

PRE-SERVICE TEACHERS' PERSPECTIVES ON FAMILY INVOLVEMENT IN  
TEACHING CHILDREN WITH SPECIAL NEEDS

By

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(Under the Direction of Cynthia O. Vail)

ABSTRACT

This study examined pre-service teachers' perspectives on family involvement in special education and effective teaching methods of delivering family involvement content. Eighty-three pre-service teachers provided data on pre- and post-questionnaires. The effectiveness of two methods, a video and a guest speaker, in delivering curriculum concerning family involvement was compared. The results indicated that the participants had fairly high acknowledgment of the importance of overall family involvement at beginning of the study, but not on some specific items. The overall response mean values increased after being exposed to the course content on family involvement. Results also indicated that the two teaching methods equally contributed to the improving pre-service teacher knowledge. Implications for teacher education on the importance of family involvement are presented.

**INDEX WORDS:** Family involvement and special education, Parent-teacher collaboration, Parent-teacher partnership, Cultural difference and teacher education, Linguistics and teacher education, Pre-service teachers, Pre-service teachers and attitude, Instructional methods, and Teaching methods.

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## CHAPTER 1

### INTRODUCTION

#### Purpose of the Study

Being the parents of a child with disabilities elicits a variety of emotions and challenges (Norton and Drew, 1994). Soon after a child is diagnosed with a disability, meeting the needs of the child usually becomes the central focus of parents' lives. Because of the need for support for children in all environments (e.g., home and school), legislation for children with special needs guarantees the rights and involvement of the family. To support children's special needs in the schooling environment, teachers play a significant role in helping parents. Despite the length of time that special education legislation has been in existence, there are still some teachers who do not have the knowledge and skills they need to involve parents adequately (Greenwood & Hickman, 1991). Pre-service teachers, in particular and for a variety of reasons, may not be as open to collaborating with parents. Baum and McMurray-Schwarz (2004) reported that some pre-service teachers advocate the conservative idea that teachers are the experts in education, an attitude which these researchers suggest does not prepare them to partner with parents. Further, the researchers also express concerns of pre-service teachers over their lack of knowledge about how to involve parents in meeting the instructional needs of the child with special needs.

This study investigated to what extent pre-service teachers majoring in education fields are (a) aware of the importance of family involvement in special education and (b)

ready to engage in teacher-family partnerships in teaching of children with special needs. To address these questions, this study also examined the relationship between university course content regarding family issues in special education and the methodology used to teach such content. Because of the diverse nature of the education majors who are required to take a foundational course in the education of children with special needs, this study also investigated to what extent pre-service teachers from different backgrounds demonstrated different perspectives on family involvement.

### Research Questions

The research questions related to this study included:

1. Do undergraduate education majors acknowledge the importance of family involvement in education?
2. Do the perspectives of undergraduate education majors on family involvement change after this issue is addressed by course content?
3. Do the participants exhibit different perspectives based on the teaching methods (videos and/or parents as guest speakers) used to address the issue of family involvement?
4. Do participants respond differently based on demographic status (e.g., early childhood education, special education, mathematics education)?

### Legislative and Professional Movements and Family Needs

Recent professional and legislative movements have placed heavy emphasis on working with families in the delivery of educational services. The U.S. Department of Education has upheld and reinforced the concepts of parental involvement in public educational services through reform efforts (Shartrand, Weiss, Kreider, & Lopez, 1997).

Numerous position statements from various educational organizations, such as the National Board for Professional Teaching Standards (Baum & McMurrery-Schwarz, 2004) and the National Association for the Education of Young Children (Bredekamp & Copple, 1997), have promoted the active involvement of families in schooling. The importance of family involvement has been supported by the outcomes of several empirical studies investigating the benefits of such involvement. Henderson (1987), for example, reported that children achieved higher academic success when their parents participated in their education.

In providing educational services for students with special needs, educators are expected to work with families much more closely than before. The reauthorization of The Individuals with Disabilities Education Act (IDEA, P.L. 99-457) in 1997 and 2004 amendment of IDEA strengthened the participatory role of parents in the educational process of children with special needs (Sperry, Whaley, Shaw, & Brame, 1999). In fact, since 1986, the family factor has been emphasized more during early intervention than in elementary or secondary education for children with special needs. IDEA (P.L. 99-457) mandated an Individualized and Family Service Plan (IFSP) for children under age three while an Individualized Education Plan (IEP) was required for children age above three. IFSPs must reflect a family's priorities and concerns for the child (Turnbull & Turnbull, 2001). However, many researchers have also reported the importance of family involvement in elementary and secondary education services for children with special needs (Dunst, 2002).

Because federal laws have promoted family-centered educational services, research has sought to identify keys to effective parent-teacher partnerships. The key

pieces of legislation include the Education for All Handicapped Children Act (P.L. 94-142), Part H of IDEA (P.L. 99-457), and Part C of the amendment to IDEA (Hallahan & Kauffman, 2006). The Education for All Handicapped Children Act of 1976 affirmed the importance of parental involvement in education programs for children with special needs. In this act, parents were given the right to participate in the IEP planning process for their school-age children. In particular, the parents of children with special needs were viewed as educational decision makers, being required to sign off on the IEP for their children (Stowe & Turnbull, 2001).

Considered “the most important legislation ever enacted for developmentally vulnerable young children,” part H of IDEA required the identification of family concerns, priorities, and resources and, more importantly, the development of an IFSP for young children with special needs under age three (Stowe & Turnbull, 2001). With the required IFSP, the focus of educational services moved to the family and the child instead of the child in isolation. Finally, Part C of IDEA (1997) required that services be provided in a natural environment for young children with developmental delay. This requirement provides more reasons that education professionals should collaborate with their students’ families because the most important and common natural environment for children up to age three is their home. Most children may stay at home with parents during this time (Stow & Turnbull, 2001) although some may attend infant and toddler childcare programs. Thus, early interventionists must collaborate closely with parents. Although the family-centered approach for young children with special needs was particularly guaranteed by Part H and Part C of IDEA, family involvement for older children with disabilities was also secured by IDEA through the major provisions of zero

reject, nondiscriminatory evaluation, free appropriate public education, least restrictive environment, due process, and parental participation at all educational levels (Turnbull & Turnbull, 2001).

Besides the legal requirement, there are other important reasons that the educators should encourage families to be involved. Working with the special needs of a child may contribute to increased stress for families. As soon as a family is confronted with the special needs of their child, their dynamic changes. The time-consuming process, from initial diagnosis to determining educational service delivery, may change the parents' priorities (Winton, 1996). Parents experience various types of stress as a result. The child's siblings may also be forced to alter their roles in the family, whether enduring decreased parental care (Powell & Gallagher, 1993) or taking on some of the responsibility for their sibling with special needs (Burke, 2004). The siblings may also experience various unexpected emotions, such as fear, anger, or guilt (Hallahan & Kauffman, 2006). Finally, the family members may come into contact with negative attitudes toward their child's disability from members of their community.

Thus, special educators need to develop educational plans that are meaningful to other family members as well as the child with special needs. If an educational service plan differs from what the family immediately needs, the service will not reduce the family's burden. For example, if a teacher sets an exclusive goal for academic improvement while the most urgent need for a family of a child with cerebral palsy is feeding during mealtime, the educational service will not ease the tension during dinnertime for the family. The family will still undergo stress during every mealtime. Active family participation allows family members to voice their opinions regarding each

educational service and will eventually lead to educational services that satisfy the family's needs. Supporting this movement, recent studies have presented empirical evidence for the effectiveness of collaboration with families in special education (Knight & Wadsworth, 1998).

### Theoretical Framework

The conceptual framework underlying family-centered educational service is as complex as its legislative support: *family system theory*, *human ecology theory*, the *transactional model* of child development, and *social support theory* (Wehman, 1998, p. 84). These theoretical perspectives explain how children and families develop and have led to the adoption of family-centered intervention.

First, family systems theory emphasizes the interactive nature of relationships among family members (Wehman, 1998). A family is a system because actions affecting any one family member affect all of the family members (Rosenblatt, 1994). Consequently, early intervention services have begun to shift from focusing on the child as the exclusive target of service delivery to incorporating all family members (Wehman, 1998). Second, human ecology theory acknowledges a community component as integral to the context in which a family functions (Bronfenbrenner, 1979). This perspective has helped early interventionists locate their services within the family's community (Wehman, 1998). Third, the transactional model of child development equally emphasizes the effects of the environment on the child (Wehman, 1998), viewing children as outcomes of their dynamic interaction with and the experiences given by their families and social context. Whenever parents change the way they interact with their children based on something that the children have done, a *transaction* has occurred

(Wehman, 1998, p. 86). Interestingly, a transaction can occur when children act differently due to a change in parental responses as well. Finally, social support theory claims that support from the social network directly and indirectly influences the well-being of children and their families (Dunst, 2000). Here, social support includes multi-dimensional aid from others, such as emotional or informational support. Such support is most beneficial when it meets the needs identified by the family (Dunst, 2000).

### Conceptual Definition

This study investigated pre-service teachers' perspectives on family involvement. Given that families can be involved in educational services in various ways and on various levels, this study adopts the concept of family involvement as a family-centered approach. The term *family involvement* in this study refers to core characteristics used by Dunst (2002) to define the family-centered approach:

1. Dignity and respect for families.
2. Individualization, flexibility, and responsiveness of practice.
3. Shared information for families to make informed decisions.
4. Choice of programs and intervention options for families.
5. Parent-professional collaboration and partnerships for family-program relations.
6. Provision and mobilization of resources and supports that yield positive outcomes for a child, parents, and family members (p. 139).

In addition, Dunst and Trivette (1996) proposed two aspects of family-centered practice: *relational* and *participatory*. The relational aspect includes good clinic skills, such as listening actively; showing compassion, empathy, and respect; and avoiding judgmental attitudes. Another component of the relational aspect is a professional attitude

toward a family's capabilities and competencies. The participatory aspect emphasizes individualized attention, flexibility, and responsiveness to family concerns and priorities. Participatory practices include encouraging families to be actively involved in decision making, to collaborate with professionals, and to express their desires for the educational outcomes for their child. Dunst and Trivette highlighted that both aspects are equally important in a family-centered approach.

Family involvement in special education might vary for children who are at different school ages. Dunst (2002) presented examples for four levels: early intervention, preschool, elementary school, and secondary school. According to Dunst, the family-centered approach is most effective for early intervention. Family-centered approaches are considered important to a lesser extent in preschool settings, but moving up to grades higher than preschool, family involvement becomes more restricted. Dunst further asserts that this gradual limiting of family involvement in higher grades occurs because educators in middle and high schools tend to consider family involvement to be less important and because the educators at those levels tend to be professional-centered.

## CHAPTER 2

### LITERATURE REVIEW

To situate the current study in the research literature, the following presentation summarizes six areas that include the importance of family involvement in special education, parent-professional collaboration, cultural and linguistic considerations in family involvement, the readiness of pre-service teachers for parent-teacher partnership, measuring pre-service teachers' attitudes, and instructional methods for teaching family involvement content.

#### Importance of Family Involvement in Special Education

Backed by several theoretical perspectives, studies have revealed the importance of family involvement in special education. Sperry, Whaley, Shaw and Brame (1999) explored the perspectives of service providers and parents of children with autistic spectrum disorders (ASD) on service systems. The researchers formed provider and parent focus groups and compared the transcripts from both. The convergent themes that emerged from that research included (a) the need for parent-provider collaboration and equity, and (b) the issues of finance, training, family support, early identification, advocacy, and inclusion. The results of this study suggest that both parents and providers consider family involvement to be an important key to successful educational service delivery.

Nicolson, Evans, Tellier-Robinson, and Aviles (2001) reported the outcomes from three different qualitative inquiries conducted separately by three different researchers

who examined the voices of parents in parents' attempts to share their knowledge in their children's classrooms. One important feature of that research was that all three studies had different sites and populations, although all were related to special education. Another noteworthy fact was that the researchers who conducted those studies held different positions in the special education field: a special educator, an administrator, and a person from parent advocacy. Regardless of their different occupational positions, the researchers discovered that parents had very positive attitudes toward involvement in their children's education and also noted the need to listen to parents' voices in determining the educational services for their children. One of the three researchers also indicated that parents also expressed concerns about communicating with special education professionals because of language barriers and cultural differences.

Despite the parental desire for involvement, there are still discrepancies between current and recommended family-involvement practices in schools (Beverly & Thomas, 1999). Many parents of children with special needs indicate they have little or no involvement in their children's educational services (Spann, Kohler, & Soenksen, 2003). To understand this lack of involvement, researchers should examine the educator's perspectives of family involvement. The following section examines studies that investigated not only how the practice of collaboration between parents and professionals facilitate family involvement but also the readiness of professionals, particularly pre-service teachers, for family involvement. Second, studies that measured the attitude of pre-service teachers toward family involvement are presented.

## Parent-Professional Collaboration

Since the federal special education law, the Education for All Handicapped Children, started requiring parent participation in 1975, parents have been encouraged to collaborate with special educators (Turnbull & Turnbull, 2001). Parents were often expected to be submissive recipients of special education services into the 1970s. However, legislative and philosophical movements have provided a foundation for active family participation; professionals have realized that they should collaborate with parents and respect their opinions as team members.

