1992

An Analysis of the Basic Assumptions About Psychology of Teachers and School Psychologists

Timothy James Harmon

AN ANALYSIS OF THE BASIC ASSUMPTIONS ABOUT PSYCHOLOGY OF TEACHERS AND SCHOOL PSYCHOLOGISTS

An Abstract of a Thesis
Submitted
In partial fulfillment
of the Requirements for the Degree
Specialist in Education

Timothy James Harmon
University of Northern Iowa
July, 1992

ABSTRACT

The introduction of the Regular Education Initiative into the schools has caused a shift in roles for many school personnel. Perhaps most impacted are the regular classroom teachers who must begin to serve the needs of all children, including those traditionally served by special education. The resulting concerns these teachers voice center on psychoeducational issues such as assessment or developmentally appropriate instructional objectives. Increasingly, teachers have begun to turn toward school psychologists for support and guidance in the form of a consultative relationship. Current consultation theory and research suggests that one of the ingredients of more effective consultation is the ability to understand the assumptive frameworks of the other parties involved. The purpose of this study was to examine the basic assumptions about psychology held by regular classroom teachers and school psychologists, in the hopes of highlighting areas of similarities and differences. The Theoretical Orientation Survey (TOS) was administered to 143 practicing school psychologists and 144 practicing regular classroom teachers in order to assess their basic assumptions about psychology. Results showed that of the eight primary areas assessed by the TOS, teachers and psychologists differed significantly on

four--biological determinism, environmental determinism, physicalism, and quantitative versus qualitative orientation. No differences were found in the areas of factual versus theoretical orientation, impersonal causality versus free will, behavioral versus experiential content emphasis, and elementarism versus holism. A discriminant analysis showed that 70% of the cases could be correctly classified from a linear combination of the factor scores on environmental determinism, physicalism, and quantitative versus qualitative emphasis. These findings are discussed in terms of the implications for establishing collaborative relations between teachers and school psychologists.

AN ANALYSIS OF THE BASIC ASSUMPTIONS ABOUT PSYCHOLOGY OF TEACHERS AND SCHOOL PSYCHOLOGISTS

A Thesis

Submitted

In partial fulfillment

of the Requirements for the Degree

Specialist in Education

Timothy James Harmon

University of Northern Iowa

July, 1992

This study by: Timothy James Harmon

Entitled: An Analysis of the Basic Assumptions About Psychology of Teachers and School Psychologists

has been approved as meeting the thesis requirement for the Degree of Specialist in Education

7/22/92	
Date	Dr. Carmen Montecinos, Chair, Committee
7/22/92	
Date	Dr. Fred Hallberg, Committee Member
7/30/92	
Date	Dr. Donald Schmits, Committee Member
7-31-92	
Date	Dr. John Somervill, Dean, Graduate College

ACKNOWLEDGEMENTS

I wish to thank the members of my committee for their support and persistence: Dr. Montecinos who helped me to arrange my thoughts in a short amount of time; Dr. Schmits who not only provided the encouragement needed to complete this task but helped me keep perspective; and Dr. Hallberg who kept me honest in my thoughts and clearly focused on my central idea. This thesis would not have been completed without their help and guidance.

I would also like to thank my wife Heather who put up with long nights at the computers. This thesis is dedicated to Heather's belief that I could complete it. I would also like to thank my parents who taught me God gave us this world to explore.

I would finally like to thank Dr. George Harper whose dissertation gave me my original idea; my classmates who offered support and empathy; to those who took part in my survey; and those who helped in my data collection: Dr. Al-Mabuk, Dr. Finkelstein, Dr. Schmits, Dr. Traw, Dr. Kuse, Dr. Smith, Dr. Dedrick, Dr. Heller, Dr. Strub, Dr. Unruh, Professor Longnecker, and the AEA psych directors. For their understanding and willingness to help, I am grateful.

TABLE OF CONTENTS

Chapter I

INTRODUCTION

Currently, there is a movement underway in the educational community that aims at reforming the way special needs children are served: the Regular Education Initiative (REI) (Bone, 1991). This movement advocates educating all students within the same classroom environment--the regular education class. Programs that currently serve children with special needs are no longer to function separately but are to be integrated into the regular classroom (Davis, 1989; Stainback & Stainback, 1984). While this idea is not entirely new, the realities of implementing REI or REI-like programs in the schools has created a change in the population served in the regular classroom and has demanded a shift in role and function for many professionals within the schools. This shift has impacted greatly both regular education teachers and school psychologists (Fitzgerald, Zigmond, Kay, & Beck, 1991).

The shift in roles has produced a situation in which the regular educator must now bear the primary responsibility for ALL educational programming (Fitzgerald et al., 1991). The problems encountered by educators faced with these new responsibilities fall into three

categories: political, financial, and psychoeducational. The most pressing of these three categories for teachers appears to be the psychoeducational issues: assessment, classroom management, instruction to meet individual needs, appropriate expectations for children, and developmentally sound instructional objectives as well as ways to deal with the unique problems presented by REI (Bone, 1991; Davis, 1990). Regular educators are seeking guidance and support from school psychologists in ever increasing numbers to deal with the psychoeducational impacts of REI (Batsche, 1992; Davis, 1990). This has prompted a change from the school psychologist's primary role of assessor that of a consultant.

Establishing effective consultative relationships between psychologists and teachers depends to some extent, on each party's ability to understand the other's beliefs and values. This study intended to investigate these professionals' assumptive frameworks as they relate to basic beliefs about psychology. Do school psychologists and teachers share a common ground from which to initiate consultative relationships?

In establishing an effective consultative relationship, it is not necessary that the consultant and consultee agree with each other but it is necessary that

they have an understanding of the other's values and basic beliefs. This common ground clarifies issues and increases the possibility that both parties are working toward the same goals (Dougherty, 1990). This common ground also ensures an understanding of the context of the classroom environment essential to address conflicts (Harber, 1986; Weissenburger, 1982). From an examination of each other's basic assumptions, a common base can hopefully be found upon which to build a new conception of roles (Davis, 1990; Fitzgerald et al., 1991; Phillips, 1990; Skrtic, 1992). Similarly, areas of disagreement can shed light on potential areas of conflict that need to be addressed.

The research that exists about consultation as practiced by school psychologists is concerned with teacher satisfaction of psychological service delivery under the traditional assessment model (Jordan & McLaughlin, 1986; Noble & Dickinson, 1988; Thomas, 1985). No research has been directed toward school psychologists' or teachers' basic assumptions about the practice of psychology (Harper, 1990; Phillips, 1990) or the interaction of teachers and psychologists (Davis, 1990). It was the purpose of this study to examine those basic assumptions about psychology of school psychologists and

regular education teachers in order to better illuminate the potential conflicts and building blocks on the road to an implementation of effective consultative relationships.

Regular Education Initiative (REI)

Margaret Will, in a report to the U.S. Department of Education (1986) left a legacy to American Education: the Regular Education Initiative (REI). This was not the first time REI had been addressed, but it was the first time a non-academic, political debate arose about the topic. REI has become a focus of reform on national, state, local, and even building wide levels (Bone, 1991; Davis, 1989; Fitzgerald et al., 1991). REI is a policy that calls for the inclusion of children with special needs in the regular education classroom and the elimination of the vast majority of so called "pull out" programs to serve this population (Bone, 1991; Davis, 1989; Reynolds, Wang, & Walberg, 1987). REI postulates that all children should learn within the same environment, receive the same benefits, and be a part of the same school experience (Stainback & Stainback, 1984). The position is similar to that of the mainstreaming movement in the 1970s which sought to include students of all abilities in as many activities as possible. The difference between the movements seems a matter of degree

more than of focus. REI proponents for the most part advocate not only inclusion whenever the activities seem most appropriate, but FULL inclusion of all children in the regular classroom for the entire day (Davis, 1989; Reynolds et al., 1987). This reform places the focus of education squarely in the lap of the regular classroom teacher.

Opponents of REI claim the movement is based on faulty principles and may be moving too quickly. The fear most opponents express is that the special needs students that are supposed to benefit the most from REI may actually be the ones who end up paying the price due to supposedly "unprepared" teachers and the use of teaching strategies without a strong theoretical base (Carnine & Kameenui, 1990; Davis, 1989). Other opponents feel REI wrongly presupposes that regular education both equally desires the shift and is prepared to handle the shift (Leiberman, 1985). Still other opponents speak of the time involved in teaching all students directly in a class of more than 30 (Davis, 1989).

As the debate over REI continues, there is an increasing tendency for states and local districts to incorporate ideas of the REI into their special education delivery of services. Implementation of the regular

education initiative ranges from workshops on study skills, to skill-based curricula, to fully integrated classrooms (Bone, 1991; Davis, 1989). Many in the schools are divining the signs of the times as an inevitable shift toward REI or REI-like practice (Batsche, 1992; Bruehler, 1990; Davis, 1989; Fitzgerald et al., 1991). The emergence of this practice can be seen in a wide variety of situations: in Massachusetts where parents of regular education students have filed suit against the state to ensure all children receive the same attention and the emphasis on skills that were traditionally found in special education (Marantz, 1988); in Iowa with the Renewed Service Delivery System that proports to educate all children by redefining special needs to include all children considered at risk for failure (Bone, 1991); and in the many schools throughout the country that no longer offer a room to special educators but instead require them to "make the rounds" of the regular classrooms in which the special needs students are placed (Davis, 1990; Fitzgerald et al., 1991). REI appears to be here to stay in education. The challenge is now to ensure a smooth transition to emerging roles and functions.

Challenge to Regular Educators

The regular education initiative is more than a shift of focus, it is a shift in responsibility for the progress of students. This shift has brought with it concerns ranging from finances to curriculum. While finances and politics are debated at the national and school board levels, the classroom teachers struggle with the new educational demands associated with teaching all children: proper assessment, appropriate objectives, and adequate instructional skills. These concerns are the most pressing to regular educators dealing with REI (Batsche, 1992; Bone, 1991; Davis, 1990; Fitzgerald et al., 1991).

The model of education that has been in place in the United States for over 20 years has had a bifurcated model of responsibility for student learning and progress. Regular educators were to educate the vast majority of children by teaching in a large group setting. If a child failed to progress or severely disrupted the classroom process, that child became the responsibility of special education (Davis, 1989; Stainback & Stainback, 1984). REI eliminates for practical purposes the "pull out safety net" for the classroom teacher provided by the special education end of the spectrum. While it is not true that special needs children will cease receiving the services

of special educators under REI, it is true that a large part of what used to be handled by special education (skills training, day-to-day social skills instruction, and a structured classroom for example) will now fall to the regular educator. The teacher under REI will need to become proficient in a skills-based approach, in individualized instruction, and in assessment (Fitzgerald et al., 1991).

The increased demands placed on educators by REI programs have been examined by researchers who attempted to identify what types of problems were being encountered and to assess what assistance regular education teachers need in order to become successful in the new roles. Fitzgerald et al. (1991) examined the general areas of politics, finances, and psychoeducational issues that commonly arise with implementation of REI programs. They reviewed the literature and conducted interviews with practicing teachers. They concluded that issues of assessment, appropriate learning objectives, and behavior control (issues that are at the core of psychoeducational practice in the schools) were of paramount concern to teachers involved in a transition to full inclusion.

Jordan and McLaughlin (1986) attempted to identify the major problems regular education teachers face in

integrated classrooms. They conducted a survey of teachers who taught classes that included fully integrated learning disabled students. Their results show two overriding concerns: (a) lack of confidence in teachers' own ability to teach special needs students and (b) lack of knowledge about proper expectations of and ways to manage the students. The authors concluded that meeting the psychological needs of both the children and the teachers was of paramount importance in ensuring regular education teacher success in an integrated setting.

Thomas (1985) also conducted a survey of regular education teachers in an REI-like situation. This study took place in an Arizona school district that had begun to experiment with an all-day integration model where the special needs children (mostly learning disabled and mildly mentally disabled) were placed in the regular classroom for all subjects. The study found that the teachers were overwhelmed with the amount of work required to meet the needs of all their students. It also found that the teachers felt inadequately prepared to handle questions of assessment and educational planning for the special needs students in their classes.

