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The will and skill of preservice teachers to collaborate and accommodate in inclusive settings

Valerie M. Colonna
Rowan University

THE WILL AND SKILL OF PRESERVICE TEACHERS TO COLLABORATE AND ACCOMMODATE IN INCLUSIVE SETTINGS

by
Valerie M. Colonna

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ABSTRACT

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Dr. Jay Kuder
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This study examined the perceptions of 36 elementary, 25 secondary, and 20 special education preservice teachers regarding their willingness and ability to collaborate with other educators and accommodate special needs students in inclusive classrooms. Survey results indicated that special education subjects led their elementary and secondary counterparts on both willingness and ability subscales to collaborate and accommodate special students in the regular classroom. All three groups rated their willingness higher than their ability, but for the elementary and secondary groups, this difference was notably greater. However, results revealed significant differences between the preservice groups on a number of collaboration and accommodation variables. Additionally, correlation tests illustrated significant relationships between collaborative ability and the willingness to accommodate, as well as between the willingness to accommodate special students and student teacher assignment to inclusive classroom settings. Responses to follow-up interview sessions are considered and implications for preservice curriculum are discussed.

MINI-ABSTRACT

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Chapter 1

Introduction

More than a decade has passed since the inception of Madeline Will's Regular Education Initiative (REI), and scholars are still debating the efficacy of her philosophy in its current form, inclusion. Despite the dearth of empirical data to support the academic gain of included children with special needs, the rate at which such children (especially those classified as learning disabled) are being included into general classrooms, continues to rise (Mayhew, 1994; Miller & Savage, 1995). Consequently, general education teachers are now educating students with increasing academic diversity in their regular classrooms.

In response to federal legislation and the steady progression of public schools toward inclusive educational models, many state departments of education now require a special education course be taken by prospective general education majors who seek teacher certification (Patton & Braithwaite, 1990; Reiff, Evans & Cass, 1991). In spite of these requirements, however, inservice general education teachers, whose attitudes and perceived competencies have been examined by researchers, repeatedly report that they feel unprepared to adequately address individual differences in the classroom (Phillips, Allred, Bruelle & Shank, 1990; Gemmell-Crosby & Hanzlik, 1994; Miller & Savage, 1995; Monahan, Marino & Miller, 1996). Moreover, these teachers point to their

preparatory education programs that, in their view, did not adequately prepare them for inclusion (Thousand, 1988; Kearney & Durand, 1992; Ross & Wax, 1993).

Regardless of the position one takes on inclusion, most would agree that the success of inclusion is reliant on the ability to collaborate with other professionals to best meet the academic and social needs of the special child (Salend, 1984; Mayhew, 1994; Cegelka & Doorlag, 1995; Stanovich, 1996) as well as on the ability to make appropriate modifications to accommodate individual differences (Madden & Slavin, 1983; Myles & Simpson, 1989; Schumm & Vaughn, 1991). Similar to previous studies, more recent findings report that after the completion of their preservice programs, both general and special educators felt the least well prepared in these areas (Cegelka & Doorlag, 1995).

To date, the focus of collaboration and accommodation research has been on general educators' perceptions of their abilities to collaborate and preferences for accommodation of students with special needs in inclusive models. Collaborative preservice programs and inservice programs addressing the various ways to accommodate students with special needs in inclusive settings have also received attention. What has not been examined is the degree to which preservice special educators are willing and able to collaborate with general educators. Additionally, the research has failed to address the willingness of prospective elementary, secondary and special education teachers to accommodate the academic needs of their students in inclusive classrooms. It is, therefore, the intent of this study to examine the will and skill of preservice elementary, secondary and special education teachers to collaborate and accommodate students to best meet the academic needs of children with special needs placed in inclusive classrooms.

Problem Statement

There is little question that as more children with special needs are included in the regular classroom, inservice teachers, as well as preservice teachers, face difficult challenges. The success of inclusion is contingent upon the willingness and abilities of these teachers to effectively meet the academic needs of all students. Given current state requirements for general teacher certification, and general and special educators' dissatisfaction with their preservice preparation for inclusion, can we expect preservice elementary, secondary and special education teachers to possess the will and skill to collaborate and accommodate students with special needs in inclusive settings? Therefore, the research question to be examined in this study is: Do preservice elementary, secondary and special education teachers possess the will and skill to collaborate and accommodate students with special needs in inclusive settings?

Hypotheses

Based upon the research conducted with general and special inservice educators regarding their self-reported attitudes and skills, the following outcomes for preservice teachers are expected:

1. On a survey measure of collaborative skills, elementary and secondary preservice teachers will report having few skills and be less willing to collaborate than special education preservice teachers.

2. On a survey measure of the willingness and ability to accommodate the needs of special students in inclusive settings, special education and elementary preservice teachers will rate themselves more willing and able than their secondary counterparts.

3. For special education, elementary and secondary preservice teachers, there will be a significant relationship between the self-perception of collaborative skills and willingness to accommodate special needs students.

4. There will be a significant relationship between the preservice teachers' willingness to accommodate needs of special needs students and the current student teacher assignment in inclusive classrooms.

Definition of Terms

There is great debate surrounding the definition of inclusion. To clarify its meaning for this study, inclusion is the acceptance of all students with disabilities as full members of their home base schools where all educators have responsibility for all students in that school (Lombardi, Nuzzo, Kennedy & Foshay, 1994). In addition, students in included placements receive "all supports and related services called for in the Individual Education Plan (IEP), which is provided in a collaborative model of education . . ." (Filler, 1996, p. 31).

It is also important to make a distinction between collaboration and consultation because these terms are often used interchangeably. Friend and Cook (1996) define collaboration as "a style for direct interaction between at least two coequal parties voluntarily engaged in shared decision making as they work toward a common goal" (p. 6). Conversely, consultation is typically characterized by the "inequality of status between professionals, usually with the implication that the regular classroom teacher is less qualified than a support services specialist to provide input and resolve problems" (Pugach & Allen-Meares, 1985, p. 4).

For the purposes of this study, making accommodation for a special needs student is defined as the act of making modifications (e.g., to a student's curriculum or to a teacher's instructional style) in order to best serve the academic needs of a student with special needs in an inclusive setting.

Purpose

In order to be successful in inclusive classrooms, teachers must be adequately prepared. Questions about the adequacy of preservice preparatory programs have surfaced from the pool of literature and warrant further investigation. Because the will and ability to collaborate and accommodate special needs students are considered crucial to successful inclusion, input from preservice teachers regarding these factors is necessary. With this feedback, educators can target specific needs of prospective teachers and ultimately restructure teacher preparation programs to eradicate the shortcomings of past programs.

Overview

What follows is a preview of the subsequent chapters included in this thesis. Chapter 2 consists of a comprehensive literature review that expands on the topics introduced in Chapter 1. Chapter 3 comprises a description of the method used in this study. The subjects (preservice teachers in a suburban New Jersey university) and measures (survey instrument and follow-up structured interview procedure) are described in detail. A description of the results of the study follows in chapter 4, and Chapter 5 discusses the results and implications of this study. Future directions are also suggested.

Chapter 2

The Great Debate: Inclusion

Perhaps no other educational model has received as much attention and heated debate as that of full inclusion. The legal foundation for full inclusion may be found in the language of P.L. 94-142, Education for All Handicapped Children Act passed in 1975 and later reauthorized in 1990 as P.L. 101-476, the Individuals with Disabilities Education Act (IDEA). IDEA states, in part, that to the maximum extent possible, children and youth with disabilities are to be educated with children who are not disabled, in regular classes with appropriate supports, and located in neighborhood schools they would normally attend if they did not have a disability. The placement described, herein, is known as the least restrictive environment (LRE).

To effectively implement the LRE mandate, Madeline Will, the Assistant Secretary for the Office of Special Education and Rehabilitative Services, recommended a move away from separate systems of education. It was her contention that while special education programs were well-intentioned and had accomplished much, they did not always work (Will, 1986). Instead of a dual system of education, Will advocated an educational partnership in which special education and general education "cooperatively develop educational strategies for meeting those needs" (p. 415). Will's philosophy of

educational partnership provided the impetus for what is commonly known as the Regular Education Initiative (REI) and is the cornerstone of inclusive programming.

Controversy swirls around the basic principles upon which the REI is based. The basic assumptions underlying the REI, as interpreted by its proponents, Stainback and Stainback (1984) and Lipsky and Gartner (1987) are:

1. There are not two specific types of students- regular and special. Rather, all students differ to varying degrees along the same continuum; in effect, all students are unique individuals and should receive tailor-made instruction.

2. Good teachers can teach all students. Teaching skills inherent in the concept of quality education are ones which are required by both general and special educators. Special education has become a convenient way for general educators to avoid the responsibility for teaching all students.

3. All children can and should receive a quality education without labeling certain students as different or special and without the maintenance of separate budgets, training programs, teachers, or classes. Funding for specialized programs for a small number of special students is inefficient and unnecessary.

4. Children should not be separated from their chronological peers for educational purposes. To do so is immoral and unethical. For every student, regardless of the severity of the disability, regular class placement is the only option.

5. Physically separate education is discriminatory and unequal. In order to receive equal educational opportunity, children with disabilities must be educated alongside their non-disabled peers.

All of these assumptions have been challenged by the adversaries of full inclusion. For example, Kauffman (1989) agrees that all children are unique and should be recognized as individuals (as stated in assumption 1), but finds exception with the notion that every student be granted a special education simply because each child is unique and deserving. Kauffman quips that this notion is neither practical nor probable, given the inability of general education to meet individual needs. Similarly, Fuchs and Fuchs (1995) question the feasibility of providing individualized programming, such as curriculum-based measurement in the mainstreamed classroom. They maintain that where it has been tried, it has met with failure.

One of the critical factors that determines the effectiveness of inclusive education is teachers' attitudes toward and competencies in inclusive education. General teachers' perceptions of their competencies and attitudes, alluded to in assumption 2, have been examined by many researchers. They have found that general education teachers often feel unprepared to adequately address individual differences in their classrooms (Phillips, Allred, Bruelle & Shank, 1990; Gemmell-Crosby & Hanzlik, 1994; Miller & Savage, 1995; Monahan, Marino & Miller, 1996). Moreover, these teachers who feel they are not adequately prepared to teach children with severe disabilities are often resistant to accepting them into their classrooms (Pearman, Huang, Bernhart, & Mellblom, 1992). Other researchers doubt the likelihood of a partnership between general and regular education (Fuchs & Fuchs, 1994).

Assumption 3 addresses the issue of labeling and cost efficiency which have received a great deal of attention by both full inclusion advocates and adversaries. For

example, Kauffman (1989) asks, "How can the rights of handicapped students be guaranteed without our talking about these students as having different needs or instructional requirements?" (p. 264). Further, he insists that if we don't label students and risk stigmatizing them, then we risk something worse- ignoring their differences. Hallahan and Kauffman (1991) offer this on labeling. "We cannot talk about differences without using labels of some sort- words that describe differences" (p. 43). Regarding the cost of full inclusion, Shanker (1995) insists that inclusion, with its appropriate supports and services, is an expensive endeavor. Shanker alleges that the school districts that have adopted full inclusion, who claim they are saving money, are doing so at a price to students with special needs. In short, the children with special needs are not getting the services they need in the regular classrooms. Interestingly, in 1989, Kauffman predicted that a merger of general and special education budgets would have the effect of decreasing specialized services for children with disabilities.

Assumptions 4 and 5 are at the core of the most volatile and widely-publicized issues of full inclusion: integration and equal rights. Special education has been described as something akin to slavery (Stainback & Stainback, 1984) or apartheid (Lipsky & Gartner, 1987). Kauffman (1989) retorts that the civil rights issue for handicapped students is not one of access to the same services provided to others, but rather one of access to an educational system designed to accommodate their special needs, even if that accommodation requires separation. Indeed, for some it is argued that separate is better, and to abolish special education placement in favor of full inclusion is to rob many of an appropriate education (Fuchs & Fuchs, 1994-1995). In a similar vein, questions about the

appropriateness of regular class placement as the sole option for students with severe emotional disturbance, have been raised (Kauffman, Lloyd, Baker & Riedel, 1995).

Efficacy Studies Regarding Inclusion

Does the research offer any answers? Efficacy studies have been reviewed to determine the effects of mainstreaming or inclusion on the social and academic outcomes of students with special needs, especially those with mild handicaps or learning disabilities. According to Madden and Slavin (1983), much of the research is methodologically flawed, and it is upon this research that proponents of inclusion take their stance. First, there is the problem of defining the learning problems of students who are mainstreamed. Second, many of the studies are correlational and have characteristic bias- the matched samples are not equivalent. A later review conducted by Hallahan, Keller, McKinney, Lloyd, and Bryan (1988) corroborate this analysis. These authors maintain that because the majority of the studies are dated, their generalizability is compromised on two accounts. First, the handicapped students of the 1950s and 1960s may differ from those today and the educational practice in general and special education has changed and improved over time. Second, a serious flaw of these studies is that except for two studies, investigators did not randomly assign students to different treatments. Further, Hallahan et al. argue that too much emphasis is placed on physical placement and not enough on educational outcomes.