As the mother of a child with a disability, Fialka (2001) described five concerns that professionals should be aware of in working with families who have recently learned that their child needs special education services. First, parents may not always choose to enter into a partnership with professionals in special education. Parents may feel forced into such partnerships. Muscott (2002) stated that families of a child with a disability go through a sequence of emotional changes from disorganization to adjustment. Thus, the parents may be hesitant or unmotivated in the early stages. The professionals who, in fact, have already prepared for this partnership should understand that parents may not be eager to work with them right away. Second, professionals need to be aware that parents may express their deep feelings slowly, not all at once. Parents need time to move into a partnership. Third, parents should play a pivotal role on an educational service team because parents are the ones who spend the most time with their child. Fourth, parents should be *contributors*, instead of experts (Fialka, 2001, p. 25). Although parents have more knowledge of their child than anybody else does, they should not be forced to make all educational decisions. Parents and professionals together have to contribute to the

planning and delivery of educational services for a child. Fifth, professionals should respect the parents' or the family's priorities more than their own professional judgment in setting educational goals. Muscott (2002) also emphasized that the partnership between professionals and parents of a child with a disability should value the unique needs of the family.

Marshall and Mirenda (2002) facilitated parent-teacher collaboration in a positive behavior support (PBS) study. In this case study, the parents collaborated with the researchers in developing a hypothesis, designing a behavior support plan, implementing the plan, and even revising the plan. This case study suggests that the opportunities for parent-teacher collaboration can occur at many stages of educational service planning and implementation. On the other hand, some articles have also identified the barriers to family involvement. Moles (1993) addressed three major obstacles that inhibit families from being actively involved: lack of skills for and knowledge about family involvement, limited opportunities for interaction, and differences in culture, life-styles, values, and experiences. Mapp (1997) also pointed out that the different cultural, racial, and socioeconomic backgrounds between teachers and parents may inhibit family involvement.

#### Cultural and Linguistic Considerations in Family Involvement

In the U.S., classrooms are becoming more ethnically diverse (Voltz, 1998). Thus, educators need to develop skills that are culturally sensitive. Special education settings are not *cultural-free* (Harry & Kalyanpur, 1994, p. 154). One unique trend in special education settings is the disproportionate overrepresentation of certain cultural groups, such as Hispanic and African-American students. Meanwhile, American teachers,

particularly special educators, are predominantly middle-class Caucasian (Voltz, 1998). One of the reasons this phenomenon could be problematic is that middle-class Caucasian teachers may not be familiar with or fully understand minority students' cultures or the communities in which the students and their families live.

Harry and Kalyanpur (1994) provide four dimensions that professionals in special education should consider when they interact with families from different cultures: (a) parenting styles, (b) goal setting and cultural values, (c) family and community concerns, and (d) the pragmatics of communication. Addressing the first dimension, the authors emphasized that the definition of "good" parenting styles can differ from one cultural group to another. Therefore, insensitivity may lead some teachers to misjudge the parenting styles of parents who raise their children in unfamiliar ways. Values in one culture may not be appreciated in another culture. For example, being independent is one of the most important values in western cultures, which are frequently individualistic. However, being independent could be considered defiant in a Native American culture (Harry & Kalyanpur, 1994).

Explaining the third dimension, the authors noted the important role of extended family and the strong influence of the community in certain cultures. Professionals should be ready to hear extended family members' opinions in decision making when the roles of those members are crucial. If parents are more concerned about how their children with special needs behave in community settings other than their home, functional skills in community settings should be a priority in educational goal setting. The fourth dimension centered on differing communication styles, particularly invisible communication codes, across cultures. For example, Caucasian professionals might

consider the silence or low response of Asian families a mark of low self-esteem when these communicative behaviors are often signs of modesty (Harry & Kalyanpur, 1994). The authors concluded that careful consideration of these dimensions could increase the *reciprocity* between professionals and teachers, thus eventually facilitating collaboration between them (Harry & Kalyanpur, 1994, p. 161). On the other hand, if professionals underestimate these cultural concerns, parents might feel intimidated by the possibility of working with professionals and withdraw (Obiakor, 2001).

The linguistic diversity in special education settings also needs attention. Nicolson, et al. (2001) indicated that some foreign parents they interviewed expressed a strong desire to be actively involved in their children's education. However, parents were discouraged by their lack of English fluency. Parents who do not speak English fluently may not be able to express their concerns or the priorities of their family clearly. At the same time, those parents may misinterpret the professionals' messages. Whereas American teachers tend to deliver their messages directly, some foreign language-speaking parents who do speak English fluently may not be able to express their opinions directly due to different cultural norms (Harry & Kalyanpur, 1994). In addition, parents who are not English-speakers may not understand the federal laws that ensure their right to active participation. These differences or difficulties can hinder communication between professionals and parents unless professionals are considerate enough to help overcome barriers or bridge cultural gaps.

Finally, cultural diversity does not always mean ethnic diversity. Socioeconomic status (SES), religion, region, and even gender are also important factors that create cultural diversity. For example, the needs and priorities of families from low SES groups

may be completely different from the needs and priorities of families from high SES groups. As mentioned earlier, a larger portion of educators maintain middle class incomes whereas many students with special needs live in poverty. Therefore, teachers who are self-sufficient may not be aware of the desperate need for social support in the low-income families of their students and, therefore, may not consider finding a social network for them a high priority. Teachers may not understand that many low-income parents consistently miss parent-teacher conferences due to lack of transportation. In summary, being culturally sensitive can increase and enrich family involvement.

#### The Readiness of Pre-Service Teachers for Parent-Teacher Partnerships

To facilitate family involvement, according to McBride (1991), the readiness of pre-service teachers for partnership is crucial because teachers who are not properly prepared may feel frustration or develop negative attitudes. Teachers tend to exhibit positive attitudes toward family involvement when they actually apply family involvement strategies. However, few studies have investigated pre-service teachers' perspectives on family involvement and their readiness to practice collaboration.

Morris and Taylor (1998) conducted a study to determine the extent to which selected course experiences influenced pre-service teachers' perceptions of their comfort and competence levels in planning and implementing family involvement programs in schools. The participants were early childhood and elementary teacher education students enrolled in a required course entitled "School/Community Relations." This study employed both quantitative and qualitative methods. The participants conducted pre- and post-self-assessments related to their ability to work with parents. In addition to the assessment, the participants also wrote reflective statements related to the impact of

course requirements, such as developing a parent-involvement plan for one year and planning and conducting a parent workshop (Morris & Taylor, 1998).

Results from *t*-tests indicate that the students felt more confident at the end of the course in their ability to facilitate family involvement programs because of increased knowledge and the skills they acquired through the course (Morris & Taylor, 1998). Also, the researchers addressed the qualitative findings from the students' journals to support their quantitative findings. However, their findings may not be very reliable due to the issue of anonymity which both data from self-reported questionnaires and journals do not guarantee. This means that the students may have responded on these reports while being aware that the researchers could identify their work and that could have influenced the response. Thus, the current study was designed to protect anonymity. Despite the limitation of Morris and Taylor's study, it indirectly suggests that pre-service teachers' readiness for family involvement needs to be investigated along with their knowledge of disabilities.

#### Measuring Pre-Service Teachers' Attitudes

McBride (1991) investigated how pre-service teachers perceive parental involvement in their instruction. The undergraduate participants ( $N = 271$ ) were majoring in early childhood teacher education. The measurement tool was a questionnaire containing 49 items. McBride (1991) developed this questionnaire from Epstein's (1987) parent involvement model, which is based on following five concepts: (a) basic obligations of parents, (b) basic obligations of schools, (c) parent involvement at school, (d) parent involvement in learning activities at home, and (e) parent involvement in governance and advocacy (p. 59).

Two findings of this study were particularly significant: undergraduate students showed positive attitudes toward parent involvement and the participants who had classroom experiences expressed more positive attitudes. As the researcher pointed out, determining why pre-service teachers do not practice parent involvement in spite of being aware of its importance is difficult. One of the results in this study might be the answer to the question: participants were concerned about lack of preparation for implementing parent involvement strategies. Pre-service teachers might not be confident enough to facilitate parent involvement in their classrooms although they know what they have to do.

Foster and Loven (1992) conducted a study similar to McBride. The participants ( $N = 120$ ) were juniors and seniors majoring in early childhood education and elementary education. Foster and Loven also used a questionnaire to measure the participants' attitude toward parent involvement. However, the contents of the questionnaire items differed from McBride's questionnaire. The researchers designed the questionnaire to investigate their five research concerns: (a) undergraduates' belief about the necessity of parent involvement, (b) undergraduates' knowledge of factors for successful family-school relationship, (c) undergraduates' knowledge of parent involvement strategies, (d) undergraduates' knowledge of barriers in working with parents, and (e) the relationship between undergraduates' personal views and values and their perspectives on parent involvement (Foster & Loven, 1992, p. 14).

The results of this study are quite similar to McBride's study. First, 99% of the participants expressed that parent involvement is necessary. The biggest concern of the

participants was how to build a relationship with parents. Also, less experienced participants expressed stronger concerns about relationship building.

Finally, Baum and McMurray-Schwarz (2004) conducted focus group discussions and interviews to investigate beliefs about family involvement among pre-service teachers. However, this study did not report the sample size or the participants' specific major(s). Through data analysis, three themes emerged: (a) concern about the quality of teacher-family relationships, particularly communication skills, (b) difficulty in meeting children's basic needs, and (c) the role expectation for parents as an aid or a volunteer, not an equal partner.

#### Instructional Methods for Teaching Family Involvement Content

The traditional lecture format has always been used at the college level because many undergraduate courses are information-based. However, teacher education professionals recognize that students in education programs do not actively learn or find course content meaningful when it is delivered through traditional lecture. Gibson and Van Strat (2000) surveyed student opinions of the instructional methods used in an introductory biology course. The students expressed negative attitudes toward the lecture-based course whereas the instructor of the course insisted on the necessity of lecture to deliver vast amounts of required information. The survey results also indicated that the traditional approach even fostered negative attitudes toward the subject. Some participants who took the introductory biology course did not want to take any other science courses. Robinson and Kakela (2006) also stated that lecture-based teaching is effective in delivering vast amount of information, but may not engage students in the lecture.

Being aware of the weaknesses of the traditional lecture approach, professionals in teacher education have added field-based experiences, collaborative learning, or experiential learning (Sileo, Prater, Luckner, Rhine, & Rude, 1998). To facilitate better learning communities in colleges, Barnhouse and Smith (2006) suggested combining traditional (reading and writing) and nontraditional (book club, service-learning, small-group presentation, guest speakers, and portfolios) learning methods. In particular, teacher education professionals have studied effective instructional strategies to build positive attitudes in pre-service teachers. Allinder (2001) conducted a study to examine participants' preferences of various instructional strategies in an introductory special education course. Throughout the semester, the instructor deployed a new teaching method to introduce each topic in special education. On the last week of class, the students were asked to complete a questionnaire rating the level of "helpful" and "like" for each method. The questionnaire results indicated that *experiential learning activities*, *guest speakers*, and *videos of and about people with disabilities* were chosen to be the most helpful as well as the most favorable methods (Allinder, 2001, p. 367).

In fact, using videos of actual examples of course topics is an extension of using case studies in college courses (Renzaglia, Hutchins, & Lee, 1997). However, using videos of teaching concepts helps students gain insight into the presented situation as a whole. Dailey and Halpin (1981) discovered that using video clips of actual examples of disabilities could improve undergraduate attitudes toward disabilities. Guest speaker presentations appear to be another effective strategy for helping students understand more about disabilities. Although evidence of the effectiveness of a guest speaker has not been empirically validated, some narrative studies have reported the powerful influence of

guest speakers in introducing disabilities. Mullen (2001) invited a person with physical impairment to her college class as a guest speaker. She asked her students to write journals afterwards. Students expressed highly positive and empathetic attitudes toward physical impairment after the guest speaker had shared her life experiences.

Although previous studies have identified effective college teaching methods other than traditional lectures, few of the studies examined which strategies are more effective than others, particularly video and guest speakers, which are examined in the present study. In the Allinder (2001) study, the participants expressed a slightly higher preference for the guest speaker method than for video clips. However, the means of their ratings for “helpful” strategies were different. The participants rated videos slightly higher than guest speakers. These contrary results do not clarify which method is more effective, indicating the need for further investigation.

In summary, previous studies have reported that family involvement is an important factor in the effective delivery of special education services. Collaboration between families and professionals appears to be the best way to facilitate family involvement. One issue in family involvement that has been on the rise in recent years is the increasing ethnic diversity in the special education population. Because family involvement is so critical, teachers need to be aware of several cultural and linguistic considerations even before starting their careers. Some studies have investigated to what extent pre-service teachers are prepared for family involvement.

