need to provide research services than school psychologists with a counseling-training background. Does this result further support the idea that a direct relationship exists between reactive roles and functions (i.e., assessment and research; see the assessment and research sections presented above) and that an indirect relationship exists between reactive and

proactive roles and functions? According to Slate (1986), an overemphasis on assessment training limits opportunities to engage in consultation and behavioral interventions.

Does this imply an indirect relationship?

Discussion of Null Hypotheses Related to School Reforms X Professional Preferences

The results of the study related to testing the null hypotheses involving school reforms X professional preferences indicated the following:

Assessment: School psychologists who preferred consultation perceived in general a greater need than their cohorts to increase assessment services. Are school psychologists who prefer consultation more aware than their cohorts of the needs of education due to their presumably being more actively involved with school staff and students' parents? It should be noted that with respect to the fine-grained analysis of the assessment domain ratings, that school psychologists preferring consultation perceived the highest need for providing alternative assessment techniques [i.e., curriculum-based testing (CBT) and utilizing teachers' observations (UTO)]. Does the consultative role and function enable school psychologists to remain in closer contact with the "cutting-edge" of education? This seems likely since collaborative consultation is a process in which professionals share their areas of expertise (Thousand, Villa, Paolucci-Whitcomb, & Nevin, 1992; Loucks-

Horsley & Roody, 1990).

What other factors might be involved here? Are school psychologists who prefer consultation more interested in fostering the success of the school reform movement because they possess certain personality characteristics? For example, are they more politically active than their cohorts and therefore more invested in fostering the development of the restructuring movement in the fields of education and school psychology? Indeed, collaborative consultation is designed for diversity and integration (i.e., school reform) (Patterson, Purkey, & Parker 1986).

The assessment ratings from both the groups preferring assessment and consultation are significantly greater than the group preferring direct intervention activities. Is this evidence that the former two groups, with respect to assessment, have more in common with one another than either has with the latter? Might this point to the fact that assessment is more related to indirect intervention (i.e., consultation) than it is to direct intervention?

School psychologists preferring direct intervention demonstrate a sharp decline in their perception of the need for assessment relative to PBE. Again, this relationship is understandable in that PBE and direct intervention are not highly compatible, and those school psychologists who prefer direct intervention perhaps discriminate more vis-a-vis direct intervention than do the other two groups. These

results seem to suggest that a relationship exists between preference for, and insight into, school psychological roles and functions. Also, concerning MCE, the groups preferring assessment and direct intervention show lower ratings in their perception of the need for assessment than the group preferring consultation activities. Perhaps school psychologists who prefer consultation, by virtue of their presumed greater involvement and "sharing of expertise" with other faculty members (e.g., the bilingual department), are more aware of the needs related to the relationship between assessment and MCE, such as employing alternative assessment procedures (Barona & Barona, 1991; Westernoff, 1991; see this section above with regard to CBA and UTO ratings),

Consultation: Not surprisingly, school psychologists who prefer consultation perceived a significantly greater need to provide consultative services than both the other preference groups. However, as a word of caution, recall that school psychologists' preference for doing consultation is not necessarily related to the actual amount of time allotted to consultation (Costenbader, Swartz, & Petrix, 1992).

School psychologists who preferred direct intervention perceived a greater need to provide consultative services than the group who preferred assessment. Is this evidence that, with respect to consultation, the two groups who preferred consultation and direct intervention have more in

common with one another than either has with the group that preferred assessment? This result and the one above (see the assessment section) may suggest that consultation possesses the largest amount of shared variance with respect to the perception of needs among the assessment, consultation, and direct intervention roles and functions.

The group preferring consultation perceived a significantly greater need than their cohorts to provide consultative services in PBE, MCE, and REI. This may be the result of this group's greater understanding and sensitivity to school reform issues, as well as evidence that a relationship exists between professional preferences and the perception of needs.

Significant differences were not found between the groups relative to inclusion, which was perceived to be in the greatest need of consultative services. These ratings of consultation are commensurate with a growing body of evidence suggesting that the inclusion model is gathering momentum throughout the country (Lipsky & Gartner, 1992). This result provides support for the notion that school psychologists as a group do appear to be ready to help continue the inclusion model trend.

Direct Intervention: Recall that the group preferring consultation described above displayed a greater need to provide assessment services than even the group preferring assessment (see assessment section above). With regard to

the perception of the need to provide direct intervention services, a similar result was found. That is to say, the group of school psychologists who preferred consultation demonstrated a greater need to provide direct intervention services than even those school psychologists who preferred direct intervention. Hopefully, all school psychologists will begin seeing the need for providing direct intervention services. Keith (1992) found that school psychologists who worked with teachers in the context of providing direct interventions were perceived as being more effective than those school psychologists who worked with teachers in the context of providing indirect interventions.

As stated above, school psychologists who preferred consultation appeared to subsume the largest percentage of shared variance between assessment, consultation, and direct intervention with respect to school reform efforts and the perception of needs. Given that collaborative consultation allows for the exploration of school reform issues (Patterson et al., 1986), it may ultimately foster a wide-range of instructional methodologies (Thousand et al., 1992) and serve to help sensitize school psychologists to the needs of the school reform movement.

Research: Concerning the need for research in the areas of MCE and REI, the groups preferring consultations and direct interventions each gave significantly higher ratings than the group preferring assessments. Is the

relationship between these reactive roles and functions (i.e., assessment and research) more sensitive to school psychologists' training backgrounds and experience levels than to school psychologists' preferences?