The earliest studies reviewed by Madden and Slavin (1983) determined social outcomes for disabled children by using teacher ratings. Unfortunately, the validity of these ratings is unknown. When more objective measures were employed in regular classrooms, in which no modifications or in-class support was given to disabled children,

two studies found in favor of the self-contained classroom over the regular mainstreamed class. The children in the self-contained classroom displayed greater verbal flexibility, fluency and originality. However, another study found that mainstreamed children in regular classes used fewer self-derogation statements than those in self-contained classrooms. In five studies reviewed by Madden and Slavin, in which disabled students received resource support in the regular classroom, researchers found positive outcomes for disabled students on several social and adaptive measures. The constructs measured were self-concept, social adjustment, personal and social growth, attitudes toward school, and internal control. A review of seven studies which determined the social acceptance of disabled children by their non-disabled peers led Madden and Slavin to conclude that the experience of mainstreaming was neither entirely positive nor entirely negative on the effects of social acceptance. However, these authors also point out that in five studies, regardless of placement, mildly disabled students are poorly accepted by their non-disabled peers.

Madden and Slavin (1983) and Hallahan et al. (1988) contend that while there is a plethora of studies to support positive achievement outcomes for mainstreamed students, only two studies are methodologically sound. These studies are well designed and their effects quite large, but as Hallahan et al. point out, two studies do not lead to very persuasive evidence for the value of general over special education classes. These authors insist that at least as strong a case can be made for the more intensive setting. In fact, Madden and Slavin attribute the positive achievement outcomes of these mainstreamed students to the use of individualized instruction in regular classroom settings.

In a study to determine changes required to facilitate full-time integration of students with disabilities, Baker and Zigmond (1990) examined educational practices in grades K-5 in an urban school. Observations of these mainstreamed classrooms over one year revealed that while teachers did not seem insensitive to the needs of students, they were more committed to routine than addressing individual differences. Instruction was directed to the whole group without differentiated assignments within classroom groups. Although students rarely failed courses or were required to repeat a year, nearly half of all students scored below the 50th percentile in reading on spring achievement test scores. Baker and Zigmond concluded that in order for the Regular Education Initiative to work in this school, fundamental changes in mainstream instruction needed to occur.

Even when adequate preparation, planning, training, technical assistance and support are provided for teachers to implement an inclusive education for learning disabled students, the academic outcomes are disappointing. In a review of the data from three multi-year studies of inclusive models conducted in three states, Zigmond et al. (1995) found that "for approximately half of the students with learning disabilities in the six schools, achievement outcomes after a year of fully integrated educational programs and services were unsatisfactory" (p. 539). Further, the authors judged the results as neither providing a justification for the elimination of the continuum of services for students with disabilities, nor as providing a basis for the conclusion that satisfactory achievement outcomes can be obtained in the general education classroom. These authors point out that these projects invested tremendous amounts of resources- both financial and professional- which lead to questions about whether the investment was worth the

marginal gain in achievement.

The Inclusion Explosion

In spite of the controversy surrounding inclusion and the limited empirical base supporting academic achievement outcomes, the number of students who are mainstreamed or fully included in regular classrooms, is on the rise (Mayhew, 1994; Miller & Savage, 1995). In a report to Congress by the U.S. Department of Education (1994), it was stated that over 70% of 6 through 21 year-old students with disabilities are being taught in general education classrooms. Thirty-five percent of these students spend the entire school day in general education classes while another 36% are enrolled in mainstream settings. This report further states that students with specific learning disabilities account for more than half of all students aged 6 through 17 enrolled in school. Students with speech or language impairments (21.6%), mental retardation (11.5%), and serious emotional disturbance (8.7%) make up an additional 41.8% of all students aged 6 through 21 with disabilities. Interestingly, the authors of this report concluded that as the percentage of these latter groups decrease, the percentage of students with specific learning disabilities continues to grow.

Students with speech and language impairments and with specific learning disabilities are more likely than students with other disabilities to be educated in regular classes and resource room placements. Consequently, general education teachers are now educating students with increasing academic diversity in their regular classrooms. Likewise, prospective teachers currently enrolled in professional preparatory programs will face similar challenges in their future teaching assignments.

The Status of Preparatory Programs

In response to federal legislation and the steady progression of public schools toward inclusive educational models, many state departments of education now require a special education course be taken by prospective general education majors who seek teacher certification (Patton & Braithwaite, 1990; Reiff, Evans & Cass, 1991). To determine current practices in general education certification, Reiff et al. conducted a national survey of all 50 states and the District of Columbia. They found that all but 14 states require a special education component in their general education curriculum. The 14 states requiring no special education component for prospective elementary and secondary teachers are: Alaska, Arizona, Arkansas, Florida, Hawaii, Iowa, Michigan, Minnesota, New Jersey, New Mexico, New York, South Carolina, and Virginia.

Considering that in 1978, less than one-quarter of the states mandated special education requirements for general teacher certification (Patton & Braithwaite, 1990), the results of both studies represent a responsive move toward change. As noted by Patton and Braithwaite, however, there is some flexibility in meeting the required special education component, through either a separate special education course or special education course work embedded in another course. Further, Reiff et al. question the impact of one course or competency requirement to effectively "empower classroom teachers to assume full responsibility for the education of special education students" (p. 59). Moreover, these authors postulate that the persistent resistance of states to require special education courses for certification reflects a belief that only minimal differences exist in the characteristics and competencies of beginning special education and

regular classroom teachers.

Teachers' Attitudes and Skills to Teach Included Students in the Regular Classroom

In spite of the preparatory education programs in which teachers gained certification, inservice general education teachers, whose attitudes and perceived competencies have been examined by the researchers, repeatedly report that they feel unprepared to adequately address individual differences in the classroom (Phillips, Allred, Bruelle & Shank, 1990; Gemmell-Crosby & Hanzlik, 1994; Miller & Savage, 1995; Monahan, Marino & Miller, 1996) and that their preparatory education programs did not adequately prepare them for inclusion (Thousand, 1988; Kearney & Durand, 1992; Ross & Wax, 1993). For example, Monahan et al. surveyed general education teachers in South Carolina to determine their self-perceived roles, attitudes and knowledge regarding inclusion of special needs students. Of the 342 surveys returned, 75% of the respondents felt that general education teachers do not possess the instructional skills and educational backgrounds to teach students with special needs. To determine general education teachers' most consistent areas of concern regarding inclusionary programs, Ross and Wax solicited responses from 16 teachers from two states using open-ended surveys and follow-up interviews. They reported that these teachers were most concerned about their lack of knowledge about specific language/learning disabilities and their lack of training in special education that would have helped them to better deal with individual students' learning deficits. Finally, teachers indicated that special training received through either in-service workshops or extra course work would have better prepared them for accommodating the special needs of their students.

The perceived lack of ability reported by general educators to teach students with special needs has been positively correlated with the willingness of teachers to include students with learning disabilities in their classrooms (Larrivee & Cook, 1979; Stephens & Braun, 1980). Both the will and skill to teach special needs children are viewed as critical factors to the success of inclusion (Salend, 1984). The skills in which teachers feel unprepared include their ability to: adapt materials and curriculum, manage behavior problems related to a child's disability, give individual assistance, collaborate with other educators and participate in Individual Education Plan (IEP) conferences (Gemmell-Crosby & Hanzlik, 1994). Without the skill to teach students with special needs, the will to include these children respectively diminishes.

An early study conducted by Stephen and Braun (1980) illustrates the strong correlation between will and skill to teach children with disabilities. In this study of regular K-8 classroom teachers, Stephens and Braun examined teachers' will to accept educable mentally handicapped, physically handicapped and emotionally handicapped students into their classrooms. As a result of their study, these researchers reached several important conclusions: (a) the teachers' confidence in their ability to teach was significantly related to their willingness, (b) regular classroom teachers' willingness increased as the number of special education courses increased, (c) teachers who were confident in their abilities were more willing to integrate students with disabilities than those who were not, and (d) teachers who had taken courses in special education were more willing to include children with disabilities than those who had not taken such courses.

In other studies, researchers expanded their subject pool to include secondary

general educators and special educators. Differences were found to exist between elementary and secondary regular teachers with regard to their willingness to include special children in their classrooms. For example, Larrivee and Cook (1979) found that teachers in primary and middle grades were more inclined to include special students than their secondary counterparts. Similarly, a study by Pearman, Huang, Bernhart, and Mellblom (1992) of the beliefs and attitudes of special education and regular education teachers toward inclusion revealed that the attitudes of special educators and elementary teachers did not differ significantly, but that the attitudes of secondary teachers and special education teachers did significantly differ. The contents of the survey by Pearman et al. did not specifically address issues of will and skill, but instead focused on general attitudes and opinions about inclusion. Among the three groups, it was found that secondary teachers, as a whole, held the least positive attitudes and opinions about inclusion.

Based on these studies, it may be inferred that as grade level rises, teachers' willingness to include special students in their classrooms declines. Schumaker and Deshler (1988) have argued that implementing inclusionary practice in the secondary schools would be particularly difficult for two reasons. First, there is a greater disparity at the secondary level between the skills possessed by students with disabilities and the level of required academic skills than at the elementary level. Second, inclusion would require significant structural changes in the secondary school environment. As Fox and Ysseldyke (1997) suggest, inclusion "would require secondary teachers to shift from 'teacher-centered instruction' with its greatest emphasis on subject content to 'student-centered instruction' that focuses more on students' needs" (p. 82). Similarly, Pearman et al. (1992)

speculate that the reason why secondary teachers are resistant to inclusion is because they believe that inclusion of special needs students is an elementary issue and that this view may be due in part "to the departmentalized content specific nature of secondary instruction" (p. 180).

In summary, research has consistently shown that inservice regular teachers do not feel adequately prepared to teach students with disabilities. The will of these teachers to include students with disabilities in their classrooms has been negatively correlated with grade level and positively correlated with skill. Can these same results be generalized to preservice general educators?

The focus of preservice teacher studies have been on the impact of specific programs to remediate the effects of will and skill deficits. In a study by Mayhew (1994), three groups of preservice teachers were asked to complete a questionnaire concerning their willingness to include and perceived skill to teach exceptional students. Group I (preservice elementary teachers) and Group II (preservice elementary and secondary teachers) both took a course entitled Educational Partnerships: Serving Exceptional Students. Group III (composed of preservice secondary teachers only) did not take the course. Pretests were given to Groups I and II only. All three groups received the posttest.

As expected, a posttest revealed that after the course was taken, there was a significant gain in scores between the pretests and posttests for Groups I and II. What surprised the author, however, was that there was no significant difference between the three groups with regard to their willingness to work with special needs students. This

finding runs counter to the reports of general inservice educators. There was a significant difference between Groups I and II as compared to Group III in self-reported skills and knowledge. Mayhew concluded from these results that although preservice educators, in general, report positive attitudes toward students with disabilities, the subjects who have received special education course work report a higher confidence level in their knowledge base and abilities to work with these students.

Mayhew (1994) does caution the reader concerning his finding that no significant difference existed between the three groups' attitudes toward including special children. He suggests that perhaps Group III responded as they thought they should rather than how they actually believed. But, he adds, if the subjects were truthful, these results indicate the possibility of a trend that future educators will be more receptive to working with students who have disabilities. Mayhew's results, however tentative, warrant further investigation.

Making Inclusion Work: Collaboration and Accommodation

In order to facilitate the inclusion of students with special needs, collaboration between general and special educators is viewed as critical (Salend, 1984; Cegelka & Doorlag, 1995; Reed & Monda-Amaya, 1995; Ross & Wax, 1993; Johnson, Pugach & Devlin, 1990). Johnson et al. argue that the "interface between general and special education is one of the most important and pressing issues facing educators in the 1990s" (p. 11). In a study which sought to determine essential teaching practices needed by both general and special educators responsible for the education of students with mild handicaps in general classrooms, Cannon, Idol, and West (1992) reported that of the 96

essential teaching practices identified by an expert panel, over 80% of those were seen as essential for both general and special educators. Given the common base of essential teaching practices in this study, the authors concluded that there is "little support for the continuation of fragmented and segregated preservice preparation and professional staff development for general and special educators of students with mild handicaps in mainstreamed settings" (p. 314).