In spite of the importance of this issue, few studies have addressed the readiness of pre-service teachers for involving families. More studies on this topic are needed. Moreover, only three studies have measured pre-service teachers’ attitudes toward

parental involvement. Two of them used questionnaires. This gap in the research inspired the design for the present study. In addition, some of findings of previous studies reveal that certain backgrounds of participants could be related to their perceptions (e.g., their level of experiences of working with families) (Foster & Loven, 1992; Lee, Ostrosky, Bennett, & Folwer, 2003), their previous course experiences (McBride, 1991), and ethnicity and academic degree (Lee, et al., 2003). These findings also encouraged the researcher to investigate the relationship between demographic variables and perspectives.

Finally, research has begun to describe effective instructional methods in delivering family involvement content in higher education courses. In spite of the limited number of studies about this issue, the preliminary research indicates that guest speakers and video-based lectures are perceived as more effective methods than the traditional lecture format. Thus, this study will examine whether one method is more effective than the other.

#### Pilot Study

Prior to conducting this dissertation, the researcher conducted a pilot study. The participants were 90 ( $n = 30$  for each group) from three sections of the survey of special education. The participants' perceptions were measured by pre – post questionnaires which were designed by the researcher. After filling in pre-questionnaires, the participants all three groups were exposed to the course content of family involvement in special education. However, the teaching method for each section was different. Three teaching methods used for this pilot study were traditional lecture, video presentation, and guest speaker's presentation.

In the One-Way ANOVA of mean responses from pre-questionnaire revealed no significant group differences. This indicated that three groups did not differ in perceptions of family involvement before the content was addressed. However, the One-Way ANOVA analysis of mean responses from post-questionnaire revealed a significant group difference among three groups. Also, Post Hoc test indicated that a guest speaker group showed significantly different mean responses from the other groups (traditional lecture and video presentation).

With the pilot study results, the reliability of the questionnaire was calculated. The test yielded Cronbach's coefficient reliability alpha (Litwin, 1995) of 0.9175, indicating strong reliability (Huck, 2000). Also, a factor analysis test using SPSS to examine factorial validity, a common method in questionnaire design (McDowell & Newell, 1996), found just one strong factor underlying all 25 items. In so far as the 25 items all measured the same concept, the questionnaire was valid and reliable.

The result of the pilot study implied that addressing the content of family involvement may improve pre-service teachers' acknowledgement of the importance of family involvement in special education. Also, the result of the pilot study suggested further investigation of effectiveness between video presentation and guest speaker. However, this study did not include demographic information. Also, the teaching content of the three groups included inconsistent content of family involvement. The current study controlled for presentation content, as can be seen in the next section.

CHAPTER 3  
METHODOLOGY  
Research Design

This study employed a 3 x 2 mixed-model ANOVA design (Huck, 2000) to measure the perceptions of two different instructional groups (video group vs. guest speaker group). All the participants responded to one pre-questionnaire and two post-questionnaires. The dependent variable in this study was the participants' perspectives on family involvement. Change in the dependent variable was measured using one pre-questionnaire and two post-questionnaires; differences within each group and between the two groups were measured. For the independent variable, each experimental group was introduced to family involvement issues using one of two teaching strategies: (a) guest speaker and (b) video. The differential effect of instructional delivery on the change in the participants' perspectives was measured.

Participants

The sample for this study was drawn from undergraduate students from two introductory special education courses in the College of Education (COE) at a large southeastern public university. The special education course is a requirement for all students in education seeking teacher certification. Thus, the specific majors of the participants varied and included general education, content specialization, special education, and others. Due to the heavy demand for the course, four sections of the course were offered each semester. Among the four sections, two were selected for this

study. The researcher was the instructor of one of the two sections, and she designated her class as the group that would receive the guest speaker intervention (Group 1;  $N = 59$ ). After obtaining permission from the instructor at the beginning of Fall semester 2006, the researcher recruited participants from another section to comprise a video intervention group (Group 2;  $N = 47$ ). The maximum class size for each section was 80.

Before the instructor of each section addressed family involvement content, the researcher distributed pre-questionnaires with a consent form to the students enrolled in the two sections. The first post-questionnaires were distributed immediately after the issue had been addressed. The second post-questionnaires were distributed to the guest speaker group one week later and given to the video group two weeks later. This schedule difference took place because of different course structures between two sections. The research schedule is addressed in more detail in the procedure section. The researcher disregarded data from students who did not complete both the pre- and two post-questionnaires or who did not sign the consent form. If a student missed class during the data collection period, his or her data was removed from the data set. Due to absenteeism, the researcher had to exclude the data of twelve participants in the guest speaker intervention group and the data of four participants in the video intervention group before analyses were conducted. Thus, the final pool of participants included students who voluntarily gave consent and completed both pre- and post-questionnaires. The total number of students who completed all three questionnaires in the guest speaker intervention group was 42; in the video intervention group, the total number of students was 41. The total sample size was 83 for the final data analysis.

## Instrumentation

This study measured, by questionnaire, participants' perspectives on family involvement in special education. The questionnaire is presented in Appendix A. Using literature on family involvement, the researcher developed a two-part questionnaire. Part I of the questionnaire contained items related to demographic information such as age, gender, ethnicity, current academic status, academic major, and previous exposure to the family involvement contents in other courses. Part II of the questionnaire consisted of 25 questions developed from two previous studies: Parette and Petch-Hogan (2000) and Lee, Ostrosky, Bennett, and Fowler (2003). The first criterion for choosing the items was the concept of family-centered approach given by Dunst (2002) that guided this research. All selected items for this study addressed relational and participatory aspects of family involvement. The second criterion was the consideration of cultural issues. The questions developed by Parette and Petch-Hogan (2000) and Lee, et al. (2003) were chosen as a base because they investigated culturally appropriate practices.

First, Parette and Petch-Hogan (2000) presented 49 questions that education team members need to ask to improve the participation of families who are culturally or linguistically diverse. These questions fall under ten categories: assessment design, professional collaboration, cultural issues, values, family factors, acculturation, ethnicity, social influences, past experiences, and developmental expectations (p. 6). Nineteen items from the categories of professional collaboration (six items), cultural issues (one item), values (five items), and family factors (five items) were included in the adapted questionnaire.

Content was also derived from a questionnaire developed by Lee, et al. (2003), who investigated the perspectives of early intervention professionals on culturally-appropriate support. The researchers developed a questionnaire containing 20 items in the four categories: obtaining culture-specific knowledge, reflecting one's own and family's culture, family involvement and service delivery, and family social network and other sources of support (p. 284). Six items from the category *family involvement and service delivery* were chosen for the adapted questionnaire. The 25 selected items represented five themes: professional collaboration, cultural issues, values, family factors, and family involvement and service delivery. The questionnaire followed a 5-point Likert scale format (1 = *Least Important*, 5 = *Most Important*). As noted earlier, based on the pilot study, the factor analysis this questionnaire measured one construct in a reliable valid manner.

In this study, the participants were asked to fill out the questionnaire three times: pre-questionnaire, the first post-questionnaire (post1-questionnaire) and the second post-questionnaire (post2-questionnaire). All three questionnaires contained the same 25 questions items. However, the pre-questionnaire contained additional questions to collect demographic information: age, gender, ethnicity, academic status, major, enrollment in a teacher certification program, previous course experience related to family involvement content, familiarity with the chapter on family involvement content in the textbook, number of immediate family members with special needs, experience working with people with special needs, diagnosis of their own special needs, and their parents' involvement in their education. These data were collected only once during the pre-questionnaire process.

For all demographic items except academic major, the participants were asked to choose one among multiple choices. For example, age was divided into four ranges: 20 or younger, 21-25, 26-30, and over 30. Each participant was asked to circle their age range. However, each participant was asked to write down his or her major instead of choosing one out of several options. All majors the participants reported were collected and coded in alphabetical order.

The participants were asked to fill out these questionnaires in three different stages: pre-questionnaire prior to addressing family involvement content in class, the post1-questionnaire immediately after the content was addressed, and the post2-questionnaire a week or two after the content was addressed. The pre-questionnaire was designed to measure participant perspectives before being exposed to the topic. The post1-questionnaire was designed to measure immediate effects of the instruction on those perspectives, and the post2-questionnaire was designed to measure short-term maintenance effects of the instruction. Finally, all questionnaires contained space for writing the last four digits of the social security number for each participant. This information helped the researcher to match the three questionnaires to each participant.

#### Independent Variables

This study addressed two other research questions: (a) do the perspectives of undergraduate education majors on family involvement change after this course content is delivered? and (b) do the participants exhibit different perspectives based on the teaching methods used to address the content of family involvement? Two different teaching methods were employed to address these research questions: video and guest speaker.

The guest speaker who participated in this study was the mother of an eight-year-old girl with Down syndrome. She was a middle-class Caucasian in her 30s. Her family consisted of four members; herself, her husband, her 11-year-old son, and her daughter. The researcher had previously attended one of her presentations two years before this study was conducted. The mother was pleased to participate in this study when the researcher contacted her. She was also very open to having her presentation videotaped. One obstacle to capturing her presentation on videotape efficiently was her typical use of a photo album containing pictures of her daughter, while telling her story of her daughter. The researcher explained that it would be difficult to capture the photo album on video. The mother was very flexible in changing her speaking style. She used only four pictures during her 40-minute presentation.

To ensure internal validity, the researcher had to guarantee that the participants in each section would experience the same content regarding of method. Content consistency was ensured by inviting the guest speaker for the guest speaker group than videotaping the presentation. She then showed the video to the video group to address family involvement content. Another threat to equitable content was the potential for interaction between the guest speaker and the guest speaker group. Usually, any uncontrolled interaction between a guest speaker and audience can yield unexpected or irrelevant content. Thus, the students in the guest speaker group were asked to hold their questions until the guest speaker was finished.

Another concern regarding internal validity is the correspondence between the measurement and the intervention. In other words, what is taught should be in accord with what is measured. To ensure content similarity, the researcher met the guest speaker

several weeks before her presentation and explained the content the researcher expected her to address. The researcher also gave the mother a sample of the questionnaire the participants were going to fill out. After the guest speaker finished her presentation, the researcher analyzed its content. The correspondence between her presentation and the questionnaire items is addressed in the results chapter.

### Data Collection and Analysis

The participants' perspectives on family involvement were collected using three questionnaires at three different times. The number of pre-questionnaires filled out totaled 91 ( $n_1 = 48, n_2 = 43$ ). The total number of post1-questionnaires was 93 ( $n_1 = 50, n_2 = 43$ ), and the total number of post2-questionnaires was 90 ( $n_1 = 49, n_2 = 41$ ). However, only completed sets of pre-, post1-, and post2-questionnaires were selected for data analysis. The final number of completed sets was 83 ( $n_1 = 42, n_2 = 41$ ).

All completed sets of questionnaires were numerically coded in an SPSS data table, and the data were analyzed by ANOVA in the SPSS program. This analysis was conducted in five dimensions: distribution of demographic information, mean differences between groups, the relationship among three questionnaires in terms of mean differences, the relationship between means of questionnaires and demographic information, and item analysis.

### Procedures

This study was conducted during Fall 2006. The actual research period lasted four weeks between November and December. Research started in November according to the course schedule. The topic of family involvement was scheduled for the last week of

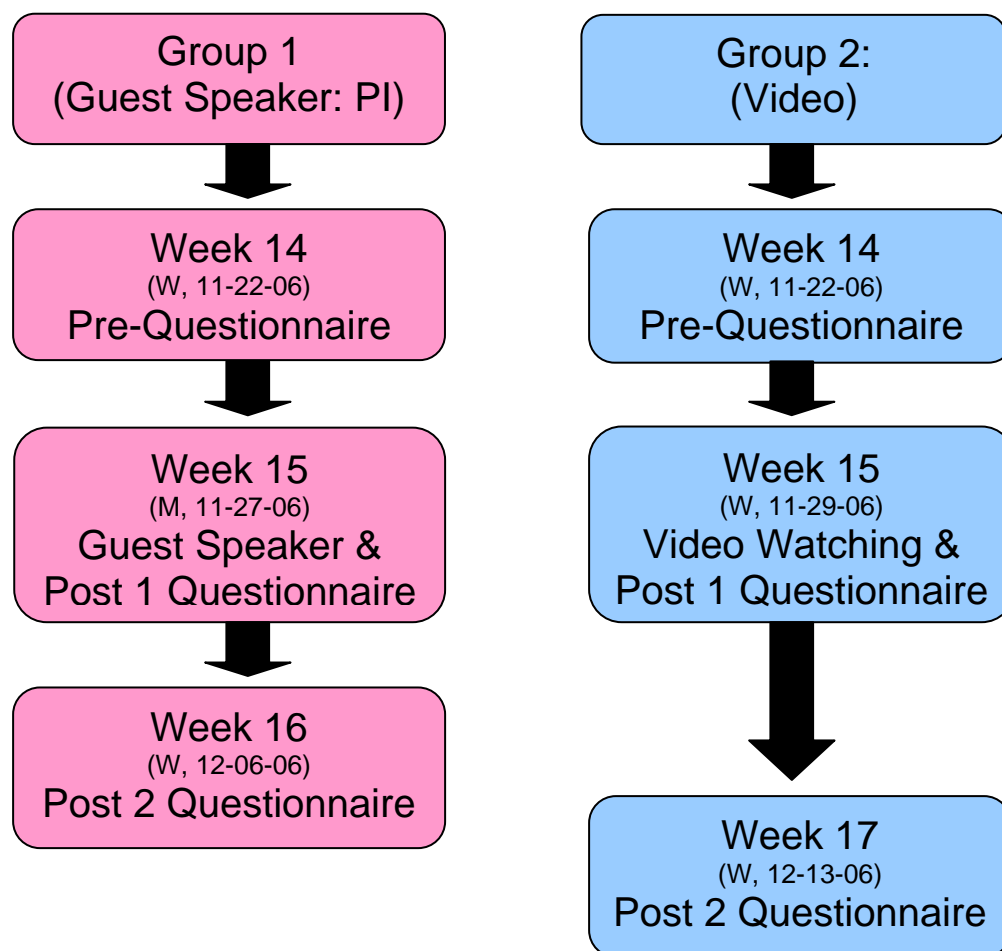
November for both groups. Before describing the process of this study, the different class schedule for each section needs to be addressed.