Teachers seem to recognize the critical role psychoeducational issues such as assessment, learning

theory, and behavior control play in transitioning to an REI classroom. Researchers have highlighted other reasons psychoeducational issues are so critical in educational reform. Goldstein and Krasner (1987) for example, point out that central to the role of teacher is the concept of teacher as applied psychologist. The teacher's role is the application of the principles of behavior modification, assessment, learning theory, developmental psychology, and ecological/environmental control to a classroom setting. It is no surprise, then, that these issues are at the forefront as roles expand for regular education teachers (Fitzgerald et al., 1991).

The growing number of children who exhibit extreme and difficult-to-handle special needs is a further reason psychoeducational issues are at the forefront of concern in teachers' changing roles. The special needs children now entering the schools are not the traditional learning disabled, mentally disabled, or physically handicapped. No longer are the toughest cases those that can be called severe and profound. Children are now impaired due to drugs or alcohol introduced in utero (Greer, 1990) and drug use in preschool or early elementary settings (Bruehler, 1990). AIDS and similar life-threatening diseases which carry emotional as well as physical

problems have increased (Baumeister, Kupstas, & Klindworth, 1990; Davis, 1990), as have more severe cases of learning and mental disabilities caused by a variety of sources (Bruehler, 1990; Davis, 1989). With a push toward full inclusion, the regular classroom is the destination of these students, and the regular classroom teacher will be expected to deal with the unique needs presented by them, in addition to the concerns all students bring to school. The teacher needs guidance and support if he/she is to survive in the school (Davis, 1990; Fitzgerald et al., 1991). Increasingly, the teachers have been turning to school psychologists for that support (Davis, 1990).

Challenge to School Psychologists

The role of the school psychologist in the schools has been an issue of some controversy since the beginning of the profession. Initial practices in United States' schools were disjointed and lacked a common focus (Cutts, 1955; Fagan, 1990). The Thayer conference in the mid-1950s was an early attempt to provide unity and direction to the field. The conference focused on the ideal role and function of the school psychologist (Cutts, 1955; Fagan, 1990). Unfortunately, the practice of school psychology at the time was characterized by heavy reliance on assessment. The conference failed to influence

practice primarily because it did not address issues of practice current at the time, nor did it illicite input from practitioners in the field (only 8% of the participants were practicing school psychologists) (Cutts, 1955). Thus the field was talking about an ideal state of affairs without directly addressing either the assumptions behind that ideal state nor the assumptions of practitioners about practice.

The formation of the National Association of School Psychologists (NASP) in the early 1970s was another important milestone in trying to make practice meet the needs of the school environment. Since its beginning, NASP has advocated a shift in school psychological practice toward roles as consultants, coordinators of reform, and providers of preventative services for all children (Bardon, 1983; Batsche, 1992; Fagan, 1990). The description of ideal role and function of school psychologists proposed by NASP is very consistent with the calls heard from the regular education initiative. Davis (1990) outlined the impact REI would have on the practice of school psychology. The biggest change he reports is a shift from a traditional role as assessor of handicapped children to a consultant for teachers on ways to deal with all children in the regular classroom. Other researchers

also see this change as the most drastic and far reaching in the current educational environment for school psychologists (Bardon, 1983; Fagan, 1990; Fitzgerald et al., 1991; Harper, 1990; Iverson, 1986; Phillips, 1990; Schendel, 1992; Winderstrom, 1989).

The movement toward reform in school psychology has continued the tradition started at Thayer in more ways than a call to new roles. The movement has also followed Thayer's lead in failing to address the thinking or actual practice of current practitioners. Assessment is still a hallmark of school psychological practice with few practitioners engaged in much consultation or other expanded roles (Bardon, 1983). Much as REI has done with regular educators, so the consultation movement in psychology has assumed practitioners will respond favorably to the changes being undertaken across the country (Davis, 1990; Phillips, 1990). Compounding the problem is the assumption that school psychological practice is very similar throughout the nation, but school psychological practices, even in areas that are very much a part of REI such as Iowa (Renewed Service Delivery System-RSDS) and the DeKalb County Schools in Georgia, remain varied and very much in the assessment mode (Bardon, 1983; Batsche, 1992; Phillips, 1990).

The turn toward consultation is a response to the growing need by regular educators for direction and guidance as to ways to best meet the needs of students (Davis, 1990). Consultation theory and research claims consultation cannot be effective without an understanding of the base assumptions each party has about the nature of consultation and the problems at hand (Dougherty, 1990). Weissenburger (1982) found that effective consultation in school psychology depends on the degree of "facilitativeness" the psychologist brings to the situation. This "facilitativeness" was defined by Weissenburger as the competency of the psychologist to address the problems faced by the teacher as well as the effectiveness with which the psychologist communicates issues of concern to the teacher. Thus, the psychologist and the teacher must be able to reach a common ground in their assumptions about psychology, children, and learning (Davis, 1990; Weissenberger, 1982) from which to communicate if consultation is to be successful. Furthermore, if conflicts are to be anticipated and dealt with, the basic assumptions of the parties need to be examined. This process will not only highlight areas of potential conflict, but may offer insight into the

possible solution to conflict (Davis, 1990; Fitzgerald et al., 1991; Power & Bartholomew, 1985).

The presence of REI and the integration of special needs children in the regular classroom are something school psychologists will have to deal with regardless of their reluctance or enthusiasm to do so (Davis, 1990). Psychologists and regular teachers are coming into contact much more often (Davis, 1990; Smith & Lyon, 1985). The challenge is to provide services the schools demand by "demonstrating school psychologists have skills that go beyond the traditional roles" (Schendel, 1992, p. 5) and engaging effective consultation about the issues facing regular education teachers (Batsche, 1992; Bowen & Dalton, 1981; Gutkin, 1986; Harper, 1990; Lambert, 1986).

One way to establish better services for teachers under an REI system rests upon an examination of the basic assumptions teachers and psychologists have about learning and psychology (Davis, 1990; Harper, 1990; Phillips, 1990). In this way, the change in teachers' roles can remain consistent with the basic mission of applied psychologist and the shift to consultant for the psychologist can be more effective. There has been, unfortunately, little research into basic assumptions held by teachers or school psychologists. Some research has

been done concerning teacher satisfaction with psychological services, but most focuses on the traditional assessment model (Bowen & Dalton, 1981; Brady, 1985; Hammonds & Rust, 1984; Noble & Dickinson, 1988; Ward, Ward, & Clark, 1991). These studies found little positive regard by regular educators for the testing model of psychological services in a traditional pullout system of special education.

Research concerning consultation services offered by school psychologists offers more evidence that the expanding roles require psychologists and teachers to start from a common base. Gutkin (1986) found that success in consultation with teachers was dependent upon the teachers perceptions of (a) the usefulness of consultation and (b) the importance of psychoeducational principles in the classroom. He also supports Weissenburger's (1982) findings that the communication base between psychologist and teacher is the most critical factor in determining successful consultation.

Power and Bartholomew (1985) found consultation was most successful when the values and beliefs of the consultee system were understood. They studied family-based consultation in school psychology by looking at one case of conflict. The authors concluded that success in

the consultation process only began to emerge when the psychologist/consultant started with statements of the problem that reflected the beliefs of the family and the school.

Assessment of Basic Assumptions About Psychology

The importance of examining basic assumptions about psychology rests upon the paramount role psychology plays in the problems facing teachers in an REI system. It also is important to address basic assumptions held by psychologists and teachers to illuminate areas of potential conflict and agreement between these two actors. A common direction and purpose to principles of assessment, classroom management, appropriate curriculum development, and expectations of students is necessary if teachers and psychologists are to act as a team (Davis, 1990; Fitzgerald et al., 1991).

Basic assumptions also determine the direction and scope of practice. In a system of change, like the REI, the basic assumptions about why humans do what they do and the best ways to work with them dictates which practice will be considered appropriate (Heshusius, 1982; Harper, 1990; Skrtic, 1992; Unger, 1985; Unger, 1983). Basic assumptions dictate the types of information that are considered useful as well as the proper ways to act upon

that knowledge (Kuhn, 1977; Unger, 1985). In any attempt to redefine roles and create a cooperative relationship, an examination of basic assumptions thus is demanded (Harper, 1990). Without the examination of assumptions, identity does not form and movement toward a common goal (in this case the handling of concerns generated by the inclusion of all children in the SAME learning environment) is severely jeopardized (Heshusius, 1982; Phillips, 1990; Skrtic, 1992; Unger, 1983).

Examination of basic assumptions has been an area of increasing interest in the social sciences. Examinations of how basic assumptions influence the practice of sociology (Buss, 1979), special education teaching (Skrtic, 1992), cross-cultural education (Maseman, 1990), science teaching (Benson, 1989), and counseling (Lyddon, 1989) are examples of this interest. Within the field of psychology, basic assumptions of practitioners have been examined by the subfield called the psychology of psychology (Robinson, 1981).

Many methods of examining basic assumptions have been developed by researchers with the psychology of psychology field. Harcum (1988) examined the reasons psychologists resist unscientific explanations for human behavior. He conducted interviews with a small number of research

psychologists about the nature of science and proper scientific inquiry. Howard (1985) examined the importance of values to clinical judgement. He undertook a rhetorical argument based upon the history of psychology. These examinations provided insight into the cognitive structures psychologists use in making decisions, but they did not offer a way to directly compare beliefs nor a way to highlight potential conflicts with other groups.

Pinch (1990) employed a case study/communication research method to examine the effect jargon had upon practice. He compared the different terms used by psychologists in different settings to their actual practice. He found the jargon used was changed as the context of the practice changed. Pinch did not however examine the cause of that change nor was he specific about the nature of that change.

Lyddon (1989) explored the ways differences in basic beliefs could impact successful working relationships. He compared the beliefs about counseling held by clients to those held by counselors. He concluded that counseling sessions in which the clients' beliefs matched the counselor's were judged by counselors to be more successful. He did not address the clients' evaluation of the counseling session, however.

Richard Coan (1979) developed a questionnaire called the Theoretical Orientation Survey (TOS) designed to assess basic assumptions about psychology. The questionnaire breaks down assumptive bases into eight primary and two secondary factors, such as emphasis on biological determinism or a reduction of events to a physical explanation only, that could then be compared across different groups. Coan standardized his measure on a group of 866 practicing members of the American Psychological Association (APA) in 1978. This survey has become a standard instrument in the field of psychology of psychology with which to survey groups about basic assumptions held about psychology (Robinson, 1981).

Further research has been done concerning Coan's (1979) instrument. Coan (1987) attempted to assess the validity of the TOS by showing differences between psychologies that espoused different theories that were closely related. Coan looked at analytic psychologists and divided his 325 subjects into the subschools within this psychological tradition to which the subjects reported loyalty: Fruedians, Jungians, and Adlerians. What he found was a difference among the groups on only one factor, biological determinism. Coan concluded that this difference, the high loading of Freudians and lower

loading of Jungians pointed out subtle differences between the schools. Freudians seemed to emphasize a medical approach and the Jungians emphasizing a deeper, more symbolic approach (Coan, 1987). The Adlerians scored between these two groups.

King (1980) administered the TOS to 514 undergraduate psychology majors at all stages of study and compared the TOS results to those of the department faculty (n = 27). He found a difference along two factors: impersonal causality and environmental determinism. The students obtained lower scores on the impersonal causality factors than did the faculty which showed a stronger belief in free will by the students, but the students showed higher scores than faculty in the environmental determinism factor which looks at the influence of life situations upon behavior. Since these differences were consistent across levels of training, King concluded that the students came into psychology with a firm set of beliefs that was not swayed by their contact with professors. Instead, the groups appeared to differ as to their basic approach to psychology.

Krasner and Houts (1984) used the TOS to investigate the assumptions held by psychologists of the behavioral school. They gave the TOS to 230 behaviorists

and 100 randomly chosen psychologists for use as a comparison. They found the behavioral psychologists to significantly differ from the comparison along the factual orientation, impersonal causality, behavioral content emphasis, elementarism, reduction of events to physical explanation, quantitative orientation, and objective approach to practice. The authors concluded these were dimensions one would expect to find strongly rooted in the behavioral school.