Without a clear idea about the nature of collaboration, a review of the literature is difficult. In this regard, Cook and Friend (1991) provide clarification and direction. First, they define collaboration as a "style" (p. 7) so that it may be considered within a variety of contexts. The characteristics of collaboration delineated by Cook and Friend are : (a) collaboration is voluntary, (b) individuals who collaborate share a common goal, (c) collaboration requires parity among participants, (d) collaboration includes shared responsibility for decisions, (e) individuals who collaborate share accountability for outcomes, (f) collaboration includes sharing resources, and (g) collaboration is emergent. The authors explain emergent characteristics as those which grow stronger over time. For example, the trust between collaborating individuals develops and strengthens as collaboration continues to occur.

Given all of the collaborative characteristics described above, a review of studies which have examined collaborative relationships between general and special educators could be limited. However, collaborative models and relationships that include Cook and Friend's (1991) characteristics in total, or in part, are included in this review. One such model is the prereferral intervention approach. According to Carter and Sugai (1989), the

purpose of the prereferral intervention process is to reduce the number of inappropriate special education placements and to identify, design, and implement interventions that will enable students to remain in the least restrictive environment, usually the regular classroom. These interventions are developed collaboratively by the referring general education teacher and the school-based child study team consisting of special education teachers, learning disability consultants, counselors, principals, and school psychologists. Although prereferral intervention approaches differ, Nelson, Smith, Taylor, Dodd, and Reavis (1992) maintain that all of them are generally problem-solving processes involving school professionals who work together to ameliorate students' academic and social problems as they occur in the general classroom.

In order to determine the types and levels of prereferral intervention usage in the United States, Carter and Sugai (1989) sent a survey to state directors of special education in all 50 states and the District of Columbia. Twenty three states indicated that they required prereferral interventions while 21 states only recommended or had no prereferral requirements. The most frequently included prereferral intervention choices were instructional modifications, counseling, and behavior management strategies. It was also found that regular educators were the most likely to implement the prereferral intervention. In fact, teachers were cited nearly twice as often as other individuals as responsible for designing prereferral interventions. When asked whether prereferral interventions were successful in maintaining students in regular classrooms, three-quarters of the state special education directors indicated that it was successful only sometimes or that they had no basis upon which to make a judgement.

Carter and Sugai (1989) concluded that although state departments of education often mandate prereferral intervention approaches, there is little evidence to indicate that they are effective in maintaining students with special needs in general classrooms. Further, because teachers are often responsible for designing and implementing intervention programs, they should be trained in the following areas: individualizing instruction, the nature of learning and behavioral handicaps, the prereferral process, and regular and special education interface.

A similar survey was sent to special education administrators in Utah by Nelson, Smith, Taylor, Dodd, and Reavis (1992). These researchers wanted to determine the effectiveness of prereferral intervention approaches on maintaining students in general education classrooms. While the special education administrators in this study believed that a certain type of prereferral approach would maintain students in the mainstream, they were uncertain whether a majority of the approaches would do so. Respondents were also reported to be unsure whether the prereferral intervention process actually benefits teachers, is a bureaucratic hurdle, and should be maintained. Interestingly, these same administrators felt that teachers do follow through with the process, that the process maintains students in general education, and results in fewer referrals for formal assessment.

Although these findings substantiate those of Carter and Sugai (1989), they should be viewed with caution. In both studies, conclusions are based on the self-reported perceptions of administrators who are removed from the actual process. Further, as Nelson et al. (1992) admits these administrators may not have accessed or had access to

information that would have enabled them to monitor and evaluate the effectiveness of prereferral approaches. Moreover, the perceptions of those actually involved in the prereferral process may have differed substantially from those of the administrators.

A school-based longitudinal study conducted by Graden, Casey, and Bonstrom (1985) described the process of implementing a prereferral intervention system in six schools in a large suburban district. Effectiveness of the prereferral intervention system in each school was monitored with respect to requests for consultation services, referrals into the special education process, testing rates, and placement rates. Each school differed from one another in the degree to which the prereferral process was effective, however, some general trends were noted. In the schools in which teachers used the prereferral process, significant declines in testing and placement rates occurred. For all schools, the implementation year resulted in the greatest decline in students tested. By the end of the third year, overall numbers of students placed in special education approached or reached baseline levels in three of the six schools. By stark contrast, special education placement in two schools was dramatically decreased.

The authors explain that these mixed results were due to several mitigating factors. In schools where the prereferral intervention was not successful, Graden et al. (1985) cite a lack of administrative support and an insufficient allocation of resources (e.g., less time was made available to seek consultation) as likely culprits. The authors attribute other reasons for failure to the tie between funding and placement of students in special education, the overwhelming demands placed on participants in the process, and inadequate preparation on the part of the consultants. While the principals in this study

expressed support for the model and reported favorable perceptions in terms of their beliefs that the process increased teacher tolerance and competence to work with academically diverse students, the extent to which classroom interventions were beneficial was not examined by the authors.

Several researchers have examined the nature of collaborative relationships between general educators and special educators as they naturally occur in schools. For example, Karge, McClure, and Patton (1995) studied the collaborative practices of resource programs at middle and high school levels in Southern California. Input from resource teachers in 69 schools indicated that 86% of these teachers spent less than 40% of their week collaborating with general education teachers. Although they felt they had time to plan, it was not adequate enough to effectively implement a collaborative program. The time they spent collaborating was often on a "catch-as-you-can basis" (p. 83) and usually initiated by the special education teacher. Teacher attitude was viewed as the most important factor for successful collaboration, while the severity of the student's disability was cited as one of the lowest ranking factors. Regarding factors that hindered successful collaboration, teacher attitude and lack of time were indicated most often. Lowest rated factors which hinder collaboration were the degree of the severity of a student's disability and lack of family support.

Nearly three-quarters of the teachers in the Karge et al. (1995) study indicated that they preferred a combination of consultation/collaboration and traditional pull-out services. The three statements respondents most strongly agreed with were: (a) "teachers have a clear understanding of responsibility toward the educational program of students

with learning disabilities, (b) support exists from site administrator at school, and (c) full inclusion can be effective if proper collaboration occurs" (p. 84). On the other hand, respondents least agreed with these statements: "training/workshops have been provided to facilitate collaboration," and "an adequate amount of time is spent during the week with teachers in the collaboration process" (p. 84).

It is important to note that teacher attitude was not defined by the survey instrument used in this study. Attitudes may have meant those toward students with disabilities in the class or attitudes toward working with another adult or colleague in the classroom. In addition, the generalizability of these findings to special educators in other states is questionable. For example, in California, special education teachers are certified in general education before they obtain special education certification. This is not a national teacher certification practice.

In a study conducted by Reinhiller (1995), the collaborative relationships between special education and general education teachers were examined through observation and interviews in two elementary schools. As in the Karge et al. (1995) study, the nature of collaboration between teachers was characterized as informal and occurring on the run as teachers met when and where they could. Teachers attributed the infrequency of collaboration to lack of time, teacher personality, and misunderstandings about general and special educators' roles in the collaborative process. Special education teachers in this study felt that general education teachers who resisted the process had fears of the unknown, and felt they were overburdened and unable to adequately meet the educational needs of special students in the general education setting.

Voltz, Elliot, and Cobb (1994) analyzed and compared actual and ideal performance of collaborative roles with a national sample of 83 resource teachers and 64 general education teachers. Although the majority of teachers believed that many collaborative roles should be performed often or always, few roles were actually performed by either teacher group often or always. Further, many teachers indicated a desire to collaborate on an information-exchange or problem-solving level, but were reluctant to actually occupy the same classroom at the same time or to jointly deliver instruction. There was a tendency for both general and special educators to assign lower ratings to roles involving the physical presence of special education teachers in general education classes or of general education teachers in resource rooms.

Teachers' perceptions of collaborative planning meetings that they engaged in with remedial reading or resource teachers were examined by Meyers, Gelzheiser, and Yelich (1991). These researchers interviewed 23 volunteer classroom teachers. Twelve were teaching in pull-in programs and the remainder were delivering instruction in pull-out programs. Pull-out programs were described as those in which students received supplemental reading instruction by going to the resource room to receive additional instruction. Conversely, pull-in programs were characterized as those in which the special education teacher provided instruction in the regular classroom. Several effects were measured: frequency of meetings, meeting length, initiation patterns, meeting content and changes in collaborations. Results indicated that teachers in pull-in programs met more frequently, but that meetings were relatively short in length, while teachers in the pull-out condition reported that meetings were infrequent, but relatively long in duration. Meetings

were informally set up by both groups, but initiation patterns differed. In the pull-in condition, initiations were equitable, whereas in the pull-out conditions, the special education teacher generally initiated the contact.

Almost all teachers in the pull-in condition reported that the content of their meetings consisted of discussions which focused on specific aspects of instruction (e.g., lesson plans, specific educational goals, curriculum, and educational techniques). Teachers in the pull-out conditions did not discuss instruction in the same detail. Their focus centered on behavioral and social issues of the students. Meyers et al. (1991) concluded that the most important finding of this research was that "pull-in approaches foster collaboration focused on instructional planning. The pull-in teacher pairs met in order to jointly plan instruction that addressed student needs, while pull-out teachers met to share insights about student needs so that each teacher could plan instruction" (p. 13).

Most of the collaboration research has concentrated on teacher perceptions of their collaborative relationships. Only one study has examined achievement outcomes of students who received instruction mutually designed by general and special educators. Schulte, Osborne, and McKinney (1990) compared the achievement of children with learning disabilities who were randomly assigned to four treatment groups: one period per day in resource room (RR1), two periods per day in resource room (RR2), consultative services with direct instruction (C/D), and consultative only services (C/I). So as not to be confused with traditional consultation, the consultative treatments outlined in this study closely resemble the collaboration style described by Cook and Friend (1991), and are therefore considered germane to this literature review. For example, in both the C/D and

C/I models, the consulting teachers collaborated with classroom teachers to identify instructional and behavioral objectives for students. The consulting teacher subsequently worked with the classroom teacher to develop lesson plans to meet the prescribed objectives. In the C/D treatment, the consulting teacher provided direct instruction in the classroom based on modifications of the classroom teacher's lesson plans for the remainder of the class. In all treatment conditions, instruction was individualized for each student. Teachers used IEP and results from a skills assessment measure to establish priorities for instruction. Teachers in the C/D and C/I conditions all had prior consultation and resource room experience.

Schulte et al. (1990) reported that on the Woodcock Johnson Tests of Achievement in Reading, Written Language, and Mathematics, all groups improved from pretesting to posttesting. Math test scores were significantly higher than those for reading and reading scores were higher than those for written language. The C/D group made greater overall academic gains compared to the RR1 group. On a questionnaire measure at the conclusion of the study, teachers indicated that they viewed the consulting teacher and consulting process as positive. The C/D teachers' perception of the consultation's effect on the target child and their preparation to deal with similar children in the future was significantly higher than those in the C/I group.

Schulte et al. (1990) admit that their study has limited generalizability due to the small sample involved. In addition, the academic gains, while statistically significant, were minimal. Support for a consultative collaborative model to improve the academic achievement of students with learning disabilities is modest. Given the tentative findings

regarding the effectiveness of collaborative relationships on student achievement, the limited generalizability of these findings, and the small number of studies, it is clear that more research is needed.

Overall, general and special educators view collaboration positively, but are wary when the sanctity of their classrooms is threatened. Neither group wants the presence of the other in their classroom, and yet this very arrangement facilitates the collaborative process. In situations where collaborative relationships have broken down, a lack of time, administrative support, and inadequate training have been to blame. There is much work to be done if teachers are to collaborate to best meet the needs of special children in general classrooms.

As shown in prereferral intervention approaches, teachers can successfully collaborate to best meet the academic and social needs of children with special needs in regular classrooms. One of the ways general and special education teachers can collaborate effectively is in the development of classroom modifications (e.g., materials, curriculum, and methods of instruction) for classified students in the mainstream (Stanovich, 1996).

In order for students with learning disabilities to be academically successful, Christenson, Ysseldyke, and Thurlow (1989) state that ten essential factors must be considered. The authors cite the importance of these factors in terms of individual student achievement. The factors are: "the degree to which: (a) classroom management is effective and efficient, (b) there is a sense of 'positiveness' in the school environment, (c) there is an appropriate instructional match, (d) teaching goals and teacher expectations for student

performance and success are stated clearly and follow specific instructional procedures, (e) instructional support is provided for the individual student, (f) sufficient time is used efficiently, (g) the students' opportunity to respond is high, (h) the teacher actively monitors student progress and understanding, and (i) student performance is evaluated appropriately and frequently" (p. 22).