Total Delivery: With regard to the total delivery of services, school psychologists who preferred consultation perceived the greatest need to increase services across all reforms. Furthermore, the aggregate mean value of the preference groups showed that, the reform believed to be in need of the greatest increase in services is REI. In each of the other designs (see above), inclusion was found to be the reform school psychologists collectively perceived as being in need of the greatest increase in services. Evidently, school psychologists who preferred consultation are the most passionate of all the various groups. They claimed that REI is in need of the largest increase in services, particularly in the areas of consultation and research. Like the groups that preferred and were trained in direct interventions, the group that preferred consultation was found to be discriminating across school reforms. Recall that without effective consultative efforts that require considerable research support, the REI movement may be "doomed to failure" (Reschly, 1988a).

Future Analyses of the Current Data Set

It is recommended that a more fine-grained multi-variant analysis like the one conducted on the assessment

domain ratings be conducted. This fine-grained analysis should be directed at addressing school psychologists' perceptions of the following activities: (a) instructional consultation; (b) behavioral consultation; (c) parent consultation; (d) individual counseling; (e) group counseling; and (f) social skills training. This type of fine-grained multivariant research effort would provide information about school psychologists' perceptions of their specific future roles and functions with respect to school reforms in the areas of consultations and direct interventions. For example, the following research questions could be addressed:

1. Do school psychologists, across the school reforms X experience levels, perceive any differences in the need for: (a) instructional consultation; (b) behavioral consultation; and/or (c) parent consultation?
2. Do school psychologists, across the school reforms X professional preferences, perceive any differences in the need for: a) individual counseling; b) group counseling; and/or c) social skills training?

Many other research questions regarding school psychologists' future roles and functions in relation to the school reform movement could be addressed by employing this type of fine-grained multivariant analysis of the data set.

Conclusion

Overall, the findings of this study documented that

there were significant differences across all the independent variables studied (i.e., school reform trends, years of experience, preservice training, and professional preference) with respect to school psychologists' perceptions of the need for various school psychological services (assessment, consultation, direct intervention, inservice, and research). Strong inter-relationships and possible paradigmatic shifts appeared to exist across experience, preference, and training conditions.

Given these findings, it is recommended that school psychologists would likely benefit from the exchange of information between those with different training backgrounds, different experience levels, and different professional preferences. These groups represent diverse attitudes and therefore have much to offer one another. They would likely benefit from working more closely together and with university and practicum-site trainers in an effort to foster real change through a better understanding of the current state of the field of school psychology and its best course for the future. Should these recommended interactions occur, school psychologists should be in a better position to handle the many challenges of the school reform movement and the school psychology revolution in the years to come.

Potential Limitations of the Study

It is recognized that due to the restricted nature of

the data collected, the ability to generalize from these findings may be limited. Only 38 percent of the total number of school psychologists who received questionnaire grids returned them, creating the potential of a biased sample. For instance, it may be the case that those who responded were more interested in school psychological roles and functions and issues related to the school reform movement than the "average" Chicago school psychologist. If this were true, it may have resulted in inflated ratings or an over-estimate of Chicago school psychologists' perceptions of the need for service delivery.

The overall context in which school psychologists' responded to the questionnaire grids (i.e., a colleagues dissertation research) may also have affected the outcome. This fact presents some interesting possibilities for future researchers. One such study might involve having principals interview their respective school psychologists about school psychological roles/functions and school reform issues. However, it is believed that this study's context did not serve to create significantly biased ratings. It should be noted that at no point was this study officially sanctioned by the Chicago Board of Education, and therefore there is no reason to suspect that the respondents felt coerced to respond. Rather, it is believed that the respondents took the opportunity presented to them to openly and honestly rate their perceptions of their future roles and functions.

Finally, it should be pointed out that school psychologists working for the large and administratively cumbersome Chicago system probably represent somewhat "atypical" views related to the practice of school psychology. These include poor office space, time constraints due to very heavy assessment loads, and very large pupil to psychologist ratios. While these "big city" conditions cannot be ignored, an attempt was made to control for work-place confounds by bold-facing and italicizing the questionnaire grids directions (see p. 65): "Assuming adequate time and space were made available...." Nevertheless, these workplace confounding variables cannot be ignored. It is recommended that future research efforts be directed at controlling these variables by adding a middle class suburban comparison group.

Specific Conclusions Related to The Practice of School Psychology in Chicago

Much has been written about the practice of school psychology in the Chicago Public Schools system. It is generally believed that school psychology in Chicago is markedly different from school psychology in most other systems, and that school psychologists working within the system are incapable of implementing the components (REI, MCE, inclusion, and PBE) of the school reform movement. This study was designed to assess the "real" state of the field of school psychology in the Chicago Public Schools by

measuring school psychologists' perceptions of their future roles and functions with respect to the school reform movement. While the data set needs to be handled cautiously due to the study's limitations, the results support the idea that Chicago school psychologists' perceptions are well-aligned with the literature regarding emergent paradigm shifts in both education and school psychology. That is to say that, Chicago school psychologists' perceptions of their future roles and functions with respect to the school reform movement appear to be much more "typical" than the professional and lay communities might suspect. Given what is reported here, it is recommended that the next step should involve translating Chicago school psychologists' perceptions of what is needed into everyday school psychological practice.

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Approval Sheet

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