Mary Ricketts (1989) used the TOS to investigate the basic assumptions of feminist psychologists. She compared the TOS scores of 190 feminist psychologists that attended the Association of Women Psychology convention in 1985 to Coan's (1979) standardization group. Ricketts found feminists to score slightly higher on only one factor, biological determinism.

Statement of the Problem and Importance of Study

REI has presented a challenge to those dedicated to educating the children of the United States. It has brought increasing numbers of students into the regular classroom setting and called for instruction that meets the needs of them all. As regular classroom teachers try to deal with the problems presented them by REI, they are turning to school psychologists for support and guidance.

The result is an expansion of the role of school psychologist as consultant. The literature review shows that an effective consultative relationship between teachers and school psychologists rests, among other things, upon the ability of teachers and psychologists to understand each other's basic assumptions about the practice of psychology. An examination of the basic beliefs of teachers and psychologists has yet to be undertaken, even on an exploratory basis. Do teachers and psychologists share a common set of beliefs? Are there areas of difference between teachers' and psychologists' basic assumptions about human behavior that need to be clarified to make consultative relationships between the groups meaningful?

The primary problem investigated in this study was whether significant differences in basic assumptions about psychology, as measured by the TOS (Coan, 1987), exist between regular classroom teachers and school psychologists. This study was designed to investigate the basic assumptions about psychology held by teachers and school psychologists and compare and contrast those beliefs.

Research Questions

1. What are the basic assumptions about psychology held by regular classroom teachers as measured by the Theoretical Orientation Survey (TOS)?

2. What are the basic assumptions about psychology held by school psychologists as measured by the TOS?

3. Do the basic assumptions about psychology of school psychologists and regular classroom teachers differentiate the two disciplines?

Chapter II

LITERATURE REVIEW

This chapter will review the literature in order to establish the background within which the study is situated. The chapter will first discuss a current reform movement in education, the Regular Education Initiative. The chapter will then discuss the challenges faced by regular classroom teachers and school psychologists as they try to meet the demands of this new reform. This chapter concludes with an examination of why assessment of basic beliefs about psychology is so important to meeting those challenges and addresses ways to assess these beliefs.

Regular Education Initiative

Educational reform movements have been criticized as having too many words and too little action (Marantz, 1988). Reform movements have been further criticized as being too political and not focused on the best needs of the students (Carnine & Kameenui, 1990). The debate produced by such movements has typically been on an academic or national level and often ignores or undervalues the day-to-day workings of the schools (Fitzgerald et al., 1991). The current reform movement,

called the Regular Education Initiative (REI), has suffered these same criticisms.

REI is a policy that first received national attention in 1986 in a report on the future direction of the nation's schools by Margaret Will (1986) prepared for the Secretary of Education. She defines the REI as "a combining of current regular and special education delivery services with a greater emphasis on remediation in the classroom" (p. 415). This idea is by no means new to the educational establishment. The mainstreaming movement in the 1970s strove to eliminate the perceived harm to students caused by removing special needs students from the regular classroom. The movement focused on integrating students in whatever subjects or activities the special needs students could successfully engage in the regular class setting (Bone, 1991). The current movement, REI, is different in degree. REI proposes the total inclusion of all students in the regular classroom. It also calls for the elimination of so called "pull out" programs that have defined much service delivery in special education (Davis, 1989; Fitzgerald et al., 1991). There is another difference between REI and mainstreaming, though, that makes Margaret Will's report such an influential one in education today. REI comes at a time

when another reform movement is also making its rounds in school buildings. This other movement is a response to "A Nation at Risk" and other reports by national groups that are calling for schools to "return to the basics" of math, reading, writing, and science. It has many names--outcome based education, America 2000, Basics Movement, World Class Education--but its primary focus is on providing the facts that are necessary to create a new generation of high technology students. The movement is concerned with student performance and the setting of tougher and more involved requirements for the nation's schools (Davis, 1990; Fitzgerald et al., 1991).

The simultaneous emergence of REI and the Basics Movement has forced a shifting of roles in education. The Basics Movement has produced pressure on teachers to create critical thinking skills and a broad base of factual knowledge in math and reading among students. This has in turn forced teachers to focus on the brighter students and to encourage the pace of the classroom to pick up (Davis, 1989; Fitzgerald et al., 1991; Reynolds et al., 1987). At the same time, REI is advocating not only the inclusion of all children when the curriculum is appropriate, but the full inclusion of all students in all subjects for the entire day in the regular classroom.

Thus teachers are being asked to raise academic achievement to their highest levels while at the same time being asked to produce appropriate environments for increasing populations of slower or disadvantaged learners, not to mention disruptive students. This situation has placed the weight of education squarely in the lap of the regular education classroom teacher (Davis, 1989; Reynolds et al., 1987). Unfortunately, teacher training programs and inservice training have not provided more training to teachers or given teachers new methods to meet the needs of their students (Fitzgerald et al., 1991). REI also has failed to address the teaching of each child as to his/her needs while simultaneously teaching larger groups of children. Thus conflicting demands are being placed on teachers.

The reasons behind REI are based on the premise that all children should be treated equally. Although each child has unique needs, every child has a right and a need for education and learning. Stainback and Stainback (1984) claim the dual nature of special education and regular education that exists under a non-REI system provides inequalities to both populations of students. The regular education students are "denied the benefit of skills and strategies for learning as well as the

individualized attention" (p. 108) special education children receive. The special needs children are denied the socialization that belonging to regular classrooms provides. The resulting situation is a system that looks like the separate but equal status of black schools before integration, according to the Stainbacks. Proponents of REI claim the interaction of students in an integrated setting will provide not only better self-esteem to the special needs students but new approaches to learning for the regular students (Reynolds et al., 1987).

Opponents of REI see matters in a different light. Many fear the process may be based on the faulty assumption that:

> regular educators desire the change as much as special educators do. This is the equivalent of holding a wedding and forgetting to invite the bride. (Leiberman, 1985, p. 514)

The REI movement has been led by special educators and national policy makers. Many leaders of REI claim regular educators are not involved in the process because they do not possess enough background or training to handle the situations that may arise within the classroom (Bone, 1991; Davis, 1990). It is ironic that these supposedly "untrained" teachers are the ones being asked to handle the education of all the new students!

The other major issue of contention opponents have with REI is the amount of time required of the teacher to teach a class of 30 students individually. As Davis (1989) points out,

> the individualized education of every student in a classroom is impossible in special education with classes bigger than 15, yet it is expected a teacher whose expertise lies in teaching groups can achieve individualized instruction in a class of 30 or more. (p. 445)

As the debate continues to wage in national circles, the reality is that schools are shifting to REI-like programs. Fitzgerald et al. (1991) found REI initiatives in place in over 46% of the nation's schools, with statewide programs in place in three states: Iowa, Minnesota, and California. Examples of REI-like programs range from workshops on the teaching of study skills across the curriculum, to skill-based curriculums, to fully integrated classrooms. Many more schools are shifting or are expecting to shift toward REI programs (Batsche, 1992; Bruehler, 1990; Davis, 1989; Fitzgerald et al., 1991). Iowa's Renewed Service Delivery System has claimed to focus on prevention and thus advocate special education services for all children regardless of technical qualification. Students are also integrated because the skills taught special needs students are considered just as helpful to regular education students

(Bone, 1991). The controversy surrounding the shift to REI is not always focused on the needs of the special education students. For example, parents of regular education students in Massachusetts have filed suit against the state claiming inequality of educational opportunity for children in the regular classroom. The suit claims the time special needs students spend with their teachers and the amount of attention given them is not given in equal amounts to the regular education children. The parents say this attention and emphasis on skill development is what is needed to survive in the world today and demand all children are taught the same way by the same teachers at the same time (Marantz, 1988). REI appears to be in the schools to stay. As the REI movement spreads, it will put more and more regular educators into the position of having to ensure individualized education while also ensuring the highest standards required of the Basics Movement. The challenge is not to debate the worth of the new reforms, but rather to ensure a smooth transition to new roles and responsibilities for those within the schools.

Challenge to Classroom Teachers

The Regular Education Initiative is not simply a new set of curricula or a new way to approach students. REI

is a shift toward a new view of who is responsible for the progress of all students in school. The responsibility issue is concerned with how much money to spend per child, what types of curricula are necessary, which outcomes are appropriate, what to do with private schools, who should pay for the educational needs of all the children, and how a teacher can best teach all children (Fitzgerald et al., 1991). Issues of money and politics are the major focus of national debates about REI, especially the issue of who should pay. But classroom teachers are less concerned with those issues they call administrative, and seem more concerned with issues associated with teaching: proper ways to assess students, setting of appropriate expectations and objectives, and establishing an environment that can best meet the many social and academic concerns of their students (Batsche, 1992). Laura Bone (1991) undertook a survey of teachers in Iowa who had varying degrees of contact with the RSDS/REI programs in that state. She asked questions concerning the fears and concerns the teachers had about REI. Her results indicate the lack of proper training, the lack of knowledge as to appropriate instruction, and the perceived lack of classroom control were paramount issues to

teachers. Monetary and political concerns were voiced by under 1% of the respondents in her study.

The concerns about appropriate education for students have been handled in education by a bifurcated system since the late 1960s and early 1970s. This model of education saw the classroom teacher as an expert in the normal group of students and produced a role of group instructor for her/him. Special education was the part of the model that handled the needs of special students who for mental, physical, or psychological reasons did not fit the "norm" of the regular class. REI effectively eliminates the special education part of the equation for all but the most severe students (Stainback & Stainback, 1984). The shift in role is from that of provider of information to the tutor of unique skills needed for each child. The teacher will need to become proficient in the following:

> skills based approach to learning, in many different styles of instruction, in gearing instruction toward individuals, in assessing continuously and accurately the students' progress, and in continuously monitoring and restructuring teaching methods. (Fitzgerald et al., 1991, p. 32)

Several researchers have examined the impact REI has on teacher roles and responsibilities. These studies aimed at identifying the types of problems encountered by teachers. Fitzgerald et al. (1991) examined the general

areas of politics, monetary policy, and psychoeducational problems. They conducted interviews with practicing teachers in 311 districts throughout the country about REI. They concluded that assessment, classroom control, and setting of appropriate learning objectives were of paramount concern to teachers. Of special note, the authors found the concerns were intensified by a sense of lack of training to deal with special needs children. These issues, named psychoeducational concerns by the researchers, were also found as paramount by other studies.

Jordan and McLaughlin (1986) looked at the concerns integrated classrooms cause to teachers. They sent a survey to 27 teachers in one Arizona district who taught a class which included learning disabled and regular education students. Their results show two overwhelming concerns. The first was a lack of confidence by the teachers as to their ability to deal with the needs of special populations such as the learning disabled. The second was a lack of background in psychology or human development which was necessary to make appropriate educational objectives for the students. The authors concluded that meeting the psychological needs of students

could best be done by providing the teachers with guidance and support from staff prepared in psychology.

Thomas (1985) conducted another study in Arizona. The teachers in this study were participating in a trial REI program with learning disabled and mildly mentally retarded students. The teachers reported the amount of time required to meet the needs of all students was the area of most concern. The perceived inadequacy of the teachers to make decisions as to assessment or planning for the special needs students in their classrooms was the area indicated by the teachers as their next concern.

Psychoeducational concerns such as proper assessment methods and appropriate learning objectives are important to teachers for another reason: the growing number of special needs children and the increasing diversity of their needs. As applied psychologists (Goldstein & Krasner, 1987), teachers' roles have been defined by society not only as providers of knowledge but as providers of self-esteem and other basic mental health concerns (Batsche, 1992; Bowen & Dalton, 1981; Gutkin, 1986). Unfortunately, the numbers of children needing special services in the schools has grown by more than 150% in the last 5 years (Bruehler, 1990). In addition to increasing numbers, children are also exhibiting a wide

variety of problems that were not seen or were seen rarely before. Children are born with severe neurological damage due to alcohol and drugs like cocaine they were exposed to in utero (Greer, 1990). Student use of drugs and alcohol has also increased as have physical, emotional, and mental problems related to their use (Bruehler, 1990). AIDS is appearing in schools and these children often suffer from other deep seated emotional problems, as well as having the additional problem of causing fear in the schools among students, parents, and teachers (Baumeister et al., 1990). All of these children's needs are expected to be met by the regular classroom teacher. With a push toward full inclusion, the teachers will no longer deal only with the "normal" concerns of growing students. Teachers need guidance and support to help meet the children's needs while they deal with their own (e.g., stress, feelings of inadequacy, etc.). Increasingly teachers have turned toward school psychologists for that support (Batsche, 1992; Davis, 1990; Fitzgerald et al., 1991).