Given the factors above, how are students with special needs being taught in inclusive settings? Baker and Zigmond (1990) examined educational practices in K-5 regular education classes in an urban elementary school. Through informal and formal observations, interviews, questionnaires, surveys of students, parents and school personnel, and examination of school records, Baker and Zigmond were able to draw an accurate picture of the nature of inclusionary practice in this school. They found that the primary mode of instruction was whole group or seatwork activity assigned to the entire class. Teachers were found to rely heavily on the Teacher's manual to guide instruction. No effort was made by teachers to differentiate assignments for students. Generally, lessons were taught to the entire class. There was no grouping for instruction and no differentiated pacing or assignments provided. The authors maintain that it was not that teachers were insensitive to the needs of students, but rather that they were more committed to routine than addressing individual differences. Baker and Zigmond concluded that in order for the Regular Education Initiative to work in this school, fundamental change in the organization of daily routines and integration of alternative instructional practices were mandatory. To that end, inservice training and ongoing assistance in effective instruction were recommended.

In another study, 60 general education social studies and science teachers were selected from an equal number of elementary, middle and high schools. Principals identified the teachers who were to participate as effective in meeting the needs of students with learning disabilities in general classrooms. The intent of McIntosh, Vaughn, Schumm, Haager, and Lee (1993) was to examine the extent to which general education teachers accommodate students with learning disabilities in the mainstream and the extent to which they treat these students, both academically and socially, differently from their non-disabled peers. After the results were in, the authors concluded that even effective general education teachers make few adaptations to meet the needs of special students in their classes.

Specifically, in this study, teachers' instructional behaviors were found to be consistent across grade levels and were not significantly different for special or general education students. Similarly, teachers' behaviors toward students with learning disabilities were not significantly different than those toward general education students. At the elementary level, however, teachers did make more instructional modifications for students with disabilities than teachers at the middle or high school levels. McIntosh et al. (1993) conceded that although special students are included in classroom activities, few were actively participating. The researchers offer two explanations for this finding: (a) learning disabled students are inactive learners, and (b) most of the learning disabled students were not engaged in the learning process because little of the classwork was adapted to meeting their needs in the context of large group instruction. Therefore, these students tended to interact less with the teacher and their non-disabled peers.

Schumm et al. (1995) drew similar conclusions from a subsequent study in which a purposeful sample of 12 teachers, K-12, were examined to determine the nature of teacher planning for content area instruction for students with learning disabilities. They found, in general, that teachers were not likely to develop individualized lesson plans for students with special needs, but that elementary teachers were more likely to plan individual assignments and use alternative materials than were secondary teachers. In addition, teachers at the elementary and middle levels were more inclined to revise plans for subsequent lessons based on students' performance on assignments and tests than were high school teachers. Schumm et al. report that secondary teachers expressed a strong belief that the expectations and evaluative criteria should be the same for students with disabilities as those of their non-disabled peers. This belief may, in part, justify their reticence to make any adjustments in methods, materials or student assessments. At both the elementary and secondary levels, collaboration between general and special education teachers varied considerably, and use of the IEP was rare. While the results of this study support those of Baker and Zigmond (1990), generalizations from this small and purposeful sample should be made with caution. Teachers considered ineffective or inexperienced in teaching learning disabled students were not considered in either this study or the one conducted by McIntosh et al. (1993).

In addition to determining the extent to which teachers make accommodations for special students in mainstream environments, researchers have examined the preferences and perceptions of regular educators to make those accommodations. For example, Myles and Simpson (1989) surveyed 100 regular education teachers of varied experience and

certification areas across several grade levels. They wanted to find out which modifications would persuade regular education teachers to mainstream groups of labeled and unlabeled children with cognitive, social/emotional, or learning exceptionalities. These researchers found that for both labeled and non-labeled children, an insignificant correlation existed between teachers' willingness to accept a child in their classroom and the number of modifications selected. Further, the general willingness of teachers to accept an exceptional child was contingent upon consideration of their mainstreaming recommendations. In other words, teachers are more willing to participate in the mainstreaming process if they have a voice and their active participation in the planning process is sought.

To determine what modifications teachers have tried and those they consider worth trying with students with Attention Deficit Hyperactivity Disorder, Zentall and Stormont-Spurgin (1995) administered the School Modifications Assessment Checklist to 129 general, special and part-time resource teachers. The scale measured five categorical factors: (a) "change standards, which included allowing reduced or different standards for school work, (b) instructional methods, which consisted of giving advanced or lower level assignments and detailed structure for assignments, (c) child involvement, which included actively involving the child in assignments and classroom activities, (d) classroom structure, (e) input/output responses, which comprised the use of cues, prompt cards, teacher proximity and alternate input modes, (f) consequences, and (g) outside support" (p. 117).

Zentall and Stormont-Spurgin (1995) found that secondary general education

teachers have tried and felt successful in adapting independent activities and classroom learning environments, while elementary general education teachers felt more able to adapt methods, goals and group placements. Special education educators had tried and felt more successful than part-time resource teachers in altering instructional methods and input/output responses. In addition, special educators' self-reported success at adapting input/output responses exceeded those reported by general education and part-time resource teachers. Special educators were likewise the most willing to try new instructional methods. On the other hand, general education teachers responded more than special education teachers that they have not and would not implement accommodations that involved input/output responses. Because the subjects were not asked why they responded as they did, the authors could only speculate as to the nature of the differences, namely, that special educators were more willing to make adaptations because they felt the changes were within their domain of responsibility.

Elementary, middle and high school teachers from an urban school district were surveyed by Schumm and Vaughn (1991) to assess their perceptions of the desirability and feasibility of adaptations for mainstreamed students in general education classrooms. Nearly half of the teachers were either certified in special education or had taken special education courses. The other half had attended at least one inservice activity with a special education focus. The accommodations selected as the most desirable included: providing reinforcement and encouragement, establishing personal relationships with the special student, and involving the special student in whole class activities. Adapting long-range plans, adjusting physical arrangement of the room, adapting regular materials, using

alternative materials and adapting scoring or grading criteria were considered the least desirable of the adaptations. The most feasible accommodations included: establishing an appropriate routine for the special student, providing reinforcement and encouragement, establishing a personal relationship with the special student, and involving the special student in whole class activities. Similar to the least desirable, were the least feasible. These included: communicating with the special student, adapting regular materials, using alternative materials, using computers, and providing individualized instruction.

What surprised Schumm and Vaughn (1991) was the finding that few differences existed between grade levels. The authors surmised that the most desirable accommodations selected by teachers are also those which do not require any curricular or environmental adaptations on the part of the teachers. Conversely, the least desirable accommodations require comprehensive and routine evaluation of goals and adjustment of materials and instructional practices for special learners. The authors suggest that the teachers' perceptions reflect a lack of skills and knowledge to make adaptations to instruction and curriculum and an inability to see the benefit of making accommodations for individual students. Finally, Schumm and Vaughn recommend adding these components to preservice education curriculum.

Ysseldyke, Thurlow, Wotruba, and Nania (1990) investigated not only the desirability of certain accommodations, but the ability of teachers to make those accommodations. A survey elicited self-reports of will and skill to make accommodations from 197 regular education teachers from 35 states. All adaptations were viewed by this sample as desirable, but overall teachers' ratings of their abilities to make the adaptations

were lower than their desires. The highest average desirability ratings were on holding a student accountable for performance, quality of work, and altering instruction to facilitate student success. Least desirable were ratings on modifying tasks to a mastery level and adjusting goals to instruct the failing student. Teachers felt best able to hold the student accountable and to use increased practice opportunities. Teachers felt the least able to modify tasks to a mastery level and to monitor the effectiveness of alternative intervention.

Upon comparison of elementary and secondary groups, Ysseldyke et al. (1990) found that elementary teachers held higher perceptions than their secondary counterparts of their abilities to incorporate and use adapted instructional methods. It should be noted, however, that these differences, while statistically significant, were minimal.

Research on two factors considered crucial to the success of inclusion, collaboration and accommodation, have been reviewed and may be summarized as follows. The effectiveness of formal collaborative relationships established between general and special educators in prereferral systems is equivocal. Informal collaborative relationships are characterized as occurring on-the-run or nonexistent. There are several barriers to successful collaboration. Teachers have reported lack of time, teacher attitude and personality, lack of administrative support, overwhelming demands placed upon participating parties, and inadequate preparation in collaborative techniques as significant deterrents to successful interface between special and regular educators. Most teachers believe in the value of collaboration as long as the collaborative partner stays out of their classroom. In addition, the generalizability of several of these studies is suspect due to sample size and sample selection.

The research on accommodations has concentrated on teacher preferences and perceptions. Generally, general educators on all grade levels make few modifications when instructing students with special needs in their classrooms. Preferred modifications are those that require little investment of time or effort on the part of the teacher. On will and skill factors, differences between general elementary and secondary teachers, while statistically significant, were minimal. It may be argued that in several of these studies (e.g., McIntosh et al., 1993, and Schumm et al., 1995), purposeful samples were used and thus contaminate the results. It was, however, the intent of these researchers to present an optimal picture of what special students placed in mainstream settings were likely to encounter.

Implications for Preservice Curriculum

Given the findings of collaboration and accommodation research, the implications for preservice curriculum seem clear. General education teachers may be willing to collaborate with special educators and accommodate instruction to best meet the academic and social needs of students with special needs in their classrooms, but they do not necessarily feel able to do so. Further, the collaborative efforts teachers are most willing to engage in do not include cooperative teaching which has been effective in fostering those relationships. Moreover, accommodations that teachers are most likely to make fall out of the instructional realm. Yet, in order for students with special needs to be successful in the mainstream, modifications in instruction are necessary (Schumm & Vaughn, 1991).

Several recent studies have focused on the confidence of students completing general teacher education programs to instruct students with special needs in regular

settings. Goodlad and Field (1993) conducted a national study of teacher preparation programs and found that students preparing to become general classroom teachers rated their competence in adapting instruction for students with disabilities lower than any other skill. Cegelka and Doorlag (1995) later reported findings from three studies that probed the perceptions teachers had of their preservice education. They found that special educators rated themselves the least prepared to: (a) respond to linguistic diversity, (b) interface with the core curriculum, (c) deal with severe behavior disorders, and (d) collaborate with or consult with general education teachers. The four areas in which general educators felt the least prepared were: (a) developing alternative instruction, (b) working with special education teachers, (c) working with consultants, and (d) assessing students to plan instruction.

What confounds the preservice education issue is that even while public schools move toward more inclusive educational practices, colleges and universities maintain two distinct systems of teacher preparation- one for general education teachers and one for special education teachers (Reed & Monda-Amaya, 1995). This dual system of education does little to foster a cooperative alliance between general and special educators.

Absent from the research to date is a dual examination of preservice elementary, secondary and special educators' perceptions regarding their will and skill to accommodate and collaborate on behalf of special needs students placed in inclusive settings. In addition, research has not reported preservice teachers' perceptions relative to specific state mandated criteria. For example, in New Jersey, in order to obtain general teacher certification, students in preparatory programs are neither required to obtain

certification in special education, nor are they required to complete a special education course. Yet, prereferral intervention systems are mandated in New Jersey. Therefore, it is the intent of this study to determine the perceptions of elementary, secondary, and special education preservice teachers, attending a university in New Jersey, regarding their will and skill to accommodate and collaborate on behalf of students with learning disabilities in inclusive classrooms. Specifically, two relationships will be explored: (a) the extent to which self-perceived collaborative skill relates to the willingness to accommodate students with special needs, and (b) the extent to which teacher assignment in inclusive classroom settings relates to preservice teachers' willingness to accommodate students with special needs.

The question remains. Are future teachers, presently educated within a dual system in a New Jersey university, willing and able to collaborate with other teachers and accommodate students with special needs in their future teaching assignments?

Chapter 3

Subjects

Three samples from the population of elementary (n=36), secondary (n=25), and special education (n=20) preservice teachers, who attended a suburban university in New Jersey, were selected for participation in this study. These preservice teachers had successfully completed all prerequisite course requirements in their respective preparatory programs and were student teaching in public schools throughout New Jersey. Preservice teachers, who were completing their final semester of preparatory education, were purposely selected because it was at that point that they were actively involved in the teaching experience as prescribed by their programs.

With prior permission of instructors, intact classes from each of the three groups of preservice teachers (elementary, secondary, and special education) were solicited to respond to the survey. In addition, all members from each preservice group were asked to participate in a follow-up group interview. Three, or 8% of elementary subjects, 1, or 4% of secondary subjects, and 6, or 30% of special education subjects agreed to participate in the interview session. From the elementary and special education groups, 2 subjects were randomly selected for the interview. One subject who volunteered from the secondary group was interviewed.