The two sections of the special education course that participated in this study met for different amounts of time during the week. The section that served as the guest speaker group met for a 50-minute period three days a week on Monday, Wednesday, and Friday. The other section (the video group) met for three hours every Wednesday. However, the course schedule for addressing each topic was almost identical for two sections. The only difference was the amount of information delivered per session. The information was divided into three parts in the guest speaker group section while all the information was delivered on the same day for the video group section. The 50-minute class hour for the guest speaker group allowed the guest speaker 40 minutes to talk about raising a daughter with Down syndrome; the students were asked to fill out the post1-questionnaire during the last 10 minutes of class.

The actual research started on the third week of November, which was the 14th week of the semester. Figure 3.1 lays out the entire procedure of the study. Before administering the pre-questionnaire, the researcher gave consent forms to the students. The collected consent forms were stored in a cabinet in the researcher's office that was not accessible to any one except the researcher. The total number of collected consent forms was 52 for the guest speaker group and 45 for the video group.

As the figure indicates, the researcher collected pre-questionnaire data from both groups on the same day, Wednesday, November 22. Data for guest speaker group was collected in the morning, and data for the video group was collected in the afternoon.

Figure 3.1. Research Procedure for This Study




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On the day of the guest speaker's presentation, the researcher set up a Panasonic AG 566 S-VHS camcorder and a Maxell GX-Silver videocassette toward the front of the classroom before the guest speaker arrived. The camcorder faced front so that only the guest speaker was videotaped. The researcher sat behind the camcorder to operate it. To enable the guest speaker to show four pictures of her daughter, the researcher set up a smart board and a projector for the presentation. The pictures were displayed on a big screen at the front of the room through the projector. The researcher explained to the guest speaker how to operate these devices because the researcher had to operate the

camcorder as the guest speaker moved about or showed the pictures. The guest speaker learned very quickly and did not have any trouble operating the smart board during her presentation.

As soon as the researcher sent the signal that the camcorder was on, the guest speaker started her presentation. She started with a story about her pregnancy with her daughter. She talked about her experience with medical staff and emotional hardship. She also spoke of her relationships with family members, friends, or neighbors surrounding her daughter. She included some biased responses from her neighbors and addressed the importance of a social network. Half of her story focused on her experience with the school system and her daughter. She told about positive and negative attitudes she observed in the school staff, particularly teachers. Finally, she explained the hope she had for her daughter and the expectations she had for pre-service teachers. The speaker stood up in front of the smart board during her entire presentation. Thus, the researcher needed to change the camcorder position only while she was presenting the pictures.

The first picture was taken right after the speaker had given birth to the daughter in the hospital. In the picture, she is holding the new-born baby while her husband is sitting behind them holding her and the baby together. The second one she presented contained three different pictures of her son and daughter. In the pictures, her son and daughter are engaged in different play activities together. She presented the pictures while she talked about the close relationship between her son and daughter. The third picture she presented was taken when her husband and her daughter were at a father-daughter banquet in kindergarten. She presented the picture as she talked about the relationship between her husband and her daughter. The speaker added the importance of

emotional support from family members in raising a child with special needs. The last one she presented also contained three different family pictures. She presented these pictures while finishing her presentation and explaining current family relationship around her daughter.

The students in the class were asked to hold their questions until the end of the presentation for research purposes, and they followed directions. Immediately after the speaker finished, the researcher distributed the post1-questionnaires. The students who wanted to participate had about eight minutes to complete the questionnaire. Students who had questions for the speaker came to her after completing the post1-questionnaires. Without editing, the recorded video tape was presented to the video group two days later on Wednesday, November 29, 2006. Thus, the content delivered to the video group was exactly the same as the content of guest speaker group. The students in the video group watched the video tape for 40 minutes and filled out the post1-questionnaire right after watching the video. No questions were asked while watching the video to ensure content reliability.

As Figure 3.1 indicates, the schedule for the post2-questionnaires for each group was slightly different. This difference resulted from differences in course requirements. The final requirement for the video group was a final examination. However, the guest speaker group was not required to take a final exam. Instead, the students were asked to do a group project and presentation as an equivalent alternative to the final exam. Due to this difference, the final day of class for the guest speaker group was Wednesday of the 16th week. However, the students in the video group had to meet again to take their final examination on Wednesday of the 17th week, which was final exam week. The

researcher collected post2-questionnaire for the guest speaker group on the last day of class (Wednesday, December 6, 2006) because all students had to attend to present their group projects. The researcher collected the post2-questionnaire for the video group on the final examination day (Wednesday, December 13, 2006) because attendance was highly probable on that day.

## CHAPTER 4

### RESULTS

Eighty-three participants filled out a complete set of three questionnaires that also included their demographic information. All data were coded and analyzed using SPSS. The results presented in this chapter include frequency of demographic variables, data analysis of three questionnaires, comparison of questionnaire data, and the relationship between demographic variables and questionnaire data. The content included in the guest speaker's presentation was also analyzed for emergent themes using a qualitative analysis method, particularly the highlighting approach (Van Manen, 1990).

#### Frequency of Demographic Variables

The pre-questionnaire contained questions regarding demographic information of the participants: age, gender, ethnicity, academic status, major, enrollment in a teacher certification program, previous course experience related to family involvement content, familiarity with the chapter on family involvement issues in the textbook, number of immediate family members with special needs, experience working with people with special needs, diagnosis of their own special needs, and their parents' involvement in their education.

The descriptive frequencies of demographic variables for all participants were measured using SPSS. Table 4.1 presents the results of analysis, except academic major. As the table shows, 56 participants (67.5%) were 20 years old or younger. There were 62 females (74.7%) in the total sample size. Caucasian students numbered 77 (92.8%).

Table 4.1.

*Descriptive Statistics of Demographic Information*

Variable		N (Total = 83: N1 = 42, N2 = 41)		
		G1 – GS	G2 – Video	Total
Age	20 or Younger	27 (64.3%)	29 (70.7%)	56 (67.5%)
	21 – 25	12 (28.6%)	11 (26.8%)	23 (27.7%)
	26 – 30	2 (4.8%)	1 (2.4%)	3 (3.6%)
	Over 30	1 (2.4%)	0	1 (1.2%)
Gender	Male	14 (33.3%)	7 (17.1%)	21 (25.3%)
	Female	28 (66.7%)	34 (82.9%)	62 (74.7%)
Academic Status	Freshman	5 (11.9%)	1 (2.4%)	6 (7.2%)
	Sophomore	18 (42.9%)	19 (46.3%)	37 (44.6%)
	Junior	13 (31.0%)	15 (36.6%)	28 (33.7%)
	Senior	1 (2.4%)	5 (12.2%)	6 (7.2%)
	Graduate	4 (9.5%)	0	4 (4.8%)
	Others	1 (2.4%)	1 (2.4%)	2 (2.4%)
Ethnicity	African-American	4 (9.5%)	0	4 (4.8%)
	Asian	0	1 (2.4%)	1 (1.2%)
	Caucasian/White	37 (88.1%)	40 (97.6%)	77 (92.8%)
	Missing	1 (2.4%)	0	1 (1.2%)
Previous Course Experience	None	0	2 (4.9%)	2 (2.4%)
	1 – 2	26 (61.9%)	27 (65.9%)	53 (63.9%)
	3 – 4	13 (31.0%)	8 (19.5%)	21 (25.3%)
	5 – 6	1 (2.4%)	3 (7.3%)	4 (4.8%)
	7 or More	1 (2.4%)	1 (2.4%)	2 (2.4%)
Textbook Reading	Yes	6 (14.3%)	6 (14.6%)	12 (14.5%)
	No	35 (83.3%)	35 (85.4%)	70 (84.3%)
Family w/ Special Needs	None	36 (85.7%)	38 (92.7%)	74 (89.2%)
	1 – 2	5 (11.9%)	3 (7.3%)	8 (9.6%)
Experience w/ People with Special Needs	None	8 (19.0%)	5 (12.2%)	13 (15.7%)
	Very little	16 (38.1%)	20 (48.8%)	36 (43.4%)
	Some	12 (28.6%)	13 (31.7%)	25 (30.1%)
	A lot	5 (11.9%)	3 (7.3%)	8 (9.6%)
	Missing	1 (2.4%)	0	1 (1.2%)
Special Needs	Yes	1 (2.4%)	1 (2.4%)	2 (2.4%)
	No	40 (95.2%)	40 (97.6%)	80 (96.4%)
	Missing	1 (2.4%)	0	1 (1.2%)

Variable		N (Total = 83: N1 = 42, N2 = 41)		
		G1 – GS	G2 – Video	Total
Parental Involvement	Not at all	0	1 (2.4%)	1 (1.2%)
	A little	1 (2.4%)	1 (2.4%)	2 (2.4%)
	Somewhat	10 (23.8%)	12 (29.3%)	22 (26.5%)
	Very	30 (71.4%)	27 (65.9%)	57 (68.7%)
	Missing	1 (2.4%)	0	1 (1.2%)

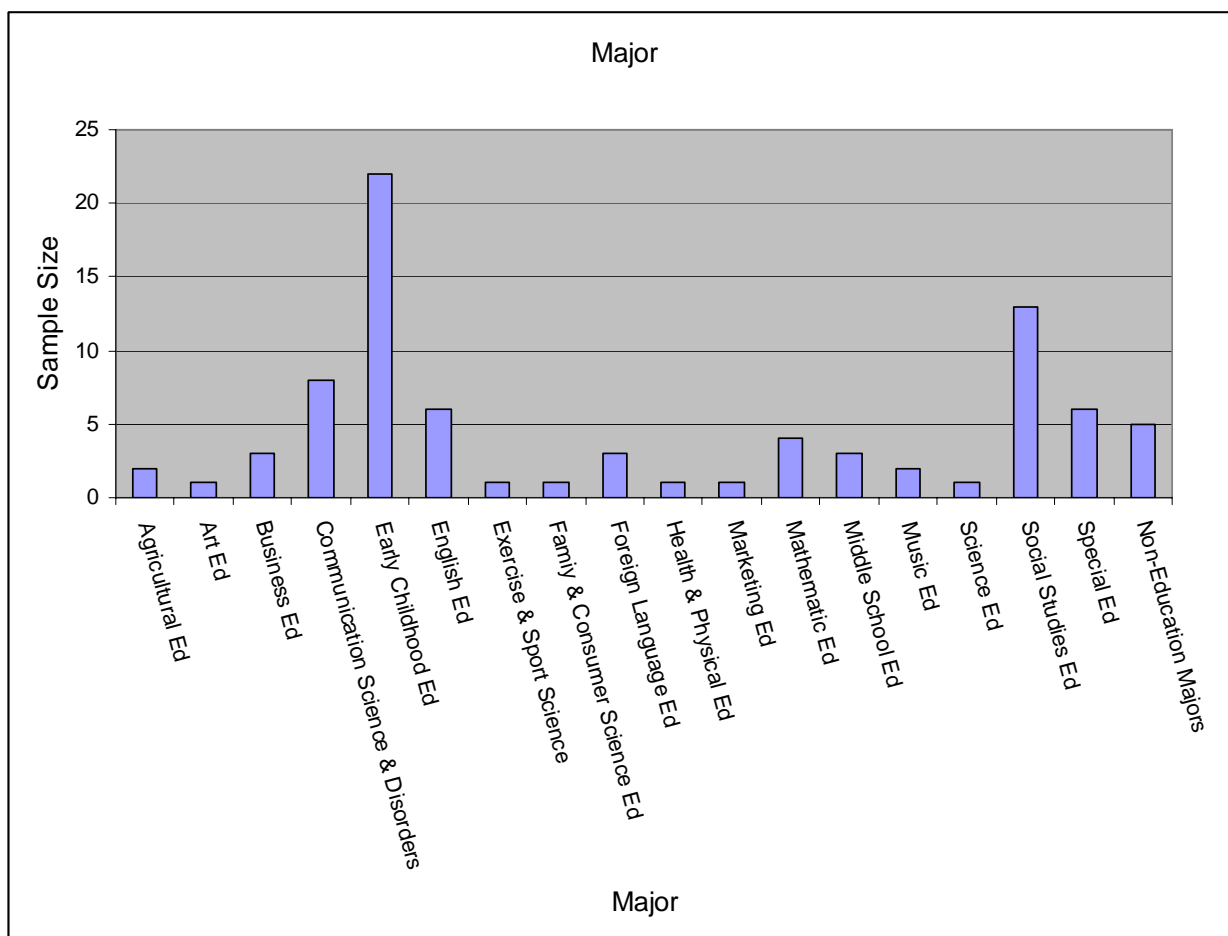
Sixty-five students (78.3%) were either sophomores or juniors. Regarding previous course experience with family involvement context, 53 participants (63.9%) indicated 1-2 courses. However, 70 participants (84.3%) reported that they had not read the family issues chapter of the textbook before filling out the pre-questionnaire.