Challenge to School Psychology

The role of the school psychologist has traditionally been tied to special education. The school psychologist was the determiner of qualification for special services, the assessor of needs of children, and the provider of

psychological support for special classroom teachers and parents (Fagan, 1990). REI has demanded a shift to better meet the needs of regular classroom teachers trying to cope with the integration of special needs students into their classrooms. School psychologists are now being asked to be consultants as well as assessors. The shift in roles has produced what many in the field believe to be a critical time for school psychology (Batsche, 1992; Phillips, 1990). To better understand why this shift is so critical, a brief look into the history of school psychology is necessary.

The role of the school psychologist has been a controversial one since the beginning of the field in the United States. Initial practices were disjointed and as varied as mental health examiner and psychoeducational program director. Practice lacked a common focus except that "it" occurred in the schools (Cutts, 1955; Fagan, 1990). The Thayer Conference in the 1950s was the first major attempt to provide focus for the field. The conference centered upon the ideal role of the psychologist in the school as well as the proper qualifications of the practitioners. The role of consultant for assessment and appropriate expectations and the role of assessor of students' needs were the stated

goals for practice in the field. The conference, attended primarily by academics and non-school psychologists (only 8% of the participants were practicing school psychologists as opposed to 17% who were not in the field of psychology), did not address current practice, the desire of practitioners to adopt the ideal roles, nor the assumptive base from which practitioners approach the practice of school psychology (Cutts, 1955). Thus the calls to an ideal state of practice produced little change in actual practice of school psychology (Bardon, 1983).

The formation of the National Association of School Psychologists (NASP) was another major attempt to unify the field. This time the attempt was focused on practitioners' needs and perceptions. NASP joined Thayer in advocating a change in roles toward consultation, coordination of reform, and preventative practice in the schools (Batsche, 1992; Fagan, 1990). In spite of its intention to address practitioner goals, NASP has shifted focus toward national policy for the schools, joining forces with such lobby groups as the National Education Association (Phillips, 1991).

The calls to reform by NASP are very similar to the calls by the Regular Education Initiative. Both call for a return of service delivery to the regular classroom and

both call for teacher support in psychoeducational decision making. And just as the debate continues about the merits of REI as it is simultaneously implemented in the schools, so the push toward consultation is being demanded in the schools. Much as REI has been accused of doing with teachers so the NASP push toward consultation has been accused of doing with school psychologists: namely, assuming practitioners both desire and are ready to undertake the shift (Davis, 1990; Phillips, 1990).

Davis (1990) outlined the impact REI would have on the practice of school psychology. The biggest change he foresaw was a change from the traditional assessor to a consultant for teachers on ways to deal with handicapped children. He further states that,

> school psychologists are being forced to change their main focus, willingly or not, toward helping teachers design and assess appropriate education for all students. This is demanding a smaller amount of time spent with children, but it also is increasing the impact and exposure of the field on all of education. (p. 15)

Other researchers have reached the same conclusion (Fitzgerald et al., 1991; Harper, 1990; Phillips, 1990; Schendel, 1992). These researchers also point out one of the necessary steps toward consultation that seems to be missing in the current push: the understanding of practitioners' basic ideas about psychology and the impact

these basic ideas have upon the ability to work effectively with other school personnel. Nadine Lambert (1986) suggests that movement toward REI roles for school psychologists depends on both basic knowledge of the science of psychology and the ability to communicate that knowledge effectively to teachers and other school personnel.

Consultation theory postulates that communication is the key to establishing any consultative process. Communication is predicated upon a shared or common set of understandings about the other party's ideas, values, and assumptions about appropriate roles in relation to the issue at hand (Dougherty, 1990). The turn toward consultation in school psychology is a response to a need by educators for guidance in issues at the core of psychology: assessment and appropriate learning objectives. The push toward consultation must therefore take assumptions of the parties involved into account.

Weissenburger (1982) found that effective consultation in school psychology depended on the way in which the psychologist could communicate with the teacher and draw ideas that were helpful to the situation. He surveyed 100 teachers who had contact with a psychologist as a consultant. He concluded that a psychologist and a

teacher must share an idea of what is an appropriate question to ask in an assessment and what an appropriate intervention might be. This comes from a shared sense of basic assumptions about psychology and children.

Conflicts are an inevitable outcome in a change process (Dougherty, 1990). If those conflicts are to be dealt with and worked through, the basic assumptions must be examined. Not only will this provide insight into the areas were conflict may most likely arise, but it may also provide ways to resolve that conflict. In REI situations, teachers and psychologists need to work as closely as possible. The time demands on teachers are too great to ensure consultation will continue if success in communication is not established (Davis, 1990; Fitzgerald et al., 1991; Power & Bartholomew, 1985).

Gutkin (1986) found successful consultation depended on the usefulness of the suggestions offered and the collaborativeness of the session. He interviewed 127 teachers about their experiences with consultation. The teachers he interviewed stressed the importance psychoeducational issues to the day-to-day functions of the teachers and linked effective consultation to the ability to make the issues applicable to their teaching.

Power and Bartholomew (1985) found school based consultation was most successful when the basic values and beliefs of the parties was understood by both. They studied family consultation in which the school psychologist was the facilitator between the teacher and the family. In a case study of the situation, the authors determined that until understanding and common ground in terms of beliefs was established, consultation did not succeed.

Basic Assumptions About Psychology

As teachers and psychologists continue to increase their contacts, the ability to understand each others' basic assumptions about the nature and usefulness of psychology will become even more paramount (Davis, 1990; Harper, 1990). It is important not only to establish an environment for consultation, but also to highlight areas of potential concern and conflict. A common direction and understanding about psychological principles in the classroom is important if psychologists and teachers are to act as a team (Fitzgerald et al., 1990).

Basic assumptions also determine the direction and scope of practice. In a system of change, like REI, the basic assumptions about why humans do what they do dictates which style of practice will be considered

appropriate (Unger, 1983, 1985). It is the basic beliefs about the mission and proper practice of a field that dictate which practices are undertaken. It is these same beliefs that allow evaluation and change in a field, as actual practice is compared to beliefs about proper practice (Kuhn, 1977; Unger, 1985). The direction of change is determined by the path which is most closely related to the basic core beliefs about the field in question (Unger, 1985).

Basic assumptions also dictate the types of information humans consider useful to a discussion (Heshusius, 1982; Kuhn, 1977). Heshusius (1982) discussed the view in special education that reduced the world to mechanistic terms. She calls for a reexamination of basic understandings and beliefs about humans and learning in order to steer special education back into line with current educational thinking (inclusion). Skrtic (1992) describes special education as being in a state without direction because basic assumptions and values are not being examined. The confusion as to proper ways to teach handicapped children and the uncertain responses to the political debate about the proper service delivery which REI brings to light are examples of the lack of direction in the field, according to Skrtic. He calls for an

examination of the practitioners' basic beliefs about learning and children in order to facilitate a smooth change toward an REI system of service delivery.

Harper (1990) calls for this examination of basic beliefs in the field of school psychology as it needs to stay in touch with its core understandings about psychology and education if it is to remain effective in the changing climate of the schools. If this examination of basic beliefs does not occur, Harper then warns a new model of school psychology will have extreme difficulty taking hold. Practitioners will not be as effective in dealing with the demands for new roles and revised service that the REI in the schools places on school psychologists. Practitioners will also be less prepared to defend basic practices as they relate to the assumptions of REI. Practitioners will be less prepared to deal with the basic assumptions of teachers as they enter into new consultation relationships, which could seriously imperil the consultation process (Davis, 1990; Dougherty, 1990; Harper, 1990).

Examination of basic assumptions has taken many forms. Interest in basic assumptions behind practice have surfaced in many areas of the social sciences. Buss (1979) examined the assumptions sociologists have in

regards to social psychology. The researcher interviewed over 300 sociologists about their understandings of social psychology and its importance to their work. He found sociologists and social psychologists to be very similar in terms of basic ideas about the psychological impact of social behavior.

Maseman (1990) offered an historical perspective on the change in basic assumptions in the schools. Her thesis is that the types of knowledge considered appropriate to teach in the schools is dependent upon the prevailing philosophies of the elite group in the society. She claims acceptance of the principles of global education and multicultural education by the schools are due in a large part to the examination of basic assumptions about truth, education, and power on the part of teachers.

> Teachers are beginning to realize that academics and researchers may not have all the answers. It is only when fragmentary knowledge forms are accepted as valid that research is able to convince the practitioner. When holistic paradigms are in place, then researchers and practitioners must cooperate to pose the interesting research questions and formulate the investigation. (p. 471)

Benson (1989) examined the underlying beliefs of science teachers and the impact of their beliefs upon what is taught in the classroom. Benson examined the beliefs four biology teachers held about biology and science with

an interview. He also videotaped a teaching session and rated the methods used as to their relationship with scientific principles. Benson found the theoretical assumptions about biology determined not only how a teacher taught, but also the content of the lesson. Benson further concluded that the social context within which a teacher works (i.e., the social structure of the school and community, the legal constraints on his/her teaching, etc.) also determined the actions a teacher takes and the curriculum he/she uses in the classroom.

A similar finding in the field of counseling psychology was reported by Lyddon (1989). Lyddon administered a survey designed to bring the basic assumptions about counseling and the counseling process to the surface from a group of 27 counselors and their clients. He then compared the degree of similarity between counselor and client with the success of the sessions as reported by the counselor. He found the counseling process to be most successful when the basic assumptions about counseling were the same for counselor and client. Lyddon did not address the clients' perceptions of the effectiveness of the counseling session, however, which severely limits the conclusions he reaches.

Other researchers have looked at basic assumptions as they relate to the practice of psychology. Harcum (1988) examined the reasons psychologists resist certain explanations of behavior. He conducted interviews with 25 research psychologists about the nature of science and proper scientific inquiry. He found psychologists classify research as legitimate only if it conforms to the methods each were exposed to while still in training.

Howard (1985) approached the question of basic beliefs historically. He traced the development of psychology and attempted to show similarities between the prevailing assumptions about the nature of the world in the hard sciences to that in psychology. Howard concluded the underlying assumptions about the nature of science determined the view of the world held by psychologists.

Pinch (1990) examined how professional language called jargon impacted practice. He analyzed the terms used by psychologists in four different settings: a mental health clinic, a child psychology private practice, a hospital, and a factory. Pinch utilized a communication study research method to determine if differences in the use of jargon existed. He concluded the different settings for practice did indeed utilize different jargon, and that the jargon seemed to influence the practice.

Pinch did not claim the jargon caused the different emphasizes in practice and called for further research into the causal relationship of jargon and practice.

A standard instrument in the field of psychology of psychology for investigating basic assumption is the Theoretical Orientation Survey (TOS) developed by Richard Coan (1979) (Robinson, 1981). Coan's survey was developed to assess basic assumptions about psychology. The questionnaire consists of 63 statements to which the responder marks the degree of her/his agreement. The scoring method devised by Coan breaks the answers to these questions into eight categories or factors. These factors are the following: emphasis on factual research, belief in impersonal causality of events, emphasis on behavior in research, emphasis on detailed explanations, belief in biological determinism, belief in environmental determinism, reduction of explanations and observations about events to a physical nature, and emphasis on quantitative research. Coan standardized his measure on a group of 866 practicing members of the American Psychological Association.

In 1987, Coan undertook a second study to further assess the validity of his instrument in determining differences between different fields within psychology.

Coan administered the TOS to 325 analytic psychologists, identifying participants as to their loyalty to Freudian, Jungian, or Adlerian schools within the analytic tradition. He found a difference between the groups on only one factor: biological determinism. That there would be so few differentiating factors was not surprising as the participants were within a larger single school of thought. What was surprising was the difference among the groups in biology as all three groups are intimately involved with the medical model. The Freudians scored highest on biological determinism which Coan concluded was related to their emphasis on medical problems and the formation of the brain. The Jungians scored the lowest (still much higher than the 1979 norm sample) which Coan concluded related to their emphasis on deep processes that go beyond an individual organism. The Adlerians scored in an intermediate area between the other two schools.