Instrument

Because this study examines the will and skill to collaborate as well as to accommodate students with special needs, it was necessary to consult two sources in the design of the survey instrument. First, collaboration competencies were selected from a survey designed by Reed and Monda-Amaya (1995). The list of competencies used in the Reed and Monda-Amaya survey were validated through a literature review and interviews with teacher educators, practicing teachers, and university colleagues conducted by the authors. Second, a select list of accommodations for mainstreamed students was drawn from Schumm and Vaughn's (1991) Adaptation Evaluation Instrument (AEI). As stated by Schumm and Vaughn, a Cronbach coefficient alpha was applied to measure the internal consistency of their instrument. Results indicated reliability coefficients exceeding .95. To measure the content validity of their instrument, a literature review and transcripts from a series of focused group interviews with teachers was conducted.

The resulting survey used in this study consisted of four parts. The first part was a consent form which: (a) stated the purpose of the study, (b) ensured the confidentiality and anonymity of respondents, and (c) requested signed consent. If respondents wished to be considered for participation in the follow-up interview session, they were asked to write their name, address and telephone number on this consent form.

The second part of the survey consisted of a list of collaborative activities and skills in which respondents were asked to rate their willingness and ability (see Appendix A). For the willingness and ability subscales, respondents were requested to rate themselves on a 5-point Likert scale (1= low; 5= high). To avoid misunderstanding of

subscale terms, willingness and ability were defined in the survey instructions. Willingness was described as the act of making a personal choice to perform a task or participate in an activity. Ability was described as being able to proficiently perform a task acquired through either practice or training. Part three of the survey asked respondents to rate their willingness and ability on the same 5-point Likert scale to make specific types of accommodations for students with special needs in regular classrooms.

The collaborative portion of the survey measured respondents' willingness and ability on two dimensions. The first dimension involved active participation in the collaborative process (e.g., team teaching, participating in the prereferral process, and establishing collaborative relationships with other educators). The second collaboration dimension tapped preservice teachers' willingness and ability to engage in effective communication techniques which facilitate the collaborative process. The accommodation portion of the survey measured four dimensions: (a) adapting regular classroom materials, (b) individualizing instruction, (c) adapting evaluation criteria, and (d) adapting teaching methods.

Part four of the survey consisted of three questions which requested information about: (a) the program in which preservice teachers were enrolled, (b) the number of special education courses subjects had taken to date, and (c) the number of students with disabilities in the classes in which subjects were currently student teaching.

This survey was submitted for review and approved for administration by the Internal Review Board (IRB) of the university in which this study was conducted.

Procedure

Upon approval of the survey instrument by the IRB of the university, and with prior instructor consent, the survey was administered by the researcher to four intact classes of preservice teachers. The four intact classes consisted of two classes from elementary education, one class from secondary education, and one class from special education.

First, students were asked to read and sign the consent form before completing the survey. Second, if respondents elected to be considered for participation in the follow-up interview session, they were requested to write their name, address and telephone number on the consent form. Subjects were reminded that they could complete the survey without participating in the interview session. (Identification of subjects was needed only to schedule future interview sessions). In addition, the identity of subjects was not revealed to instructors. Further, all data was reported as group data. Third, the researcher asked each class to read the survey instructions and probed the class for questions. Finally, the students completed the survey and passed them in to the researcher.

Following the survey administration, two students each from the elementary and special education groups, and one student from the secondary group were interviewed by the researcher. The interviews were individually conducted using a structured interview format. In general, the questions focused on the following topics: (1) preparatory instruction in collaboration and accommodation techniques, (2) experiences with collaboration and accommodation in the student teaching assignment, and (3) recommended changes in the current teacher preparation curriculum. For a list of

specific questions used in the structured interview, refer to Appendix B.

Types of Analysis

In order to determine how preservice teachers rated their willingness and ability to collaborate and accommodate on behalf of special needs students in inclusive settings, means and standard deviations were calculated for each collaboration and accommodation variable and reported for elementary, secondary and special education groups. The degree of difference between each preservice group was measured on collaboration and accommodation variables using a one-way analysis of variance (ANOVA). In addition, three correlation tests were conducted to analyze the extent of the relationship between: (a) preservice teachers' self-perception of collaborative skills and willingness to accommodate special needs students, (b) preservice teachers' willingness to accommodate special needs students and current student teacher assignment in inclusive classrooms, and (c) the number of special education courses taken and the ability to collaborate.

Finally, the percentage of preservice teachers who had taken a specified number of special education courses was calculated for each preservice group. Similarly, the percentage of preservice teachers student teaching in classes with a specified number of disabled students was also calculated.

Chapter 4

Survey Results

A survey instrument was administered to elementary, secondary and special education preservice teachers in order to determine the following:

1. Preservice teachers' willingness and ability to collaborate with other educators and accommodate special needs students included in the regular classroom;

2. Whether significant differences existed between three preservice teacher groups on willingness and ability subscales to collaborate and accommodate on behalf of students with special needs;

3. The relationship between preservice teachers' self-reported collaborative skills and willingness to accommodate special needs students;

4. The relationship between preservice teachers' willingness to accommodate the needs of special students and student teacher assignment in inclusive classrooms.

Table 1 illustrates the overall mean ratings for each preservice group on willingness and ability to collaborate with other educators and accommodate students with special needs in regular classrooms. Self-reported ratings on willingness to collaborate were highest for the special education group ($M = 4.7$, $SD = .5$), followed by the elementary group ($M = 4.5$, $SD = .6$), and the secondary group ($M = 4.0$, $SD = .9$). The special education group was also more willing to accommodate special education students

Table 1

Overall Mean Ratings of Preservice Teachers on Collaboration and Accommodation Willingness and Ability Subscales

Subscale	Elementary M	Elementary SD	Secondary M	Secondary SD	Special Ed. M	Special Ed. SD
Willingness						
Collaborate	4.5	.6	4.0	.9	4.7	.5
Accommodate	4.5	.7	4.2	.7	4.8	.3
Ability						
Collaborate	3.5	.7	3.7	.8	3.8	.8
Accommodate	3.5	.8	3.7	.6	4.3	.6

Likert scale: 5-very high to 1-very low

in inclusive classrooms (M = 4.8, SD = .3), than either the elementary (M = 4.5, SD = .7) or secondary groups (M = 4.2, SD = .7). Mean self-ratings on the willingness subscale presented a special education > elementary > secondary pattern.

Mean ratings on the ability to collaborate were highest for the special education group (M = 3.8, SD = .8), followed by the secondary group (M = 3.7, SD = .8), and the elementary group (M = 3.5, SD = .7). Likewise, the ability to accommodate students with special needs was rated highest by the special education group (M = 4.3, SD = .6), followed by the secondary (M = 3.7, SD = .6,) and elementary (M = 3.5, SD = .8) groups. A pattern of special education > secondary > elementary emerged on the ability to collaborate and accommodate special needs students.

Tables 2 and 3 report the willingness and ability mean ratings and standard deviations for elementary, secondary and special education groups on each collaboration and accommodation variable. Because subjects were asked to rate their willingness and ability to participate in/perform a number of collaboration and accommodation activities, results are reported for each dimension by variable. What follows are the most salient features noted in these tables.

The willingness and ability to establish collaborative relationships with colleagues, support personnel, administrators, and parents, was rated the highest by both elementary (Will - M = 4.7, SD = .6; Ability - M = 4.2, SD = .9) and secondary (Will - M = 4.4, SD = 1.0; Ability - M = 4.2, SD = .8) groups. Like the elementary and secondary groups, the special education group rated their willingness to establish collaborative relationships highest (M = 4.9, SD = .4), however, the will to participate in IEP conferences was rated

Table 2

Mean and Standard Deviation Scores of Preservice Teachers on Willingness and Ability to Collaborate

Collaboration Variable	Elementary		Secondary		Special Ed.	
	M	SD	M	SD	M	SD
1. Team Teach						
Willingness	4.4	.8	3.9	1.2	4.4	1.1
Ability	3.8	.8	3.8	.9	3.2	1.5
2. Participate in IEP						
Willingness	4.6	.6	4.0	1.3	4.9	.2
Ability	3.0	1.2	3.4	1.3	3.6	1.3
3. Develop IEP						
Willingness	4.5	.8	3.8	1.2	4.8	.6
Ability	2.9	1.1	3.0	1.1	3.6	1.1
4. Meet with others						
Willingness	4.5	.8	4.2	1.1	4.8	.5
Ability	3.7	1.0	3.9	1.1	4.0	1.1
5. Prereferral participation						
Willingness	4.3	.9	3.4	1.3	4.1	1.4
Ability	3.0	1.1	3.4	1.1	3.1	1.5
6. Collaborative relationships						
Willingness	4.7	.6	4.4	1.0	4.9	.4
Ability	4.2	.9	4.2	.8	4.3	1.0
7. Problem solving techniques						
Willingness	4.6	.7	4.2	1.2	4.6	.7
Ability	3.8	1.1	3.7	1.1	3.7	1.1
8. Manage resistance						
Willingness	4.4	.9	3.9	1.2	4.7	.8
Ability	3.4	1.1	3.4	1.2	3.4	1.2

Table 2

Mean and Standard Deviation Scores of Preservice Teachers on Willingness and Ability to Collaborate

Collaboration Variable	Elementary		Secondary		Special Ed.	
	M	SD	M	SD	M	SD
9. Conduct assessment						
Willingness	4.5	.8	3.9	1.1	4.6	.8
Ability	3.6	1.3	3.6	.9	4.0	1.1
10. Share Instruction						
Willingness	4.6	.7	4.3	.9	4.8	.6
Ability	3.9	.9	4.1	.8	4.4	.9

Likert scale: 5-very high to 1-very low

Table 3

Mean and Standard Deviation Scores of Preservice Teachers on Willingness and Ability to Accommodate

Accommodation Variable	Elementary M	Elementary SD	Secondary M	Secondary SD	Special Ed. M	Special Ed. SD
11. Classroom Management						
Willingness	4.7	.6	4.4	.9	4.8	.6
Ability	3.5	1.0	3.7	.9	4.2	.7
12. Adapt long-range plans						
Willingness	4.4	.9	4.2	.8	4.8	.6
Ability	3.2	.9	3.4	1.0	4.1	.9
13. Adapt daily lessons						
Willingness	4.5	.8	4.1	1.1	5.0	.2
Ability	3.5	1.0	3.4	1.1	4.5	.7
14. Plan for success						
Willingness	4.7	.7	4.3	.9	4.8	.4
Ability	3.7	1.1	3.5	.9	4.2	.9
15. Adjust classroom						
Willingness	4.8	.4	4.6	.7	5.0	--
Ability	4.3	.9	4.3	.9	4.6	.7
16. Adapt class material						
Willingness	4.3	1.0	4.0	.9	4.9	.4
Ability	3.5	1.1	3.8	1.1	4.5	.7
17. Use computers						
Willingness	4.5	.7	4.5	1.0	4.9	.4
Ability	3.1	1.2	4.0	1.1	4.2	.9
18. Use alternative materials						
Willingness	4.5	.7	3.9	1.2	4.8	.5
Ability	3.6	1.1	3.5	.9	4.4	.9

Table 3

Mean and Standard Deviation Scores of Preservice Teachers on Willingness and Ability to Accommodate

Accommodation Variable	Elementary		Secondary		Special Ed.	
	M	SD	M	SD	M	SD
19. Individualize instruction						
Willingness	4.3	1.0	4.2	1.1	4.9	.4
Ability	3.5	1.2	4.0	1.0	4.2	1.2
20. Provide extra time						
Willingness	4.6	.7	4.1	1.0	4.8	.4
Ability	3.7	1.1	4.0	.9	4.4	.7
21. Adapt pacing						
Willingness	4.3	.9	4.2	1.0	4.9	.4
Ability	3.5	1.1	4.0	.9	4.1	.9
22. Adapt evaluations						
Willingness	4.4	.9	4.4	.8	4.9	.5
Ability	3.6	1.3	3.9	1.0	4.6	.8
23. Adapt grading criteria						
Willingness	3.9	1.1	3.8	1.2	4.9	.3
Ability	3.1	1.3	3.6	1.2	4.1	.9

Likert scale: 5-very high to 1-very low

equally high (M = 4.9, SD = .2) by this group. Unlike the elementary and secondary education groups, the highest collaborative ability rating by the special education group was on sharing instruction with another teacher (M = 4.4, SD = .9)

Regarding accommodations, the willingness to adjust the physical arrangement of the classroom for special students, was rated highest by both the elementary (M = 4.8, SD = .4) and secondary (M = 4.6, SD = .7) groups. On the accommodation ability subscale, adjusting the physical arrangement of the classroom was likewise rated highest by elementary (M = 4.3, SD = .9), and secondary subjects (M = 4.3, SD = .9). The highest accommodation ratings by special education subjects on the willingness subscale were: making adaptations for special students when developing daily lesson plans (M = 5.0, SD = .2), and adjusting the physical arrangement of the classroom for special students (M = 5.0, SD = --). Like the elementary and secondary subjects, the special education subjects rated themselves most able to accommodate students by adjusting the physical arrangement of the classroom (M = 4.6, SD = .7). However, the ability to adapt evaluations for special students, received an equally high mean rating (M = 4.6, SD = .8).