In terms of family members with special needs, eight participants (9.6%) reported that they had one or two immediate family members with special needs. Regarding their own special needs, only two participants reported having special needs of their own such as emotional problems or learning disabilities. The level of experience with people with special needs was diverse. Only 13 participants (15.7%) reported having no experience with people with special needs while a majority of participants reported having very little or some experience. Regarding the level of parental involvement during their Pre K – 12 education period, 79 participants (95.2%) reported that their parents were involved in their education somewhat or very much.

In terms of major, the actual number of majors the participants were pursuing totaled 22. As shown in Figure 4.1, seventeen of those majors were education-related. The non-education majors included five different majors: childhood and family development ( $n = 1$ ), finance ( $n = 1$ ), psychology ( $n = 1$ ), social work ( $n = 1$ ), and Spanish ( $n = 1$ ). These majors were grouped into one category because the sample sizes

for these majors were extremely small. The sample size for all 22 majors is presented in Appendix B.

Figure 4.1. Distribution of Academic Majors Across Participant Sample



This large number of majors was rooted in the legislative mandate for all students who are seeking Georgia teacher certification. All undergraduate participants who were in the College of Education (COE) were required to take this introductory special education course. Participants in non-education majors took this course due to either a recommendation from their advisors or an intention to change their majors to education. In addition, graduate students in COE without a bachelor's degree in education also had to take this course. The two largest sample sizes were early childhood education ( $n = 22$ ,

26.5%) and social studies education ( $n = 13$ , 15.70 %). All other majors constituted very small sample sizes (fewer than 10).

### Data Analysis of Three Questionnaires

Data from three questionnaires were coded into the SPSS program, and analyzed using 3 (Time) x 2 (Method) mixed model ANOVA and Post Hoc tests in SPSS.

However, to ensure correspondence between what is taught and what is measured, the researcher first analyzed the content of the guest speaker's presentation using a qualitative data analysis method, particularly the highlighting approach (Van Manen, 1990). She transcribed the presentation and highlighted the main topics. The researcher then categorized the highlighted pieces into similar topics as follows:

- a. Various types of emotional reactions to the disability: "it's not that I'm angry at her. I'm more angry at the situation"
- b. Different types of medical professionals' attitudes (both positive and negative) in diagnosing the disability and different emotional impacts of those attitudes: "The neonatal doctor came in...Just said, 'You're dreaming if you think you would have a child with Down's syndrome. She has Down's syndrome. What seems to be the problem?' This is how she addresses me."
- c. The need for information about disability: "The manual.... In the beginning, it was overwhelming."
- d. Importance of support from family members, relatives, and friends: "one of the things that I was lucky enough to have is I have lots of cheerleaders. My family, they don't care she has Down's syndrome. They just love her"

- e. Importance of networking with other families who are in a similar situation:  
“the friend had just had a six-month-old child with Down’s syndrome. And he said, ‘It’s going to be great. These kids are awesome’ He said, ‘I had no idea what I was getting.’ And I thought, “Oh. Okay.” Because all I had heard at this point was the neonatal doctor and she didn’t sound so good.”
- f. Family relationships surrounding her daughter: “She wants to do what he does. And he helps her. I mean, they are, they are each other’s biggest fan. They totally love each other.”
- g. Importance of being involvement in classroom: “But it taught me a lot of what the classroom day is really all about and how much is involved in that day and how much y’all have to do in a day.”
- h. The examples of teachers who had different attitudes (both positive and negative) toward her daughter and the impact of those attitudes: “I had a teacher that came in and said, ‘Look at all the great progress she’s making.’ That was a critical year for me.”
- i. Importance of teachers’ roles and attitudes in facilitating teacher-parent partnership: “there are so many parents that do not have the cheerleading section to get them through all this...if you can make that connection with that parent, it will drastically change that child’s life.”
- j. IEP process experience: “Absolutely terrified my first [IEP] meeting. I thought they were going to eat me up and spit me out...”
- k. Emotional difficulty of working with school systems: “We’ve been taught not to be fun. We hear all these horror stories about the school system...”

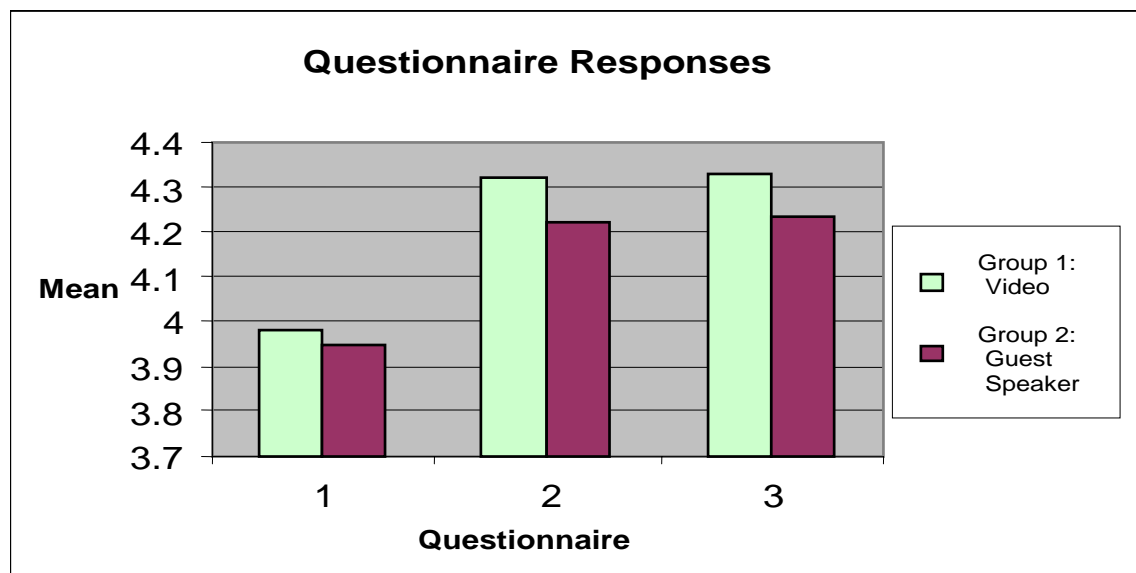
- l. Importance of focusing on the strengths of her daughter: “The good ones would come in and say, “Mary Catherine did this today.” Let’s talk about the strengths, not the weaknesses.”
- m. Barriers to dealing with disabilities, such as financial burden, marriage, and biased reactions from others: “I had people ask me, ‘What did you do while you were pregnant that made her have Down’s syndrome?’ ...”

The researcher also compared the issues she addressed and the questionnaire items. The guest speaker addressed all the questionnaire items but three. The three items were arranging transportation (item 16), involving extended family members (item 24), and language considerations (item 25).

#### Pre-Service Teacher’s Acknowledgment of Family Involvement

The first research question in this study was “do undergraduate education majors acknowledge the importance of family involvement in education overall?” The pre-questionnaire responses from participants indicate their perception status before hearing about the importance of family involvement issues. The mean value of pre-questionnaire responses for the guest speaker group was 3.98 ( $SD = 0.50$ ). The mean value of pre-questionnaire responses for the video group was 3.96 ( $SD = 0.45$ ). The mean values of the post1-questionnaire responses were also calculated. The mean of the post1-questionnaire for the guest speaker group was 4.32 ( $SD = 0.49$ ). The mean of the post1-questionnaire for the video group was 4.22 ( $SD = 0.47$ ). The mean values of the post2-questionnaire responses in the guest speaker group was 4.33 ( $SD = 0.53$ ) and the mean of the video group was 4.23 ( $SD = 0.53$ ). Figure 4.2 presents the mean values of total responses to each of the three questionnaires for both groups.

Figure 4.2. Mean Values of Questionnaire Responses.



The sample size of each group in this study was not identical ( $n_1 = 42$ ,  $n_2 = 41$ ), but the difference was very small. Although unequal sample size can potentially violate homogeneity of variance (Keppel, 1991), the results of Levene's test administered by the researcher indicated equal variances between the two groups (Levene statistic = .033,  $p > .05$ ). The null hypothesis for Levene's test is that all groups have equal variance. The researcher's test failed to reject this null hypothesis because the  $p$ -value (.856) was much larger than .05. Thus, no statistical adjustment procedure for unequal sample size was conducted.

#### Perception Status and Effective Teaching Methods

Next, the researcher evaluated the change of the perceptions over time, and the effects of teaching types on perceptions by using a 3 (Time) x 2 (Method) mixed model ANOVA with three questionnaires. In this analysis, mean response scores from three questionnaires address above were identified as dependent variables. Table 4.2 presents the results of 3 x 2 mixed model ANOVA.

Table 4.2.

*Summary of 3 (Time) x 2 (Method) Mixed Model ANOVA with Three Questionnaires*

Effect		Value	<i>F</i>	<i>p</i>
Time	Wilks' Lambda	.657	20.850**	.000
Time x Group	Wilks' Lambda	.984	.663	.518
Group (Between)			.862	.356

\*\*  $p < .001$ 

As Table 4.2 presents, the ANOVA revealed a significant main effect of *Time* [*Wilks'  $\Lambda$*  = 0.657,  $F(2, 81) = 20.85$ ,  $p < .001$ ]. However, this analysis also indicated no significant main effect for *Group (Method)* [ $F(1, 81) = 0.862$ ,  $p > .05$ ] and no significant *Time x Group (Method)* interactions [*Wilks'  $\Lambda$*  = 0.984,  $F(2, 81) = 0.663$ ,  $p > .05$ ]. These findings indicate three results. First, both groups had similar levels of perceptions of family involvement before and after being exposed to the family involvement content. Second, both groups improved their perceptions over times. Third, the influence of two teaching methods was statistically indifferent.

Although the main effect of *Time* was identified as being significant, it was unclear which segments of time yielded the significant main effect because there are three time series. To identify this, a pairwise comparison analysis in SPSS was conducted with three time series. The pairwise comparisons revealed significant differences between pre and post1 and between pre and post 2. This indicates that participants significantly improved their perceptions by being exposed to the importance of family involvement content. This finding also implies that the participants in both groups maintained their increased perceptions in the time segment between the two post-questionnaires.

### Relationship Between Demographic Variables and Questionnaire Data

The last research question for this study was “do participants respond differently based on their demographic status?” As an additional inquiry, the researcher correlated responses on all three questionnaires to the ten demographic variables listed in Table 4.1 to determine whether any variables might be related to the perception of family involvement issues. In terms of a given demographic variable, participants were divided into several subgroups. For example, in terms of age, the participants were divided into four subgroups: *20 or younger*, *21-25*, *26-30*, and *over 30*. Thus, response mean differences among these subgroups for each variable were measured using the One-Way ANOVA procedure. First, this subgroup response mean value comparison was conducted using pre-questionnaire data. The comparison results indicated that statistically significant subgroup response mean differences were found for only two variables: *previous course experience related to family involvement issues* [ $F(4, 81) = 3.20, p < .05$ ] and *parental involvement in education* [ $F(3, 81) = 3.63, p < .05$ ].

These two variables contained more than two subgroups. When an One-Way ANOVA result indicates a statistically significant group difference in mean value for more than two groups, the next process is a Post Hoc multiple comparison test to investigate the groups that have actual mean differences (Huck, 2000). However, in this study, two statistical considerations, sample size and homogeneity of variance, guided the researcher’s decision to conduct the Post Hoc test. Both *previous course experience* and *parental involvement* variables contained unequal subgroup sample sizes. Ensuring equal sample sizes across groups is important in most experimental studies with random assignments (Keppel, 1991). However, unequal sample size is unavoidable or impractical

in certain situations of social science studies (Ruvuna, 2004). In this study, two types of demographic information, *previous course experience* and *parental involvement*, were collected after selecting participants. Thus, random assignment with equal sample sizes for each variable was not available. The only way the researcher could maintain equal sample size for these variables was to collect demographic information first and subsequently select participants.

The main reason for concern over unequal sample size is because unequal sample size can violate homogeneity of variance and affect interpretation of the results (Keppel, 1991). Thus, ensuring equal variance across groups is important (Huck, 2000). The researcher ran Levene's test of homogeneity of variance for these two variables. The Levene test result for the *previous course experience* variable was a statistically insignificant 1.41 ( $p > .05$ ), indicating that the five subgroups had equal variance. However, the Levene test result for *parental involvement* variable was a statistically significant 5.20 ( $p < .05$ ). This finding indicates that the subgroups within the parental involvement variable did not have equal variance. Further investigation of this variable will be explained.