Other researchers have used Coan's device to compare groups as to the basic assumptions about psychology. King (1980) examined the beliefs of undergraduate psychology majors and their comparison to psychology faculty. He gave the TOS to 514 undergraduates at all stages of their major as well as to the 27 psychology department faculty members at a small, private university. Using t tests to

determine significance of differences between the group means, King found two factors that differed between the groups: impersonal causality and environmental determinism. The students obtained lower scores on the impersonal causality scale which showed a stronger belief in free will in individual choices than the faculty did. Students also scored higher on the environmental determinism factor which suggested to King that students believed in unique life experiences as determining an individual's behavior. The consistency of these results across different levels of training led King to conclude that students and faculty differ in their approach to and assumptions about psychology and that student's views did not change as they came into contact with faculty's views.

Krasner and Houts (1984) used the TOS to investigate the assumptions behavioral psychologists held about psychology. They administered the TOS to 230 psychologists who identified themselves as belonging to the behavioral school of thought. They also gave the instrument to 100 randomly selected psychologists for use as a comparison. Using a principle components factor analysis with varimax rotation, the researchers found the behaviorists differed from the comparison significantly along seven factors: factual orientation in research,

emphasis on behavioral content in research, focus on details, reduction of events to a physical explanation, quantitative orientation to research, and an objective approach to practice. The authors concluded these were factors one would expect to find strongly rooted in the behavioral school.

Mary Ricketts (1989) used the TOS to investigate the differences in basic assumptions between feminist and non-feminist psychologist. She administered the TOS to 190 self-reported feminist psychologists attending the Association of Women's Psychology convention in 1985, and compared their scores to Coan's standardization sample of 886 APA members. She found only moderate differences and only alone one factor: biological determinism. The author concluded feminist psychologists believe in the importance of cultural and family background in personality development and focus research and practice there while other psychologists tend to focus on internal mechanisms of behavior.

REI is producing much change in the schools. The role of regular education teachers has shifted from focusing on the group-based education of "normal" children to an educator of all children. The problems faced by teachers appear psychoeducational in nature, and as such

the teachers are turning toward school psychologists for help. As a result, the role of psychologist is also changing from assessor to consultant. As both teachers and school psychologists are applied psychologists, the investigation of basic assumptions about psychology is important to the understanding of the potential conflicts involved in the development of collaborative relationships between these groups. One way to work toward more effective consultation is to increase the understandings that teachers/consultees and psychologists/consultants have about their own and each others' basic beliefs about psychology and the nature of learning. The TOS was designed by Coan (1979) to investigate just that type of concern.

Chapter III

METHODOLOGY

This chapter is designed to explain in detail the subjects of this study, the features of the instrument used (TOS), and the procedure by which the data were gathered.

Participants

According to the Iowa Department of Education's Iowa School Psychologists Directory 1991-1992 (Grimes, 1991), there were 354 school psychologists employed by 15 Area Education Agencies (AEA) in the state of Iowa. The Directors of psychological services for each AEA were contacted about the participation of the psychologists within their respective AEA in the study. Mississippi Bend AEA 9 and Western Hills AEA 12 declined participation. No response was received from Loess Hills AEA 13, Lakeland AEA 3, and Arrowhead AEA 5. The remaining 10 AEA's that agreed to participate in the study contain 208 of the 354 total AEA-employed psychologists in the state of Iowa. Of these, 143 school psychologists, representing 40% of those practicing in the state, volunteered to participate in the study and returned the survey.

There were 143 regular education teachers who volunteered to participate in the study. The teachers were graduate students enrolled in summer courses at a state university. Participants were currently practicing regular education teachers in Iowa. The teacher participants were enrolled in one of the following graduate level courses: two reading education courses, one early childhood methods course, an elementary methods course, a secondary physics method course, two educational research methods courses, two educational psychology courses, and a beginning counselor education course. All participants volunteered to complete the instrument during class time.

Instrument

The Theoretical Orientation Survey (TOS) developed by Richard Coan (1979) was used in this study (see Appendix). The TOS consists of 63 items to which responses are given on a Likert-type scale (Strongly Agree, Agree, Cannot Say, Disagree, Strongly Disagree). Coan undertook several steps in the development of the TOS. Coan first developed a core set of factors that would encompass theoretical orientations. He surveyed the literature on the history of psychology in an effort to isolate previously recognized variables that differed in degree between the

theoretical schools of psychology yet appeared in all the schools. The 246 variables he found were then examined for duplicates resulting in 34 variables. These 34 were then sent in a rating scale to 232 psychology professors known for research in history and systems of psychology. The rating scale asked the respondents to rate each variable according to the importance it played in the theories of the 54 theorists Coan had identified as the most influential to the field of psychology in previous research (Coan & Zagona, 1962). The resulting 54 x 34 score matrix was analyzed and six factors were produced by a centroid extraction on the correlation matrix: emphasis on subjective experience, emphasis on holistic explanations of behavior, individual subject emphasis in research, quantitative emphasis, emphasis on the change process, and emphasis on internal locus of control.

Coan (1979) next developed items to measure practicing psychologists' orientations based on the six factors found in the first step. Coan developed a 120 items questionnaire (called the TOS prototype) and administered it to 298 psychologists. A principal-axis factor analysis revealed 17 factors.

Finally, Coan (1979) developed a second questionnaire that included the items that most strongly loaded on each

factor extracted from the analysis of the first instrument. The resulting 145 item questionnaire was administered to 1000 American Psychology Association members. Principal-axis factor analysis yielded eight factors and two second order factors. Selecting only those items which most strongly loaded on each of the eight primary factors, Coan found 63 items (8 per factor with the exception of factor 7 which had only 7 items highly loaded) which he included in his final questionnaire--the Theoretical Orientation Survey (TOS). Coan further rewrote 26 of the 63 items to negatively state the principle involved. This was an attempt to obtain a more accurate self-report (Coan, 1979).

The scoring method on the TOS outlined by Coan (1979) first divides the individual items into positive and negative loadings on one of the eight primary factors. Each item is then given a score from 5 to 1 based on the response (e.g. if the item is positively scored, a response of STRONGLY AGREE is scored a 5 and STRONGLY DISAGREE is scored a 1; the opposite is true of negatively scored items). Each factor score is the sum of eight individual item scores.

FACTOR 1--Factual versus theoretical orientation.

This factor examines a tendency toward an empirical approach to psychological data (a score over 18) or an emphasis on speculation or theory-building (a score under 18).

FACTOR 2--Impersonal causality versus free will.

This factor measures the ideas about determinism. A score over 18 shows de-emphasis on personal choice and emphasis on laws of behavior while a score under 18 emphasizes personal choice and purpose.

FACTOR 3--Behavioral versus experiential content emphasis.

This measures the subject matter that is appropriate for study in psychology. Scores above 18 indicate objective behaviors while scores below 18 indicate personal, cognitive experiences as appropriate for study.

FACTOR 4--Elementarism versus holism.

This describes the focus of research strategy. Scores above 18 indicate focus on basic relationships or mechanisms in research, while scores below 18 indicate concern with holistic implications of research.

FACTOR 5--Biological determinism.

This factor is concerned with the importance of genetic factors as determinants of behavior. Scores above 18 indicate an orientation toward biological explanations of behavior, while scores under 18 indicate the absence of that tendency.

FACTOR 6--Environmental determinism.

This factor is concerned with the importance of the social environment in explaining behavior. Scores above 18 indicate a tendency toward environmental concerns in explaining behavior, while scores under 18 indicate the absence of this tendency.

FACTOR 7--Physicalism.

This measures the tendency to explain behavior in terms of physical events or conditions (physicalistic reduction). Scores above 18 indicate a tendency toward physicalistic reduction, while scores below 18 indicate the absence of the tendency.

FACTOR 8--Quantitative versus qualitative orientation.

Scores above 18 on this factor indicate a favoring of systematic, scientific, and empirical research. Scores below 18 indicate emphasis on

situational, ideographic, and ethnographic research. A score of 18 on any primary factor is interpreted as a balanced orientation on the factor.

The secondary factors are derived from combinations of the primary factors. The score for factor 9 is the sum of the scores on factors 2, 3, 4, 7, and 8. The score for factor 10 is obtained by adding 50 to the difference between factor 5 and factor 6 [i.e., 50 + (F5-F6)].

SECONDARY FACTOR 9--Objectivism versus subjectivism.

Scores above 90 on this secondary factor represent emphasis on empirical and behavioristic approaches to psychology. Scores below 90 represent an emphasis on conscious intention or experience as the proper approach to psychology.

SECONDARY FACTOR 10--Endogenism versus Exogenism.

Scores above 45 on this factor indicate an emphasis on internal sources of behavior, while scores below 45 indicate emphasis on external sources of behavior.

Reliability

As part of his original study, Coan conducted two reliability studies on the TOS. The TOS was examined for internal reliability by administering the TOS to 1008 APA members in 1978 and calculating alpha coefficient

reliability. Values range from .733 (on the physicalism--factor 7) to .914 (on the impersonal causality--factor 2. The TOS was also examined with the test/retest method of reliability (interval between tests was 8 months) with 184 APA members who originally participated in Coan's study. Retest reliability figures range from .684 (on the behavior content emphasis factor 3) to .908 (on the impersonal causality factor 2) when examined for each factor score.

Validity

In the original study by Coan (1979), the TOS was administered to 800 psychologists to determine validity. In addition to the 63 items, the participants also responded to 20 special items. These additional items asked the participants to rate the similarity of their practice to 20 theorists in psychology. The correlation between the TOS results and the theorists was consistent with expected results (Coan, 1979).

Coan (1987) also studied the ability of the TOS to distinguish differences between members of different subfields of the analytic tradition in psychology. He discovered a difference along only one--biological determinism. Coan concluded this was what examination of

the subfields would also show as the determining difference (Coan, 1987).

Procedure

Each AEA director of psychological services who agreed to participate was given a packet containing a TOS, an answer sheet, and a return envelope for distribution to each psychologist within their respective AEA. Follow up was conducted by phone two weeks after the survey was initially distributed. Instructions for completing the TOS were printed at the top of each survey (see Appendix). Each psychologist was asked additionally to provide information on gender and the AEA in which they were employed.

The teachers were approached in university summer classes at the approval of their instructors. Each class was briefly informed as to the purpose of the study and qualifications of participants by the researcher. Volunteers then completed the TOS during class time. The instructions for completing the TOS were printed at the top of each survey (see Appendix). Each teacher was asked to additionally provide gender, years in service, grade level taught, and AEA which served their school. Completed surveys were collected by the researcher during the 20 minutes allotted to the survey by each professor.

Chapter IV

RESULTS

This chapter will report the results of the study organized by research question. The descriptions of participants basic assumptions about psychology will be reported first, followed by a discriminant analysis to determine areas of difference. Only the primary TOS factors are included in either report of results as the secondary TOS factors failed the assumptions of a discriminant analysis.

Results for Teachers

Research Question 1: What are the Basic Assumptions about Psychology held by Regular Classroom Teachers as Measured by the TOS?

There were 144 regular classroom teachers who participated in this study. Of the teachers who participated, 78.5% were female and 20.1% male. The modal range of years teaching was the 5 and 10 year category (58.2%); the next most common being more than 10 years experience (31.9%). Teachers were from all grade levels, with 25% of the teachers responding they taught in the middle school (grades 6-8), 18.8% in the lower elementary grades (K-3), 13.9% in high school, 9.0% in intermediate grades (4-5), and 8.3% in Early Childhood programs. All

participating in the program were enrolled in a graduate program. The majority of the teachers (89.3%) had not yet received a graduate degree. Teachers' mean TOS scores are shown in Figure 1.

Factor 1--Factual versus Theoretical Orientation

The mean score for the teachers (M = 20.6, SD = 3.23) indicated an orientation toward factual data collection, which indicates that teachers as a group focus on documentable, objective evidence when gathering data. This may be seen in a reliance on grades, test scores, written records of behavior, and the like.