Significant differences on willingness and ability subscale ratings between elementary, secondary and special education preservice teachers were found on a number of collaboration and accommodation variables. Overall, the significant differences between preservice groups were found on self-reported ratings of willingness to collaborate [$F(2,74) = 5.93$, $p = .004$]. Specifically, the differences between the elementary and secondary groups [$F(2,74) = 3.32$, $p = .05$], and secondary and special education groups [$F(2.74) = 5.30$, $p = .05$] were statistically significant. Significant group differences were

also found on self-reported willingness ratings to accommodate special students [F(2,74) = 6.18, p = .003]. On this variable, within-group analysis revealed that the difference between secondary and special education groups was significant [F(2,74) = 6.18, p = .05].

No overall significant differences were found between the three preservice groups on their ability ratings to collaborate, however, significant differences were found on ability ratings to accommodate [F(2,74) = 6.60, p = .002]. On the latter variable, significant differences were found between elementary and special education groups [F(2,74) = 6.51, p = .05], and between secondary and special education groups [F(2,74) = 3.30, p = .05].

Tables 4, 5 and 6 illustrate significant pair-wise comparisons of preservice groups on collaboration and accommodation willingness and ability subscales. For example, as reported in Table 4, elementary and secondary preservice subjects significantly differed on their willingness to participate in the prereferral process [F(2,78) = 4.17, $p < .019$], to develop IEP goals and objectives jointly [F(2,78) = 3.59, $p < .004$], as well as on their willingness to use alternative materials [F(2,77) = 3.84, $p < .003$], and ability to use computers to enhance learning with special students [F(2,78) = 4.78, $p < .002$].

As depicted in Table 5, elementary and special education preservice subjects significantly differed on their willingness to adapt grading criteria [F(2,77) = 6.14, $p < .001$], and to adapt pacing of instruction [F(2,78) = 3.14, $p < .025$]. Additionally, these two groups reported significant differences on their ability to perform the following accommodation activities: adapt daily lesson plans [F(2,78) = 7.14, $p < .001$]; adapt long-

Table 4

Significant Differences Between Elementary and Secondary Subjects on Collaboration and Accommodation Willingness and Ability Subscales

Variable	*df*	F	*p*
Willingness			
Prereferral participation	2,78	4.17	< .019
Use alternative materials	2,77	3.84	< .003
Develop IEP goals and objectives	2,78	3.59	< .004
Ability			
Use Computers	2,78	4.78	< .002

Table 5

Significant Differences Between Elementary and Special Education Subjects on Accommodation Willingness and Ability Subscales

Variable	*df*	F	*p*
Willingness			
Adapt grading criteria	2,77	6.14	< .001
Adapt pacing of instruction	2,78	3.14	< .025
Ability			
Adapt daily lesson plans	2,78	7.14	< .001
Adapt long-range plans	2,78	5.58	< .006
Adapt evaluations	2,78	5.45	< .006
Adapt class materials	2,78	5.43	< .006
Use computers	2,78	5.24	< .002
Adapt grading criteria	2,77	4.90	< .009
Use alternative materials	2,77	4.56	< .005
Provide extra time	2,77	3.66	< .030
Classroom management	2,78	3.35	< .040

range plans [F(2,78) = 5.58, $p < .006$]; adapt evaluations for special students [F(2,78) = 5.45, $p < .006$]; adapt regular classroom materials [F(2,78) = 5.43, $p < .006$]; use computers to enhance learning for special students [F(2,78) = 5.24, $p < .002$]; adapt grading criteria [F(2,77) = 4.90, $p < .009$]; use alternative materials [F(2,77) = 4.56, $p < .005$]; provide extra time for special students [F(2,77) = 3.66, $p < .030$]; and adapt classroom management strategies [F(2,78) = 3.35, $p < .040$].

Significant differences between secondary and special education preservice subjects were found on four collaboration variables and seven accommodation variables, (see Table 6). The collaboration activities/techniques on which these two groups differed included their willingness to: participate in IEP conferences [F(2,77) = 6.26, $p < .003$]; develop IEP goals and objectives jointly [F(2,78) = 5.60, $p < .004$]; implement methods for managing resistance [F(2,77) = 3.67, $p < .024$]; and conduct assessment for use in making collaborative decisions [F(2,77) = 3.33, $p < .019$]. Accommodation activities on which secondary and special education subjects differed included their willingness to: adapt grading criteria [F(2,77) = 7.01, $p < .001$]; use alternative materials [F(2,77) = 6.05, $p < .003$]; adapt daily lesson plans [F(2,78) = 5.68, $p < .005$]; adapt regular classroom materials [F(2,78) = 5.54, $p < .006$]; provide extra time for special students [F(2,77) = 3.79, $p < .020$]; and on their ability to: adapt daily lesson plans [F(2,78) = 6.08, $p < .001$], and to use alternative materials [F(2,77) = 5.00, $p < .005$].

The three variables on which elementary and secondary subjects differed most were: ability to use computers [F(2,78) = 4.78, $p < .002$]; willingness to participate in the prereferral process [F(2,78) = 4.17, $p < .019$]; and willingness to use alternative materials

Table 6

Significant Differences Between Secondary and Special Education Subjects on Collaboration and Accommodation Subscales

Variable	*df*	F	*p*
Willingness			
Adapt grading criteria	2,77	7.01	< .001
Participate in IEP process	2,77	6.26	< .003
Use alternative materials	2,77	6.05	< .003
Adapt daily lesson plans	2,78	5.68	< .005
Develop IEP goals and objectives	2,78	5.60	< .004
Adapt class materials	2,78	5.54	< .006
Provide extra time	2,77	3.79	< .020
Manage resistance	2,77	3.67	< .024
Conduct assessment	2,77	3.33	< .019
Ability			
Adapt daily lesson plans	2,78	6.08	< .001
Use alternative materials	2,77	5.00	< .005

[F(2,77)= 3.84, $p < .003$]. The three variables on which elementary and special education subjects differed most were: ability to adapt daily lesson plans [F(2,78 = 7.14, $p < .001$]; willingness to adapt grading criteria [F(2,77) = 6.14, $p < .001$]; and ability to adapt long-range plans [F(2,78) = 5.58, $p < .006$]. The three top variables of difference between secondary and special education subjects were: willingness to adapt grading criteria [F(2,77) = 7.01, $p < .001$]; willingness to participate in IEP conferences [F(2,77) = 6.26, $p < .003$]; and ability to adapt daily lesson plans [F(2,78) = 6.08, $p < .001$].

Tables 4, 5, and 6 also illustrate the disparity between the number of willingness variables and the number of ability variables among preservice groups. For example, three willingness variables versus one ability variable were found significant between the elementary and secondary groups, and two willingness variables versus nine ability variables were found significant between elementary and special education groups. By contrast, nine willingness variables versus two ability variables were found to be significantly different between the secondary and special education groups.

In order to determine the relationship between preservice teachers' self-reported collaborative skill and willingness to accommodate special needs students, a correlation test was performed. An overall significant correlation was found between collaborative ability and the will to accommodate students in inclusive settings, $r(72) = .32, p < .01$. However, correlational analysis of individual preservice groups revealed that, for only the elementary group, was this correlation significant, $r(33) = .39, p < .03$.

Similarly, a correlation test also revealed a significant overall relationship between the will to accommodate special students and student teacher assignment (subjects

assigned to student teaching in inclusive classrooms) $r(74) = .30$, $p < .01$. This relationship, however, was not significant for individual preservice groups. A correlation test to determine the relationship between the number of special education courses taken and ability to collaborate was also conducted. This relationship was negligible and insignificant $r(76) = .074$, $p = .52$.

Table 7 reports the percentage of preservice teachers who had taken special education courses during their preparatory programs. A majority of elementary (86%) and secondary preservice subjects (80%) had not taken any special education courses. By contrast, one-hundred percent of special education preservice subjects had taken four or more courses.

Table 8 illustrates the mean ratings on collaboration and accommodation willingness and ability subscales of the preservice elementary and secondary teachers who had taken special education courses as compared to the overall ratings of the elementary and secondary samples. For the elementary teachers, who had taken special education courses, the mean rating on the willingness to collaborate (M = 4.5, SD = .3) was equal to the overall sample rating (M = 4.5, SD = .6), and only slightly lower (M = 4.4, SD = .4) than the overall sample rating on the willingness to accommodate (M = 4.5, SD = .7). On the ability to collaborate, the mean rating of elementary course takers (M = 3.1, SD = .6) was lower than the overall sample mean rating for the same group (M = 3.5, SD = .7). On the ability to accommodate, the elementary course takers' mean rating (M = 3.4, SD = .5) was only slightly lower than the overall sample mean rating (M = 3.5, SD = .8).

For the secondary preservice teachers who had taken special education courses,

Table 7

Percentage of Preservice Teachers Who Had Taken Special Education Courses

Preservice Group	No Courses	1-3 courses	4 + courses
Elementary (n = 36)	86 %	6 %	8 %
Secondary (n = 25)	80 %	8 %	12 %
Special Education (n = 20)	--	--	100 %

Table 8

Mean Comparison Ratings Between Elementary and Secondary Preservice Teachers Who Had Taken Special Education Courses and Overall Sample Ratings

Subscale	Elementary M	Elementary SD	Secondary M	Secondary SD
Willingness				
Collaborate	4.5 (4.5)	.3 (.6)	4.1 (4.0)	.9 (.9)
Accommodate	4.4 (4.5)	.4 (.7)	4.5 (4.2)	.5 (.7)
Ability				
Collaborate	3.1 (3.5)	.6 (.7)	3.9 (3.7)	.5 (.8)
Accommodate	3.4 (3.5)	.5 (.8)	4.0 (3.7)	.7 (.6)

( ) indicate overall mean ratings from the entire sample of Elementary and Secondary Preservice teachers.

the mean rating on willingness to collaborate (M = 4.1, SD = .9) was slightly higher than the overall sample mean rating (M = 4.0, SD = .9), and higher (M = 4.5, SD = .5) than the overall sample mean rating on the willingness to accommodate (M = 4.2, SD = .7). Regarding the ability rating to collaborate, secondary course takers' mean rating (M = 3.9, SD = .5) was higher than the overall sample mean rating (M = 3.7, SD = .8). A similar pattern was found on the ability to accommodate; the secondary course takers' mean rating (M = 4.0, SD = .7) was higher than the overall mean rating (M = 3.7, SD = .6).

Table 9 indicates the percentage of preservice teachers who were student teaching in classes in which disabled students were included. Over half of preservice elementary teachers (53%) and over one-third of secondary teachers (36%) were student teaching in classes consisting of one to three disabled students. In addition, 28% of secondary education teachers reported that more than five (but less than all) disabled students were included in their classes. One-hundred percent of special education preservice teachers reported that they were either student teaching in classes with greater than five (less than all) disabled students (5%), or in classes made up solely of special students (95%).

Table 9

Percentage of Preservice Teachers Teaching in Classes With Disabled Students

Preservice Group	Number of Students zero	1-3	4-5	>5, less than all	all	MD
Elementary (n = 36)	14 %	53 %	19 %	14 %	--	--
Secondary (n = 25)	16 %	36 %	12 %	28 %	--	8 %
Special Ed. (n = 20)	--	--	--	5 %	95 %	--

MD- missing data

Interview Results

Following the analysis of survey data, five individual structured interview sessions were conducted. Two subjects from each of the elementary and special education groups, and one subject from the secondary group voluntarily participated in the interviews. The first three questions of the interview protocol were specifically targeted to elementary and secondary preservice subjects. The questions and subject responses are summarized below.

Question 1: What has been your experience with inclusion?

Responses from elementary and secondary subjects indicated, that until their student teaching assignment, personal exposure to or experience with inclusion had been minimal or nonexistent.

Question 2: Are you willing to include children with special needs in your classroom? Why/why not?

Elementary subjects responded affirmatively to this question and indicated that special students should be given the opportunity to succeed in the mainstream. These subjects also offered comments regarding the perceived benefits that inclusion has on non-handicapped peers. For example, inclusion was thought to create an environment of tolerance for difference and to present an opportunity for social skill development among handicapped and non-handicapped peers alike. Conversely, the secondary subject was not willing to include special needs students in the regular classroom, and felt unable to meet the demands that special students place on regular teachers. This secondary subject explained that within the regular student population, there are many levels of ability that a

teacher must accommodate; special students present yet another ability level.

Question 3: How prepared do you feel you are in educating special students in the regular classroom?

The elementary subject responses ranged from "moderately prepared," to "not very prepared." The secondary subject offered, "not prepared at all." Both groups attributed their lack of preparation to the fact that they hadn't taken any special education courses.

Questions 4 through 8 of the interview protocol were directed to all three preservice groups. These questions and subject responses are summarized below.

Question 4: Have you received instruction in collaboration techniques: What was the nature of the instruction? Do you think that instruction in collaboration techniques is necessary/helpful?

The responses of the elementary subjects indicated that they had not received formal instruction regarding collaboration techniques, but that their student teaching experiences have presented some opportunity to witness/participate in collaborative ventures with special educators. For one of these subjects, establishing a relationship with a special educator and instructional aid has led to learning about alternative teaching strategies and assessment measures. The secondary respondent indicated that no classroom instruction had been offered in collaboration techniques. One special education respondent said, "we were told about collaboration, but not taught any specific techniques." All respondents agreed that instruction in collaboration techniques is necessary in order to facilitate communication between special and regular education. As one special education respondent put it, " You don't want to step on toes and you want to

learn the right way to approach a colleague."

Question 5: Have you received instruction in making accommodations for special students in the regular classroom? What was the nature of the instruction? Do you think instruction in making accommodations is necessary?

Four out of five respondents indicated that they had received little or no instruction in making accommodations. What instruction they had received was reported to be generic in nature. One elementary subject reported that many special education courses were off limits to elementary and secondary education majors. Regarding special education course offerings, this subject added, "Even if you wanted to take them, you can't. This has been very frustrating for me." By contrast, special education subjects responded that accommodations for students with ADHD under Section 504 was emphasized in class, as well as instruction in making the following accommodations: adjusting the physical arrangement of the classroom, using alternative materials, writing material presented orally on the board, and making use of an overhead. All three groups agreed that receiving instruction in making accommodations is necessary. However, the reasons they offered for why this instruction is essential, differed. Elementary and special education subjects indicated that instruction in making accommodations would make them not only more aware of the special needs of students, but provide them with a repertoire of techniques to work effectively with these students. The secondary subject replied in this way, "they're going to include special education students anyway, so we might as well be prepared to teach them."

Question 6: In your student teaching assignment, have you witnessed collaboration between regular and special educators? Between whom? What was the purpose of the collaboration? When did it occur? For how long?

The elementary subjects indicated that they had either witnessed or participated in collaborative relationships with special educators. For example, one subject had observed a team-teaching model in which both the special and regular education teacher taught a class composed of an equal number of regular and special education students. (Students in this class were not aware of who was "special" and who was not). It was reported that these two teachers jointly planned (formally and informally) and delivered all instruction. In another setting, collaboration between the elementary preservice subject, the cooperating teacher, instructional aid, and special education teacher was reported to have taken place. The purpose of their collaboration was to develop lesson plans, discuss the use of alternative materials, and seek support for the needs of special students in the regular classroom. Meetings were reported to be informal and occurring "on the run." The special education subjects responded that they had witnessed both successful and unsuccessful collaborative attempts between regular and special educators. In one setting, regular and special education teachers were discussing the possibility of team teaching next year. At this same school, however, this subject reported that during grade level meetings, the special education teacher is not included. In another setting, where team teaching was taking place, the special education teacher was acting not as co-teacher, but as support teacher. This respondent commented, that rather than a lack of willingness on the part of the participating teachers, the real breakdown in collaboration was due to too

little time to plan and incompatible teacher prep periods. The secondary education subject reported that in the student teaching setting, a lack of collaboration characterized the relationship between special and regular educators.

Question 7: What accommodations have you seen made in regular classrooms for students with special needs? Who was receiving accommodations? What were they?

A variety of accommodations made for special students in inclusive settings was witnessed by elementary and special education subjects. These subjects reported that teachers were seen: using oral directions in lieu of written ones, administering alternative tests, simplifying activities or assignments, allowing more time for test-taking, slowing down the pace of instruction, making physical adjustments to the classroom, and supplementing instruction with computer programs. On the other hand, the secondary education subject had not witnessed any accommodations made for special students in the regular classroom. Further, when this secondary subject asked to see an IEP (to fulfill a course requirement), the regular teacher of the classified student replied, "No, I'm sorry, but I cannot show it to you."

Question 8: Would you make any recommendations/changes to the current education preparation curriculum to better prepare prospective teachers to meet the needs of special students in inclusive classrooms? What changes/recommendations would you make?

All respondents indicated that changes to the curriculum were necessary. Elementary and secondary subjects thought that regular education teachers should be required to take special education courses. These courses, subjects felt, should be taken

long before student teaching, and should be "hands-on" and occur in real environments. One subject suggested that regular education majors should be required to participate in a classroom field experience (e.g., serve as an instructional aid) in a resource room, inclusive classroom or self-contained setting. Another subject recommended that special and regular education programs should be merged, "even though it [the education preparatory program] would take longer." Special education subjects also favored the addition of special education courses in the preparatory curriculum. As an alternative to the traditional special education course fare, special education subjects recommended courses be offered with a focus on collaboration and team teaching, and be taught jointly by special and regular education university faculty. All respondents expressed their desire to devote more time to the teaching activity and less time to paperwork.

Chapter 5

Discussion

The intent of this study was to determine the perceptions of elementary, secondary, and special education preservice teachers, attending a university in New Jersey, regarding their willingness and ability to collaborate and accommodate on behalf of special students receiving instruction in inclusive settings. Based upon the findings of previous researchers, who have examined regular and special educators' self-reported attitudes and skills about inclusion, the following outcomes were predicted:

1) Elementary and secondary preservice teachers would report having few skills and be less willing to collaborate than special education preservice teachers;

2) Special education and elementary preservice teachers would rate themselves more willing and able to collaborate and accommodate special students than their secondary counterparts;

3) For all three preservice groups, there would be a significant relationship between the self-perception of collaborative skills and willingness to accommodate special needs students;

4) There would be a significant relationship between the preservice teachers' willingness to accommodate the needs of special students and the current student teacher assignment in inclusive classrooms.

In brief, the results of the survey indicated that special education preservice subjects rated their willingness to collaborate and accommodate special needs students in inclusive settings higher than either the elementary or secondary groups, presenting a special education > elementary > secondary pattern. Special education subjects also rated their ability to collaborate and accommodate highest, followed by the secondary and elementary groups, presenting a slightly different pattern of special education > secondary > elementary. In addition, ANOVA results revealed significant differences between the three groups on self-reported ratings of willingness to collaborate and accommodate special needs children in the regular classroom. On these two variables, the level of significance was greatest between secondary and special education groups. Significant differences were likewise found between the three groups on ability ratings to accommodate. On the accommodation variables, however, the difference was greatest between elementary and special education groups. Correlation tests revealed a significant and positive relationship between self-rated ability to collaborate and the willingness to accommodate special students in inclusive settings. Similarly, a significant correlation was found between preservice teachers' willingness to accommodate and student teacher assignment in inclusive classrooms. However, a significant relationship was not found between the number of special education courses taken and the ability to collaborate with other educators.

It may be deduced from the overall mean ratings on the survey that elementary and secondary preservice teachers consider themselves more willing than able to collaborate and accommodate special needs students in regular classrooms. Ysseldyke, Thurlow,

Wotruba, and Nania (1990) made a similar observation in their examination of the will and skill of regular teachers to make accommodations. The accommodation that all three groups felt they were most willing to make was adjusting the physical arrangement of the classroom for special students. This is an accommodation, as Schumm and Vaughn (1991) point out, that requires little effort on the part of teachers. It should be noted, however, that special education teachers felt equally willing to make adaptations for special students when developing lesson plans, probably because this adaptation is perceived to be within their domain of responsibility (Zentall & Stormont-Spurgin, 1995).

The accommodation variable which received the highest ability rating by all three preservice groups was adjusting the physical arrangement of the classroom. Unlike the elementary and secondary groups, however, special education subjects felt equally able to adapt evaluations for special students. That the special education group felt more confident than the elementary and secondary groups to make adaptations to evaluations may be due, in part, to what Schumm et al. (1995) surmised as a belief by secondary educators that the expectations and evaluative criteria for special students should be the same as those for non-handicapped peers. This belief may, in turn, account for their reluctance to make adjustments in methods or materials.

It was not surprising that the special education subjects surveyed in this study were more willing to collaborate and accommodate than their elementary and secondary peers and that elementary subjects were more willing than secondary subjects. This result corroborates the findings of Larivee and Cook (1979) who reported that teachers in primary and middle grades were more inclined to include special students than secondary

teachers. What was not expected, however, was the finding that secondary subjects rated themselves more able than elementary subjects to collaborate and accommodate special needs students in the regular classroom.

Because there is no precedent in the literature to support such a result, one can render only speculation to account for this difference. It is possible, for example, that the secondary subjects failed to read the definition of ability as supplied in the directions of the survey, and therefore misinterpreted the meaning of ability. Thus, this misinterpretation influenced their responses. This seems a reasonable explanation in light of the fact that 80% of secondary respondents reported never having taken a special education course. This explanation presumes, of course, that the ability to collaborate and accommodate is necessarily acquired by taking such courses. Another possible explanation is that a response effect was operating in the secondary group, such that the group responded to the survey according to what they perceived was professionally appropriate, rather than how they really felt.

Although the secondary subjects fell behind their elementary and special education peers on willingness ratings to collaborate and accommodate, their average mean rating was in the high range (M = 4.0 - 4.2). This is encouraging and impressing news. Without the advantage of taking a special education course, as had the secondary subjects in Mayhew's 1994 study, these secondary subjects were nevertheless willing to collaborate and accommodate special students.

Unlike Schumm and Vaughn (1991) who found few differences between regular elementary, middle and high school teachers on the perceived desirability and feasibility of

various accommodations, significant differences were found in this study between the preservice elementary, secondary and special education groups on willingness to collaborate and accommodate, as well as on ability to accommodate. The differences on willingness to collaborate and accommodate were particularly disparate between secondary and special education subjects. This result suggests that, while the secondary group is not entirely unwilling, there is room for improvement. By contrast, the differences on the ability to accommodate were greatest between elementary and special education groups. Clearly, elementary subjects do not feel confident to make accommodations for special students. Likewise, the differences between secondary and special education on this variable were significant, and suggest a deficit in the perceived ability to accommodate special needs students.

Interestingly, the accommodation and collaboration variables on which the elementary and secondary groups differed most from the special education group were strikingly similar. For example, elementary respondents differed most from special education respondents in their willingness to adapt grading criteria, ability to adapt daily lesson plans, and ability to adapt long-range plans. Similarly, the greatest differences between secondary and special education respondents were in their willingness to adapt grading criteria, willingness to participate in the IEP process, and the ability to adapt daily lesson plans. Thus, neither group is willing to adapt grading criteria, nor do they feel confident in their ability to adapt daily lesson plans for special students. In fact, the mean ratings for both groups fell within the moderate range of the scale.

As predicted, there was a significant relationship between self-perceived

collaborative skills and the willingness to accommodate special students. This relationship, however, only held significance for the elementary preservice group. Thus, for the elementary subjects, it may be inferred that as confidence in the ability to collaborate increases, so too does the willingness to accommodate special students. For secondary and special education groups, however, this relationship was not established. It may be argued with equal fervor that the perceived ability to collaborate has little to do with the willingness to accommodate special students in the regular classroom.

Overall, a significant relationship was found between preservice subjects' willingness to accommodate the needs of special students and the current student teacher assignment in inclusive classrooms. It should be noted that, at the time of this study, over three-quarters of elementary and secondary preservice teachers and all of the special education preservice teachers were student teaching in classes in which at least one special student was included. Because correlation does not imply causation, one cannot conclude that student teacher placement in inclusive classrooms causes an increase in preservice teachers' willingness to accommodate. However, the fact that a relationship exists between the two begs the question of whether student teacher placement in inclusive classrooms has an impact on teachers' willingness to accommodate special students.

Because Stephen and Braun (1980) had found a strong correlation between the will and skill (as acquired through special education course work) to teach children with disabilities, it was perplexing to discover that for the preservice teachers in this study a significant relationship did not emerge between the number of special education courses taken and the ability to collaborate. There are several possible explanations for this

incongruous result. Fewer than 25% of the preservice elementary and secondary subjects had taken a special education course in their preparatory programs. Moreover, it may be that, even for those who had taken special education courses, instruction in collaborative skill was not an integral part of the course content. Interestingly enough, for the secondary subjects who reported taking at least one special education course, mean ratings on the willingness and ability to collaborate and accommodate were higher than those for the secondary group as a whole. For the secondary subjects, at least, special education course work appears to have had an impact on their self-perceived willingness and ability ratings to collaborate and accommodate. It should be noted that for elementary subjects, who had taken special education courses, the differences between ratings was not as great. The difference between the overall ratings for each group and course taker ratings for each subgroup on collaboration and accommodation variables was not determined.

The individual responses of elementary, secondary and special education subjects during the structured interview sessions proved very telling. When asked about their experience with inclusion, for example, the elementary and secondary subjects reported, that until the student teaching experience, their exposure to inclusion had been, at best, minimal. While elementary subjects indicated that they would include special students in their classrooms, the secondary response was adamantly negative. In general, both elementary and secondary respondents reported that they were unprepared to teach special students. These responses mirror the conclusions drawn by Phillip, Allred, Bruelle and Shank (1990). Four out of the five respondents stated that they had received little to no instruction in either collaboration techniques or in how to make accommodations for

special students, yet all firmly insisted that instruction in these areas was essential. In their individual student teacher assignment settings, all but the secondary subject had either witnessed or participated in a collaborative venture or made accommodations for individual special students. All five subjects thought that changes to the current education preparation curriculum were necessary to meet the needs of special students in inclusive classrooms. Moreover, all respondents offered recommendations.

Admittedly, a sample of 5 volunteer subjects is not a representative subgroup of the 81 participants in this study. Nevertheless, it is important to note that the interview responses of elementary and secondary teachers, regarding their willingness to include special students and lack of preparation to teach such students, finds a great deal of support in the literature. That these students reported having little to no instruction in collaboration and accommodation techniques should be of concern to those who design preservice curriculum at the elementary, secondary, and special education levels.

Perhaps the most revealing interview responses of all were those that described the types of changes subjects would make to the current preservice curriculum. Subjects placed a premium on the value of special education courses, particularly for regular educators. Interestingly enough, researchers such as Reiff, Evans, and Cass (1991) have questioned the impact of one or two introductory special education courses on the ability of teachers to assume responsibility for the education of special education students. Almost as if they had heard the objections of Reiff et al., the respondents indicated that special education courses for regular education majors should be designed to include a more "hands-on" experience in authentic educational environments, and be offered prior

to the student teaching assignment. Special education respondents did not feel the need to take additional courses, but rather recommended a shift of focus in current special education courses from the traditional educational model to a more contemporary one. For example, one subject recommended that special education courses should emphasize collaboration and accommodation and should be team taught by regular and special education faculty. The faculty co-teaching team would, in effect, serve as a role model to students for successful team teaching. That one subject recommended the merger of special and regular education preparatory programs was surprising in light of the fact that combining the two programs would likely extend the students' education from the current 4 years to 5 years.

Implications

As more and more special students are included in the regular classroom, prospective teachers currently enrolled in elementary and secondary education programs, will likely find themselves teaching in inclusive settings. Faced with this imminent challenge, are these teachers willing and able to teach special students in their classrooms?

Over three-quarters of the elementary and secondary subjects in this study were student teaching in inclusive classrooms, yet less than 25% of these subjects had taken a special education course. Add to this the fact that New Jersey does not require general education majors to take special education courses in order to obtain certification, and it is not surprising to find that elementary and secondary education majors do not feel particularly confident in their ability to accommodate special students. That these subjects are willing to collaborate with other educators and make accommodations for special

students is encouraging. However, their reported lack of competency should be of concern to those who design preservice curriculum.

By all indications, inclusion is here to stay. Successful inclusion requires both a willingness on the part of participating teachers and a level of ability that goes beyond what is learned through general education course work. Adequately preparing students for inclusion at the preservice level will require major modifications to the current dual system of education (e.g., elementary and secondary programming). Based upon the results of this study, these changes are not only necessary, but desired. Ultimately, the goal of preservice education is to prepare students for the actual teaching experience. It is time that the preservice curriculum reflect the reality of inclusion as it is practiced in the schools.

It is problematic that the New Jersey State Board of Education does not require special education course work in order to obtain general education certification. For example, how likely is it that colleges and universities in New Jersey will modify their requirements without state mandates? Further, even if the state did mandate a special education requirement, the responsibility for making modifications to the preservice curriculum to incorporate such a requirement would rest with university faculty. One fact remains clear, if prospective teachers are to achieve success in inclusive settings, they need the proper tools. Instruction in collaboration and accommodation techniques can be the instruments of their success.

Areas for Further Research

This study measured the self-reported perceptions of preservice teachers, rather than observed behaviors. Whether or not these subjects, when confronted with meeting

the needs of special students in their own inclusive classroom would actually be willing and able to collaborate and accommodate special students, is not known. A follow-up behavioral study of these subjects in actual inclusive teaching assignments would provide information concerning their specific areas of strength and weakness, which could then be targeted for instruction in preservice programs.

In order to gain insight regarding the challenges of inclusion as it is practiced in local school settings, a study focusing on administrator and teacher perceptions of inclusive practice would be prudent. The most challenging areas within this framework could then become the substance of intensive case study providing education majors the opportunity to create their own innovative solutions to real problems.

In the event that this university does make significant changes to existing preservice programs or course content, studies to determine how these changes impact the willingness and ability of prospective teachers to collaborate and accommodate in inclusive settings would be instrumental in determining not only the effectiveness of these modifications, but provide information about areas in need of refinement. A related study could determine the degree to which regular preservice teachers' willingness and ability to collaborate and accommodate is impacted by an introductory special education course versus a more comprehensive merger of special and regular education preservice programs. In other words, can one course really make a difference?

Limitations of the Study

The generalizability of the results of this study are compromised on two counts. First, the survey results cannot be generalized to elementary and secondary preservice

teachers educated in states that mandate a special education requirement for general education certification. As mentioned previously, a clear majority of these subjects had not taken a special education course in their preparatory programs. Second, the participants in the structured interview sessions were volunteers, and therefore cannot be said to be representative of their respective groups. Further, because few subjects from each group volunteered, the resultant interview samples were exceedingly small.

Summary and Conclusion

Elementary (n = 36), secondary (n = 25), and special education (n = 20) preservice teachers attending a university in New Jersey, were surveyed to determine their self-perceived willingness and ability to collaborate with other educators and accommodate special needs students in inclusive classrooms. Results indicated that all three groups were willing, but the special education group was most willing, followed by the elementary and special education groups. Subjects in the special education group also rated themselves most able, followed by those in the secondary and elementary groups. Secondary and elementary groups rated their ability in the moderate range. ANOVA results revealed significant differences between the three preservice groups on collaboration and accommodation willingness and ability subscales. Correlation tests illustrated a significant relationship between the ability to collaborate and willingness to accommodate, as well as between preservice teachers' willingness to accommodate and student teacher assignment to inclusive classrooms. Interview responses revealed that subjects had received little or no instruction in collaboration or accommodation techniques. Inherent in their recommendations, however, was a desire to receive such instruction.

The results of this study warrant a reexamination of the current preservice curriculum as it is currently practiced in this university. It is incumbent upon those entrusted with the education of prospective teachers to carefully consider the answer to the following question: does the present preservice curriculum adequately prepare students to face the challenge of inclusion? If after careful reflection, the answer is no, then there is much work to be done.

Appendix A

Survey Instrument

SURVEY

Instructions: On the designated scales, please rate your willingness and your ability to participate in or to perform the following collaboration and accommodation activities for the benefit of students with special needs in regular classrooms. **Willingness** is the act of making a personal choice to perform a task or participate in an activity. **Ability** is being able to proficiently perform a task acquired through either practice or training.

1- Very low 2- Low 3- Neutral 4- High 5- Very High

	Willingness					Ability				
	Lo				Hi	Lo				Hi
1. Team teach in general education classroom.	1	2	3	4	5	1	2	3	4	5
2. Participate in Individual Education Plan (IEP) conferences for special needs students.	1	2	3	4	5	1	2	3	4	5
3. Develop IEP goals and objectives jointly.	1	2	3	4	5	1	2	3	4	5
4. Meet with other educators to develop and coordinate instructional plans.	1	2	3	4	5	1	2	3	4	5
5. Participate in prereferral intervention process (e.g., be a member of Pupil Assistance Committee, PAC, to help maintain special student in regular classroom).	1	2	3	4	5	1	2	3	4	5
6. Establish collaborative relationships with colleagues, support personnel, administrators, and parents.	1	2	3	4	5	1	2	3	4	5
7. Engage in problem solving techniques, (e.g., identifying problems, adapting consequences, narrowing and combining choices, and assigning priorities to presented alternatives).	1	2	3	4	5	1	2	3	4	5
8. Implement methods for managing resistance and resolving conflict during collaboration.	1	2	3	4	5	1	2	3	4	5

	Willingness					Ability				
	Lo				Hi	Lo				Hi
9. Conduct assessment (e.g., direct observation, review of student profiles, informal assessment) for use in making collaborative decisions regarding students' academic and behavioral progress.	1	2	3	4	5	1	2	3	4	5
10. Share instruction with another teacher.	1	2	3	4	5	1	2	3	4	5
11. Adapt classroom management strategies that are effective with special students (e.g., time out, behavior management systems).	1	2	3	4	5	1	2	3	4	5
12. Make adaptations for special students when developing long-range (yearly/unit) plans (e.g., establish realistic long-term objectives).	1	2	3	4	5	1	2	3	4	5
13. Make adaptations for special students when developing daily lesson plans.	1	2	3	4	5	1	2	3	4	5
14. Plan assignments and activities that allow special students to be successful (e.g., structure assignments to reduce frustration).	1	2	3	4	5	1	2	3	4	5
15. Adjust physical arrangement of room for special students (e.g., modify seating arrangements).	1	2	3	4	5	1	2	3	4	5
16. Adapt regular classroom materials for special students (e.g., construct study guides, tape-record textbook chapters).	1	2	3	4	5	1	2	3	4	5
17. Use computers to enhance learning with special students (e.g., as a tool for writing; as a tool for practicing skills).	1	2	3	4	5	1	2	3	4	5
18. Use alternative materials for special students (e.g., different textbooks, supplemental workbooks).	1	2	3	4	5	1	2	3	4	5
19. Provide individual instruction for special students (e.g., plan for individual sessions after school; allocate time during class for individual instruction).	1	2	3	4	5	1	2	3	4	5
20. Provide extra time for special students (e.g., schedule extra time for skill reinforcement and extra practice).	1	2	3	4	5	1	2	3	4	5

	Willingness					Ability				
	Lo				Hi	Lo				Hi
21. Adapt pacing of instruction (e.g., break down materials into smaller units; use step-by-step approach).	1	2	3	4	5	1	2	3	4	5
22. Adapt evaluations for special students (e.g., use oral testing, allow more time for tests, modify administration procedures).	1	2	3	4	5	1	2	3	4	5
23. Adapt scoring/grading criteria for special students (e.g., alter criteria for grades).	1	2	3	4	5	1	2	3	4	5

****

Instructions: For each of the following, select the option that best characterizes your response.

24. In which program are you currently enrolled? (Mark only one)

_____ Elementary Education _____Secondary Education _____ Special Education

25. How many courses in special education have you taken to date? (Mark only one)

_____ None _____ 1-3 _____ 4 or more

26. Are there students with disabilities in the class in which you are currently student teaching?
(Mark only one)

_____ None _____ 1-3 _____ 4-5 _____ more than 5, but less than entire class _____ entire class

THANK YOU FOR COMPLETING THIS SURVEY!

Appendix B

Structured Interview Questions

For Elementary and Secondary subjects only:

1. What has been your experience with inclusion?

2. Are you willing to include children with special needs in your classroom? Why/Why not?

3. How prepared do you feel you are in educating special students in the regular classroom?

For Elementary, Secondary and Special Education subjects:

4. Have you received instruction in collaboration techniques?
   What was the nature of the instruction?
   Do you think that instruction in collaboration techniques is necessary/helpful?

5. Have you received instruction in making accommodations for special students in the regular classroom?
   What was the nature of the instruction?
   Do you think instruction in making accommodations is necessary?

6. In your student teacher assignment, have you witnessed collaboration between regular and special educators?
   Between whom?
   What was the purpose of the collaboration?
   When did it occur? For how long?

7. What accommodations have you seen made in regular classrooms for students with special needs?
   Who was receiving accommodations? What were they?

8. Would you make any changes/recommendations to the current education preparation curriculum to better prepare prospective teachers to meet the needs of special students in inclusive classrooms?
   What changes/recommendations would you make?

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