In terms of previous course experience, further investigation was conducted to examine which specific subgroups had a statistically significant response mean value difference among the five subgroups of the *previous course experience* variable. The mean values of this variable are presented in Table 4.3.

Table 4.3.

*Descriptive for Previous Course Experience*

Code	Subgroups	Sample Size	Mean	SD
1	None	2	3.70	0.20
2	1 – 2	53	3.85	0.48
3	3 – 4	21	4.17	0.39
4	5 – 6	4	4.27	0.56
5	7 or More	2	4.52	0.00
Total		82	3.97	0.48

To investigate further specific differences for the two variables, the researcher conducted a Post Hoc multiple comparison test. However, before addressing the results of the Post Hoc test, the distribution of participants for two variables needs to be discussed. As Table 4.1 presents, the sample distribution among subgroups for the two variables were unequal and some of the subgroups were too small. Typical Post Hoc tests, such as Tukey, Sheffe, or Bonferroni, are not applicable to this type of data. Thus, the researcher had to decide what to do with the small sample sizes. Huck (2000) suggested that any sample size smaller than five is considered too small from the most conservative perspective (p. 634). Thus, the researcher decided to drop the subgroup *None* for previous course experience. Also, the researcher combined two categories, *5-6* and *7 or more*, for data analysis purposes; thus, the sample size for this combined category became six. Huck (2000) recommended revising categories to increase cell sample size for the purpose of analysis.

Restructured subgroups of the previous course experience variable became *1-2* ( $n = 53$ ), *3-4* ( $n = 21$ ), and *5 or more* ( $n = 6$ ). Among these new subgroups, the new mean of *5 or more* was 4.35 ( $SD = 0.45$ ). The mean values of other two categories were the same as the original analysis. The homogeneity of variance for this restructured variable was recalculated, and the Levene statistic was 0.29 ( $p > .05$ ). Thus, equal variance in three restructured subgroups was identified. Then, the One-Way ANOVA and a Post Hoc tests were conducted. In the One-Way ANOVA test, the  $F$ -value was 5.80 ( $p < .05$ ). Previous studies recommend using nontraditional Post Hoc procedures such as LSD, Games-Howell, Dunnett's T3, Scheffé, and Dunnett's C in SPSS when analyzing unequal sample size data (Toothacker, 1993). The researcher ran all five of these tests with the *previous course experience* data. Except for the Scheffé test, all four tests indicated statistically significant response mean difference values between the *1-2* and *3-4* subgroups. This finding implies that participants who had taken three or four classes related to family involvement issues had higher levels of perception of their importance compared to participants who had taken fewer related courses. However, interpretation of this result should be done cautiously, an issue addressed in the discussion chapter.

In terms of parental involvement, further investigation was conducted using Welch  $t$ -test. As Table 4.4 presents, the demographic distribution within this variable was very unequal. In particular, the sample sizes for *Not at All* and *A Little* were too small, so the researcher dropped these subgroups and compared the means of two subgroups, *Somewhat* and *Very*. The test of homogeneity of variance was conducted again with only two subgroups and Levene's test (4.58,  $p < .05$ ) revealed these two groups still have unequal variance. Thus, the researcher conducted Welch test to measure equality of

means assuming unequal variance while running One-Way ANOVA test. This test indicated significant group differences between two subgroups (Welch test's  $p$  value  $< .019$ ).

Table 4.4.

*Descriptive for Parental Involvement*

Code	Subgroups	Sample Size	Mean	SD
1	Not at All	1	4.16	N/A
2	A Little	2	3.40	0.55
3	Somewhat	22	4.07	0.39
4	Very	57	3.97	0.48
Total		82	3.99	0.48

Finally, when the responses of academic major were analyzed, the subgroup response mean difference across majors was measured in two ways. First, the response mean difference across all 22 majors was measured. Next, the researcher selected three majors in which family involvement issues are heavily emphasized compared to other majors: early childhood education, family and consumer science, and special education. Then, the consolidated response mean of these three majors was compared to the consolidated mean of the other majors. However, no statically significant response mean differences ( $p < .05$ ) were found in either measurement.

#### Reliability and Validity

With the results of this study, the researcher computed a reliability analysis test by using SPSS; the test yielded Cronbach's coefficient reliability alpha (Litwin, 1995) of

0.9302, which is slightly stronger than a pilot study (Huck, 2000). Also, the researcher conducted a factor analysis test by using SPSS to examine a factorial validity, a common method in questionnaire design (McDowell & Newell, 1996), and found just one strong factor underlying all 25 items. In so far as the 25 items all measured the same concept, the questionnaire was valid and reliable.

## CHAPTER 5

### DISCUSSION AND IMPLICATIONS

#### Discussion

This study investigated pre-service teachers' perspectives on family involvement in teaching children with special needs and effective teaching methods of delivering family involvement content in the undergraduate classroom. The results of the study are interesting. The participants appeared to have fairly high acknowledgment of the importance of family involvement at beginning of the study. However, overall response mean values increased after participants were exposed to the course content and these perceptions held over a short time span. Also, the two teaching methods, video and guest speaker had similar results.

In addition, participants who had more course experience with family involvement issues had higher score than participants with less course experience. Also, participants whose parents had more educational involvement during their schooling had higher scores compared to participants whose parents were reported as somewhat involved during their schooling.

#### *Acknowledgement and Improvement of the Importance of Family Involvement*

Participants in this study started with a fairly high perception of family involvement. The overall response mean values on the pre-questionnaires were almost 4 out of 5. The rating range in this study was 1 (least important) to 5 (most important). Thus, 4 out of 5 indicates the participants perceived family involvement issues as quite

important. However, as mentioned earlier, they still had lower levels of perception for 13 items for which the mean values were below 4, even below 3. This finding confirms the results of Beverly and Thomas (1999) regarding the discrepancies between currently recommended family-involvement practices and observed school practice. However, after being exposed to family involvement content, the participants improved their perceptions and maintained that increased perception over a short period of time. Previous studies such as McBride (1991) and Foster and Loven (1992) that examined pre-service teachers' perceptions did not continue measuring whether those pre-service teachers could maintained improved perceptions of family involvement. This study extends the area of investigating perception change. However, caution is needed in claiming that instruction of the content actually contributed to the change without a control group of no-instruction. This study was designed to have only two treatments (two teaching methods). Without control group, it may not be clear that only the instruction variable resulted in the perception change.

#### *Comparison of Teaching Methods: Guest Speaker vs. Video*

The comparison results of the two teaching modes revealed that the guest speaker method and video method had virtually the same influence on perception change. This result violated the expectation held by the researcher at the beginning of this study. The researcher assumed that a guest speaker would have a greater impact on perception change compared to video. Although no empirical evidence supported the assumption, some previous studies have suggested that inviting a guest speaker enriches the understanding of content (Barnhouse & Smith, 2006). Inviting a guest speaker appeared

to be particularly effective for people who are resistant to accepting certain conceptual values (Kubal, Meyler, Stone, & Mauney, 2003).

After discovering the identical impact of both methods, the researcher recalled an interesting incident she observed while showing the video. The researcher observed that the students in the video group reacted to the presentation in ways similar to guest speaker group. When the guest speaker showed the picture of the father-daughter banquet, most students in the guest speaker group expressed exclamatory reactions like “Oh~~~~” because the picture itself demonstrated a close affection between the father and the daughter. The students in the video group expressed very similar reactions when the video focus was moved to the picture. Also, when the speaker made jokes during her presentation, the students in the video group laughed at roughly the same moments as the guest speaker group. These incidents might indicate that the students in the video group were impacted in way similar to the guest speaker group, although there is no empirical evidence for this supposition.

#### *Relationship Between Demographic Status and Perception*

The analysis of the relationship between demographic status and perception revealed an interesting result as well. In terms of the level of course experiences related to family involvement, there were statistically significant different responses on the questionnaires. The response mean score of participants who took one or two courses related to family involvement was 3.85, and the response mean of the participants with three or four course experiences was 4.17. These results indicate that students who had been exposed to this topic a couple or more times may have had higher levels of perception of the importance of family involvement issues. It should be noted that these

results have to be carefully interpreted due to the risk of Type I errors. A Type I error occurs when the null hypothesis is rejected but is actually true (Huck, 2000). In other words, an error occurs when we conclude a significant mean difference when there is actually no true mean difference. The probability of a Type I error is closely related to sample size (Huck, 2000). The sample sizes of two subgroups (*1-2* and *3-4*) were different and one group had a small sample size. These factors could cause Type I errors in interpreting results.

Nonetheless, the results might provide insight into how often higher education professionals need to address the family involvement content. Collaboration between professionals and family members is commonly addressed in one course in the College of Education. However, this result suggests that the family involvement content may need to be addressed at least three or more times. In fact, this interpretation would have been more reliable if this study had larger sample sizes for all five subgroups, including *None*, *5-6*, and *7 or more*. Further investigation with larger sample sizes for different levels of course experiences is needed.

In addition, one issue cropped up during this study concerning this variable. The actual demographic question for this variable is “in the courses you have had, in how many of those courses was the concept of family involvement addressed?” However, this question does not provide information about how often family involvement issues were addressed in each course. The participants might have taken a course that was specifically designed to address family involvement issues or collaboration between teachers and parents. On the other hand, the participants might have taken a course in which the family involvement issue was addressed for an hour or so through entire semester. As mentioned

earlier, 53 students reported having been exposed to family involvement issues in one or two previous courses. However, the actual number of hours of experience they have with this topic might be extremely diverse. Future studies might include more specific questions such as experience with courses specifically designed to address family involvement issues. Also, it would be interesting to analyze courses related to this topic across different education majors.

In terms of some other demographic variables, the results are inconclusive. For example, the numbers of family members with special needs or self-addressed special needs were anticipated to influence significant mean differences. Although the One-Way ANOVA test did not reveal significant response differences for these variables, the researcher attributed this statistical insignificance to small sample size. The participants who reported having special needs were only two out of 83. Also, the participants who reported having family members with special needs were only five. Thus, statistical insignificance in response mean difference was unavoidable. Future comparison studies of populations with special needs to populations without special needs in terms of perception would be interesting.

Another demographic variable, parental involvement, also had significant subgroup differences in terms of acknowledging the importance of family involvement. In other words, the participants whose parents had been highly involved in their schooling had higher perceptions of family involvement. This result might suggest that the level of acknowledgement of family involvement may be related to the level of parental involvement. However, it should be noted that the subgroup difference of parent involvement came from *Somewhat* and *Very*. Since the level of parental involvement

between *Somewhat* and *Very* is not discrete, the correlation between the perception and parental involvement is not clear. Future study of comparing the perception between the group of no or little parental involvement and the group of high level of parental involvement could identify specific correlations.

The results in terms of academic majors were also counter-intuitive. As mentioned before, there are some majors in which family involvement issues are heavily emphasized. The researcher expected that participants in these majors would have higher response mean values than participants in other majors. The first analysis across all 18 majors did not show any statistically significant mean differences. The researcher attributed this statistical insignificance to small sample size. Thus, she united three majors in which family involvement is considered more important and compared the response mean of the united majors to the mean of the others. However, the researcher was not able to find any significant response mean difference, perhaps due to the fact that most students take the special education course as part of their core, prior their primary course of study. Thus, these data seem to indicate that students in the majors that focus more heavily on family involvement issues are not pre-disposed to these issues differently than other education majors before fulfilling more specific program requirements.

To examine this more closely, the researcher analyzed the relationship between previous course experience and academic major. As mentioned earlier, previous course experience was related to response mean difference. The researcher examined whether participants from different majors had different levels of course experience related to family involvement, particularly the three aforementioned majors versus the other majors.

Interestingly, the researcher found similar levels of course experience related to family involvement issues in this comparison. Among 29 participants in early childhood education, family and consumer science, and special education, 16 students (55.2%) reported having one or two prior course experiences, and nine students (31.0%) reported having three or four prior course experiences. On the other hand, among 54 students from other majors, 37 students (68.5%) reported having one or two prior course experiences, and 12 students (22.2%) reported having three or four prior course experiences. This finding indicates that family involvement issues are addressed across education majors. Further investigation into courses related to family involvement in each major would be helpful.

Because most of the participants had not yet been exposed to their major programs, it would be interesting to examine how their perceptions change, if at all, when they are close to finishing their programs. Longitudinal studies that investigate their perception changes from the moment they enter the program to the moment they graduate would be effective in revealing different levels of emphasis between majors. One previous study suggested the need for longitudinal investigation. Lee, et al. (2003) conducted a survey regarding perspectives of early interventionists on culturally-appropriate practices. Among 25 questionnaire items in this study, seven items were very similar to or exactly the same as the study on early interventionists: flexibility of meeting with family members, providing multiple opportunities for participation, educational goals that reflect cultural values of families, open communication strategies, involvement of extended family members, providing written materials in preferred language, and understanding different points of view. Comparing the response means of these seven

items from both studies yields interesting results. The response means of these items ranged from 4.56 to 4.68 in the culturally-appropriate practice study. In contrast, the response means of these seven items on the pre-questionnaire in this study ranged from 3.41 to 4.17. Even without statistical analysis, the differences are clear. Of course, it would not be appropriate to compare the perspectives of pre-service teachers to that of professionals in the field. However, this comparison provides a glimpse of the possibility that people in certain fields such as special education will have different perspectives on family involvement once have been exposed to these issues in real life settings.