Factor 2--Impersonal Causality versus Free Will

The mean score for teachers indicated balance in orientation toward a belief in impersonal causality of events and free will (M = 19.02, SD = 3.16). This may indicate that teachers tend to see people as following certain laws of behavior even though they have some control over the events in their lives. This may explain the reliance on behavior-modification techniques in teacher discipline methods.

Factor 3--Behavioral versus Experiential Content Emphasis

The mean score for teachers (M = 20.89, SD = 3.68) indicated an emphasis on the objective behaviors of students as appropriate to investigate as opposed to the

students' cognitive experiences. This may manifest itself in a focus upon curricular material completed as the chief indicator of learning instead of such things as a student's self-report of learning.

Factor 4--Elementarism versus Holism

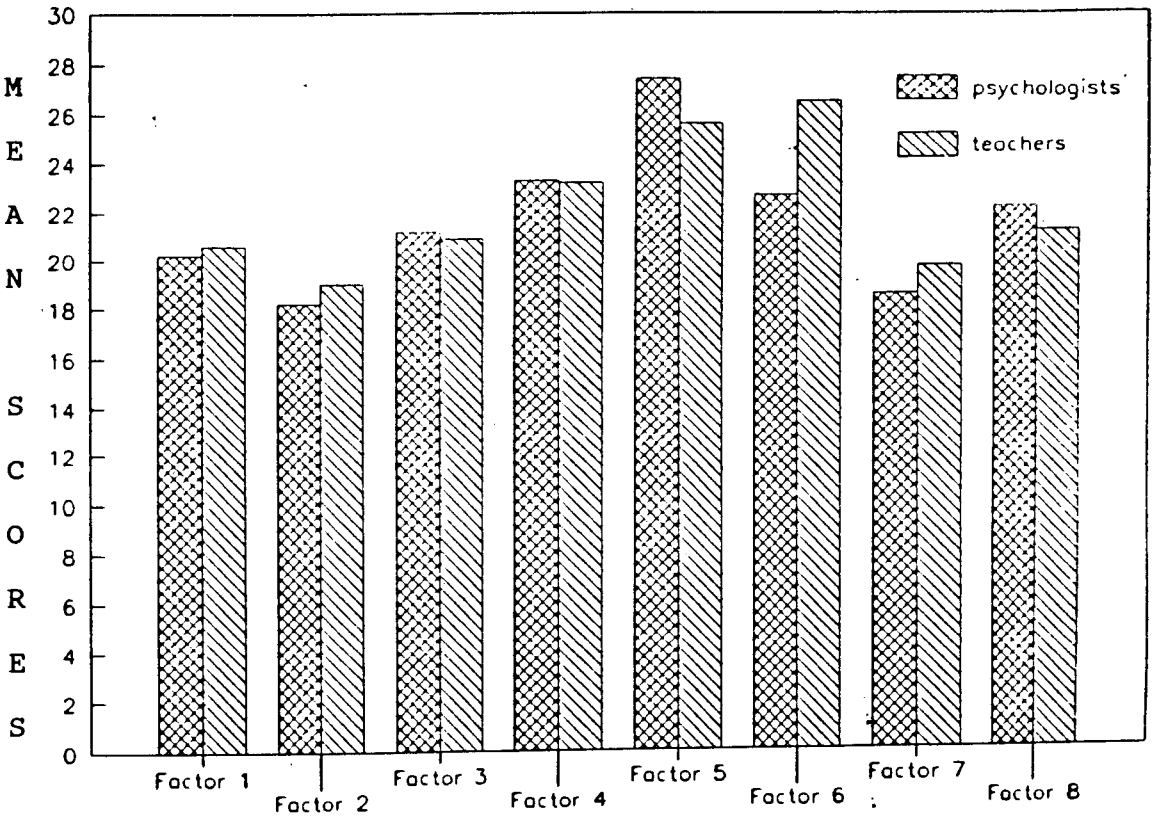
The mean score for teachers (M = 23.18, SD = 4.52) indicated a group tendency to emphasize details of a situation instead of the impact upon the whole. This may be seen in a tendency to focus on specific events in a classroom when gathering information or in the breaking down of a problem into parts to be investigated and solved.

Factor 5--Biological Determinism and Factor 6--Environmental Determinism

Mean scores for teachers on biological determinism (M = 25.63, SD = 5.15) indicated that teachers believed in the importance of biological concerns in understanding the nature of behavior. The higher mean scores (M = 26.51, SD = 5.15) on environmental determinism seemed to indicate a stronger orientation toward environmental concerns in explaining behavior. This indicated that the teachers tended to emphasize the environmental conditions that gave rise to behavior even when considering biological explanations for behavior. This may manifest itself in an

emphasis on family life or peer interaction as an explanation of children's behavior.

Figure 1. Mean TOS scores of psychologists and teachers.



Factor 7--Physicalism

The mean score for teachers (M = 19.66, SD = 3.66) showed that they tended to emphasize concrete,

situationally specific explanations of behavior and recommendations for psychological intervention. This may be seen in a tendency to interpret data in terms of very specific situations within a classroom. It may also be seen in an emphasis on concrete applications of teaching methods or theories of discipline.

Factor 8--Quantitative versus Qualitative Orientation

The mean score for teachers indicated they were oriented toward quantitative research and practice (*M* = 21.17, *SD* = 4.15) This may be seen in a tendency to follow specific methods of teaching or in the emphasis on student performance. It may also be seen in a tendency to emphasize grades and amount of work completed in monitoring student progress.

Results for School Psychologists

Research Question 2: What are the Basic Assumptions About Psychology held by School Psychologists as Measured by the TOS?

The school psychologists were currently practicing psychologists employed by one of the Area Education Agencies (AEA) in the state of Iowa. The TOS was distributed to psychologists by their AEA directors of psychological services. A response rate of 69.3% was achieved. The actual number of responses and the response

rate of each AEA is shown in Table 1. Of the school psychologists participating in the survey, 51.7% were female and 48.3% were male. Psychologists' mean scores on the TOS are reported on Figure 1.

Table 1

Return Rate of TOS by AEA

AEA	Return	% Returned	% of Total Returned
AEA 1	18	69.2%	12.6%
AEA 2	11	78.6%	7.7%
AEA 4	7	77.8%	4.9%
AEA 6	10	62.5%	7.0%
AEA 7	23	88.5%	16.1%
AEA 10	25	56.8%	17.5%
AEA 11	19	57.6%	13.3%
AEA 14	9	69.2%	6.3%
AEA 15	10	76.9%	7.0%
AEA 16	11	78.6%	7.7%

Factor 1--Factual versus Theoretical Orientation

The mean score for psychologists (M = 20.24, SD = 4.21) on this factor indicated that they were oriented toward factual data gathering. This may be manifested in an emphasis on objective classroom observation and an emphasis on documentable data.

Factor 2--Impersonal Causality versus Free Will

The mean scores of psychologists on this factor (M = 18.17, SD = 5.18) indicated they were balanced in their orientation toward causality. This may be seen in an emphasis on the strength of variables outside the student's direct control that impact behavior while simultaneously emphasizing conscious control of events by individuals. Cognitive behaviorism is also consistent with this approach.

Factor 3--Behavioral versus Experiential Content Emphasis

The mean score for psychologists on this factor indicated an emphasis on the objective behavior of children (M = 21.22, SD = 4.92). This may be seen as an emphasis on behavior rating scales and classroom observation in evaluating a student.

Factor 4--Elementarism versus Holism

Psychologists' mean scores on this factor (M = 23.29, SD = 4.39) indicate an emphasis on detail instead of an

holistic emphasis. This may be seen in the tendency of psychologists to break evaluation problems into distinct parts, in the many testing procedures designed for specific aspects of an evaluation, and in the emphasis on the child's unique problems.

Factor 5--Biological Determinism and Factor 6--Environmental Determinism

The mean score for psychologists on Factor 5 showed a strong emphasis on biological determinants of behavior (M = 27.40, SD = 4.67). The mean scores for psychologists on Factor 6 (M = 22.6, SD = 4.98) indicated that school psychologists focused more on biological determinants of behavior such as cognitive disabilities than environmental determinants . This can be seen in a focus on the child as central to any evaluation problem. It may also be seen in an emphasis on internal, individual explanations for behavior and a focus on intervention that targets the child and not the environment around the child. This could also manifest itself in an emphasis on the role of a child's own thinking in explaining and intervening to address inappropriate behavior.

Factor 7--Physicalism

The mean score for psychologists on this factor indicated that psychologists did not seem to emphasize

concrete, physical explanations for events but were balanced in their approach, looking at behavior more globally (M = 18.53, SD = 3.79). This may be seen in an emphasis on behavior across situations and a tendency to discuss consistent behavior on the part of psychologists. It may also be seen in a tendency to be less focused on situational interventions and more focused on broad-based intervention plans.

Factor 8--Quantitative versus Qualitative Orientation

The mean score for psychologists on this factor indicated that they were oriented toward the quantitative method of research (M = 22.19, SD = 4.61). This can be seen in reliance on standardized test scores and specific, standardized methods of data collection. It may also indicate a tendency toward empirical research and may explain why many professionals within the schools complain that school psychologists often like numbers better than kids.

Results of Discriminant Analysis

Research Question 3: Do the Basic Assumptions about Psychology of School Psychologists and Regular Classroom Teachers Differentiate the two Disciplines?

A direct method discriminant analysis of the TOS scores of both teachers and school psychologists was

undertaken with TOS factor scores as the discriminating variables and group membership as the dependent variable. The resulting discriminant equation accurately predicted group membership for 69.34% of the cases (72.7% of the psychologists and 66.0% of the teachers were accurately classified).

The analysis resulted in centroids of -.43481 for the psychologists and .43179 for the teachers. Discriminant coefficients, Wilks' Lambda, F values, and p values are provided in Table 2 for the eight primary factors. The discriminant analysis showed three factors to be significantly predictive of group membership.

The factor score which most strongly predicted membership in the discriminant function was Factor 6--environmental determinism (coefficient of .85). Teachers obtained a much higher mean score on this factor, indicating a difference between the importance teachers and school psychologists place on external concerns such as family when explaining behavior (see Figure 1).

The next strongest predictor of group membership was Factor 8 scores--quantitative versus qualitative (coefficient of -.54). The psychologists mean score was higher than the teachers on this factor, indicating another difference between teachers and psychologists.

Teachers tended to emphasize the qualitative much more than the psychologists did (see Figure 1).

Table 2

Wilks' Lambda, F Values, p Values, and Discriminant Coefficients

Factor	Wilks' Lambda	F Value	p Value	Discriminant Coefficient
Factor 1	0.99	0.71	0.40	0.03
Factor 2	0.99	2.79	0.09	-0.04
Factor 3	0.99	0.45	0.51	-0.15
Factor 4	0.99	0.05	0.83	0.17
Factor 5	0.97	9.28	0.00	-0.08
Factor 6	0.87	41.10	0.00	0.85
Factor 7	0.98	6.51	0.01	0.22
Factor 8	0.99	3.84	0.05	-0.54

Factor 7--physicalism is the third strongest predictor of group membership (coefficient of .22). The higher mean score of the teachers on this factor indicated an emphasis on concrete, situation specific explanations and solutions to inappropriate behavior.

Factor 5 scores were significantly different than the other factor scores as shown by the F value 9.28. The lack of predictive power of Factor 5 scores in a linear function, as shown by the -0.08 discriminant coefficient, may be explained by a strong negative correlation of -.49 between Factor 5 and Factor 6 shown by the correlation matrix of the factor scores (see Table 3).

Table 3

Means, Standard Deviations, and Correlation Matrix of TOS Scores and Group Membership

			Factors								
Measure	M	SD	1	2	3	4	5	6	7	8	grp
Group	.50	.50	.05	.10	-.04	-.01	-.18	.36	.15	-.12	1.0
Factor1	20.43	3.75	1.0	.18	.36	.22	-.02	.14	.31	.12	.05
Factor2	18.60	4.30		1.0	.23	.25	-.16	.44	.42	.38	.10
Factor3	21.05	4.33			1.0	.35	-.15	.04	.31	.24	-.04
Factor4	23.24	4.45				1.0	-.03	.10	.22	.52	-.01
Factor5	26.51	4.98					1.0	-.51	-.08	-.11	-.18
Factor6	24.60	5.41						1.0	.39	.12	.36
Factor7	19.10	3.76							1.0	.31	.15
Factor8	21.68	4.41								1.0	-.12

A second discriminant analysis was done using only those three factors found to be predictive by the first analysis. The resulting equation accurately predicted group membership for 70.03% cases (71.3% of the psychologists and 68.8% of the teachers were correctly classified).

Summary

The results of the TOS showed regular classroom teachers to be oriented toward factual data gathering, balanced in their orientation toward impersonal causality of events or free will, to be focused on the objective behaviors of students, and to be concerned primarily with details of a problem. Teachers were also oriented toward environmental factors as being more important in determining the cause of behavior than biological factors. Teachers were focused on situation-specific interventions to address a problem and were balanced in their use of quantitative and qualitative data.

The mean TOS scores of the school psychologists in this study showed them to be oriented toward factual data gathering, balance in their attributing causality of events to an impersonal source over free will, to be oriented toward the objective behavior of students, and to be concerned primarily with the details of a problem.

School psychologists tended to emphasis biological factors in determining behavior over environmental factors. Psychologists took a global view to behavior, being balanced between situation-specific explanations of behavior and general explanations. School psychologists tended to emphasize quantitative research over qualitative research.

The results of the discriminant analysis show the school psychologists and classroom teachers to be differentiated along three TOS factor scores. Coefficients of the environmental determinism factor score (.85), the factor score that examined quantitative orientation (-.54), and the physicalism factor score (.22) were the measures that most strongly demonstrated the distinctness of the groups, correctly classifying 70.03% of the cases.

Chapter V

DISCUSSION

The Regular Education Initiative has begun to change the practice of regular classroom teachers and psychologists. Both groups have shifted from primarily working with one population of children to working toward the education of all children in a single classroom setting. This merging of all students has created problems of many different types: financial, political, and psychoeducational. As teachers begin to deal with these problems, it is the psychological that impact daily classroom practice the most. The school psychologist is a resource the teachers have begun to utilize in order to meet the needs of students. This reliance on the school psychologists has in turn shifted the psychologist's role from that of assessor of children to that of consultant with teacher about children. The necessary condition for a successful transition to this new strategy requires a common base of understanding, especially about the role and function of psychology and the understanding of basic psychological perspectives. This chapter will examine the basic findings of this study in terms of how the TOS describes teachers and school psychologists. It will then

discuss implications for practice. Finally, future research concerns are addressed.

Findings of Study

This study found that teachers and psychologists are more alike than different. Both groups appear to approach situations from a practical instead of a theoretical point of view. Both tend to believe the individual has some degree of control over his/her behavior. Both groups tend to focus on outward behavior when assessing an individual student's needs. Thus, both psychologists and teachers agree that when evaluating a problem or assessing an individual student, specific behaviors and suggestions for solutions are most appropriate.

What differentiates the groups tends to relate more to reasons behind behavior and thus proper ways of addressing that behavior. The psychologists believed much more strongly than the teachers that the behaviors of students are related to internal drives and motivations. Psychologists in this study also seemed to evaluate situations in a much more systematic and quantitative way. Thus, psychologists may be more likely to see interventions that are individualized, closely monitored, and that are focused on cognitive aspects of behavior to be more likely to succeed.

Teachers tend to be oriented in a slightly different direction. Teachers focus on the role of the external environment and those in control in a child's environment. Interventions that are focused on allowing the child to "fit into" the environment and that are group centered will more likely be seen by teachers to more effectively address problems. In addition, teachers also tend to focus on concrete, specific interventions that are used to address behaviors within a certain environment. This supports the research done by Fitzgerald et al. (1991) and Davis (1990) which found that teachers' focus on the application of theory and teaching strategy to specific classroom situations.

What these findings mean to consultation becomes immediately apparent. Both teachers and psychologists approach a problem by assessing specific behaviors and gathering very concrete data (how well the child scores on a test, how much homework the child completes, how often and how intensely does a child disrupt the class, etc.). But the potential conflict arises from the conclusions drawn from the data and the proper way to address the problem. Teachers tend to see the outside world of the child as the real focus of the problem and thus the most effective solutions to focus on the family, the teaching

method, the structure of the class, the physical outlay of the class, and the authority of those within the class. This supports other research on the topic which found that teachers focus on the "world of the child" when describing problems (Bowen & Dalton, 1981; Brady, 1985; Fitzgerald et al., 1991).

Conversely, the psychologists tend to see the internal world of the child as the focus of the problem and effective solutions focusing on: the way the child reacts to a teaching situation, the emotional stability of the family situation, the ability of the child to control her/his behavior, and the response the child has to the authority figures in his/her life. Thus the psychologist who suggests changing a teaching method in reading to better address a child's needs may be looking at the thought process of the child and hoping to link teaching to the student's internal learning style observed through systematic evaluation, while the teacher may be looking at the impact the change in method will have on the class structure or on the requirements placed on the child. Both groups desire change in order to better help the child to learn, but each are focused on very different aspects of the problem. This is consistent with Gutkin (1986) who linked effective consultation with perceived

practical usefulness of suggestions offered teachers. The results of this study suggest that conflict may arise between regular classroom teachers and school psychologists when one of two conditions occurs: (a) reasons for the problem dictate very different interventions; or (b) evaluation criteria is not tied to norm or criterion referenced testing. An example of a conflict in the first condition might be an extremely disruptive student. The teacher may place priority on a method to control his behavior in the classroom in the short term. The psychologist may place priority on a counseling program to help the child cope with his/her feelings of anger. While there is room for both solutions, it will take communication and understanding of each others' positions to reach an integrated plan.

An example of the second condition dealing with evaluation might be a learning disabled child who has begun to receive resource help. There may be no change in classwork which may cause the teacher to evaluate the intervention as unsuccessful, even if the student reports to feel better about the subject or if he/she has improved test scores on basic concepts. The psychologist may evaluate the intervention as a failure if the child feels isolated or continues in his/her frustration with the

subject matter, even if the amount of correct, completed classwork improves. Thus, like Davis (1990) concluded, the teacher or the psychologist may desire more change or different change than the other party.

The results of this study also point out another potential conflict area in consultation. The focus of teachers and psychologists in interpreting a problem also may dictate the way each communicates the problem and the recommended interventions to the other party. A psychologist may focus much more on internal drives, talking about the way a child reacts to situations or the way a child processes information. The practical side of applying statements and interventions to specific teaching situations is not always addressed. This supports the concerns voiced by Davis (1990) and Batsche (1992).

Conversely, the teacher may tend to describe the desired intervention in terms of outcomes in performance and isolated as to situation. The diagnostic side of the equation is what teachers do not always address. Thus psychologists tend to be too general in their focus while teachers tend to be too specific. Thus, as Davis (1990), Lambert (1986), and Weissenburger (1982) pointed out, communication between teachers and school psychologists can be and often is on two different levels.

Implications for Practice

In order to better ensure an effective transition to the consultation process for school psychologist and regular educator, it is important for the groups to begin to work collaboratively. This study highlights several areas of concern that must be addressed. Both psychologist and teacher face changes in practice in order to accommodate the new demands of the Regular Education Initiative.

Teachers must learn to ask the "why" question of diagnosis. They must concern themselves with the broader issues of why a child engages in a specific behavior. They must also expand their view of intervention. A teacher must not only understand that his/her actions produce changes in a classroom, but also how those actions impact a child's emotional and cognitive states. A teacher must learn to incorporate a child's view more into the understanding of a child's problem as well. This is consistent with the conclusions of Fitzgerald et al. (1991) in their examination of REI affects upon teachers.

Psychologists must de-emphasize the diagnostic aspects of their communication styles. They must learn to apply their reports and interventions to specific situations, especially in the school. They must also

address the concerns of the teachers about the external environment such as the family, the community, or the classroom. Psychologists need to incorporate the teacher's view more into the understanding of a child's problem. This is consistent with the calls to reform in the practice of school psychology voiced by Batsche (1992), Schendel (1992), Davis (1990), and Bowen and Dalton (1981).

Suggestions for Future Research

As a means of further linking orientations and practice, the first suggestion as to future research is to conduct a more qualitative study of orientations. An interview with selected subjects from a teacher and a psychologist sample about orientations and practice, an ethnographic investigation of the consulting process between teachers and psychologists, in depth classroom observations, and the like are possible avenues of research on this topic.

In its investigation of basic assumptions about psychology, this study was limited to examining the types of orientations assessed the TOS. Future research may center on alternative ways to isolate variables of concern to effective consultation. An analysis of the major conflict points encountered between teachers and

psychologists in consultation is a good starting point. Use of a specific model of consultation such as that of Dougherty (1990) may aid in isolating which parts of the consultation process are potentials for conflict.

As Benson (1989) found in his study of biology teachers, basic assumptions do not explain all practice but are simply a necessary part of the puzzle to investigate. The external context (e.g., the legal, social, and political constraints placed on practice) of practice for both school psychologists and regular classroom teachers is another area that deserves study. An examination along these lines might further highlight areas that are necessary to understand if more effective consultation is to be undertaken.

This study did not address the effectiveness of consultation between the psychologist and the teacher directly, only potential trouble spots. An examination of the skills desired of psychologists by teachers is one possible route for this further study. Another is an examination of the importance of gender and other variables in determining the effectiveness of consultation. Another is an in depth examination of the skills psychologists bring to education. The effectiveness of consultation between school psychologist

and teacher depends on a common base of ideas and a common need for each profession. Future research should focus on an examination of what each party sees as effective consultation in order to avoid Lyddon's (1989) shortfall of focusing on only one side of the relationship.

An important premise of this study was that the Regular Education Initiative in the schools is currently producing a need for change in roles by both teachers and psychologists. An examination of the differences in orientation involved at different stages of the implementation of REI might better highlight potential conflicts due more to transition than to orientation. Further, a comparison between groups involved with REI and groups with little involvement in REI may also highlight the specific demands placed on teachers and psychologists by this reform movement.

A final recommendation is for the study of orientations between other members of the school community. The teacher and the psychologist are not the only ones involved in the education of children. Administrators, special educators, social workers, counselors, teacher aides, parents, and many others interact in the life of the child. As the consultation process grows, these groups need to be involved.

REFERENCES

Bardon, J. (1983). Psychology applied to education: A specialty in search of an identity. American Psychologist, 38, 185-196.

Batsche, G. (1992, February). Presidential statement: America 2000. Communique, 20(5), 3-4.

Baumeister, A., Kupstas, F., & Klindworth, L. (1990). New morbidity: Implications for prevention of children's disabilities. Exceptionality, 1, 1-16.

Benson, G. (1989). Epistemology and science curriculum. Journal of Curriculum Studies, 21, 329-344.

Bone, L. (1991). Teacher perceptions of RSDS. Unpublished specialist in education thesis, University of Northern Iowa, Cedar Falls.

Bowen, C., & Dalton, T. (1981). Divergent perceptions of school psychological services. (ERIC Document Reproduction Services No. ED 205 848)

Brady, H. (1985). A case study method of assessing consumer satisfaction with school psychological services. School Psychology Review, 14(2), 216-221.

Bruehler, B. (1990). The changing nature of special education: Children will be younger, some will be more impaired, and many will be expensive to serve. Counterpoint, 10(3), 8.

Buss, A. (1979). Psychology in social context. New York: Irvington.

Carnine, D., & Kameenui, E. (1990). The general education initiative and children with special needs: A false dilemma in the face of real problems. Journal of Learning Disabilities, 22(9), 532-536.

Coan, R. W. (1979). Psychologists: Personal and theoretical pathways. New York: Irvington.

Coan, R. W. (1987). Theoretical orientation in psychology and the traditions of Freud, Jung, and Adler. Professional Psychology Research and Practice, 18(2), 134-139.

Coan, R., & Zagona, S. (1962). Contemporary ratings of psychological theorists. Psychological Record, 12, 315-322.

Cutts, N. (1955). School psychologists at mid-century: Report on the Thayer conference. Washington, DC: American Psychological Association.

Davis, W. (1989). The regular education initiative debate: It's promise and problems. Exceptional Children, 55(5), 440-446.

Davis, W. (1990). Implications of the regular education initiative debate for school psychologists. (ERIC Document Reproduction Services No. ED 331 261)

Dougherty, A. (1990). Consultation skills: Practice & perspectives. Pacific Groves, CA: Brooks/Cole Publishing.

Fagan, T. (1990). A brief history of school psychology in the United States. In A. Thomas & J. Grimes (Eds.), Best practices in school psychology--II. Washington, DC: National Association of School Psychologists.

Fitzgerald, M., Zigmond, N., Kay, P., & Beck, S. (1991). School building models: Tailoring interventions to meet school conditions and needs. (ERIC Document Services No. ED 335 759)

Geddis, A. N. (1988). Using concepts from epistemology and sociology in teacher supervision. Science Education, 72(1), 1-18.

Goldstein, A., & Krasner, L. (1987). Modern applied psychology. New York: Pergamon Press.

Greer, J. (1990). Drug babies. Exceptional Children, 56(3), 382-384.

Grimes, J. (1991). Iowa school psychologists directory 1991-1992. (Available from Iowa Department of Education, Bureau of Special Education, Grimes Office Building, Des Moines, Iowa 50319-0146).

Gutkin, T. (1986). Consultees' perceptions of variables relating to the outcomes of school based consultation interactions. School Psychology Review, 15(3), 375-382.

Hammonds, D., & Rust, J. (1984). Perceptions of school psychological services provided by a community mental health center. Education, 104(4), 430-434.

Harber, J. (1986). Community intergroup conflict resolution guide. Los Angeles: Los Angeles County Commission on Human Relations. (ERIC Document Reproduction Service No. ED 266 198)

Harcum, E. (1988). Defensive reactance of psychologists to a metaphysical foundation for integrating different psychologies. Journal of Psychology, 122(3), 217-235.

Harper, G. (1990). A foundational model for the practice of school psychology. Unpublished doctoral dissertation, University of Northern Iowa, Cedar Falls.

Heshusius, L. (1982). At the heart of the advocacy dilemma: A mechanistic world view. Exceptional Children, 49, 6-13.

Howard, G. (1985). The role of values in the science of psychology. American Psychologist, 40, 255-265.

Iverson, S. (1986). The dance of the school psychologist. Unpublished specialist in education thesis, University of Northern Iowa, Cedar Falls.

Jordan, T., & McLaughlin, T. (1986). Concerns of regular classroom teachers regarding mainstreaming. The Pointer, 31(1), 43- 48.

King, D. (1980, December). Values of undergraduate students and faculty members on theoretical orientations in psychology. Teaching of Psychology, 7(4), 236-237.

Krasner, L., & Houts, A. (1984). A study of the value systems of behavioral scientists. American Psychologist, 39, 840-850.

Kuhn, T. (1977). The structure of scientific revolutions. Chicago, IL: University of Chicago Press.

Lambert, N. (1986). Engineering new designs for school psychological service delivery. Professional School Psychology, 1(4), 295-300.

Leiberman, L. (1985). Special education and regular education: A match made in heaven? Exceptional Children, 51(6), 513-516.

Lyddon, W. (1989). Personal epistemology and preference for counseling. Journal of Counseling Psychology, 36, 423-429.

Marantz, S. (1988, April 15). Special needs--Advocates twist law, critics say. The Boston Globe, pp. 1, 18.

Maseman, V. L. (1990). Ways of knowing: Implications for comparative education. Comparative Education Review, 34(4), 465-473.

Noble, B., & Dickinson, D. (1988). Utility of school psychologists' recommendations: Perception of elementary teachers. Psychology in the Schools, 25(4), 412-418.

Phillips, B. N. (1990). School psychology at a turning point: Ensuring a bright future for the profession. San Francisco, CA: Jossey-Bass.

Pinch, T. (1990). The culture of scientists and disciplinary rhetoric. European Journal of Education, 25(3), 295-304.

Power, T., & Bartholomew, K. (1985). Getting uncaught in the middle: A case study in family-school system consultation. School Psychology Review, 14(2), 222-229.

Reynolds, M., Wang, M., & Walberg, A. (1987). The necessary restructuring of special and regular education. Exceptional Children, 53(3), 391-398.

Ricketts, M. (1989). Epistemological values of feminists in psychology. Psychology of Women Quarterly, 13, 401-415.

Robinson, D. (1981). An intellectual history of psychology. New York: Macmillian.

Schendel, J. (1992, April). NASP update. Iowa School Psychologists Association Newsletter, 9(7), 5.

Skrtic, T. M. (1992). Behind special education. Denver: Love Publishing.

Smith, D., & Lyon, M. (1985). Consultation in school psychology: Changes from 1981 to 1984. Psychology in the Schools, 22, 404-409.

Stainback, W., & Stainback, S. (1984). A rationale for the merger of special and regular education. Exceptional Children, 51(2), 102-111.

Thomas A., & Grimes, J. (Eds.). (1990). Best practices in school psychology--II. Washington, DC: National Association of School Psychologists.

Thomas, D. (1985). The determinants of teachers' attitudes to integrating the intellectually handicapped. British Journal of Educational Psychology, 55(3), 251-263.

Unger, R. (1983). Through the looking glass: No wonderland yet! The reciprocal relationship between methodology and models of reality. Psychology of Women Quarterly, 8(1), 3-32.

Unger, R. (1985). Epistemological consistency and its scientific implications. American Psychologist, 40, 1413-1414.

Ward, S., Ward, T., & Clark, H. (1991). Classification congruence among school psychologists and its relationship to type of referral question and professional experience. The Journal of School Psychology, 29, 89-108.

Weissenburger, J. (1982). The relationship of selected consultant/teacher characteristics to consultation outcomes. Journal of School Psychology, 20(4), 263-270.

Will, M. (1986). Educating students with learning problems: A shared responsibility [A Report to the Secretary of Education]. Washington, DC: Department of Education.

Winderstrom, A. (1989). The school psychologist's role in the early childhood special education program. Journal of Early Intervention, 13(3), 239-248.

APPENDIX

Theoretical Orientation Survey (TOS)

The statements below represent a wide range of issues pertaining to theory and methods in psychology. Please indicate the extent of your agreement or disagreement with each one by circling the appropriate alternative on the answer form. Strictly speaking there are no right or wrong answers; your answers should reflect your own personal attitudes and inclinations. You may feel that some of the items are vague, obscure, or improperly stated, but try to decide in each case whether you agree or disagree with the item. Use the cannot say category no more than necessary.

1. A science is likely to progress most rapidly if researchers devote themselves primarily to the systematic gathering of factual information and engage in little elaborate speculation or theory building.

2. Human behavior is characterized in all aspects by lawful regularity and thus, in principle, it is completely predictable.

3. All behavior, except for a few simple reflexes, is learned.

4. Psychologists should be concerned with explaining private conscious experience as they are with explaining overt behavior.

5. For many research purposes, it is best to permit many relevant variables to interact in a natural fashion and then analyze the results, rather than try to effect strict control.

6. Individual differences in personality are governed to a high degree by heredity.

7. All the concepts used in psychological theory should be explicitly definable in terms of observed physical events.

8. The use of mathematical models and equations in theory often serves to create a false impression of scientific respectability, instead of furthering our understanding.

9. It is just as important for psychological researchers to formulate theoretical interpretations as it is to accumulate specific facts about behavior.

10. In principle, human behavior cannot be completely predicted, because people can choose to act in ways that we have no basis for expecting.

11. Except for a few elementary drives like hunger and thirst, all human motives are learned.

12. The individual subject's personal account of his private conscious experience is one of the most valuable sources of psychological data.

13. Highly controlled experiments often give a misleading picture of the complex interactions that actually occur under natural circumstances.

14. The direction of human behavior is governed to a considerable extent by inborn predispositions.

15. It is best to define perception just in terms of stimulus-response relationships, rather than in terms of internal events that cannot be publicly observed.

16. Elaborate forms of statistical analysis tend to be overemphasized in psychology.

17. A theory should consist mainly of inductive generalizations based on observations, with little in the way of constructions or hypothetical formulations contributed by the theorist.

18. Human actions are just as strictly determined by whatever causes are operating as all other physical events are.

19. Nearly all individual differences in human behavior can be accounted for in terms of past reinforcements.

20. Psychologists can gain many valuable insights through meditation and other procedures designed to expand or illuminate private experience.

21. In the long run researchers can achieve most if they devote each individual study to a very specific, circumscribed problem.

22. Much of the variation in human temperament is governed by inborn constitution.

23. Any meaningful statement about mental events can be translated into a statement about behavior with no serious loss of meaning.

24. Psychological theory could benefit greatly from more extensive use of mathematical and geometric models.

25. The most valuable theories are ones involving speculation that goes well beyond established facts and points the way to future discoveries.

26. In principle, an individual's choice or decision can never be fully predicted from antecedent conditions or events.

27. Nearly all the behavioral tendencies that have been called instinctive in people are actually products of learning.

28. The primary goal of psychologists should be the explanation of observable behavior, rather than the explanation of conscious events.

29. We would gain more valuable information if researchers spent more time studying total action patterns in relation to the total influencing environment and less time relating single responses to a few specific stimuli.

30. An individual's pattern of relative strengths and weaknesses in verbal, mathematical, and perceptual abilities is governed to a great extent by genetic factors.

31. As far as possible, the stimulus and response variables used in psychological theory should be defined in strictly physical terms.

32. Mathematical equations are not very appropriate devices for expressing the most fundamental relationships and principles in psychological theory.

33. Most of the important landmarks in the history of any science are empirical discoveries, not theories.

34. Human behavior is not completely predictable, because people are too individually unique.

35. Every feature of human behavior is susceptible to extensive modification by learning.
36. At present, there is as great a need in psychological research for sensitive, introspective observers as for refinements in design and instrumentation.

37. Our most important information in psychology is obtained by well-controlled experiments in which we systematically vary one or a few independent variables and record their effects on a specific dependent variable.

38. Individual differences in biochemical constitution underlie much important variation in behavior.

39. All the concepts used in psychological theory should be explicitly definable in terms of operations of observation and measurement.

40. Many of the most important relationships in psychology can best be examined by complex kinds of statistical analysis.

41. Single, isolated facts and findings are of little value until they are related to other facts and findings by theoretical interpretation.

42. Strictly speaking, there are no random or chance events, since all events are characterized by lawful regularities.

43. Every frequently recurring action is controlled or regulated to a great extent by environmental influences or effects, whether the individual who displays it realizes this or not.

44. Psychologists should devote more effort to explaining observable behavior than to enplaning conscious experience.

45. Psychologists often get their best insights from research activities in which they do not try to achieve careful measurement or quantification.

46. There are marked hereditary differences among people in susceptibility to mental illness.

47. In scientific writing, psychologists should either avoid making statements about conscious phenomena or try to translate such statements into statements about physical conditions and events.

48. As this science progresses, psychological theories will tend increasingly to be composed of abstract mathematical or logical equations.

49. Science can best advance if theorists are willing to speculate freely beyond the limits of currently available evidence.

50. In principle, we could predict all of a person's behavior if we had complete knowledge of his/her physiological condition and of the events that had previously occurred in his/her life.

51. Higher mental processes are largely products of learning.

52. All aspects of conscious human experience should be considered appropriate subject matter for psychology.

53. The explanation of behavior in complex social systems probably requires the use of principles that are not manifested in interactions within small groups.

54. Many of the behavioral differences between men and women are a function of inherent biological differences between the sexes.

55. It is best to define <u>learning</u> just in terms of a change in response, without any reference to events that cannot be publicly observed.

56. A strong insistence on precise measurement and quantification is likely to cause psychologists to neglect important areas of research.

57. When general theories are constructed before much systematic research has been done in an area, they tend to impede scientific progress.

58. The experience of personal choice is actually an illusion.

59. Individual differences in personality are mostly a product of environmental influence.

60. Psychologists should strive to develop a more elaborate and precise vocabulary for describing conscious emotional states and other qualities of experience.

61. Psychologists should undertake more studies of broad scope, aimed at charting major areas of investigation, before proceeding to test so many specific hypotheses.

62. The structure of human thought is governed to a great extent by innate factors.

63. A good indicator of the maturity of a science is the extent to which its explanatory principles are stated in a precise quantitative form.

This survey developed by Richard Coan (1979).