#### Limitations

Some limitations of this study need to be addressed. First, this study was not designed in the traditional format, control vs. experimental. This study compared two experimental groups. The participants improved their perceptions of family involvement after the instruction of the content. However, without control group, one cannot be certain that the instruction caused the improvement. Some other unknown factors could have influenced the improvement. Further study with control group in terms of the effectiveness of teaching methods along with random assignment is necessary.

Second, the selection of the guest speaker might have influenced the content addressed and produced unexpected results. As mentioned earlier, the guest speaker might not have addressed two topics, transportation and extended family, because she was a Caucasian mother from a middle-high SES family. The result shows that participants maintained a lower perception of these two issues across three questionnaires. Thus, the background of guest speaker might have influenced questionnaire responses although it could be overstated. It would be interesting if the researcher selected a guest

speaker from a different cultural background who talked about the importance of arranging transportation and involving extended family members and compare the results to the results of this study.

Third, the overall content of the textbook needed to be addressed. As mentioned earlier, the textbook has a separate chapter for family issues. The researcher measured if the participants read the textbook before intervention. However, the textbook also includes how to involve family members, particularly in terms of early intervention for a specific special needs in other chapters although this information is very minimal. During the semester this study took place, two instructors were careful of not addressing family related content prior to the designated presentations. However, the participants could have been exposed to this content in the textbook because they were required to read each chapter. This reading of the content might have influenced their perceptions, in particular, on the pre-questionnaire.

Fourth, the post2-questionnaire was administered only one-week or two-weeks after the post1-questionnaire was administered. This period of time was established because the original purpose of the post2-questionnaire was to measure short-term maintenance effects of the teaching. However, one-week or two-weeks might not strongly indicate that the participants would maintain their perception longer. Also, the students were asked to fill in questionnaires at the end of semester. Students may have fatigue since it was the end of semester, and this fact might have influenced their responses.

In terms of starting point of this study, the future study would be more efficient if it starts at the beginning of the semester. Starting from the beginning of the semester

ensures that the participants are not exposed to the course content related to family involvement prior to this study. Also, the researcher could measure longer period of maintenance effect as well as not risking of conducting the entire study by waiting the end of the semester.

Fourth, in a similar context, the participants were asked to fill out the same questionnaire items three times within three or four weeks. Due to this schedule, the participants might not have been completely devoted to filling out the questionnaires, particularly the two post-questionnaires. In fact, the participants in the video group were asked to fill out their post2-questionnaire on the day of their final examination. The questionnaires were distributed to the students along with their tests, and the students were asked to return the questionnaire with the tests. This arrangement might have influenced the sincerity of their questionnaire responses. Another issue of timing, the participants in guest speaker group were asked to attend guest speaker's presentation and were asked to fill out the first post questionnaire on Monday right after Thanksgiving day. This might influence the response on the first post-questionnaire.

Fifth, as mentioned earlier, unequal sample sizes and small sample sizes for certain demographic variables might have interfered with interpretation. Future studies on the relationship between these demographic variables and perception should be carefully designed in terms of sampling. Also, one concern with sample selection was the different level of acquaintance between the researcher and the students in the two sections. Although the researcher emphasized that participating the study was completely voluntary, a higher participation rate was expected from the section she was teaching. Moreover, the class size of the guest speaker group ( $n_1 = 59$ ) was a little bigger than the

video group ( $n_2 = 47$ ). However, the overall participation level was higher for the video group (87.23 %, 41 out of 47) than guest speaker group (72.88%, 43 out of 59).

Finally, some questionnaire items could have been interpreted differently by the participants. For example, as mentioned earlier, the item for previous course experience related to family involvement issues did not specify the actual amount each course had to address the issue. Also, the Likert scale this study employed might not have clearly measured the participants' perceptions. The scale ranges from 1 (least important) to 5 (most important), and each scale from 1 to 5 is not discrete from others in terms of the degree of importance. Therefore, the same scale might indicate different degrees of importance for different participants. This likelihood should be considered in interpreting the questionnaire results.

#### Implications for Professionals in Teacher Education

In summary, this study discovered that pre-service teachers had fairly high acknowledgement of the importance of family involvement. Moreover, the two teaching methods (guest speaker and video) apparently contributed equally to perception improvement.

Regardless of the limitations, the results of this study contribute to the teacher education field in several ways. First, this study confirms the importance of effective teaching strategies in addressing the importance of family involvement issues. Previous articles have identified some effective teaching methods due to the weakness of traditional lecture (Sileo, Prater, Luckner, Rhine, Rude, 1998; Barnhouse & Smith, 2006). This study confirmed that these non-lecture based teaching methods are effective. However, few of these studies compared the effectiveness of each non-lecture based

teaching strategy. This study identified that the video and the guest speaker methods may have been equally influential, thus extending the empirical evidence of the comparison study. Also, this finding provides an important practical suggestion to professionals in higher education settings for addressing family involvement issues.

It might be readily accepted that inviting a live person, especially a parent of a child with special needs, is an effective way to introduce family involvement issues. However, it might not be easy for professionals to find a good speaker who is available all the times. Also, professionals might not be able to invite a speaker on the day they want to address the issue. The results of this study indicate that the effect of watching a video is similar to the effect of listening to a guest speaker, especially if the video is a guest speaker presentation. Thus, professionals in higher education settings might invite a guest speaker to make a single presentation and videotape it. Then, they might be able to address the topics at their own convenience with similar effects. This result also may help online classes in which students may have difficulty accessing live guest presentation.

Also, this study suggests careful consideration in terms of content in addressing family involvement issues. Family involvement is a broad concept involving specific sub-issues. Even the conceptual definition this study employed from Dunst (2002) includes six sub-concepts. This study indicates that addressing the overall importance of family involvement issues does not guarantee that pre-service teachers will perceive the importance of all the specific topics related to family involvement. For example, the overall response means of participants in this study was quite high, near 4 out of 5. However, the participants rated some items much lower than 4, even as low as 3. Also, the perception of participants did not improve when certain topics were not addressed.

Therefore, this study suggests that professionals carefully choose all important subcomponents of family involvement and address all of them to help their students acknowledge them.

Another implication of this study is that cultural difference might influence pre-service teachers' attitudes. As mentioned earlier, a majority of teachers are Caucasian (Vaulz, 1998) whereas cultural diversity has rapidly increased in populations of students with special needs (Harry & Kalyanpur, 1994). A result of this study indicated that pre-service teachers did not perceive certain topics to be important, although these issues could seriously inhibit family involvement for certain family members. Thus, this study suggests that professionals in teacher education need to include cultural difference issues in delivering content on family involvement. Also, it would be interesting to conduct a comparison study between Caucasian guest speakers and guest speakers from different cultures. Finally, this study extended empirical evidence regarding the perception of pre-service teachers of family involvement issues and discovered some effective teaching methods for delivering course content. These empirical findings from this study can be extended in future studies on facilitating better acknowledgement of family involvement in teacher education and further encouraging active family involvement in special education settings.

## REFERENCES

- Allen, S. F., & Tracy, E. M. (2004). Revitalizing the role of home visiting by school social workers. *Children & Schools, 26*(4), 197-208.
- Allen, W. (1978). The search for applicable theories for black family life. *Journal of Marriage and the Family, 40*, 117-131.
- Allinder, R. M. (2001). Effects of modeling on attitudes and perceptions of pre-service special education teachers. *Teacher Education and Special Education, 24*, 362-372.
- Baker, A. J. L., Kessler-Sklar, S., Piotrkowski, C. S., & Parker, F. L. (1999). Kindergarten and first-grade teachers' reported knowledge of parents' involvement in their children's education. *The Elementary School Journal, 99*(4), 367-380.
- Barnhouse, S. M., & Smith, S. P. (2006). The evolution of a learning community. *Teaching English in the Two year College, 34*(2), 185-193.
- Baum, A. C., & McMurray-Schwarz, P. (2004). Preservice teachers' beliefs about family involvement: Implication for teacher education. *Early Childhood Education Journal, 32*(1), 57 – 61.
- Beverly, C. L., & Thomas, S. B. (1999). Family assessment and collaboration building: Conjoined processes. *International Journal of Disability, Development and Education, 46*, 179-197.

- Bredekamp, S., & Copple, C. (1997). *Developmentally Appropriate Practice in Early Childhood Programs* (Revised Ed.). Washington, D.C.: National Association for the Education of Young Children.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Burke, P. (2004). *Brothers and sisters of children with disabilities*. London: Jessica Kingsly.
- Dailey, J. L., & Halpin, G. (1981). Modifying undergraduates' attitudes toward the handicapped by videotapes. *Journal of Special Education, 15*, 333-339.
- Dunst, C. J. (2000). Revisiting "rethinking early intervention." *Topics in Early Childhood Special Education, 20*(2), 95-104.
- Dunst, C. J. (2002). Family-centered practices: Birth through High school. *The Journal of Special Education, 36*, 139-147.
- Dunst, C. J., & Trivette, C. M. (1996). Empowerment, effective helpgiving practices and family-centered care. *Pediatric Nursing, 22*, 334-343.
- Epstein, J. L. (1986). Parents' reactions to teacher practices of parent involvement. *Elementary School Journal, 86*, 277-294.
- Fialka, J. (2001). The dance of partnership: Why do my feet hurt? *Young Exceptional Children, 4*(2), 21-27.
- Foster, J. E., & Loven, R. G. (1992). The need and directions for parent involvement in the 90's: Undergraduate perspectives and expectations. *Action In Teacher Education, 14*(3), 13-18.

- Geenen, S., Powers, L. E., & Lopez-Vasquez, A. (2001). Multicultural aspects of parent involvement in transition planning. *Exceptional Children*, 67(2), 265-282.
- Gibson, H. L., & Van Strat, G. A. (2000). *The impact of instructional methods on preservice teachers' attitudes toward teaching and learning*. (Contract No. P116B70866). Washington, D. C. (ERIC Document Reproduction Service No. ED442758)
- Greenwood, G. E., & Hickman, C. W. (1991). Research and practice in parent involvement: Implication for teacher education. *The Elementary School Journal*, 91, 279-288.
- Hallahan, D. P., & Kauffman, J. M. (2006). *Exceptional learners: An introduction to special education* (10<sup>th</sup> ed.). Boston, MA: Pearson Education. Inc.
- Harris, M. B. (1998). *Basic statistics for behavioral science research* (2<sup>nd</sup> ed.) Boston: Allyn and Bacon.
- Harry, B., & Kalyanpur, M. (1994). Cultural underpinnings of special education: Implications for professional interactions with culturally diverse families. *Disability & Society*, 9, 145-165.
- Henderson, A. (Ed.). (1987). *The evidence continues to grow: Parent involvement improves student achievement*. Columbia, MD: National Committee for Citizens in Education.
- Huck, S. W. (2000). *Reading statistics and research* (3<sup>rd</sup> Ed.). New York: Addison Wesley Longman, Inc.
- Johnston, L., & Mermin, J. (1994). Easing children's entry to school: Home visit help. *Young Children*, 49(5), 62-68.

- Keppel, G. (1991). *Design and analysis: A researcher's handbook* (3<sup>rd</sup> Ed.). Upper Saddle River, NJ: Prentice Hall.
- Knight, D., & Wadsworth, D. (1998). A national survey of special education teacher preparation programs regarding their inclusion of family focused components of the CEC common core of knowledge and skills. *Teacher Education and Special Education, 21*, 214-226.
- Kubal, T., Meyler, D., Stone, R. T., & Mauney, T. T. (2003). Teaching diversity and learning outcomes: Bringing lived experience into the classroom. *Teaching Sociology, 31*, 441-455.
- Lee, H., Ostrosky, M. M., Bennett, T., & Fowler, S. A. (2003). Perspectives of early intervention professionals about culturally-appropriate practices. *Journal of Early Intervention, 25*, 281-295.
- Litwin, M. S. (1995). How to measure survey reliability and validity (Volume 7). In A. Fink (Series Ed.), *The survey kit* (Vols. 1-9). Thousand Oaks, CA: SAGE Publication.
- Mapp, K. L. (December, 1997). Making family-school connections work. *The Education Digest, 63*, 36-39.
- Marshall, J. K., & Mirenda, P. (2002). Parent-professional collaboration for positive behavior support in the home. *Focus on Autism and Other Developmental Disabilities, 17*, 216-228.
- McBride, B. (1991). Pre-service teachers' attitudes toward parental involvement. *Teacher Education Quarterly, 18*, 59-67.

- Moles, O. (1993). Collaboration between schools and disadvantaged parents: Obstacles and openings. In Chavkin, N. (Ed.), *Families and school in a pluralistic society* (pp. 21-49). Albany, NY: State University of New York Press.
- Morris, V. G., & Taylor, S. I. (1998). Alleviating barriers to family involvement in education: The role of teacher education. *Teaching and Teacher Education, 14*, 219-231.
- Mullen, C. A. (2001). Disabilities awareness and the pre-service teacher: A blueprint of a mentoring intervention. *Journal of Education for Teaching, 27*(1), 39-62.
- Muscott, H. S. (2002). Exceptional partnership: Listening to the voices of families. *Preventing School Failure, 46*(2), 66-69.
- Nicholson, K., Evans, J. F., Tellier-Robinson, D., & Aviles, L. (2001). Allowing the voices of parents to help shape teaching and learning. *The Educational Forum, 65*, 176-185.
- Norton, P., & Drew, C. (1994). Autism and potential family stressors. *American Journal of Family Therapy, 22*(1), 67-76.
- Obiakor, F. E. (2001). Multicultural education: Powerful tool for preparing future general and special educators. *Teacher Education and Special Education, 24*, 241-255.
- Parette, H. P., & Petch-Hogan, B. (2000). Approaching families: Facilitating culturally/linguistically diverse family involvement. *Teaching Exceptional Children, 33*(2), 4-10.
- Peralta-Nash, C. (2003). The impact of home visit in students' perception of teaching. *Teacher Education Quarterly, Fall 2003*, 111-125.

- Powell, T. H., & Gallagher, P. A. (1993). *Brothers & sisters – A special part of exceptional families* (2<sup>nd</sup> ed.). Baltimore: Paul H. Brookes.
- Renzaglia, A., Hutchins, M., & Lee, S. (1997). The impact of teacher education on the beliefs, attitudes, and dispositions of preservice special educators. *Teacher Education and Special Education, 20*, 360-377.
- Robinson, C. F., & Kakela, P. J. (2006). Creating a space to learn: A classroom of fun, interaction, and trust. *College Teaching, 54*(1), 202-206.
- Rosenblatt, P. C. (1994). *Metaphors of family systems theory: Toward new constructions*. New York: Guilford Press.
- Ruvuna, F. (2004, Jan 1). Unequal center sizes, sample size, and power in multicenter clinical trials. *Drug Information Journal*, Retrieved March 5, 2007, from [http://findarticles.com/p/articles/mi\\_qa3899/is\\_200401/ai\\_n9378920](http://findarticles.com/p/articles/mi_qa3899/is_200401/ai_n9378920)
- Shartrand, A. M., Weiss, H. B., Kreider, H. M., & Lopez, M. E. (1997). *New skills for new schools: Preparing teachers in family involvement* (Contract No. 43-31HA-7-40108). Cambridge, MA: Medical School, Harvard University. (ERIC Document Reproduction Service No. ED414254)
- Sileo, T. W., Prater, M. A., Luckner, J. L., Rhine, B., & Rude, H. A. (1998). Strategies to facilitate preservice teachers' active involvement in learning. *Teacher Education and Special Education, 21*, 187-204.
- Sohn, S., & Wang, X. C. (2006). Immigrant parents' involvement in American schools: Perspectives from Korean mothers. *Early Childhood Education Journal, 34*(2), 125-132.

- Spann, S. J., Kohler, F. W., & Soenken, D. (2003). Examining parent's involvement in and perceptions of special education services: An interview with families in a parent-support group. *Focus on Autism and Other Developmental Disabilities, 18*, 228-237.
- Sperry, L. A., Whaley, K. T., Shaw, E., & Brame, K. (1999). Services for young children with autism spectrum disorder: Voices of parents and providers. *Infants and Young Children, 11*(4), 17-33.
- Stowe, M. J., & Turnbull, H. R. (2001). Legal considerations of inclusion for infants and toddlers and for preschool-age children. In M. J. Guralnick (Ed.), *Early childhood inclusion: Focus on change* (pp. 69-100). Baltimore: Paul H. Brookes.
- Strom, R., Strom, S., Collinsworth, P., Sato, S., Makino, K., Sasaki, Y., Sasaki, H., & Nishio, N. (1995). Grandparents in Japan: A three-generational study. *International Journal of Aging and Human Development, 40*(3), 209-226.
- Toothacker, L. E. (1993). *Multiple comparison procedures: Quantitative applications in the social sciences series No. 89*. Thousand Oaks, CA: SAGE Publications Inc.
- Turnbull, A., & Turnbull, R. (2001). *Families, professionals, and exceptionality: Collaborating for empowerment* (4<sup>th</sup> ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Albany, NY: The State University of New York Press.
- Voltz, D. L. (1998). Cultural diversity and special education teacher preparation: Critical issues confronting the field. *Teacher Education and Special Education, 21*, 63-70.

- Wehman, T. (1998). Family-centered early intervention services: Factors contributing to increase parent involvement and participation. *Focus on Autism and Other developmental Disabilities, 13*, 80-88.
- Winton, P. J. (1996). A model for supporting higher education faculty in their early intervention personnel preparation roles. *Infants and Young Children, 8*(3), 56-67.
- Yao, E. (1988). Working effectively with Asian immigrant parents. *Phi Delta Kappan, 70*(3), 223-225.

APPENDIX A  
QUESTIONNAIRE

## QUESTIONNAIRE

Last Four Digits of Your SS # \_\_\_\_\_

This questionnaire is designed to investigate the pre-service teachers' perspectives on family involvement. Your responses on this questionnaire will be kept strictly confidential and will not affect your grade in this course in any way. Thank you for your participation.

## PART 1: Demographic Information

A. Please circle your age

- (1) Less than 20
- (2) 21 – 25
- (3) 26-30
- (4) More than 30

B. Please circle your gender

- (1) Male
- (2) Female

C. Please write your major: \_\_\_\_\_

D. Please circle your academic status

- (1) Freshman
- (2) Sophomore
- (3) Junior
- (4) Senior

E. Please indicate the number of your previous course experience related to family involvement (One course is counted as one experience)

- (1) One
- (2) Two
- (3) Three
- (4) More than Three

## PART 2:

Please circle or underline an importance level for each item that most closely reflects your opinion on a scale of 1 (least important) to 5 (most important).

1. Develop a trusting relationship with the family at the beginning.

1	2	3	4	5
Least Important				Most Important

2. Identify strategies for involving the family in decision-making processes, and implementing the plan.

1	2	3	4	5
Least Important				Most Important

3. Be flexible whenever meeting with family members.

1	2	3	4	5
Least Important				Most Important

4. Provide necessary assistance to the family members to ensure their participation.

1	2	3	4	5
Least Important				Most Important

5. Meet with the family members in their home before decision-making.

1	2	3	4	5
Least Important				Most Important

6. Inform family members of their rights in all decision-making processes.

1	2	3	4	5
Least Important				Most Important

7. Tell family members about local support groups.

1	2	3	4	5
Least Important				Most Important







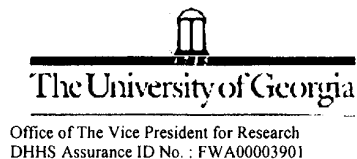
APPENDIX B  
DESCRIPTIVE FREQUENCY FOR MAJOR

## Descriptive Frequency for Major

Major		Sample Size		
		Group 1	Group 2	Total
1	Agricultural Education	1 (2.4%)	1 (2.4%)	2 (2.4%)
2	Art Education	1 (2.4%)	0	1 (1.2%)
3	Business Education	1 (2.4%)	2 (4.9%)	3 (3.6%)
4	Communication Sciences and Disorders	5 (11.9%)	3 (7.3%)	8 (9.6%)
5	Early Childhood Education	11 (26.2%)	11 (26.8%)	22 (26.5%)
6	English Education	1 (2.4%)	5 (12.2%)	6 (7.2%)
7	Exercise and Sport Science	0	1 (2.4%)	1 (1.2%)
8	Family & Consumer Sciences Education	1 (2.4%)	0	1 (1.2%)
9	Foreign Language Education	0	3 (7.3%)	3 (3.6%)
10	Health and Physical Education	1 (2.4%)	0	1 (1.2%)
11	Marketing Education	1 (2.4%)	0	1 (1.2%)
12	Mathematics Education	4 (9.5%)	0	4 (4.8%)
13	Middle School Education	1 (2.4%)	2 (4.9%)	3 (3.6%)
14	Music Education	0	2 (4.9%)	2 (2.4%)
15	Science Education	0	1 (2.4%)	1 (1.2%)
16	Social Studies Education	9 (21.4%)	4 (9.8%)	13 (15.7%)
17	Special Education	5 (11.9%)	1 (2.4%)	6 (7.2%)
18	Non-Education Majors (NEM)	0	5 (12.2%)	5 (6.0%)
	NEM Childhood & Family Development	0	1 (2.4%)	1 (1.2%)
	NEM Finance	0	1 (2.4%)	1 (1.2%)
	NEM Psychology	0	1 (2.4%)	1 (1.2%)
	NEM Social Work	0	1 (2.4%)	1 (1.2%)
	NEM Spanish	0	1 (2.4%)	1 (1.2%)

APPENDIX C

UNIVERSITY OF GEORGIA HUMAN SUBJECT REVIEW BOARD APPROVAL



Institutional Review Board  
Human Subjects Office  
612 Boyd GSRC  
Athens, Georgia 30602-7411  
(706) 542-3199  
Fax: (706) 542-5638  
www.ovpr.uga.edu/hso

### APPROVAL FORM

**Date Proposal Received:** 2006-08-28

**Project Number:** 2007-10094-0

Name	Title	Dept/Phone	Address	Email
Ms. Eun-Joo Kim	PI	Special Education 516 Aderhold +7650 542-1300	103 College Station Road, B111 Athens, GA 30605 706-254-5403	eunjoo@uga.edu
Dr. Cynthia O. Vail	CO	Special Education 542 Aderhold Hall +7153 706-542-4578		cvail@uga.edu

**Title of Study:** Pre-service teachers' perception of family involvement in teaching children with special needs

**45 CFR 46 Category:** Administrative 1  
**Parameters:**  
None;

**Change(s) Required for Approval:**  
Revised Consent Document(s);

**Approved :** 2006-09-20    **Begin date :** 2006-09-20    **Expiration date :** 2011-09-19

*NOTE: Any research conducted before the approval date or after the end data collection date shown above is not covered by IRB approval, and cannot be retroactively approved.*

**Number Assigned by Sponsored Programs:**

**Funding Agency:**

**Form 310 Provided:** No

Your human subjects study has been approved.

Please be aware that it is your responsibility to inform the IRB:

- ... of any adverse events or unanticipated risks to the subjects or others within 24 to 72 hours;
- ... of any significant changes or additions to your study and obtain approval of them before they are put into effect;
- ... that you need to extend the approval period beyond the expiration date shown above;
- ... that you have completed your data collection as approved, within the approval period shown above, so that your file may be closed.

For additional information regarding your responsibilities as an investigator refer to the IRB Guidelines.  
Use the attached Researcher Request Form for requesting renewals, changes, or closures.  
Keep this original approval form for your records.

Chairperson or Designee,  
Institutional Review Board

APPENDIX D  
A SAMPLE OF CONSENT FORM

## CONSENT FORM (STUDENTS:G1)

I, \_\_\_\_\_, agree to participate in research entitled, 'Pre-service Teachers' Perception of Family Involvement in Teaching children with Special Needs" conducted by Eun-Joo Kim from the Department of Special Education at the University of Georgia (706-542-1300), under the direction of Dr. Cindy Vail, Special Education Department, University of Georgia. I understand that my participation is voluntary and that involvement in this study will in no way affect my course grade. I can refuse to participate or stop taking part anytime without giving any reason, and without penalty. I can ask to have all of the information about me returned to me, removed from the research records, or destroyed.

This study investigates how pre-service teachers perceive family involvement in teaching children with special needs. This study will fulfill the dissertation research requirement for Eun-Joo Kim in special education department, UGA. If I, a student in SPED2000, volunteer to take part in this study, I will be asked to complete one pre-questionnaire and two post-questionnaires. The questionnaire contains the items related to family involvement in special education. I need to rate the importance of each item on the scale of 1 to 5. The duration of participation in this study will be approximately 1 month. The completion of the pre and post questionnaires will give the participants a chance to self-reflect about the change of their perspectives regarding family involvement.

No risk is expected except the issue of confidentiality. I am aware that the researcher will protect confidentiality for me through the whole research process. Any information that is obtained in connection with this study and that can be identified with you will remain confidential. The researcher will answer any further questions about the research, now or during the course of the project (cell: 706-254-5403, email: [eunjoo@uga.edu](mailto:eunjoo@uga.edu)).

**I have read and understand this consent form and agree to participate to this study by completing pre- and post questionnaires**

<b>Eun-Joo Kim</b>		
<b>Name of Researcher</b>	<b>Signature</b>	<b>Date</b>
<b>Name of Participant</b>	<b>Signature</b>	<b>Date</b>

**Please sign both copies, keep one and return one to the researcher.**

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu