EFFECTIVE INCLUSION OF SPECIAL EDUCATION STUDENTS IN SCHOOL-BASED AGRICULTURAL EDUCATION: PERSPECTIVES OF AGRICULTURE TEACHERS, ESE SPECIALISTS, AND SCHOOL ADMINISTRATORS

By

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A THESIS PRESENTED TO THE GRADUATE SCHOOL OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE

UNIVERSITY OF FLORIDA

2013
To all of the students who have been left behind, in hopes of a brighter future
ACKNOWLEDGMENTS

A few short years ago, I had no idea that agricultural education even existed, much less imagined how important it would become in my life. The past couple of years have been a whirlwind, with many obstacles that I would never have overcome if not for the support of so many. This thesis would not have been possible without the help of many special people who volunteered to be on Team Brandi.

First, I want to thank my advisor Brian Myers. Throughout the past couple of years, he has been also been a motivator, a shoulder to cry on, a cheerleader, and a friend. The Myers “Mafia” welcomed me into their home, and the AEC department as a whole has made me feel like family, thanks in large part to Dr. Myers.

I also want to thank Hannah Carter for introducing me to agricultural education in the first place. Meeting you while I was a professional pet sitter was probably one of the best things to happen to me in my adult life! Hannah has been such a great friend and supporter of everything I’ve done, and without her guidance, I don’t know where I’d be. I also owe a lot to the Carter critters for always being so sweet to me and for being the reason I met Hannah and ended up on this career path.

It has been such a pleasure to study under Ed Osborne. He is one of the most insightful professors I’ve ever had, and as a committee member, his advice has been invaluable. This document would not be what it is without his thoughtful edits and recommendations.

My participants were essential in the completion of this research. I am extremely grateful to them for taking the time to sit down and work with me, as I gained significantly from the experience. I look forward to calling these individuals my colleagues, and hope that I can follow in their footsteps and provide excellent
opportunities for my own students – with and without disabilities – during my teaching career.

I also want to thank everyone else in my AEC family. Thanks to Holly O’Ferrell, Kristin Theus, Jodi Modica, Rachel Harris, and Kerstin Erickson for helping navigate the graduate school experience. I’ve learned so much from Kate Shoulders, Jessica Blythe, Cathy DiBenedetto, and Jessica Gouldthorpe. I’m also so grateful to have shared many laughs and learned many things with and from Chris Estepp, Christopher Stripling, Joy Goodwin, Nathan Connor, Avery Culbertson, Quisto Settle, Eric Rubenstein, Sarah Burleson, Sara Hurst, Laura Kubitz, Jason Davison, Ryan Conklin, Andrea Davis, Brittany Adams, Milton Newberry, Kenny Spencer, Janine Parker, and Gretchen Wulff. The Ag Ed faculty members have also been invaluable throughout this process, and I have great respect for Grady Roberts, Andrew Thoron, and Kirby Barrick for their guidance during my time here.

Without my family’s unending love and support, I don’t know who I would be today. My parents, Rich and Mary Ann, have been incredible pillars who inspire me every day to be the best that I can be. Phone calls, draft reviews, and plenty of hugs and words of encouragement from them kept me on track and focused.

My husband, Rob Agnese, deserves to share in my successes. The past several years has challenged us personally and professionally, and through it all, he remained by my side, reading drafts, taking on more than his fair share of dog walking responsibilities, and reminding me why I wanted to do this when things seemed difficult. I can’t imagine anyone I’d rather have as my husband, and I hope I can be as supportive as he writes his dissertation.
My four-legged children also deserve an honorable mention. Taz, Jingle, Belle, Toast, Kumi, Remy, Siren, Guinness, and Banjo always made sure that I could come home from long days to happy faces and unconditional love.
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Recent calls for students with disabilities to meet the same rigorous testing standards as their general education peers have created cause for concern amongst education professionals in Florida. Agriculture teachers have reported limited confidence in their abilities to provide effective strategies and resources to students with disabilities in school-based agricultural education programs. This study explored the effective inclusion of students with disabilities in school-based agricultural education programs from agriculture teacher, ESE specialist, and school administrator participants who were selected based on known positive interactions between professionals. Data were collected through interviews with nine participants from three schools. The participants provided insight into effective relationships, clear roles and responsibilities, challenges in the inclusion of students with disabilities, needs of students, needs of teachers, and the benefits of school-based agricultural education for students with disabilities. Examples of ways that agriculture teachers, ESE specialists, and school administrators can collaborate in order to promote effective inclusion of students with disabilities in school-based agricultural education programs are provided.
CHAPTER 1
INTRODUCTION

The No Child Left Behind Act of 2001, intended to promote high achievement among students and demand excellence among teachers, called for significant changes in education. These changes have been applied to all programs of primary and secondary schools throughout the nation, including school-based agricultural education (SBAE). Further educational reform was called for when President Obama signed the American Recovery and Reinvestment Act of 2009, which provided $4.35 billion to a grant known as Race to the Top (U.S. Department of Education [USDOE], 2009). Florida was a recipient of Race to the Top funding in September of 2010 (USDOE, 2013), and has been focused on reformation of standards and assessments, systems of collecting and measuring data related to student success, ensuring that teachers and principals are effective, and improving low-performing schools (USDOE, 2013).

Florida's popular press has taken note of the controversial effects of these legislative actions. The Florida Comprehensive Assessment Test (FCAT) scores of students have been used to assess individual schools, through a grading system describing overall student achievement. Education experts have found evaluations such as the FCAT, which demonstrate “snapshots” of learning versus “photo albums,” not ideal for making large scale determinations (Tomlinson & McTighe, 2006, p. 60). Merit-based pay for teachers has also been a recently introduced development in public education. Teacher salaries are now based, in part, on students' FCAT scores; which experienced a significant drop across the general population in 2012, due to raised standards (FlaglerLive, 2012). Pressure has been extremely high for teachers to ensure that their students are performing well on this assessment.
This pressure is building. A key issue facing all teachers, including agriculture teachers, beginning in 2013 is that students with disabilities, excluding those students with severe cognitive impairments, will no longer be evaluated based on their progress year to year (Kourkounis, 2012a). Instead, these students’ FCAT scores will also be included in assessments of schools, and the same standards will apply as for the general population (Kourkounis, 2012a). Exceptional student education (ESE) teacher Rose Coon stated that holding special education students to the same standards is “detrimental to the student(s),” explaining that she has had few students that have been able to earn passing scores on the FCAT (Kourkounis, 2012b, para. 20).

The inclusion of disabled students’ FCAT scores in the school grade has been reflective of the push to mainstream students with disabilities, placing them in more inclusive settings within the general student population and providing them general curricula as frequently as possible. This means that classrooms providing educational services specifically for these students have begun to disappear, and ESE teachers like Coon will be required to move between classrooms to serve each special needs student in general classrooms, a method that Coon has not believed to be feasible to adequately serve all of her students (Kourkounis, 2012b).

However, the increase in the inclusion of students with disabilities in general education settings has not always been seen in a negative light by all education specialists. The ESE director of Santa Rosa School District, Linda Novota, stated that students have very recently been too removed from general education opportunities (Kourkounis, 2012c). Co-teaching between content area teachers and ESE teachers is recommended as the “best model to manage an inclusive classroom” when budgets
and teacher personalities allow (Kourkounis, 2012c, para. 7). Co-teaching can provide both peer and teacher role models for disabled and general population students. Content area teachers can learn teaching techniques for students with disabilities from ESE specialists, while ESE specialists are able to increase their content knowledge, better allowing them to explain concepts to the students (Scruggs, Mastropieri, & McDuffie, 2007). Despite these benefits, budget constraints have made the implementation of co-teaching in many classrooms across the state impossible, which has left many general education teachers responsible for teaching students with disabilities without much aid.

Although the new implications of FCAT scores have many worried, even more changes are beginning to take effect. As part of the Race to the Top grant, Florida is transitioning away from Sunshine State Standards and into Common Core State Standards (CCSS), effective for all schools statewide by the 2013-2014 school year (USDOE, 2013). With the change in standards will come a change in assessments. The Partnership for the Assessment and Readiness for College and Careers (PARCC) and newly created End of Course (EOC) exams have been set to replace FCAT in order to meet the requirements of the CCSS, but will carry the same implications as FCAT for schools, teachers, and students (USDOE, 2013).

**History and Legislation of Special Education**

Prior to the mid-1900s, education for disabled children was not regulated at the federal level. Legislative steps such as the Training of Professional Personnel Act of 1959, which helped to prepare individuals in schools and programs to work with mentally retarded children, and the Teachers of the Deaf Act of 1961, for teacher training involving hearing impaired students (U.S. Department of Education [USDOE],
2010) were among the first initiatives at the national level to provide assistance for the education of students with disabilities. Federal funding was provided specifically for disabled students through the Elementary and Secondary Education Act, as well as the State Schools Act, both of which were passed in 1965 (USDOE, 2010). These early efforts paved the way for special education policy and practice in America’s public schools.

In 1975, the landmark Public Law 94-142, otherwise known as the Education of All Handicapped Children Act, was passed and “guaranteed a free and appropriate public education to each child with a disability” (USDOE, 2010, p. 5). Prior to the passage of this legislation, many children with disabilities were either denied all access to public education or received only limited educational services (USDOE, 2010). This law was amended in 1990, when it became known as the Individuals with Disabilities Education Act (IDEA) and further expanded services and benefits (National Dissemination Center for Children and Youth with Disabilities, 1996). IDEA was updated in 1997, requiring that students age 14 and older receiving special education have personalized transition services, including job placement, provided as part of their Individualized Education Plans (IEP) (Knoblauch & McLane, 1999; USDOE, 2010). In 2004, IDEA was amended again to increase the responsibility of schools and personnel in an effort to improve education for students with disabilities (USDOE, 2010).

Legislation impacting students with disabilities also began to appear in the realm of vocational education. The Carl D. Perkins Act Vocational Education Act of 1984 provided funding for vocational education programs to prepare students for the workforce by enhancing job skills and merging student organizations like FFA into the
classroom curriculum (Phipps, Osborne, Dyer, & Ball, 2008). One of the goals of this act included that students with disabilities and special needs have the same access to these types of programs as the traditional student population (National Dissemination Center for Children and Youth with Disabilities, 1996). This act was amended in the early nineties, broadening the definition of “special populations” and integrating the law with IDEA “to guarantee full vocational education opportunities for youth with disabilities” (National Dissemination Center for Children and Youth with Disabilities, 1996, p. 9). Grants were specifically designated for students with special needs and also focused on programs to help students transition into jobs after school (Phipps, et al., 2008).

In 1990, the Americans with Disabilities Act (ADA) served to provide equal opportunity for employment and public access for disabled persons (USDOE, 2006). Schools and public school programs were included in the entities required to arrange for services for handicapped individuals. This law required accommodations to be made with respect to facilities, including classrooms and laboratories, and transportation, such as that which may be necessary to attend organizational events (USDOE, 2006).

The Elementary and Secondary Education Act (ESEA) which sought to provide greater educational opportunities for disadvantaged students was revisited in 2001, and the resulting reauthorization became more colloquially known as the No Child Left Behind Act (NCLB). A significant portion of the document pertained to “improving the academic achievement of the disadvantaged” (NCLB, 2002, p. 15). Disabled students were directly referred to in the legislation, and teachers and administrators were to be held accountable for the improved achievement and success of all students (NCLB,
2002). Requirements of NCLB have been prohibitive in some states, resulting in “flexibility” to allow states to raise standards themselves in an effort to increase achievement (USDOE, n.d.). Florida has been one of several states receiving this flexibility.

Under President Barack Obama’s administration, a grant by the name of Race to the Top has been provided as an incentive for states to strive for high academic achievement in K-12 educational institutions (The White House, n.d.). A total of nineteen states have received a combined four billion dollars in funding for their plans to reform primary and secondary education. Florida became a recipient of this grant and has chosen to address reform in part through the adoption of Common Core State Standards (USDOE, 2013). These standards were created with the intention to enhance the rigor of grade-level mathematics and language arts, and high academic achievement is expected of all students, including those with disabilities (Common Core State Standards Initiative [CCSSI], 2012). According to the Common Core State Standards Initiative (2012), students with disabilities are entitled “supports and accommodations [which] should ensure that students receive access to multiple means of learning and opportunities to demonstrate knowledge, but retain the rigor and high expectations of the Common Core State Standards” (p. 2). Students with “significant cognitive disabilities” have also been included in the Common Core requirements (CCSSI, 2012).

**Teaching Students with Disabilities**

In 2009, 14% of the public school population in the State of Florida consisted of students with disabilities (Florida Department of Education [FLDOE], 2011). Specific learning disabilities account for nearly half of all disabilities, but others identified include
autism spectrum disorders, emotional/behavioral disorders, speech/language impairments, intellectual disabilities, and other health impairments (FLDOE, 2011). Nine percent of secondary school children nationwide were identified in 2010 as having learning disabilities (Child Trends, 2012). From 2010-2011, 69.2% of students with disabilities in Florida were reported to be in inclusive settings for a minimum of 80% of the day (FLDOE, 2012). Although a minority in the population of public school students in Florida, students with disabilities have been present to a significant degree, and teachers have faced a wide variety of unique needs upon walking into an integrated classroom.

In addition to requiring that students with disabilities have access to public education programs throughout the United States, the Individuals with Disabilities Education Act of 2004 also mandated that students with disabilities be placed in the least restrictive environment possible, meaning that these students should be placed in an inclusive classroom with their peers, if at all feasible. An Individualized Education Plan (IEP) must be prepared for any student with a disability, outlining modifications to the curriculum and classroom settings to allow special needs students the appropriate access to education according to their abilities (Individuals with Disabilities Education Act of 2004). This act required that all teachers and staff adhere to each student’s IEP when working with students with disabilities in the school setting.

Differentiated instruction has provided a solution for teachers needing to address a variety of student needs in the classroom, with and without IEPs. In order to effectively use differentiated instruction, teachers have provided students with appropriate challenges that seek to engage learners in different ways, utilized several teaching
methods, and regularly assessed students to evaluate their progress and success based on methods used (Tomlinson, 2001). By responding to students individually, teachers can create cooperation between themselves and the learner, provide material of personal interest for the individual, and apply appropriate challenges based on learning profile and readiness to increase student motivation and success (Tomlinson & McTighe, 2006).

Other strategies that have been proposed to improve instruction for students with disabilities include teaming, variety, multisensory approaches, and reinforcement (Harrington & Fardig, 1982). Teachers have been encouraged to seek cooperative relationships with other staff and faculty members at the school. These relationships have been suggested to allow teachers to share resources, benefiting the teacher as well as the student (Harrington & Fardig, 1982). Using a variety of teaching methods, coupled with multisensory approaches to learning, has been recommended to meet the unique needs of different learners based on their skills and abilities. Finally, reinforcement has been identified as important for students with limited success, and providing students with disabilities with rewards has been advised (Harrington & Fardig, 1982).

**Agricultural Education for Special Education Students**

Special education students have not been excluded by agricultural education programs in Florida’s public schools. However, information about the participation of students with disabilities in middle and high school school-based agricultural education (SBAE) programs has remained very limited. Special education students may experience limitations which could prevent them from pursuing higher level post-secondary education. However, these individuals may still be able to enjoy fulfilling lives.
and careers within the agricultural industry. Thus, agriculture teachers must be prepared to teach this population of students effectively in secondary programs (Phipps, et al., 2008).

Agricultural education can provide students with reinforcement of concepts learned in core science courses and provide unique opportunities for students to learn valuable life skills. Many agriculture courses have included laboratory activities and have incorporated experiential learning techniques to teach students a variety of concepts (Phipps, et al., 2008). Students with learning disabilities have been shown to benefit from activity-based instruction (Scruggs, Mastropieri, Bakken, & Brigham, 1993) like that typically provided in agricultural curricula. The FFA youth organization and Supervised Agricultural Experience (SAE) programs are unique components of agricultural education and have the potential to provide these students with enhanced learning opportunities not offered by more traditional educational programs. Participation and membership in local FFA chapters can promote students to develop “leadership, human relationship skills, and community service,” all of which can aid in the success of students in school and beyond in their careers (Phipps, et al., 2008, p. 382). SAE programs have provided students with the opportunity for experiential learning and job related training, tailored to meet their unique interests and capabilities (Phipps, et al., 2008). The social interactions which occur during recreational activities can provide students with greater satisfaction and can develop more relationships that lead to a higher quality of life throughout the years (Modell & Valdez, 2002).

The leading text used to prepare agriculture teachers has indicated that programs “have often attempted to provide appropriate education in agriculture for special needs
students, (but) their efforts have often been rather unsuccessful” (Phipps, et al., 2008, p. 358). However, the text also expresses optimism in the unique relationship that agriculture teachers may develop with disabled students, “succeed(ing) with students where other teachers have failed” due to greater individual interactions in agriculture programs (Phipps, et al., 2008, p. 359). Agriculture teachers have been advised to take an active role in the development of students' IEPs, conduct home visits, and involve the family members of special education students (Phipps, et al., 2008). These practices may lead to greater success of students with disabilities in the program.

**Statement of the Problem**

Information about the inclusion of special education students in agricultural education programs has been limited. Agriculture teachers are content area teachers, often without the educational background required to feel confident in teaching special education students effectively. Priority #4 in the 2011-2015 National Research Agenda (Doerfert, 2011) calls for research to ensure that “learners in all agricultural education learning environments will be actively and emotionally engaged in learning, leading to high levels of achievement, life and career readiness, and professional success” (Doerfert, 2011, p. 2). Priority #5 seeks to provide “highly effective educational programs (which) will meet the academic, career and developmental needs of diverse learners in all settings and at all levels” (Doerfert, 2011, p. 2). Despite a history of significant numbers of special needs students enrolled in SBAE programs, a clear set of strategies for effectively teaching these students has not been identified.

**Purpose and Objectives**

The purpose of this study was to identify the resources and strategies which have been used to effectively include students with disabilities in SBAE programs. A goal of
the research was to gain a deeper understanding of successful interactions between agriculture teachers, ESE specialists in their schools, and administrators as they develop and implement strategies to support the phenomenon of inclusion of students with disabilities in SBAE programs. Teachers and administrators were also asked to share their perceptions of the value of SBAE programs for students with disabilities. The following objectives were used to guide this research:

- Describe agriculture teachers’ perceptions of teaching students with disabilities in SBAE; and
- Describe ESE specialists’ perceptions of teaching students with disabilities in SBAE; and
- Describe school administrators’ perceptions of teaching students with disabilities in SBAE; and
- Compare and contrast agriculture teacher, ESE specialist, and school administrators’ perceptions of teaching students with disabilities

Significance of the Problem

Agriculture teachers throughout the state may benefit from the insight provided by their colleagues. This study may serve to promote greater cooperation between agriculture teachers and the special education staff at middle and high schools in Florida. The strategies identified as promoting success in integrated agriculture programs may be applied by in-service teachers seeking new ways of reaching out to special education students enrolled in their courses.

Having this information will also assist teacher educators in preparing pre-service agriculture teachers to include special education students in their programs. Student teachers have not been receiving the appropriate exposure to special education coursework to feel confident while teaching students with disabilities (Kessell, Wingenbach, & Lawver, 2009). Preparing agriculture teachers to teach students with
special needs is essential to ensuring that all students in the integrated classroom receive an appropriate education.

ESE specialists and school administrators have also been held accountable for the academic success of all students (NCLB, 2002). By cooperating with agriculture teachers and playing supportive roles in the inclusion of students with disabilities in agricultural education programs, ESE specialists and administrators may be better able to promote achievement amongst this population of students. This study may serve to encourage these individuals to build positive working relationships with agriculture teachers in schools for the benefit of all students, including those with disabilities.

Finally, this study may improve the educational prospects of students with disabilities participating in agricultural education programs. The opportunities made available by prepared and competent faculty can provide students with skills and knowledge that may allow them to succeed scholastically and personally.

**Definition of Terms**

- **504 Plan** – a written document which identifies a student as having a disability and outlines services required to provide the student with free and appropriate public education (USDOE, 2011)

- **Agriculture Teacher** – a formal educator in the school setting who teaches agriculture-based courses and curricula (Phipps, et al., 2008)

- **Career and Technical Education (CTE)** – programs provided at the high school level which provide students with career training within a high school, an area vocational-technical center, or a juvenile justice center (Association for Career and Technical Education [ACTE], n.d.)

- **Effective Teaching** – though the definition of this term is controversial, it has been suggested that effective teaching is that which allows “students [to] learn and grow the most” (Tuckman, 1995, p. 127-128).

- **ESE Specialist** – a teacher designated to work with general education teachers and exceptional students to ensure learning achievement (Beech & Lubbers, 2009)
• **Exceptional Student Education (ESE)** – required education services provided for all gifted and disabled students from 3 to 21 years of age (Florida Department of Education (FLDOE), n.d.)

• **FFA** – “an educational, nonprofit, nonpolitical youth organization for students enrolled in school-based agricultural education programs…to develop leadership, personal growth, and career success in its members and is an intra-curricular element of agricultural education in public schools” (Phipps et al., 2008)

• **Inclusion** – according to the Council for Exceptional Children (1993), inclusion is the “serving [of] students with disabilities in general education classrooms in inclusive neighborhood schools and community settings, supported by an infusion of specially trained personnel” (as cited by Poteet, Choate, & Stewart, 1996).

• **Individualized Education Plans (IEP)** – a written document required by law for all special needs students, including academic and functional goals, as well as the aids, services, and modifications necessary for the listed student based on their specified needs (Individuals with Disabilities Education Act of 2004)

• **School Administrator** – “a leader and decision maker in a school system… [including] principals and vice principals” (Gentry, 2011, p. 27).

• **School-Based Agricultural Education (SBAE)** – Middle and high school programs teaching agriculture as part of a three circle model which includes the classroom and laboratory instruction as well as local FFA chapters and supervised agricultural experiences (SAE) (Phipps, et al., 2008).

• **Special Needs Students** – students with disabilities, disorders, or impairments requiring them to have an IEP as per the Individuals with Disabilities Education Act of 2004 (IDEA); for the purpose of this study, this term will be synonymous with special education students and students with disabilities.

• **Supervised Agricultural Experience Program** – a program supervised by an agriculture teacher in which students learn valuable career skills in a realistic setting, and includes such opportunities as entrepreneurship, placement, research, and exploratory. (Phipps, et al., 2008)

**Limitations of Study**

Data collection and analysis occurred through qualitative methods. As such, certain limitations existed. A small sample of participants, all of whom were located in Florida, was selected for this study. Time and financial constraints limited the scope of the study in this way. Due to the nature of qualitative research conducted with
interviews, the results of this study could not be generalized beyond the selected participants.

History also posed a threat to the study as a result of the interviews taking place over a period of several weeks. The possibility existed that events which occurred between the first set of interviews and the final set of interviews may have impacted responses from participants.

Social desirability bias may also have impacted the response of individuals interviewed. Due to the lack of anonymity between researcher and interviewee, answers to questions may not have been as candid. The researcher may have unintentionally given cues to indicate preference for certain responses, affecting the way that the individuals shared their perceptions (Ary, Jacobs, and Sorenson, 2010).

Some literature states that a phenomenological approach requires that the researcher visits each participant multiple times to clarify points of interest (Grbich, 2007). Other experts in educational research methodology do not necessitate more than a single interview when using the phenomenological approach, indicating only that there “may be more than one interview with each participant,” (Ary, Jacobs, & Sorenson, 2010, p. 473). The definitions of requirements for phenomenological studies based on various sources may have presented a limitation to this study.

**Basic Assumptions**

For this study, the assumption was made that the individuals selected to participate were appropriate models of successful, effective relationships between agriculture teachers and ESE specialists. Such relationships were considered to be necessary in order for the outcome of the school-based agricultural education program to have been positive for enrolled students with disabilities.
The participants selected were also assumed to provide truthful and accurate responses to the questions which were asked during the interviews. The statements made by the teachers, ESE specialists, and administrators were expected to be honest reflections of their personal opinions and experiences in including students with disabilities in agricultural education programs.

**Summary**

The education of students with disabilities has changed significantly over the past few decades, moving toward inclusive practices within general education programs when possible. The need for increased student achievement has been considered a high priority of legislative and educational research bodies alike. In spite of significant presence of students with disabilities in SBAE courses, agriculture teachers have been trained as content area teachers, not necessarily equipped with skill sets to provide for such diverse populations of learners in all aspects of their programs. By examining strategies that have helped education specialists, including agriculture teachers, ESE specialists, and school administrators, to better include disabled students in learning activities and experiences offered in SBAE programs, this research may provide insight into practices that may be beneficial for agriculture teachers in similar situations.
CHAPTER 2
LITERATURE REVIEW

Overview

Chapter 1 outlined the changes that have occurred in recent decades regarding the education of students with disabilities. Recent changes have gained attention in media outlets in Florida and the need to increase student achievement across all groups of learners has been well expressed. The current research sought to understand the perceptions of agriculture teachers, exceptional student education (ESE) specialists, and school administrators with respect to the participation of students with disabilities in school-based agricultural education (SBAE).

Chapter 2 discusses the theoretical basis for the study and examines previous research concerning students with disabilities in agricultural education. The study began by considering the history and philosophy of vocational education for students with disabilities, followed by a synthesis of research regarding populations of students with disabilities in SBAE, as well as agriculture teachers’ perceptions of teaching this population of learners. Collaboration has been shown to be essential between general educators and special educators in providing students with disabilities with appropriate education. Literature regarding teaching and learning methods for students with disabilities was included, along with the use of extracurricular activities and job placement and preparation programs.

Theory of Planned Behavior

The theory of planned behavior states that the likelihood that an individual will engage in a specific behavior is directly related to that person’s intention (Ajzen, 1991). According to Ajzen, three sets of beliefs belonging to an individual affect the intention to
engage in a behavior: behavior beliefs, normative beliefs, and control beliefs. Each of these sets of beliefs may impact one’s intention to perform a behavior independently, or in some combination of the sets. This theory was used to guide the study, as the participating agriculture teachers’ cooperation with others, such as administrators and exceptional student education (ESE) specialists, to include students with disabilities in agricultural education programs was considered to be based on intentions driven by behavior, normative, and control beliefs.

Figure 2-1: Theory of Planned Behavior. Reprinted by permission from Ajzen, I. (1991). The theory of planned behavior. (Page 182, Figure 1) Organizational Behavior and Human Design Processes, 50, 179-211.

Ajzen’s (1991) theory of planned behavior has recently been used to inform several studies conducted in the field of agricultural education. Williams (2009) researched the impact of a workshop on agriscience teachers’ adoption of water-related curriculum in their classrooms. The inservice training needs of agriculture teachers
regarding food safety issues was explored under a framework provided by the theory of planned behavior (Koundinya & Martin, 2010). Yeaman (2011) also cited Ajzen’s theory as a basis for research concerning North Carolina agriculture teachers’ perceptions of special needs students included in SBAE programs.

**Behavior Beliefs**

Behavioral beliefs are based on an individual’s attitude toward a specified behavior (Ajzen, 1991). Behaviors perceived by the individual to be acceptable or appropriate are more likely to drive intention, thereby increasing the potential opportunity for engagement in such behaviors. Those behaviors which are not as favorable, however, do not promote intention, and motivation to perform may be low. The costs and benefits of performing a behavior are ways in which attitudes may be developed. Similarly, if an individual finds a particular behavior to have significant importance, this perception may increase the likelihood of performance of that behavior.

Although laws require agriculture teachers to include students with disabilities, attitudes can impact the extent to which teachers recruit these students and encourage them to participate in various SBAE activities, such as FFA and supervised agricultural experience (SAE) programs. According to Ajzen’s (1991) theory, teachers with a positive attitude toward students with disabilities should be more likely to include these learners than those who perceive less value in having students with disabilities in their programs.

**Normative Beliefs**

Ajzen (1991) noted that the approval or disapproval of other people with regard to the performance of a behavior can also impact one's intentions. Family members,
friends, colleagues, and other representatives of society create subjective norms to which an individual may feel pressured to adhere. Legislative changes and movement toward inclusion in general education settings have established the normative beliefs that students with disabilities should be included in SBAE programs. This subjective norm may place performance pressure on agriculture teachers from administrators within their schools and districts, throughout the state, and officials at the national level. Parents and the students themselves may also serve as their own advocates in ensuring that the appropriate access to education is provided as per legislation passed in recent decades.

**Control Beliefs**

An individual perceives control of engaging in behavior in part based on the availability of resources and opportunities (Ajzen, 1991). Resources such as time, finances, and ability may be limited, thus leaving an individual inclined to feel as though participation in a behavior is outside of one’s personal control. If, however, the individual feels as though necessary resources and support are available, perceptions of control may be higher, contributing to an increased likelihood of engaging in the behavior.

Agriculture teachers have limited control over whether facilities are designed to accommodate students with disabilities, which may affect the level of participation of students in laboratory activities or SAE placement sites. Lack of training opportunities and planning time could potentially factor into limited control over the ability to work with students with disabilities.

**General Education Collaboration Model**

Simpson and Myles (1996) developed the General Education Collaboration Model, which highlights key components of collaboration between general education, special
educators, and school administrators when teaching students with disabilities. This model operates under several assumptions:

1. Instruction should be primarily the role of the general educator, while the special educator provides support and resources as needed.

2. Students with and without disabilities benefit from peer interaction in the classroom.

3. Education in inclusive general education classrooms is widely preferred by students, parents, and school faculty members, as compared to segregated programs.

4. The majority of teachers and administrators with appropriate support and resources are willing and able to provide for students with disabilities in inclusive classroom environments.

Five overlapping components constitute the General Education Collaboration Model. Each component should be considered to interact with the others. These include flexible departmentalization, program ownership, identification and development of supportive attitudes, student assessment as a measure of program effectiveness, and classroom modifications (Simpson & Myles, 1996). This model, along with the theory of planned behavior, has been used to guide the current research.
Identification and Development of Supportive Attitudes

According to the General Education Collaboration Model, successful inclusion of students with disabilities in school-based agricultural education (SBAE) programs is not possible without supportive attitudes from all involved parties, including agriculture teachers, administrators, ESE specialists, parents, and students with and without disabilities (Simpson & Myles, 1996). The overall environment of the school must be supportive of inclusive practices. Relationships between agriculture teachers, ESE
specialists, administrators, parents and students must be positive to promote support. Supportive attitudes are needed not only within the classroom and laboratory components of SBAE programs, but also to provide students with disabilities opportunities to participate in FFA and SAE programs. Attitudes are the basis for behavioral beliefs which, according to Ajzen (1991), may affect intention of an agriculture teacher to include students with disabilities in the SBAE program.

**Flexible Departmentalization**

Typically in schools, each faculty member has distinct responsibilities. Bringing members of school faculty together to provide services to all students in inclusive settings, however, has required flexibility to allow for coordination, communication, and control (Simpson & Myles, 1996). The roles of the general educator, ESE specialist, and administrator must be clearly defined, recognized, and understood by all parties. Communication between teachers, administrators, parents, and students is necessary for appropriate decision-making for the benefit of all of those involved. Control helps to ensure that accountability exists for the program.

According to the General Education Collaboration Model, flexible departmentalization is impacted by several factors. Availability of resources may impact the roles required of agriculture teachers, ESE specialists, and administrators. Support of the agriculture teacher in an inclusive classroom is needed from the ESE specialist and the school administrator. Relationships between the agriculture teacher, ESE specialist, and the administrator affect the levels of coordination, communication, and control. Finally, the attitudes of the agriculture teacher, ESE specialist, and school administrator are important for the success of flexible departmentalization.
These factors are associated with both behavioral and normative beliefs described in Ajzen’s (1991) theory of planned behavior. The attitudes of each of the individuals contribute to their personal behavioral beliefs. These attitudes regarding the inclusion of students with disabilities have the potential to impact relationships and reveal social norms.

**Student Assessment as a Measure of Program Effectiveness**

In order for the inclusive SBAE program to be considered effective, participating students must be assessed (Simpson & Myles, 1996). Student assessment via standardized tests is required by law (No Child Left Behind [NCLB], 2002). Curriculum-based assessments allow agriculture teachers to assess content knowledge gained by students with disabilities. However, academic evaluations are not the sole measures of success for students in SBAE programs. Social interaction between students with disabilities and their general education peers also contributes to the effectiveness of an inclusive program (Simpson & Myles, 1996). Participation in FFA activities and events, as well as students’ participation and progress within their SAE programs, should also be evaluated.

The expectation of students to perform at a particular level on standardized tests reflects normative beliefs. Additionally, the social interaction between diverse students is impacted by normative beliefs held by each of the involved students. Control beliefs can also be considered, as standardized tests do not lie within an agriculture teacher’s jurisdiction. The behavior beliefs of students are also beyond the control of the teacher.

**Program Ownership**

In order for inclusive settings to be successful in providing students with disabilities an appropriate education, all faculty members must be willing to share responsibility for
the students (Simpson & Myles, 1996). Agriculture teachers should have access to continuing education and training programs to better help them understand how to facilitate learning for students with disabilities, as well as any other necessary resources. The attitudes of agriculture teachers and ESE specialists can impact feelings of program ownership, as can the relationship between these individuals. Support must be shared between agriculture teachers, ESE specialists, and administrators.

Program ownership primarily falls under control behaviors. An agriculture teacher does not control the attitudes of other individuals. Collaboration is not easily accomplished if individuals involved are not interested in investing their energy into the program. Agriculture teachers may or may not have control over the amount of training they are able to receive in order to work more effectively with students with disabilities, as school administrators are typically responsible for providing training opportunities and resources.

**Classroom Modifications Supportive of Inclusion**

In order for classrooms to be inclusive, modifications may be necessary. Smaller class sizes have been considered more appropriate, as well as inservice training, the assistance of paraprofessionals, adequate planning time for agriculture teachers to collaborate with ESE specialists, and availability of support services (Simpson & Myles, 1996). Support from school administrators and the resources available can impact these modifications. Attitudes of agriculture teachers toward modifications are also important to consider. The types of disabilities present in the classroom will likely require specific modifications, particularly with respect to instructional strategies. Legislation and curricula also play a role in modifications required. In addition to classroom and laboratory modifications, agriculture teachers should also strive to make
accommodations which allow students with disabilities the opportunity to participate in FFA, as well as SAE programs.

Control behaviors can also be seen in classroom modifications. In some instances, such as accommodations to lesson plans and assessments, agriculture teachers may have the freedom and ability to adapt situations to better meet the needs of students with disabilities in their programs. Appropriate facilities and some resources, however, may only be altered or received with approval from an administrator and funding. In this instance, teachers cannot control the situation and may be limited in their ability to meet the needs of students with disabilities, in spite of positive behavioral beliefs. Legislation and curricula also control a teacher’s ability to make adaptations and accommodations, which could potentially work positively or negatively for the learners.

**Support for the General Education Collaboration Model**

Collaboration between teachers in a “teaming” situation can improve feelings of support and satisfaction in the work environment (Flowers, Mertens, & Mulhall, 1999). Flowers, et al. (1999) found that middle school students in Michigan with teachers working in collaborative, interdisciplinary teams scored higher on student achievement assessments. Costello (1987) similarly found an increase in average score among students in high school science classes when science teachers were teamed with special education teachers (as cited in Spraker, 2003). Frequent common planning time between collaborative team members has been found to be essential to program success (Flowers, Mertens, & Mulhall, 2000). Smaller class sizes also contributed to improved participation and interaction between teachers (Flowers, et al., 2000). Janney, Snell, Beers, and Raynes (1995) found that teachers interviewed expressed a need for administrators to demonstrate a positive attitude toward inclusive practices and ensure
that resources, including accessible facilities, appropriate staff, and proper equipment are made available. Teachers have also responded more positively to inclusion when they had special education teachers available as a resource (Minke, Bear, Deemer, & Griffin, 1996).

**Conceptual Model**

The conceptual model developed for this study was created using Ajzen’s (1991) theory of planned behavior as it relates to Simpson and Myles’ (1996) general education collaboration model. The beliefs identified within the theory of planned behavior have been linked to the corresponding components of the general education collaboration model as they relate to one another. Key variables were identified and contained within the appropriate components to serve as guidelines for the study. Proposed outcomes of this model were two-fold, including subsets for teachers and students. Teacher outcomes were expected to include improved relationships and attitudes, as well as increased support and resources. Anticipated student outcomes included improved social/behavioral skills, as well as increased academic achievement and quality of life.

The scope of this study was limited to particular variables included within the conceptual model. These variables included the relationships between agriculture teachers, ESE specialists, and administrators; the attitudes of agriculture teachers, ESE specialists, and administrators; the support received by agriculture teachers from ESE specialists and administrators; the availability of resources; and the education and/or training of the agriculture teachers with respect to students with disabilities. The identified variables are pertinent to all of the components of the general education collaboration model with the exception of student assessment as a measure of program effectiveness.
Figure 2-3: Conceptual Model adapted from Ajzen (1991) and Simpson & Myles (1996)
History and Philosophy of Students with Disabilities in Vocational Education

Vocational education for individuals with disabilities began in the United States with schools for the blind and vocational training opportunities for injured factory workers during the industrial revolution (Hansen, 1980). Disabled veterans of World War I were the next to receive specific access to vocational education via the Smith-Sears Veterans Rehabilitation Act of 1918, or the Soldiers Rehabilitation Act (“A Brief History,” 2012). In 1920, the Civilian Rehabilitation Act (also known as the Smith-Fess Act) extended federal funding for all Americans with physical disabilities to receive vocational training and services (“A Brief History, 2012).

Not until the 1960s was “mainstreaming” of students with disabilities first called for in public schools (Meers, 1980). Initial efforts pushed this population of learners directly into all general education courses, including vocational agriculture programs (Meers, 1980). Lack of preparation, training, and consideration of student interest prevented success initially; however, educators became more experienced, and mainstreaming efforts were adapted (Meers, 1980). In the 1970s youth with disabilities were placed in the “least restrictive environment” in school settings, and the concept of individual education plans (IEP) was developed to help provide each student with appropriate placement and instruction tailored to specific needs (Meers, 1980). More recently, the term “inclusion” has been used to differentiate from the perception of limited support implied by the term “mainstreaming” (Rogers, 1993). Rogers (1993) described inclusion practices as bringing necessary educational support services to children with disabilities in the general education classroom. Changes in practice have indicated new norms amongst society with respect to the education of students with disabilities. According to
Ajzen’s (1991) theory of planned behavior, normative beliefs about inclusion impact teacher behavior.

The purpose of providing vocational education to individuals with disabilities has long been to allow these people to remain productive members of society and promote feelings of self-worth (Hansen, 1980). In the early 1900s educators attempted to measure vocational aptitude in order to guide individuals to the correct career path; however, because this was so often measured with intelligence, many individuals with intellectual disabilities were heavily discriminated against, and job options became restricted (Hansen, 1980). Since that time, legislation, including the Individuals with Disabilities Education Act (IDEA) (Individuals With Disabilities Education Act, 2004), the Carl D. Perkins Vocational Act (H.R. 4164, 1983), and the Americans with Disabilities Act (Americans With Disabilities Act, 1990) have expanded and protected education and employment rights of individuals with disabilities.

**Students with Disabilities in Agricultural Education**

**Populations of Students with Disabilities in Agricultural Education Programs**

The participation of special education students in agricultural education programs has occurred for several decades. In the 1980-1981 school year, 82.5% of a sample of Pennsylvania vocational agricultural education programs reported having students with disabilities (Mallilo, Baggett & Curtis, 1983). Nearly half of special needs students were identified as being learning disabled, and approximately two-thirds were involved in production agriculture programs.

New Mexico has more recently reported that students with special education requirements account for approximately 19% of the student population in secondary school-based agricultural education (SBAE) programs statewide (Dormody, Seevers,
Andreasen, & VanLeeuwen, 2006). Special needs students participated in FFA at a rate of 70%. Total participation of all students in agricultural education in New Mexico stands at 75%. Approximately 30% of special needs students participated in SAE programs, compared to 34% of all students. This study demonstrated that special education students accounted for a significant portion of New Mexico agriculture students. Learning disabilities were the most frequent type of IEP amongst special needs students, followed by emotional/behavioral disorders. Other health impairments and communication struggles, including limited English skills, were cited to a lesser degree, with few instances of mental retardation and physical disabilities.

A 2008 analysis of West Virginia public schools revealed that 18% of students had disabilities, but less than 1% of all students with disabilities statewide were enrolled in agriculture programs (Boone, Watts, Boone, Jr., & Gartin, 2008). More agriculture teachers reported making accommodations in classrooms (78%) than in laboratories (61%). Responding teachers indicated that they had not been adequately prepared to teach students with disabilities at the beginning of their teaching careers; however, experience increased their perceptions of preparation and confidence in instructing this group of learners. Nearly half (47%) of agriculture teachers believed that students without disabilities would be uncomfortable having classmates with behavioral disabilities participating in FFA team activities, while 30% believed that the participation of students with mental disabilities would make general education peers uncomfortable. Only 2% indicated belief in the discomfort of non-disabled peers in the participation of physically disabled students.
In 2009 nearly a quarter of students enrolled in agricultural education programs in Illinois were identified as learning disabled (Pense, 2009). Agriculture teachers identified ESE specialists as providing them with the information necessary to work with these students; yet, over half of the agriculture teachers lacked “complete information about students’ social or behavioral needs” (Pense, 2009, p. 97). The likelihood of these students entering the agriculture industry was seen as strong enough to warrant a call for statewide curriculum modifications to ensure that students with specific learning disabilities would receive sound and appropriate education from secondary agricultural programs.

**Agricultural Educators Perceptions of Teaching Students with Disabilities**

Several studies have been conducted in an attempt to collect agriculture teacher perspectives on issues such as competence, confidence, and support in teaching special needs students in the inclusive agriculture classroom. Lack of training was cited as a common problem amongst educators participating in a Pennsylvania survey, and only 35% reported having training specific to special education (Mallilo, Bagget, & Curtis, 1983). A more recent self-report of competency for teachers in Pennsylvania revealed that nearly 47% of agricultural educators lacked familiarity with laws applying to special needs students, and 42% struggled with completion of IEPs (Elbert & Baggett, 2003). Another study confirmed special education regulations were not well understood by agriculture teachers; who reported lack of understanding with respect to different levels of special education services, different levels of disabilities, and social needs for students with disabilities (Andreasen, Seervers, Dormody, & VanLeeuwen, 2007).
In spite of these struggles, teachers have also reported optimism toward their ability to provide a positive environment within their classrooms for students with disabilities and have also indicated confidence in their ability to involve these students in their FFA chapters (Stair, Moore, Wilson, Croom, & Jayaratne 2010). Stair and colleagues also found that although some agriculture teachers may be confident in their general ability to serve all students in their classrooms, these educators may not be prepared to implement the most effective strategies for disabled students. Other investigations have revealed that teachers lack necessary confidence, particularly with respect to including students in laboratory settings, despite being willing to include students with disabilities in their programs (Giffing, Warner, Tarpley, & Williams, 2010).

Faulkner and Baggett (2010) found that 73% of teacher education programs in agricultural education require pre-service teachers to take at least one special education course. The majority of agriculture teachers sampled across the United States did not feel that their institution had prepared them to teach special needs students before entering the classroom (Stair, et al., 2010). Of a sample of North Carolina agriculture teachers, approximately 27% reported not receiving any preparation for special needs students at the pre-service level, while 41% completed a course dedicated to special needs learners (Yeaman, 2011).

A study conducted to examine the confidence levels of student teachers in working with special needs students found a positive relationship between student teachers’ time spent with persons with disabilities and their sense of confidence and preparedness in teaching students with special needs in classrooms and labs (Kessell, Wingenbach, & Lawver, 2009). As the age of student teachers increased, knowledge of
the legal aspects of education for special education students and general knowledge about disabilities also increased. Male student teachers were shown to be less knowledgeable in these areas compared to females (Kessell, Wingenbach, & Lawver, 2009).

Administrators have been perceived by early career agriculture teachers as being largely supportive of their attempts to meet the needs of students with disabilities (Aschenbrener, Garton, & Ross, 2010). School administrators’ general support and support of inclusion have been shown to increase general education teachers’ perceptions of self-efficacy in including students with disabilities in their classrooms (Brownell & Pajares, 1999). Moreover, those general education teachers whose administrators are supportive of inclusive practices for students with disabilities have been found to interact more with special education colleagues (Brownell & Pajares, 1999). Support of administrators and access to resources align with Ajzen’s (1991) concept of control beliefs, helping to shape teacher behavior.

**Instructional Strategies for Students with Disabilities**

**Collaboration**

No Child Left Behind (2002) has required that all teachers be held accountable for the quality education of all students, including those with disabilities. ESE specialists have historically been responsible for determining how to provide students with disabilities access to programs and instruction, but the General Education Collaboration Model has required general education teachers to assume some of this responsibility (Simpson & Myles, 1996). Although ESE specialists may serve as leaders within IEP teams, agriculture teachers have been called to be more participative in helping to plan objectives and strategies for students with disabilities (Newcomb, McCracken,
Warmbrod, & Whittington, 2004). Collaboration between agriculture teachers and ESE specialists has become a necessity for inclusive classrooms. McLeskey and Waldron (2000) stated:

Good inclusive classrooms require the combined expertise of the general education teacher (an expert in the content being taught as well as how to deliver that content to large groups) and the special education teacher (an expert in adapting the content for individual student need and delivering instruction to students who lack certain basic skills) (p. 29).

Additionally, the support of the school administrator has been considered necessary, as this individual has typically been responsible for providing resources, professional development opportunities, and planning time (McLeskey & Waldron, 2000).

A study conducted by deBettencourt (1999) revealed that roughly 20% of students in participating general education teachers’ classrooms had disabilities. In spite of such high incidence of this population of learners, approximately half of the teachers spent less than an hour each week consulting with ESE specialists. Hoerst and Whittington (2009) surveyed all teachers in Ohio and found that half of respondents indicated a need for “collaboration teaming among special education and regular education teachers” (p. 48). Kanellis (2008) found that general educators collaborate with ESE specialists primarily outside of the classroom, and 37.8% reported collaborating only in informal settings. Observations confirmed that no formal time was available for general education teachers to collaborate with ESE specialists. McLeskey and Waldron (2000) indicated that building principals must facilitate collaboration between teachers. Hoerst and Whittington (2009), however, felt that administrators were falling short of their responsibility to provide agriculture teachers with appropriate access to services and resources necessary for teaching students with disabilities, which may have included planning time to collaborate with ESE specialists.
Teaching and Learning Methods

As compared to other teaching methods, agriculture teachers have reported that they are most comfortable with discussion and demonstration; both of which are the most frequently used with students with disabilities (Hoerst & Whittington, 2009). Students with disabilities have been considered to benefit from experiential learning but struggle with abstractions (Newcomb, et al., 2004). Using teaching methods which engage a variety of senses has been advised, as well as the use of instructional materials in multimedia formats (Newcomb, et al., 2004).

Agriculture teachers have frequently worked with students with learning disabilities (Mallilo et al., 1983; Dormody et al., 2006; Pense, 2009). Horticulture lessons utilizing self-paced software presentations, which included materials designed to help students with learning disabilities, were tested as possible modifications to the core curriculum in Illinois (Pense, Watson, & Wakefield, 2010). These lessons were shown to effectively increase knowledge in all participating students, both traditional and learning disabled. The strategies used in the modified curriculum were similar to strategies identified by North Carolina agriculture teachers as being successful for teaching students with learning disabilities (Richardson, 2005). The use of visual technology including Microsoft™ PowerPoint presentations and accommodating for language, such as focusing on vocabulary and using simple phrases when possible, were common to both investigations (Richardson, 2005; Pense, et al. 2010).

The use of problem-solving teaching techniques through inquiry-based instruction has been considered by many in agricultural education to be a highly effective method of learning for students in agricultural education (Parr & Edwards, 2004). Easterly and Myers (2011) conducted a study to test the use of inquiry-based instruction in inclusive
agriculture classrooms. Of the 170 students participating in the study, 20% had IEPs for various types of disabilities. Upon completion of instruction, the results of the study demonstrated no significant difference in content knowledge gained based on IEP status, and that all students experienced gains as a result of inquiry-based instruction techniques. This research suggested that inquiry-based learning was an appropriate strategy in inclusive settings. Results from this study were consistent with similar activity-based instructional strategies that have been shown to increase information retained about science concepts amongst students with learning disabilities (Scruggs, Mastropieri, Bakken, & Brigham, 1993).

Agriculture teachers in Florida have expressed positive views toward inquiry-based instruction; however, the implementation of such strategies has sometimes fallen short of the mark (Washburn & Myers, 2010). Inquiry-based strategies were found to be used more frequently within teacher-centered approaches, with student engagement in inquiry strategies having occurred only monthly. Washburn and Myers (2010) indicated that professional development opportunities were necessary in order to increase the use of inquiry-based strategies in classrooms.

Cooperative learning has often appeared alongside activity or inquiry-based learning. One study investigated teacher perceptions on cooperative learning and found that the majority of teachers felt that cooperative learning was successful with at least some of the students with disabilities in their classrooms (Jenkins, Antil, Wayne, & Vadas, 2003). Students with learning disabilities in one study were given the opportunity to work in small groups on science content-based activities. In addition to
gaining more knowledge, these students reported higher satisfaction with the lesson provided, compared to other strategies used (Scruggs, et al., 1993).

**Extracurricular Activities for Students with Disabilities**

Participation in extracurricular activities has shown a range of benefits for students with disabilities. Career development activities, like those provided by FFA, have been suggested to provide these students with opportunities to learn about various career, gain experiences which will help to build resumes, and increase relationships with peers (Carter, Trainor, Cakiroglu, Swedeen, & Owens, 2010).

Kentucky teachers reported a variety of extracurricular activities in which students with severe intellectual disabilities participated within their schools and communities, including 4-H (Kleinert, Miracle, & Sheppard-Jones, 2007). Although parents were typically identified as the main support for involving their children in activities, general educators were the most common supports for 4-H activities. Participation in 4-H was, however, much higher for primary school students as compared to those in middle and high school (Kleinert, et al., 2007).

Several strategies have been recommended to improve participation of students with disabilities in extracurricular programs. Special educators and club sponsors have been encouraged to collaborate to ensure that information about student organizations reaches all student populations (Carter, Swedeen, Moss, & Pesko, 2010). Behavioral issues, which may be more likely to arise in extracurricular environments, may be curbed through proactive role-playing and social skill development (Carter, Swedeen, et al., 2010).
FFA

Research has shown that participation in various activities conducted within local FFA chapters may be a contributing factor in personal growth and development amongst member students (Townsend & Carter, 1983). Students who participated in preparing banquets, assisted with fundraising and community service events, and worked on improvement projects were able to engage in interactions with parents and other members of the community. The experiences students gained as a result of these activities contributed to greater levels of student-perceived citizenship (Townsend & Carter, 1983).

Likewise, Wingenbach and Kahler (1997) found that students’ involvement in FFA can contribute to improvement of interpersonal skills, as well as enhance their sense of self. Reese (2001) reported that students participating in FFA were more likely than non-FFA members to attribute success to personal effort, value school work, and have greater self-confidence in their future employment prospects (as cited by Brown, 2002). These findings have suggested positive outcomes of the FFA student organization for all students, including those with disabilities. Of surveyed North Carolina agriculture teachers, 93% reported that students with disabilities participating in FFA stood to benefit in ways similar to their general education peers (Yeaman, 2011).

In spite of the potential benefits of FFA activities for children with disabilities, teachers have expressed several concerns. Yeaman (2011) found that teachers in North Carolina felt that students with disabilities had fewer opportunities to participate in FFA activities. A majority of teachers (57%) indicated that they believed career development events could accommodate students with disabilities, but 43% disagreed that accommodations could be provided. When asked to report on the barriers to
participation in FFA for youth with disabilities, teachers identified student ability, time, and support from parents as the most prevalent factors (Yeaman, 2011).

**Job Preparation and Placement**

Research has indicated that students with disabilities have not had comparable employment opportunities to their general education peers after graduation from high school and have been met with low wages and decreased likelihood of professional or personal advancement (Phelps & Hanley-Maxwell, 1997). Students with disabilities who were enrolled in vocational education programs which provided work experiences were found to be more likely to have competitive employment and better salaries as compared to students with disabilities who were not enrolled in vocational programs (Wagner, Blackorby, Cameto, & Newman, 1993). Eisenmann (2000) suggested “that integration of academic and vocational curricula promoted meaningful engagement and inclusion of students with disabilities by increasing persistence, academic achievement, and postsecondary engagement” (as cited by Wonacott, 2001, p. 2).

Participation in vocational education programs has been shown to decrease the likelihood of disabled students electing to drop out of high school (Wagner, 1991; Corbett, Clark, & Blank, 2002). Students with emotional/behavioral disorders (EBD) may be viewed by teachers as having limited capability to perform in the workplace, based on their attitudes (Trainor, Carter, Owens, & Swedeen, 2008), but Carter and Lunsford (2005) suggested that these students can be successful in jobs with support and skills training. Because these students typically do not recognize the importance of education, drop-out rates are high; however, vocational curricula with supervised work experiences can help students to better apply skills and information learned in school to work, establishing a connection between the two (Carter & Lunsford, 2005).
Teachers have indicated support for summer jobs for students with disabilities and have shown optimism for the success of students with learning disabilities, in particular (Trainor, et al., 2008). In spite of this, teachers have perceived limited job opportunities for these students, in spite of evidence suggesting otherwise from state workforce data. Trainor et al. (2008) recommended that teachers seek more information about summer jobs, making this information available to their students, and provide teachers with greater opportunities for professional development to decrease teacher perceptions that students with particular disabilities (such as EBD) are unemployable.

**Supervised Agricultural Experiences**

Students with SAE programs have been shown to have significantly higher performance scores on standardized tests as compared to peers without SAE programs (Kotrlik, Parton, & Lelle, 1985). Positive relationships have also been found between SAE program involvement and student achievement in the agriculture classroom (Cheek, Arrington, Carter, & Randall, 1994). Participation in SAE programs has been reported by students as promoting “desirable occupational and educational attitudes and values” (Williams, 1979, p.39). Parents have also noted that their children benefitted from SAE programs through improved “work attitudes, occupational development, and human relations skills” (Rawls, 1982, p. 37).

Research has supported the idea that that SAE programs are important for providing vocational skills and opportunities within agricultural education programs (Dyer & Williams, 1997). Although studies which have investigated the academic and vocational benefits of SAE programs have not focused on students with disabilities, the results with general education students have been promising. IDEA has required that students with disabilities receive the same educational opportunities as general
education peers, as well as transition services such as job placement (USDOE, 2010), and all students are expected to demonstrate academic achievement through assessment as per NCLB (2002).

SAE programs have allowed students to apply skills and knowledge from the classroom in a work environment (Phipps, et al., 2008). Many high schools have been found to be lacking in opportunities for students with disabilities to gain work experience in on-campus settings and job placement assistance (Carter, Trainor, et al., 2010). These facilitations have been believed to be particularly helpful in promoting career education experiences for students whose disabilities may contribute to transportation limitations or difficulty in connecting with employers.

Placement of students with disabilities into an appropriate work environment with a cooperative employer has been advised to allow students to earn employment experience and learn personal finance skills (Newcomb, et al., 2004). Pense (2009) found that SAE programs which included job placement were preferred by three quarters of participating agriculture teachers for students with learning disabilities. Additionally, hands-on experiences in SAE were deemed most appropriate for students with learning disabilities. Other experts have confirmed that hands-on SAE programs are appropriate for all students with disabilities (Newcomb, et al., 2004).

Yeaman (2011) found nearly three quarters of North Carolina teachers to be in favor of requiring SAE programs for students with disabilities, and approximately 87% perceived SAE programs assisted students in setting “fulfilling career goals” (p. 61). A majority believed that awards based on SAE programs could be earned by students with disabilities. Barriers identified by these teachers included resources and placement...
opportunities for students with disabilities, along with student ability and inadequate facilities in potential placement opportunities (Yeaman, 2011).

**Summary**

Ajzen’s (1991) Theory of Planned Behavior, as well as the General Education Collaboration Model (Simpson & Myles, 1996), served as the guiding theories for research on the inclusive practices of agriculture teachers working with ESE specialists and school administrators. Behavior beliefs, normative beliefs, and control beliefs influence behavioral intentions, and the General Education Collaboration Model provides a framework in which agriculture teachers can cooperate with ESE specialists and school administrators to provide an inclusive environment for students with disabilities, allowing them access to the total SBAE program. This model includes flexible departmentalization, identification and development of supportive attitudes, student assessment as a measure of program success, program ownership, and classroom modifications supportive of inclusion.

Vocational education has changed over the past century to be more inclusive of services for students with disabilities, in order to allow them greater opportunities for future careers. Students with disabilities have accounted for a significant portion of the student population in agricultural education. Agriculture teachers have been largely underprepared for teaching students with disabilities and have indicated lack of knowledge with respect to meeting the needs of this population of learners. Collaboration between agriculture teachers and ESE specialists has been called for to promote greater academic achievement for students with disabilities. Instructional strategies, including inquiry-based instruction methods and other activity-based learning commonly used in SBAE, have been shown to benefit students with disabilities.
Research has indicated that participation in extracurricular activities, such as FFA, may promote greater social interaction among these students. Job placement opportunities, including those provided by SAE programs may prevent students with disabilities from dropping out of high school and provide them with skills needed for future careers.
Overview

The previous chapters discussed recent legislation that has impacted educational policies and practices for students with disabilities. The problem under investigation was described, and objectives were established. The theory of planned behavior and general education collaboration model were introduced as the theoretical framework supporting the study, and findings from previous literature regarding teaching and learning, extracurricular activities, and job placement and preparation for students with disabilities were reported, as well as the populations of students with disabilities in school-based agricultural education (SBAE) programs and teacher perceptions of these learners.

Chapter 3 discusses the methodology used to conduct the research. A qualitative design was selected to provide the researcher with an in-depth understanding of perceptions of agriculture teachers, exceptional student education (ESE) specialists, and school administrators. The phenomenological approach used for the study is described in this chapter, and the researcher's subjectivity is examined. Data collection and analysis are also outlined.

Research Design

A qualitative approach was used to conduct this study. This approach was selected in order to allow the researcher the opportunity to examine the experiences of participants while considering the context of each participant’s unique circumstances (Ary, Jacobs, & Sorenson, 2010). In qualitative research, the researcher serves as the instrument. Human instruments, while not as objective as other measures, are capable
of flexibility in varying situations (Lincoln & Guba, 1985). A researcher can apply knowledge and insight to a situation, even while immersed in the study, to better promote emergent information (Lincoln & Guba, 1985).

Descriptive information about the perspectives of agriculture teachers, ESE specialists, and school administrators regarding their perceptions of the integration of special education students into agricultural education was collected through semi-structured interviews. Ary, Jacobs, and Sorenson (2010) defined structured interviews as a set of questions developed to ask each respondent to gain specific information. Interviews were held in the home school of each of the participants to allow for a “natural setting” in which the researcher was able to gain a more holistic perspective (Creswell, 2003, p. 181).

**Phenomenological Approach**

The epistemological approach utilized in this study was based in constructionism. Constructionism embraces both objectivism and subjectivism, postulating that meaning is built by individuals based on their experiences and interactions with the world around them (Crotty, 2010). From this epistemology, the study was further guided by an interpretivist theoretical perspective. According to Crotty (2010), interpretivist perspectives “look for culturally derived and historically situated interpretations of the social-life world” (p. 67). Thus, this study sought to identify the culturally derived meanings and historically situated interpretations that a group of selected individuals have been able to construct from their experiences and interactions with the social world around them. In order to begin examining the meanings and interpretations that agriculture teachers, ESE specialists, and administrators may construct within an inclusive SBAE setting, a precursory phenomenological methodology was employed.
Phenomenological research has been defined as studies which have been “designed to describe and interpret an experience by determining the meaning of the experience as perceived by the people who have participated in it” (Ary, Jacobs, & Sorenson, 2010, p. 471). Phenomenological researchers are required to “bracket,” or shelf their own perceptions of a phenomenon in order to understand more clearly and from a fresh perspective the subjective experiences of those participating in the study (Ary, et al., 2010). In this study, the bracketing of subjective experiences occurred through an introspective examination of the researcher’s own perceptions and subjectivity through a written subjectivity statement provided within this chapter. Furthermore, Crotty (2010) described phenomenology as the process of shedding new light on an experience. In this study, the experience or phenomenon of interest is the participation of students with disabilities in SBAE programs.

Multiple varieties of phenomenology have been accepted amongst researchers (Grbich, 2007), including the use of phenomenology as a means “to identify, understand, describe, and maintain the subjective experiences of the respondents,” (Crotty, 1998, p.83). Other phenomenologists argue that this approach loses “the objective character and critical spirit, so strong in the phenomenological tradition,” (Crotty, 1998, p. 85). Still others, such as Moustakas (2007) maintain that, “Every method in human science research is open ended. There are no definitive or exclusionary requirements. Each research project holds its own integrity and establishes its own methods and procedures to facilitate the flow of the investigation and the collection of data,” (p. 104). In the case of this study, this research specifically sought to describe the subjective experiences of the agriculture teacher, ESE specialist,
and administrator participants within the constructed social world of the three selected schools. This study served as a preliminary examination of the phenomenon, and may have been limited, if considered to be a full and complete phenomenological study that captures the phenomenon’s total “essence” (Creswell, 2003).

In order to describe these subjective experiences, a semi-structured interview protocol was utilized. According to van Manen (2011), within a phenomenological study “the interview first of all serves the very specific purpose of exploring and gathering experiential narrative material, stories or anecdotes, that may serve as a resource for developing a richer and deeper understanding of a human phenomenon” (para.). It is thus clear why interviews have been a frequently used means of examining the perceptions of individuals from a phenomenological approach (Ary, et al., 2010; Crotty, 2010). Semi-structured interviews have several advantages. The researcher is afforded some flexibility in the order of questions being asked and also may have the opportunity to probe for further explanation or clarification from a participant (Ary, et al., 2010). Questions are typically open-ended and provide the researcher with access to perceptions and opinions of those participating in the study (Creswell, 2003).

**Researcher Subjectivity**

In spite of not having access to agricultural education programs during my middle and high school years, I spent much of my childhood in related lines of work. I spent several years working as a veterinary assistant, volunteered for numerous horse farms and rescues, volunteered at a primate sanctuary, and spent countless hours rehabilitating orphaned and injured wildlife under a friend with a wildlife rehabilitation license. These activities helped me to connect with other students, and I frequently brought animals to school for formal and informal presentations. This early connection
between animals and people led me to an eventual career in my early twenties as professional pet sitter, offering me further opportunities to educate clients and the public through animals. My interest in animal science and environmental resources, as well as communication about related issues, served as the path that led me to agricultural education.

I have also been interested in students with disabilities for many years. My cousin started losing her vision at a young age and was originally diagnosed with retinitis pigmentosa. More symptoms began to appear, and doctors soon discovered that she suffered from the juvenile form of Batten disease, a genetic disorder causing degeneration of the brain. In addition to blindness, my cousin developed difficulty with motor skills and speech. Living in a rural part of western New York, her disabilities and disease were not understood by many in the community, including at school. She passed away in late December of 2002, shortly after her fifteenth birthday.

My mother served as another early influence on my desire to work with students with disabilities. She earned her master’s degree in social work in 1999, after which point she began working at Richard L. Sanders School, and next at Calvin A. Hunsinger School, both centers for students with emotional/behavioral disorders. I was exposed to this work early on, visiting the school and students several times, including once as a wildlife rehabilitator for the Great American Teach-In in 2005. During this experience, the interaction between the students, myself, and the animals led me to believe that students with disabilities may have the potential to be more engaged in situations which provide for experiential learning opportunities. All of the students reacted very positively to the two opossums, flying squirrel, and gray squirrel, asking many questions and
following behavioral directions very closely in the presence of the animals. The positive response of students identified as having emotional and behavioral disorders too severe to be included in general education schools had a significant impact on my interest in merging special education with agricultural education.

As a middle school student in a magnet program, I met a young man with undiagnosed Asperger syndrome, an autism spectrum disorder. A case of double exceptionality, this youth was also gifted and had a strong aptitude for math and science. However, he struggled socially and was singled out by both students and teachers within the school, ostracized for quirky habits and behaviors. Despite his intellectual capabilities, the young man dropped out of school at the age of sixteen as a result of depression brought on by social isolation. His teachers throughout elementary and middle school failed to recognize his struggles, in part because of his exceptional academic performance. As a result, he remained undiagnosed until very shortly before dropping out of school, having never received appropriate support services. Throughout the years, I have developed and maintained a close friendship with this individual, and his experience in the school system concerned me. Watching his struggles in educational institutions led me to believe that he could, and should, have been better supported, and would have been more successful had this been the case.

My sister-in-law has an intellectual disability and was placed in ESE classrooms throughout her childhood. Early attempts to include her in general education classes were not successful, so she completed her special diploma in self-contained classes. Despite attending a high school with general education courses, as well as a medical magnet program and the International Baccalaureate program, my sister-in-law was
rarely given the opportunity to interact with general education peers. She did not receive vocational education through the school, despite an On-The-Job Training program available on campus. I believe that the lack of opportunities, or motivation from school personnel, may have influenced her success and personal fulfillment as an adult. She is currently taking coursework in an attempt to earn a standard high school diploma.

I spent my undergraduate years studying psychology, and earned my bachelor’s degree in 2010. While pursuing this degree, I became particularly interested in educational, developmental, and abnormal psychology. For term papers and projects, I often selected topics such as education for internationally adopted students and promoting social interaction of students with autism spectrum disorders in educational settings. These early academic searches of literature pertaining to the education of special populations reflected my developing interest in students with disabilities and served to reinforce that curiosity.

**Methodology**

**Participant Selection**

Purposive sampling was used to select participants for this research. Three agriculture teachers were selected for this study based on recommendations from regional career and technical education (CTE) directors and University of Florida faculty members in the Department of Agricultural Education and Communication. These individuals were able to provide the names of teachers known to have been working with ESE specialists in their schools to help provide quality instruction to students with disabilities. ESE specialists and school administrators were then identified by the agriculture teachers at each school.
Three schools, all of which were located in North Central Florida, were selected for the study, providing a total of nine participants. Creswell (2003) indicates that a small sample size of twenty or fewer participants allows for more in-depth findings of individual participants’ perceptions when conducting qualitative research. A greater number of interviews may have resulted in decreased time for analysis, resulting in lower overall quality of the study (Kvale, 2007). The purpose of the research was to understand the phenomenon of the participation of students with disabilities from the perspectives of key individuals from the selected schools without generalization to a larger population; thus, three interviews for each school were sufficient to gain the perspectives of the individuals identified (Kvale, 2007).

School A was located in a rural area, and was a combined middle and high school providing education for students in grades six through twelve. This school also served as the center for its county’s Trainable Mentally Handicapped (TMH) students. One middle school classroom and one high school classroom were dedicated to providing TMH students throughout the county with specialized curriculum. Students with disabilities that did not qualify for this program were mainstreamed into general education courses where they may have received modifications and assistance as directed by their 504 plans and IEPs. Mary was the agriculture teacher selected for participation in the study, and she identified Kathy as the ESE specialist with whom she interacted most frequently, and Mark, the assistant principal, as her primary source of administrative staff.

School B, a suburban high school serving grades nine through twelve, also served as a center for disabled students for its county. This school was significantly larger with
multiple units for various disabilities, including their Intellectually Disadvantaged (InD), Autistic (ASD), and Physically Impaired (PI) programs. As with School A, students who were not enrolled in these programs but required additional assistance and modification to curriculum as per their 504 plans and IEPs were mainstreamed into general education classrooms. The agriculture teacher, Danny, expressed having a strong working relationship with Laura, the ESE specialist participating in the study, and identified Gordon, an assistant principal, as an administrative source.

School C was a ninth through twelfth grade high school located in a rural setting; but unlike A or B, did not serve as a center for students with disabilities in its county. This school did have ESE staff, including two certified ESE teachers and a paraprofessional, as well as a resource room for students who required assistance in completing assignments in their general education courses. Kathy, the ESE specialist, and Evan, the school’s principal, were identified by agriculture teacher Cliff, who was selected for participation in this study.

Data Collection

Researcher-developed questions were used to guide each of the interviews, including separate lists of questions for agriculture teachers (Appendix A), ESE specialists (Appendix B), and school administrators (Appendix C). Questions were developed based on the conceptual model (Figure 2-3) to obtain information about relationships, support, resources, attitudes, and collaborative efforts between agriculture teachers, ESE specialists, and school administrators. Each questionnaire was evaluated by a panel of experts at the University of Florida’s Department of Agricultural Education and Communication for face and content validity. Modifications to the questionnaire were made based on the recommendations of the panel of experts. All
questionnaires were then submitted and approved by the Institutional Review Board. A letter of informed consent detailing the potential risks and benefits of participation in this study was also approved by the Institutional Review Board, which was signed by all participants prior to their interviews (Appendix D).

A pilot test was also conducted to evaluate the validity of the questionnaire. The pilot test included interviews with an agriculture teacher, ESE specialist, and administrator from a single school and were selected purposively based on recommendations from faculty at the University of Florida and convenience for the researcher. No changes were made to the questionnaire following the pilot test. Data from the pilot test were included in the study under the pseudonyms associated with School A after cursory analysis of subsequent data indicated that the test interviews were relevant and would inform the current research.

All interviews were audio recorded and transcribed to aid in later analysis (Ary, et al., 2010). Reflective field notes were also taken by the researcher after the interviews in order to capture observations not obtainable from audio recordings, such as body language and physical environment, to include in the final analysis. An observational protocol was used to organize these notes, including sections for reflective notes from the researcher and descriptive notes of the participants and environment (Creswell, 2003).

**Data Analysis**

Analysis of the data collected was conducted using transcripts of audio recorded interviews. Comments from the participants were assigned to codes developed by the researcher through a process known as horizontalization (Ary, et al., 2010). As patterns were identified, the codes were then placed into categories which could then be used to
develop themes (Ary, Jacobs, and Sorenson, 2010). Textural and structural descriptions were developed to provide insight on what participants experienced in the phenomenon of students with disabilities participating in SBAE programs (Ary, et al., 2010).

**Credibility, Transferability, Dependability, and Confirmability**

The rigor of qualitative studies is considered a little differently compared to quantitative research. Credibility, transferability, dependability or trustworthiness, and confirmability are evaluated in place of internal validity, external validity, reliability, and objectivity (Ary, et al., 2010).

Credibility ensures that the findings of the study are truthful and that representations of participants’ perceptions are accurate (Ary, et al., 2010). Agriculture teachers, ESE specialists, and school administrators were interviewed to provide triangulation (Ary, et al., 2010). Member checks following data collection were performed to ensure that the written analysis of the participants’ perceptions was accurate. Additionally, all interviews were audio recorded to allow for verbatim transcriptions and quotations. Reflective field notes were taken to provide detailed descriptions of the environment and participants’ body language to provide greater context (Ary, et al., 2010). Interviews took place between September and November 2012, as an effort to minimize a history effect that may have occurred between the first and last interviews (Campbell & Stanley, 1963).

Transferability refers to the generalizability of the study to other individuals, groups, or situations (Ary, et al. 2010). Due to the nature of the study, results were not able to be broadly applied, nor was generalizability an intended outcome. Information may, however, have some degree of transferability to similar situations as evaluated by a reader, based on the detailed descriptions of settings and perceptions provided.
Dependability, or trustworthiness, was established through triangulation (Ary, et al., 2010). Multiple sources were used to collect data, including several agriculture teachers, several ESE specialists, and several school administrators. Extensive documentation was made through reflective field notes and transcribed audio recordings of each interview, providing an audit trail (Ary, et al., 2010).

Confirmability is used to ensure that bias has limited influence on data collection and analysis (Ary, et al., 2010). This was accounted for through triangulation between multiple participants of each profession. Documentation in the form of audio files, transcriptions, and reflective field notes also served as means through which data collection and analysis could be confirmed (Ary, et al., 2010).

**Summary**

This study used qualitative methods to gain an understanding of the perceptions of agriculture teachers, ESE specialists, and school administrators with regard to the participation of students with disabilities in SBAE. Semi-structured interviews were used to allow the researcher to observe and question the participants in a natural setting, and to allow for flexibility in questioning. Reflective field notes were taken to provide documentation of the researcher’s observations following interviews, and audio recorders served to document the participants’ responses. These recordings were then transcribed and analyzed through horizontalization and textual descriptions (Ary, et al., 2010). These efforts, along with data triangulation and member checking helped to ensure the credibility, transferability, dependability and confirmability of the study.
CHAPTER 4
FINDINGS

Overview

The previous chapters identified legislative measures that have affected students with disabilities, as well as currently recommended practices for aiding these students in educational environments. The lack of information regarding effective instruction of students with disabilities in school-based agricultural education (SBAE) programs was cited as the problem driving this study. The theoretical framework was built using the theory of planned behavior and the general education collaboration model. A literature review reported findings from earlier studies surrounding the education of students with disabilities, their participation in extracurricular activities, preparation for jobs and careers, and the participation of students with disabilities in SBAE programs. The methods used for the research study include qualitative data collection through semi-structured interviews with selected participants, including agriculture teachers, ESE specialists, and administrators, from three schools in North Central Florida.

Chapter 4 outlines the findings of the study. Participants are referenced by pseudonyms, and their experiences with the phenomenon of students with disabilities participating in SBAE programs are described. The agriculture teachers, Mary, Danny, and Cliff, were selected for this study based on Career and Technical Education (CTE) directors and University of Florida faculty members’ recognition of their exemplary inclusion of students with disabilities in their programs. These individuals were then contacted and asked to provide the names of ESE specialists and administrators in their schools with whom they work when providing access to their programs for students with disabilities.
School A

School A was located in a rural community, and served as a combined middle and high school. A self-contained unit for trainable mentally handicapped (TMH) students also existed within the school. Mary taught agriculture courses to students in grades six through twelve. Kathy served as an ESE specialist, but also taught mathematics. Mark was the assistant principal of the school.

Mary

Textural description

Mary first realized that she wanted to be an agriculture teacher when she herself was a student at School A. Her teacher at the time served as her inspiration, and after serving as state officer for Florida FFA, she began pursuing her degree in Agricultural Education. She began her teaching career twenty seven years ago in a different county, during which time she continued her education and earned a master’s degree in agricultural education. As a college and graduate student, Mary took several courses related to educating students with disabilities. She found the course on Diversity in Education particularly helpful, as well as some psychology courses.

In my master’s degree program I took more. Thought I might be interested in administration and got in there and decided no..., I’m not one that would want to have to deal with problems all the time. I enjoy solving problems when they come my way, but when they’re related to discipline issues and constant stuff like that, that’s not my forte.

After graduating, her professional development in the area of students with disabilities continued, through workshops offered at the National FFA Convention by the National Association of Agriculture Educators (NAAE).

Mary’s program consists of two middle school classes and four high school classes. By the end of their high school careers, students have completed the
Agritechnology career pathway. She had more middle school students with IEPs compared to high school, but several others had 504 plans.

Right now for middle schoolers I have I think about 7, if my memory serves you correctly; and my high schoolers, I only have 2 or 3, but then I have several high schoolers that are on 504 plans which means you know they don’t qualify for the ESE program but that they have some maybe some difficulties in processing or maybe need extended time and those kind of things.

She described her experiences over the years with students with disabilities as positive.

Usually those kids if you handle them in the right way and you don’t intimidate them to begin with, then they’re going to put forth the effort. You have to really look over you know, know what their disability is because some of them will use it as a crutch sometimes and expect you to do things for them that you don’t do for others, but... mostly I would say in our realm for Ag Ed those kids fit in well.

Mary added that part of the reason students with disabilities do so well in agriculture courses is due the high frequency of group activities and hands-on learning experiences. She cited struggles with reading and that “you might have to chunk it for them so that they get little bits at a time,” but she did not seem to indicate that this was a significant barrier.

When asked to describe her role in working with students with disabilities, Mary shared, “I have to be a facilitator for them, not only in my classroom, but try to relate that to something else that they’re doing... maybe in math or in science and... make the connections for them.” She also discussed the legal responsibilities that she held as a teacher, and explained the need to fill out paperwork on each student if they had a disability. She felt that teaching these students was no different than teaching her other students, with the exception of modifications as they needed.
Mary felt that Kathy’s primary role was to ensure that the paperwork was done correctly “to make sure that the kids are progressing along their pupil progression plan and in the right direction.” She also added that Kathy did an excellent job of advocating for the students and went above and beyond what a typical classroom teacher is expected to do to ensure their students’ success.

Mark was Mary’s assistant principal, and she expressed having more knowledge about his involvement with students with disabilities compared to the school principal. She included that the principal was new and had been at School A for less than a year, while Mark had been around for several years. She described him as an evaluator, and commented that:

He checks in with his teachers… whether it’s a kid that has processing problems and you have to… give him a copy of the notes, he documents all that. And he does classroom walk-throughs to make sure the kids are getting what they need.

Mary also said that she was very supported by Mark, and if she ever needed something that he was quick to provide it.

Financial constraints were a concern for Mary, not only for her ability to provide opportunities for students with disabilities, but for all students. For the past five or six years, she has found it harder to provide hands-on experiences with decreased funding for lab supplies and animals in the land lab. She did report that her district was able to provide her and other agriculture teachers with access to MyCAERT, an online curriculum source that meets the educational standards for Florida. She also mentioned that in order to provide hands-on opportunities she had begun seeking out sponsorships so that students could purchase pigs and other items for supervised agriculture.
experience (SAE) programs. The lack of financial resources was seen by Mary as a continuing issue that would not be ending soon.

Mary felt that students with disabilities really benefitted from hands-on experiences, but cited other strategies she employs in her classroom. She pointed out that she allows them to attempt everything first, but does utilize accommodations. This may mean shortening assignments or providing the material in a different format. She also discussed using peers to aide students, especially with note-taking for her students with processing difficulties.

One of the biggest challenges that Mary had with teaching students with disabilities was the lack of time she can spend with them. Her classes may have up to thirty students with a wide range of abilities. She expressed frustration at trying to create an environment in which everyone of varying levels could achieve success in such short periods of time.

Unlike you know, I mean, in their ESE classes that are where they’re not mainstreamed but they’re in with a group of peers that are similar in their learning styles with them…, then the teacher paces it to the 5 kids that are in there, whereas when you’ve got a classroom of THIRTY, and one teacher: no way. No help, you just have to really get creative in how you’re going to keep that kid up.

Mary added that having good communication with parents was helpful in these situations and shared that one student has a parent who she emails when he has an assignment to finish at home.

When asked to discuss her working relationship with ESE specialists, including Kathy, Mary said that she has a particularly good relationship with Kathy and the other middle school staff members. She reported going to Kathy whenever she needed something coordinated, and that an aide is available to
read tests to the students or assist them with written assignments. Mary also highlighted that Kathy had been at School A for fifteen to twenty years, and as a result she knew the kids and parents well and was connected to the community.

Mark, however, did not participate in the daily activities as much as Kathy, in Mary’s view. “Kathy seems to be really the go-to person, and I think that is because of her experience with it, whereas Mark, being a relatively new administrator, he was a classroom teacher for a long time prior to that…”

Mary’s students with disabilities have participated in all aspects of the three-circle agricultural education model. She has had students who struggle academically but thrive in areas like agricultural mechanics. She added, “I’ve had kids do very well with fair animals.” Her sentiment was that students with disabilities fit well into SBAE programs because through the extracurricular activities, they have increased daily, one-on-one interaction with their teachers. She also cited having stability and routine as being important for students with disabilities, and that she strives to keep her routine consistent.

Mary elaborated on the importance of the hands-on component, and she felt that her students with disabilities had stronger work ethics than her general education students.

If it’s a hands on activity, whether it’s outside, or in the shop, or even if it’s in the lab, usually the kids who are learning through kinesthetic learning and hands-on stuff, they’re the ones who excel at that; whereas the kid who might be the brainpower of the class and figure it out academically and you know has the greatest reading comprehension and all that, but they don’t have the work ethic to carry it through sometimes.

FFA and the opportunities it presents were seen as important factors in promoting the participation of students with disabilities. Mary shared:
I think the FFA part of Ag Ed is more like a family, and the kids get some friendships out of that and then they help each other. I know some kids who wouldn’t consider showing anything for an SAE project in the fair until one of their friends did it, and then they got into it and said, “Oh, I can make money at this, and you know have fun and be out of school three days,” and just you know having that camaraderie with other FFA members and seeing opportunities like that.

When discussing factors that Mary thought might limit the participation of students with disabilities in SBAE programs, she said, “If you connect ESE and low socioeconomic status together, then the one thing that I would say, again, that maybe prohibits or is a barrier for them to participate is a money issue, a financial issue.” She continued that she could find other opportunities for students to participate when money was a problem, through showing chapter animals, receiving assistance from the FFA Alumni, and taking out youth loans.

Mary didn’t think that there were any effects on general education students as a result of students with disabilities participating in agricultural education programs. She reported that “School A has some transition in and out, but for the most part, these kids have gone to elementary school together and have been through the educational process together, so rarely do we have kids being ostracized at all.” She added that the kids could often identify if other students were struggling and would chip in to help but didn’t take advantage of other students based on disability in her program. She did discuss that the members of her FFA chapters in leadership roles often worked to build the confidence of some of the other students. Each year, they also participate with the TMH unit on campus during FFA week.

I’ve had some of the TMH kids, we have a middle school class of TMH kids and a high school class of TMH kids and... we have a program every February during National FFA Week, we call it barnyard day, and the kids come out. We get like 250 kids from across the street at the elementary school that come over, but then we also include the TMH kids and have
them out on the land lab you know, interacting with the animals and stuff and our kids are great with them.

Mary also wanted to emphasize that she thought that “Ag Ed is a good place for a lot of those kids because of the hands-on learning, because the kids who… can be specifically tied to… a learning handicap, those kids can be trained, they can be productive citizens.” She didn’t seem to think that students with social-emotional disabilities fit in as easily but saw real success for her students with learning disabilities in careers related to agriculture.

I’m thinking of one in particular who graduated a couple of years ago, went to Tulsa Welding School in Jacksonville, passed with flying colors, and, you know, is out working as a certified welder now. And I can think of several kids that I have right now, who already have a job… in the butcher section of the local grocery store learning the meat cutting industry and things like that, and will probably just transition into a full time job there. So, it’s a great place for them to learn some skills that they can put to work in the workforce and make a productive paying, tax-paying citizen.

**Structural description**

Mary’s classroom was set up in such a way that students sat together at tables, versus individual desks, which allowed for easier pairing and small group work between students. She had tennis balls fastened around the bottom of every chair leg in an effort to stifle the noise of the chairs sliding across the linoleum flooring. Her classroom had a long wall of windows and was located at the back of the school. She kept the lights off to take advantage of the natural lighting. These physical characteristics of her classroom had a calming effect compared to the rest of the bright and buzzing school.

Her own early, positive experiences with agricultural education helped Mary to recognize the value and benefit of these programs for students, a perspective which broadened to students with disabilities when she was exposed
to college coursework that sought to prepare pre-service teachers for the teaching and learning needs of diverse students. She spoke about job opportunities that allowed students with disabilities to become productive citizens, even if they didn’t experience high academic achievement.

Mary seemed very confident and comfortable with including accommodations in classroom. She mentioned multiple times that hands-on strategies were beneficial for students with disabilities, and was accustomed to using grouping strategies and differentiated learning techniques to allow all of her students opportunities for success.

Mary had a clear fondness for Kathy and respected her as a colleague. She seemed to feel comfortable asking Kathy for assistance, and valued Kathy’s professional status in the school. Mary felt that Kathy had positive relationships with students and parents, which Mary felt contributed to her success as an ESE specialist. Mark was also appreciated, although Mary didn’t share a similar relationship with him. She felt confident in his abilities to serve as an administrator and felt supported whenever she had a need related to a student with a disability, but she shared fewer interactions with Mark compared to Kathy in related matters.

The financial struggles of the school frustrated Mary, and this burden was the only real concern that she expressed. The inability to access resources affected all of her students, but she was determined to seek other avenues to provide them with opportunities in all parts of her program, including SAE and FFA.
FFA served as a common ground for all students, regardless of ability, to interact and form relationships in Mary’s program. Her FFA program created a pathway to include TMH students in the self-contained unit in the school to participate in events like FFA week and be involved with the animals in the lab. This promoted further interaction between students with and without disabilities as well.

Kathy

Textural description

Kathy had been teaching at School A for eighteen years at the time of the interview. In addition to serving as the ESE specialist for middle school, she also taught middle school mathematics. Kathy identified her role, outside of serving as a math teacher, as being responsible for the paperwork to follow each student with a disability at the middle school level. Teachers could come to Kathy when students were struggling to get recommendations or the assistance of an aide, which she described in a frustrated tone:

She can work with them one-on-one, and that kind of stuff, which is what a resource teacher is supposed to do; but because of numbers, I don’t get to do that. But I still get to do all the paperwork that goes with it... I shouldn’t have a full load of classes, I mean I should be available that if Mary needs somebody to work on a test, she can send them to me, and I could sit with the kid and he could work with me, but now we don’t have that.

Kathy saw Mary’s role as providing students with another opportunity to pursue and participate in an elective where they show a particular aptitude. She expressed that Mary is “great with the kids,” and that the special education students thrive with the hands-on learning that she provides. She added,
And she does do a lot of stuff with math, even with the hands-on, she supports what’s happening, like, she’ll do a lot of stuff with fractions and things when they’re measuring and stuff like that. So that’s a real plus.

In Kathy’s opinion, the ability for the agriculture program to deviate from the strict curriculum provided students the opportunity to learn in a more fun way.

We are so locked into getting this book done by April, that we don’t have the wiggle room to do all the fun stuff we used to do. And most of us don’t have the energy! But we don’t, because you have to cover so much, so quickly, that a class like Mary’s, she can do a lot of the fun stuff, and the kids won’t realize that they’re doing the same stuff because they’re having fun doing it. So when she does the measuring, and the weighing, and all that kind of stuff, that’s math! And they’re getting it, and… hopefully it carries over for them to their core subjects.

She stressed the importance of the content integration, and how valuable those types of opportunities are for students with disabilities in the SBAE program. “That’s what I would like to see more of, more of the working together.” Kathy also shared a great appreciation for Mary, saying, “She’s great, I mean I love her dearly. She does really good with the kids.”

Her appreciation for administration was significantly less:

I’ve had seven principals since I’ve started here… Seven principals in 18 years… that’s how many we’ve had! And only one of them lasted more than 4 years! So that makes it difficult, when you keep changing; and the turnover ratio for staff has been really bad too, because a lot of people just leave because they are just disgusted.

She added that the current administration was “more ESE friendly” and that she had a better relationship with the administrators compared to previous individuals. She cited the problem that many teachers lacked the understanding that accommodations written in Individualized Education Plans (IEPs) must be implemented by law and felt that “administrators need to be more forceful in saying, ‘Yeah, you have to do it.’”
When discussing the needs of agriculture teachers, Kathy said that she felt that all teachers “need to have a better background in what disabilities really are.” She was most adamant that pre-service teachers be required to take a course preparing them for students with disabilities:

I really think, everybody that… wants to be a teacher, needs to have that class in disabilities, and it doesn’t have to be, it could just be a basic, intro; but I think that should be a requirement, because you’re going to get disabled kids in your classroom.

She also added that school districts need to provide in-service opportunities for existing teachers, particularly with respect to the “legal ramifications.” She cited a recent lawsuit to highlight the importance of this need.

Kathy also discussed the strategies she felt were beneficial for agriculture teachers to use with students with disabilities in their programs. She indicated that Mary frequently grouped students and allowed them to share their strengths with others. Kathy also indicated that differentiated learning and moving away from “pencil-paper” activities were helpful practices. She appreciated the hands-on aspect of SBAE for students with disabilities.

Mary felt that the biggest challenge for students with disabilities in trying to participate in SBAE programs was their academic performance.

The biggest problem right now that we’re facing with all of these, like Mary’s program and stuff, the state has said if a child does not have a level 3 on their FCAT scores, they have to take remedial classes, so if they’re a level 2 in math, and a level 1 in reading, they have no Ag class.

Her frustration with the course requirements was also financially related, as the school could not offer additional periods for students that needed to take remedial course but also wanted to take electives like agriculture. “The only thing that keeps them from going into ag is their FCAT scores.”
Kathy also stated that the most common method of collaboration between Mary and her was through informal conversations as they saw each other in the hallway. Formal meetings were supposed to occur monthly, but time constraints and the high number of students prevented these opportunities. Communication also occurred through the IEP forms, which contain the information that teachers, including agriculture teachers, need to make modifications to their curriculum.

Communication with administrators occurred similarly. Due to the current positive relationship, informal hallway status updates were frequent. “So you know we do communicate, that’s the one nice thing about this school.” When formal meetings occurred, administrators were present and participated. Copies of IEPs were also reportedly shared with administration so that they could supervise teachers and ensure that students receive accommodations.

Kathy felt that students with disabilities fit in well to the SBAE programs, sharing, “For the most part, most of our student body accepts everybody else because we have such a large ESE population.” She did feel that students with significant behavior problems struggled to fit in but emphasized that most students with disabilities did not experience any relationships outside of the norm with their general education peers.

The value of the SBAE program was clear to Kathy, who emphasized that she “really, really, really, really, really would like it to be expanded.” She lamented the loss of opportunity for students struggling to keep up academically, who missed out on the opportunity due to the need to enroll in remedial coursework. “I just wish we could open up the Ag program to kids, everybody… because… it used to be that way.”
Structural description

Kathy’s frustration was immediately evident from the beginning of the interview. Her candor was demonstrated immediately, and though she was comfortable and amiable during the interview, her frustration with the current education system was not to be overlooked. She frequently laughed and rolled her eyes when discussing points like standardized testing and the restraints imposed upon students and teachers in order to improve academic scores.

Equally evident was her appreciation of Mary and the SBAE program. She knew much about how Mary worked with students with disabilities and indicated having a strong professional relationship with the agriculture teacher as a colleague. Despite her disenchantment with other administrators, she seemed to have a positive relationship with current administration.

Kathy also demonstrated sincere concern for the students at School A, and their best interest drove her frustration. She sincerely felt as though the recent impositions on the education system through legislation had negatively impacted students and genuinely wanted to see changes that would allow students greater opportunities to participate in programs like SBAE, rather than spending so much time in remediation. She felt as though the curriculum requirements ultimately were a disservice, and her aggravation was out of passion for providing quality educational experiences for children.

Mark

Textural description

Mark was familiar with Career and Technical Education (CTE) programs, having taught business education prior to becoming an assistant principal. Through this
experience, he taught many students with disabilities, which helped to shape his perceptions about the value of SBAE for this population of learners.

When asked about his role as an administrator in working with students with disabilities, Mark described it as follows:

I'm responsible… as an educational leader… first of all making sure that we provide them with… what they call free and appropriate public education. …Our goal is to try to provide them with the accommodations that they need, not necessarily the accommodations they want, the accommodations they need to be successful… in the least restrictive setting possible, which for us of course is mainstream. We look at it… in terms of supervising… going from classroom to classroom making sure by working with teachers that the curriculum is where it needs to be for them to experience that success.

Mark identified classroom walk-throughs, data chats, and lesson plan critiques as means by which he supervised teachers. He also discussed his role as the Local Education Authority (LEA) in IEP meetings.

A second responsibility of Mark’s was to provide access to resources. These resources can include textbooks, professional development, and aides; but Mark conceded that resources were becoming more difficult to afford due to the financial crisis.

I can tell you that for example right now that’s a huge challenge for this school and for our whole district and for most districts across Florida… Getting things as simple as textbooks can be very challenging because if you’re looking at whether or not you can supply a student with a teacher that they need and find that funding for personnel versus something like a textbook sometimes it makes very difficult choices and we have to get very creative with that.

Mark also recalled that ensuring that IEPs and other paperwork is properly filled out is an important component.

We have to make sure that our ESE and 504 files are maintained and follow procedure, that beyond the reason that it would impact resources, if you have a situation where you go to litigation which is something that’s very
common in ESE and 504 scenarios, that can have a financial impact as well so you have to really make sure.

Quality IEP meetings were a priority for Mark, and he also felt that involving parents was important for ensuring that litigation is avoided.

When discussing Kathy’s responsibilities, Mark described her as being able to provide ESE services in a mainstream classroom, thereby creating the “least restrictive environment.” He explained that she provides content integration for struggling students, including the use of pre-teaching to expose students earlier to concepts in their core classes.

Mary’s role as the agriculture teacher, according to Mark, is to serve as a motivator and provide opportunities for extracurricular involvement through participation in FFA. He added, “If you look at research on drop-out prevention, what you’ll see is that the students that participate in extracurricular activities are far less likely to drop out.” He also stated that these activities allow students to:

See some success, to get some experiences outside of school, to work in things like teams and cooperative learning situations, get some real life skills, perhaps develop some interest in a career cluster that can lead to a career, and perhaps further their education beyond high school.

When asked about his interactions with Mary and Kathy, Mark replied that most of their conversations related to students with disabilities occur during IEP meetings. He reiterated the use of data chats, classroom walk-throughs, and lesson plan critiques as means of working with teachers on improving situations for students with disabilities in their programs, including SBAE. He also shared that the school is beginning to have teachers in related content areas come together to plan and critique lessons together during what he referred to as “lesson studies.”
I believe that our Ag program was more toward math and science, and so when they develop their lesson we’re really going to be asking them to address and build a lesson that really addresses the new common core standards… Something like mathematical practices, and some like modeling for example is one of the mathematical practices, or attending to precision would be one that they could often do in agriculture because you do a lot of measurement in agriculture, things like that.

Resources that Mark felt were useful to agriculture teachers like Mary included physical resources and technology and training for differentiated instruction. He named several partners with whom the school works to provide training and resources, including the Florida Diagnostic and Learning Resources System (FDLRS) and the Center for Autism and Related Disabilities (CARD). Mark talked at length about the Kagan Strategies for flexible grouping.

The use of flexible grouping was important to Mark in agriculture courses.

The difference that I see as an administrator in a classroom that’s really addressing the needs of all of the students versus classrooms that aren’t, is if you walk into a classroom that is, almost always there’s flexible skills grouping going on, in some form or fashion. There’s different ways to do that: you can do it where you’re mixing up your groups so that you have people with different strengths and weaknesses, and then there’s ways that you can do it where you’re mixing up your groups so that they’re homogenous, they’re people that have the same skills or skill levels, or needs, and you’re sometimes modifying what it is that they’re doing in ways that are relevant.

In addition to flexible grouping, Mark discussed ways of differentiating instruction as well as the hands-on aspect of SBAE. He commented, “I wish our CTE teachers and our core teachers would get together, marry and have children that had classrooms that would use rubrics.”

When asked to discuss challenges that he felt agriculture teachers faced in teaching students with disabilities, Mark responded that time was a significant barrier. He acknowledged that Mary had multiple different courses to prepare for each day, on
top of responsibilities as an FFA advisor. “In my experience, some of the hardest working teachers in any school will always be the CTE teachers because they always have that double responsibility, and time is a huge challenge.” Additionally, the time constraints placed on students related to passing courses and standardized tests were identified by Mark as potentially impacting agriculture teachers’ ability to serve students with disabilities.

If a student fails a class and gets behind in credits in high school, that means that more of their day is going to be taken up with credit retrieval and intensive intervention classes, and less of their day is going to be available for them to take ag ed for example. What happens is they get forced out of it by the remedial and catch up or intensive requirements they have.

Ensuring that students stay caught up in core subject areas is of key importance for ensuring that they are able to remain in SBAE programs.

Aside from the lack of time, Mark strives to ensure that students with disabilities can participate in all areas of the SBAE program. Although he recognized that certain disabilities can make traveling to events difficult, Mark stated:

I don’t want our teachers to ever feel as though they have to limit a student’s participation in extracurricular activities because of a disability. If a teacher feels like that we encourage them to communicate with us and that’s where we come in to try to figure out a way to make that happen, because we want to provide the students with that opportunity assuming it’s an appropriate opportunity that everyone else is getting. They need full participation, same as every other kid.

Medical issues were also seen as a potential limiter for students with disabilities requiring regular medication, such as insulin, or behavioral medications. With careful preparation, Mark felt as though these challenges should not be insurmountable.
Mark felt as though students with disabilities did not, as a rule, experience difficulties with peers in SBAE programs. Students with autism spectrum disorders or other social-emotional disabilities sometimes required behavior plans to aid in their interactions with peers, but Mark summed up his overall feeling in saying:

With their interactions with the other students, I don’t know that there’s any difference. Every student with a disability is just like any other kid, they’re all different, so they all have different social strengths and weaknesses, so there is no common factor.

When closing the interview, Mark expressed concern about the future of SBAE and other CTE programs. He indicated that the competition between these programs and remediation courses were resulting in fewer struggling students, including those with disabilities, from participating in these programs.

I guess my wish going forward for all of the CTE areas, not just Ag, would be to try to come up with ways to integrate more closely with remediation requirements with common core, to do more of that, because if we can find ways to develop courses and course codes and programs of study, or program sequences that will allow students who are struggling in core to maintain their participation in those programs, while still meeting their intensive requirements, I think we’ll be able to save more kids before graduation.

**Structural description**

Mark was inviting during the interview and was more than willing to share his opinion and experiences. His appreciation for SBAE and all CTE programs was evident, and his background as a CTE teacher served as a solid foundation. He was very aware of Mary’s program and truly valued the extracurricular benefits of students’ participation in FFA.

The concern and compassion Mark held for students with disabilities was also apparent. It was clear from the materials he showed and the research and resources he
cited that he had invested significant time during his career in determining effective ways of providing quality educational experiences to students with disabilities.

Mark’s primary worry was related to the impact of standardized test and remediation requirements on the future of SBAE and other CTE programs for students with disabilities. The benefits of these programs relating to drop-out prevention and content integration were of extreme importance to Mark, and losing these in favor of remediation seemed to bear a heavy weight on him. He sighed with frustration when discussing these topics, shaking his head and displaying disappointment.

School B

School B was a high school located in a suburban setting and provided self-contained units for students with disabilities related to autism spectrum disorders, intellectual disabilities, and physical impairments. Danny taught agriculture courses to students in grades nine through twelve. Laura was an ESE specialist who worked primarily with physically impaired students. Gordon was one of four assistant principals employed by the school.

Danny

Textual description

Danny had been teaching for twenty-nine years at the time of his interview. During that time, he taught at the middle and high school levels, even spending several years working as an agriculture teacher in a juvenile detention center. During that time, he felt he had seen a complete circle of the inclusion of students with disabilities in mainstream programs.

When I first started teaching in 1984 I was at X Middle School. Back then, we didn’t separate the kids out like we do now, and so I would have a class of as many as 40 kids. I can remember that well, I was out in a portable, all
by myself, and you get the whole range, you know, you get your kids that are academically going to be over-achievers, you know, and you get the ones that fall in the middle of the road, and then of course you get your special kids that have special needs. And they're all in the same class, you know. …It's all like the one-room schoolhouse you know? And now, we're sort of going back to that type of teaching.

Danny also described his current courses consisting of the honors level agriscience course, and continuing through a horticulture pathway which ultimately leads to industry certification through the Florida Nursery Growers and Landscape Association (FNGLA) for students who desire to be program completers.

In the time that Danny has been teaching, he has participated in many in-service training opportunities, including those that serve diverse populations of learners, such as English for Speakers of Other Languages (ESOL). He viewed all of his trainings as being helpful for students with disabilities, stating:

I'm still taking courses to help me be a better instructor, when it comes to instructing not just my normal or average students, but those that are challenged as well. It's an on-going process: I'll be taking coursework and in-services until I retire.

At the time of the interview, he was in the second of three phases for the Next Generation Content Area Reading Professional Development (NG CAR-PD) in order to allow students to receive reading remediation within his SBAE program. “That involves not only the normal academic kids, but there’s also strategies for kids that are special, ESE.” He added that the strategies he learned at every professional development opportunity helped him to become a better teacher and allowed him to differentiate his instruction for all of his students.

Danny shared that his program served many of the students with disabilities in the school, and that on average, seven students in each class qualified as ESE. “I receive them with open arms. I don’t discourage any of them from enrolling.” He
expressed that teaching students with disabilities, although challenging, was very rewarding.

These kids once they really take to you, you find that they’re very honest. I mean they’re going to be very blunt about their opinions and they’re going to let you know. And I really like that, because they’re so open and they’re so honest, and they’re straightforward, and they give it everything they’ve got. They really do. And I really enjoy teaching them.

The role of the administrators, according to Danny, was to provide support and resources for the students so that they could experience full participation in the program. He shared an anecdote about a student who was in her fourth year of his program and blind. “She has a para[professional]… we do everything for her in braille, including the tests.” Although Danny reported that several students were able to receive assistance from paraprofessionals in his class, he expressed a need for more of this support.

I have SO MANY [students with disabilities]. If...instead of having them scattered throughout the Agriscience classes, perhaps maybe I could delegate a class period where I concentrate on their needs and try to meet their needs, where maybe I have some paras come in and also help. I know the budget being what it is right now I know that’s challenging, but it’s difficult... Maybe we try to concentrate as many of those kids so I can meet their needs, so maybe we could work out a different pace. Right now I cannot slow my pace down because I have kids that are honors, and it is an honors course.

His thoughts on the roles of ESE specialists in the participation of students with disabilities in the SBAE program were unexpected:

Actually…, I’m more like working with them, and the reason I say it that way is because they are the ones that are actually working with those kids the majority of the time. The only time those kids are really out of their class per say, is when they come with me... I look at it from this point of view: it’s whatever I can do to be of assistance to them.

Danny also reported that he spoke with the ESE specialists on a weekly, if not daily, basis. He had high levels of collaboration with Laura and several other ESE specialists...
in the school. He provided areas in the gardens and greenhouse for the ESE classes to use for special projects, loaning them tools and equipment as necessary.

We’re always planning stuff, for instance like the butterfly garden… this is going into our 3rd year with that project… For kids in wheelchairs, obviously they can’t actually get out there and take the weeds and the grass out and sometimes they can’t do the planting, but my kids can do that.

As far as strategies used in his classroom, Danny reported using many. “I’ll just use a few; we’d be here all day with all the different things I use.” Differentiating his instruction to meet the needs of visual, auditory, and kinesthetic learners was important, as well as guided reading, grouping strategies, and extra time. He also emphasized the importance of content integration.

We do a lot of essays and the kids will tell you, “We do a lot of writing in this class…” They are stressing and putting a lot more emphasis on the reading and writing than they have in the past.

The use of hands-on techniques was especially important to Danny.

With what we’re doing, and what I’m teaching, a kid asks the question, “Well when are we going to do this?” I say, “Next period, next time we meet, that’s why we’re doing this now in class, because next period we got to know what we’re doing and how we’re going to do it, so when we go out there you’re not confused.”

Danny felt strongly that students with disabilities could participate in all aspects of his program. “I can’t think of any ways that they can’t.” He recognized that there were safety concerns depending on the disability, using autism as an example, but also shared that communication with parents was helpful.

I even let them participate with things like… the FFA contests, little SAE projects… a lot of my kids that are challenged… they would do the rabbit, the chicken, and the plant projects. We do a ton of plant projects… we’ll probably have as many as 200 plant projects in the fair this year, and you see those kids, they’re faces light up. They completed a project, they can be successful at it, and it’s a good project. They actually get to exhibit it just like the other kids, no different. And unless I have pointed them out to you, you’ll never know the difference. Their projects are just as good.
The relationships that Danny developed with his students were very positive. “I really enjoy having them in my class, it can be challenging at times but...you've got to persevere, and you can't give up.” He described a relationship with a student with autism, who openly expressed his feelings that he might not like Danny. Danny responded to the student with, “Well, give me a chance. You know, we'll work on that.” The young man went on to enroll in a second agriculture course of Danny's, and showed improvement in his social and behavioral skills in class over time.

He also felt that student relationships with their general education peers were becoming increasingly positive over the years.

I think when I first started, they were a little bit mean, because I only had one or two kids like that, but now that I'm starting to get more and more, the kids are very receptive. And actually they're friends with each other, a lot of them are.

Danny strove to treat his students equally, regardless of ability level, to provide a more comfortable environment for all. He also emphasized the importance of consistency to prevent hostility.

Structural description

Danny had a very calm demeanor, and spoke softly and deliberately. He smiled often when speaking about his students, and he expressed pride in being able to provide SBAE opportunities for the students with disabilities in his school. Danny felt that he offered these students unique experiences within the school, commenting:

I'm really the only outlet as far as I know, as far as academics go at this school because if you look at the culinary arts, if you look at EMAT, if you look at ROTC, they don't really take a lot of those kids, and you can understand the challenge there.

He fully and completely accepted the responsibility of providing opportunities in his program for students with disabilities. His passion for teaching and for ESE
students extended even beyond his own program. Danny worked to provide opportunities for students with disabilities in the self-contained units to reap the benefits of agricultural education, sharing his resources with other teachers, including Laura, and creating collaborative projects.

Although he seemed to appreciate the support provided by his administration, Danny wished for greater resources. The creation of a class for his more severe students with disabilities so that he could provide them with appropriate pacing and have a paraprofessional available to help was a desire of Danny’s. He seemed genuinely aware of the financial and scheduling issues that made this a challenge. He expressed a hope of approaching the topic with his administration in the future, in order to provide those opportunities and seemed to feel that the only reasons this would not be possible would be related to lack of funding and difficulty in scheduling, given the size of the school.

His attitude about instruction was overwhelmingly positive. He did concede a few times that it was challenging to work with students with disabilities, but seemed to feel very comfortable providing accommodations and using strategies that would help each of his students. His commitment to improving as a teacher was strong, even after spending nearly three decades in the classroom. Danny was currently enrolled in intensive training to obtain a reading endorsement, and never viewed this additional responsibility as anything other than an opportunity to be a better teacher.

Laura

Textural description

Laura was one of several ESE specialists on staff at School B. She initially worked specifically with the physically impaired students, although recently she had
taken on more diverse groups of students, including those with intellectual disabilities and social-emotional disabilities. She described her role in working with students with disabilities who were involved in the SBAE program as helping to instill “a life-long love of plants and… nature.” She saw value in the students being able to see plants “from the beginning to grow into something beautiful.”

When she was asked about the administration, Laura had only positive remarks:

We have a great administration, they’re really supportive of our kids, and they just come out and they support and they always tell the kids what a great job they’re doing in beautifying the school, and those sorts of things… Anytime we need something, you know our principal will help us try to get it. We usually just try to solve problems ourselves, but you know, anytime we need… a hose, things like that, you know they’re really great at helping us out.

Immediately before the interview, an assistant principal had been in the classroom with Laura and the students and offered high fives on his way out. Laura seemed to have a comfortable, easy relationship with the assistant principal, and her comments in the interview confirmed the earlier observation.

Danny’s role in the participation of students with disabilities in the SBAE program on campus was to challenge the students and provide them with leadership opportunities.

He’s given Student X a leadership role, with the other kids to have. Even though she didn’t have him last year, she’s familiar with the garden, so he had her come and show some of his new students the garden and stuff, so that’s really neat.

Additionally, Laura viewed Danny as a valuable resource, providing their classes with equipment and knowledge for agriculture and life science topics.

Any time the kids have questions for him or we have a question we don’t know the answer to, one of the kids will run over there and he always takes the time. And you see how busy he is… Everybody loves Danny.
She shared a goal for the future of adding a miniature horse to the program as a therapy animal, adding:

The nice thing is if I can get the horse and do it, Danny says he’s willing to help take care of the horse; he’s got everything right there for us, so it allows us to do different things... It is great having him here because I could never do these things on my own.

The interactions that Laura and Danny shared occurred every other day, if not daily. Laura was very comfortable asking Danny questions about ag related areas and for assistance with projects.

Laura felt that the major resource that Danny needed in order to improve opportunities for students with disabilities even further was the addition of a paraprofessional more regularly.

He does take on a lot of really challenging kids: I’ve seen him take on autistic kids that are really involved, that when they’re in the autistic unit, they have the para-pro, but they’ve sent them to him without anybody... I just think it’d be great if they had... an inclusion-type teacher or para-pro in there. I think that would really help a lot.

In spite of recognizing this need, Laura expressed that Danny “seems to manage things really well.” She even complimented his skills in managing a diverse group of learners in stating that she didn’t know if she would be able to do as well as he did.

When discussing strategies that benefitted students with disabilities in SBAE programs, Laura felt the key item of importance was providing hands-on, “authentic” experiences. The ESE department strives to extend those experiences, and she used an example from the previous year after students had harvested the vegetables they grew:

Last year when all the zucchini was growing, there’s an Italian dish with zucchini, onions, and eggs, and parmesan cheese, and Student X mastered the recipe. In our class we do a lot of cooking, and there’s a lot of
measuring and things, and then she took it home and cooked it for her family, and taught her family how to do it.

She didn’t feel as though too many challenges existed for students with disabilities in participating in the SBAE program. Laura described how the students worked in the gardens, with the animals, and participated in the fair. Students with severe physical impairments, such as those who were wheelchair-bound, may struggle to get into the greenhouse and participate fully in the outdoor activities. She felt however, that this could be adapted.

Everybody has done planting before, for Student Y (a wheelchair-bound student) we do it on his tray, we do a lot of it in here in the classroom, rather than outside.

The curriculum, according to Laura, was flexible enough to accommodate all of the students, and she was confident in their ability to participate fully. She also remarked on Danny’s equal treatment of the students, allowing even the students with disabilities to try the same activities and lessons he provided the other ones, but without penalizing them harshly for difficulties.

The benefits of agricultural education from Laura’s perspective were the hands-on opportunities and teamwork experiences. “It’s really good for self-esteem and all of those sorts of things.” Students also had the opportunity to work with general education students on projects like the butterfly garden, which, according to Laura, helped to foster more positive relationships and interactions between the students.

Laura emphasized at the end of the interview her relationship with Danny and the pride she had at her class being invited to attend the FFA banquet at the end of the year. She quoted Danny as telling her, “We’re so much better together,” and indicated that she wholeheartedly agreed with the sentiment.
Structural description

Laura’s classroom was located down an L-shaped hallway from Danny’s room and contained a long wall of windows. Directly outside of the windows was a large butterfly garden, developed with the help of Danny’s agriculture classes. Laura had many plants in the classroom, as well as an incubator to hatch chicks that had been borrowed from Danny. The evidence of her collaboration with Danny was easily recognizable in the room.

Equally apparent was her fondness of and respect for Danny. Laura spoke very highly of him throughout the interview. She smiled often when speaking of Danny and complimented him and his willingness to work with the students. She was familiar with the resources he had in his program and also felt his need for greater assistance in the form of paraprofessionals. She recognized the opportunities that existed for her own program as a result of Danny’s work and shared, “it is great having him here, because I could never do these things on my own.”

The butterfly garden was a major source of pride for Laura, and she was eager to show it off. She and her students spent a significant amount of time in and around the garden. Danny and his students also continued to help maintain the garden, allowing students greater opportunities to interact with each other and work in teams. Laura had significant appreciation for the SBAE program and the rich opportunities that it provided for her students through experiences like the butterfly garden, hatching chicks, and the potential to add therapy animals.
Gordon

Textural description

Gordon was employed at School B in some capacity for over thirty years. He began his career in education as an ESE specialist, teaching students with physical impairments for five years and students with specific learning disabilities and emotional disabilities for another five years. “I have taught ESE for many, many years… personally I have somewhat of a passion for it.” After that time, Gordon became an administrator, in which position his primary responsibility related to working with students with disabilities was to provide resources and support. He shared these responsibilities with three other administrators on campus. He reported interacting with teachers in the school daily, using walk-throughs as opportunities to discuss issues with teachers and expressed that teachers could access administrators any time if they had a need.

He described the roles of an extensive network of ESE specialists in the school, including teachers, like Laura, staffing specialists that ensure students are placed in the “least restrictive environment” and manage IEPs, and paraprofessionals to aid students while they are in mainstream environments. A primary role of these individuals was described by Gordon as working with other teachers in the school to assist them in adapting curriculum appropriately.

Danny’s role, in Gordon’s view, was to provide students with disabilities with the same opportunities that general education students received.

His role is to take those kids who may not be able to deal with another elective quite as effectively… Danny’s job is to take those kids and give them an avenue to explore a potential interest they have and allow them to come out successful. And that’s what he does. He really, really does.
He described some of the students as having significant challenges with respect to behavior and other more physical challenges. Gordon shared an example of a young girl who was blind raising a goat for the livestock fair the previous year - an opportunity she wouldn’t have had without Danny’s SBAE program.

Gordon noted the changes over the years in the culture of the school, which he attributed to the units that housed students with autism spectrum disorders, physical impairments, intellectual disabilities, behavior disorders, and students who are deaf or hard of hearing.

Our regular ed teachers are exposed to those kids all day long… Honestly, they’re just part of our campus… It’s kind of interesting because… the regular ed students… back years ago, if a student in a wheelchair came by, the other kids would look. With these kids, it’s just not existent anymore. They hold the door for them, it’s just part of the landscape; and the teachers are that way too, that if a kid comes in in a wheelchair they don’t even slow down… It’s just gotten that way, which is really cool.

He reported the students as developing a family within themselves and that the general education population could “gain by seeing the challenges that these kids are willing to overcome and the things they do.” He believed that the general education students helped students with disabilities in the SBAE program become successful.

Gordon expressed a desire to provide Danny with more paraprofessionals, stating that some of his students required more supervision, and when it came to the hands-on experiences, “he could use a teacher’s aide that would be able to facilitate so that he could teach, and let that aide make sure that the set up was okay.” He felt that Danny was very adept at getting material resources that enhanced his program but that he could use more resources to “allow more access” for students with disabilities.
Strategies that Gordon felt were effective in teaching students with disabilities included differentiated instruction and previewing material. He also emphasized that, “You just gotta teach. Just teach because the Specific Learning Disabled (SLD) student that’s sitting here, using some strategies with them… I guarantee there’s a kid sitting two desks over that can benefit from those same strategies.”

Gordon expressed high confidence in Danny’s ability to overcome any challenge in accommodating students with disabilities in the SBAE program. “Within the ag program, I don’t know that Danny has found a challenge that he couldn’t handle. He’s, he’s excellent; he takes all comers.” The only challenges Gordon felt truly existed were the lack of aides to help Danny in supervising students with behavior issues, but he even stated, “he really handles those well.” When aides were provided for the student who was blind, Gordon remarked,

She actually did plant identification as a contest. And her aide would describe the leaf, and she would ask a question, you know, is it a pinnate leaf or is it a palmate leaf? And she could identify, and she scored very well on that.

Gordon was certain of Danny’s ability to adjust the curriculum to allow students to still be challenged “without watering down the program.” He added, “If they believe that they can do it, he’ll find a way for them to do it.” Students entered the program any time other teachers recognized a potential interest of the student relating to agriculture, and the rest of the staff was supportive of inclusion of students with disabilities in the SBAE program.

Gordon saw significant benefits of the SBAE program for students with disabilities. He cited the butterfly garden and participation of students in fairs as specific
examples of the opportunities he saw for students. Gordon even reported that he had purchased one of the students’ hogs the year before at the fair. He shared:

There are opportunities, and there’s skills that these kids learning whether they’re going to ag or not, getting your hands and elbows dirty, working to do these things, those are skills that that place may teach where other places won’t.

**Structural description**

Gordon was very proud of his school and the accomplishments made by all involved in the SBAE and ESE programs. He was involved in these activities and used specific examples of students’ participation in FFA events, SAE projects, and the collaborative efforts between departments. His enthusiasm for these opportunities was evident in his expressions and tones, and he emphasized these examples as successes for the school.

Gordon’s background certainly contributed to his passion for students with disabilities, and contributed to his ongoing support as an administrator. He was attuned to their needs and made it his goal to provide them with as much access as possible. Although he didn’t share a background with agriculture, his love for the students with disabilities that participated in the SBAE program drew him to Danny’s operations, and he became very observant of the achievements gained by students through SBAE.

**School C**

School C, like School A, was located in a rural setting but consisted only of high school grades nine through twelve. Unlike Schools A and B, School C did not house any self-contained units for students with disabilities. Cliff was one of two agriculture teachers in the program. Karla was the ESE specialist. The principal was Evan.
Cliff

Textural description

Cliff was the son of an agriculture teacher and had been teaching agriculture himself for twenty years. He spent six years teaching at another high school in a different county and at that time had a self-contained ESE agriculture class. This early part of his career was described by Cliff as being “a very eye-opening experience.” He had two boys that struggled with typical classroom lessons but were very mechanically inclined and demonstrated skills in working with cattle. “I learned very quickly that you want those students to have a chance to succeed and feel positive about what they do, and then you can slowly infuse other little things.” One of the boys in particular was motivated by opportunities to work with the cattle, and Cliff used it as a “carrot” for the student to work hard in other classes. Cliff shared about other challenging students as well:

I had one who he saw aliens... He’d sit at the glass window and I asked him what he was doing, he was looking for you know, little spaceship people. And it was very strange... Very nice young man you know, but it might really bother people. New teachers, that’s really going to bother them.

Cliff’s self-described role in working with students with disabilities was to help students succeed. He discussed the content integration and hands-on learning experiences that exist in SBAE programs and the wide variety of opportunities for students. Part of his role was ensuring that students knew about other programs, such as a welding certification in which one of his current students with a disability was enrolled. Cliff also helped to identify students with disabilities and made recommendations for students that he felt needed the benefits of an IEP.
When it came to preparation, Cliff felt as though he had been well-trained to work with students with disabilities. “When you talk about workshops or professional development in any way to assist a student with a disability… I believe I’ve done that for 20 years.” He cited different workshops on differentiated instruction but said that he had never had any formal workshops on what an IEP or 504 plan means.

When I came out in 1992 we didn't have a whole lot of classwork at the university level on, “This is how you handle students with disabilities, this is what you’re supposed to do, this is how you are to engage, this is how you’re supposed to meet your standard. No… it was all learn by experience. He felt that there was a gap that needed to be filled in pre-service teacher education and wished for more opportunities for exposure to students with disabilities prior to teachers entering the classroom.

I think they should be exposed to what is, not just the acronym IEP, but give some examples… perhaps even bring in an ESE department and actually show that pre-service teacher what an IEP can look like, and when it says accommodations, what does that really mean? What a 504 plan is and that you don’t have to wait for the child to advocate for themselves – you have to provide that by law. And a lot of people don’t know that. And they don’t know that it means all the time, not just when you give a quiz. All the time… What does extended time really mean? How do you accommodate? That every ESE student does not look like an ESE student. There’s not a stereotypical look to them. Why is there a 504? Why is it different than an IEP? Those would be very, very helpful, I think.

Cliff had a history of good working relationships with specialists in ESE departments. He collaborated with one of the ESE specialists at his previous school frequently, writing grants for projects such as a rose garden they created together.

It wasn’t just roses, that we planted, but there was a man and a woman ESE teacher, the man had been a mason before he was an ESE teacher. So what did we do? We laid… block, because our school was brick, and we made like a big raised bed and planted the roses in it, so he taught the ESE students about laying block and brick, it was really neat.
Although he didn’t share any similar stories for his time at School C, he still reported a good relationship with Karla and his current ESE department, “once you get to know them, it’s much easier to pop in. Hey Karla, what do you know about this, or I’m working on this, does that sound okay? Can this child come up? We’re working on this project.” He felt that his early positive experiences working with the ESE department at his first school made it easier to go to ESE specialists for assistance.

I think it’s because I had a good experience my first 6 years, that when I got here I knew just to go and ask, because people don’t realize that they’re there for everyone, not just the students, they’re there for you as well. They know that you’re not a trained student-with-disability teacher, and some of the accommodations may be foreign to you.

Cliff’s opinion of the role of his ESE specialist was communication and providing resources and suggestions to help students better succeed. This included physical resources and sometimes aides, in situations where IEP meetings fell during class time and he needed someone to cover his class in order to attend.

When first asked about the role of administrators, Cliff expressed uncertainty about their role in working with students with disabilities. “I don’t know what their role is. I think any administrative role is to have all of the students succeed in their school.” He reported that he seldom saw administrators in the classrooms or interacting with students with disabilities. They were involved in IEP and 504 meetings, and reviewing accommodations written on lesson plans, but beyond that, Cliff did not feel that there was much involvement from the administration. He did express frustration at the documentation aspect of accommodations.

Well, what I struggle with is documenting that… How do you teach some of these intangible things… I just do it, I think. And I hope they benefit, but that frustrates me, because I’m asked to do something at an administrative level, “Oh how do you document that, Cliff, tell us what you do.” And then my mind goes blank, “I don’t know how I do that, Guys.” “Oh, well, then you
need to work on that.” Ooooh, then it frustrates me because I think I’m doing it, but I can’t, I don’t have enough time like this to explain to them.

His relationship with students, however, was very valuable to Cliff.

You always want to make sure they know that you care about them. And you can’t just say, “I sure care about you, Student.” You have to show them. And that’s sometimes tough, for some people… I don’t think I’ve ever had that problem.

Cliff also added that it was important to build relationships with students to better understand their needs, “you get to know the student first and then you decide what kind of situation you can make for them to have success.” He begins every year with an activity that gets students interacting with one another and has a writing component in which each student writes why they enrolled in agriculture class. Cliff uses this as a means of gauging students’ abilities and thought processes, analyzing their social skills, handwriting, and sentence structure. He also rewards students for helping classmates by sending home positive notecards or other forms of acknowledgement.

The benefits of students with disabilities participating in SBAE programs were apparent to Cliff. He stated that, “They can participate like every other student, there’s no… reason to hold them back of any kind.” He shared that accommodations could be made at state and national levels for students with disabilities to participate in FFA events, and cited students who had been officers, team members for career development events (CDEs), showed animals as SAE projects, and a myriad of other local FFA events. He felt that more severe students would be unlikely to participate in contests or hold officer positions but that they could still participate in banquet and go on field trips and find their own place in the organization. “That’s… the joy of FFA, I tell them it’s for them, and they can mold it to fit them.” He helped one student complete a
A proficiency application for his welding SAE and he became a state finalist for a proficiency award.

He was there and we took the pictures and we wrote the captions, and he helped us with the hours and the, what he thought he had learned, but compiling it all on that form was very difficult for him, and it’s an immediate turn-off when you see a 15 page excel spreadsheet on a young man that doesn’t like computers. Okay, so you print it out for him – no way. He gets so overblown with the number of pages, it’s just overwhelming for him, he can’t process that. He doesn’t go, “Oh, let’s just start here with my name,” No. I can’t do that, I can’t do that. Well hang on, hang on! Let’s work on this together! Oh boy, he gets real bent out of shape. So for him to have succeeded, he needed some support and scaffolding.

Cliff uses a variety of strategies to reach students with disabilities, including differentiated instruction techniques, extended time, hands-on experiences, and grouping strategies. He did say that for a while he wasn’t sure what differentiated instruction was: “I was struggling with that term, when really what that term meant ‘Cliff, just teach every different format that you possibly can: see it, taste it, smell it, write it, interact with it, experiment with it.” When he reflected on this concept, he felt that all students could benefit from it, not just those with disabilities.

Resources were easily obtained at the district level, according to Cliff, and he felt that it was fairly easy to get funding for projects and physical resources that students need. He used the example of a machine that converted textbooks to audio recordings for students who need auditory material to learn. “It’s funded quite heavily, so at the county level there’s always resources, there’s people that will find teaching strategies, or sometimes we’ll find funds permitting us to do things, too”

Some of the challenges identified by Cliff when teaching students with disabilities included the number of accommodations that may be required in the same classroom. He felt that it was difficult to adequately challenge each of his students on both sides of
the ability spectrum. “The size of the class, and the number of accommodations required, and the variance, can be very stressful on a teacher… I want to challenge everyone across the continuum of that classroom, and it’s a challenge.” The documentation requirements were also a challenge, because in addition to keeping up with the students’ IEPs, Cliff reported that his school uses a monthly form for each child with an IEP, “You give a progress report of that child, not just a grade, but there was a number of questions: behavior questions, academic questions, there’s a space for comments.” While he acknowledged that it was important and helpful for the ESE department, he indicated that it took significant amounts of time. Standardized testing also took up valuable time, and he expressed frustration about the losses of so much time.

Cliff felt that the participation of students with disabilities was much like any other student. He did not feel that this population had negative interactions with general education peers.

People I think don’t give kids enough credit, they really support their peers when it’s an honest… issue, an honest disability. They support those kids… We have a large enough group, I think a diverse enough group that everybody can find a place and a friend, and do they get picked on? I’m sure… I mean, because that’s somewhat human behavior, not just a student with a disability, or not disability behavior, but have I ever experienced taunting because “Ha ha ha, you’re ESE” No. Probably because they know it’s not going to be allowed, it’s not accepted, it’s not going to be permitted to go on. They know better.

Cliff acknowledged that students with social-emotional disabilities may have more struggles but concluded the thought by saying, “I go back to that, if you see it, you try to provide them an opportunity to succeed.”
Structural description

Cliff’s classroom was located in the agriculture building at the back of the school, separate from the main building. His office was filled with pictures of students that had won awards through participation in FFA, and was clearly evident that the success of his students was very important to him. The amount of time and work he had invested in his program was significant, and he was very proud of the work and accomplishments of his students. He was easily able to recall success stories of past students, and smiled while doing so.

Cliff’s background knowledge of SBAE from his father’s days as an agriculture teacher helped to instill within him his passion for teaching agriculture. Even more so, his early experiences with students with disabilities at the beginning of his career gave him a great appreciation for this population of learners. He stated many times that facilitating the participation of students with disabilities in SBAE programs was based on determining how to help each student as an individual succeed. This personal philosophy embodied the spirit of differentiated instruction.

His comfort levels with the ESE department were high, but Cliff seemed to recall more collaboration with the department at the site of his first teaching position. He shared more examples of cooperative projects but also shared that he felt very comfortable walking over to the ESE department at School C any time he had a question or concern. Cliff seemed to value the relationships with the ESE department, and made clear that he respected the individuals with whom he worked.

Cliff seemed a bit unsure of how his administrators could help in the participation of students with disabilities and became frustrated when discussing their assessments of his documentation. He was confident in his own abilities to provide opportunities but
had not figured out how to demonstrate this effectively to an administration that didn’t have the time to see it in action or discuss it more thoroughly with him.

Karla

Textural description

Karla had taken an agriculture course when she was in high school and valued the SBAE program at School C, particularly for students with disabilities. She stated, “Our ESE students in our school have had so much success in our Ag programs.” Karla expressed a wish for more SBAE programs, and CTE programs in general, within the public school system because of the benefits she saw as a result of participation in these programs.

I think that that’s important for our ESE students but I think it’s more for all students as well. Not everyone needs to go to college or wants to go to college. I think there needs to be other things available to them so that they can see, you know, and actually get a taste of everything and see what’s their future.

Karla saw herself as a contributor to the participation of students with disabilities in the SBAE program, primarily as a resource. She was available for students who needed to come to her in the resource room for extra assistance with assignments. Karla also sought different ways for teachers to meet the needs of their students and provided teachers with ideas and materials necessary. She added,

I feel like, the ESE department is the back up for those teachers, especially the students that are mainstreamed in those classes… you know the teacher needs to come to us and say, “You know, I have a student struggling, what can I do? Can you come help us?”

She recognized that she was not a content area expert and explained that her focus was working on the “learning style” of each student.
Karla felt that the role of agriculture teachers was “the role of any other teacher, just to work with them and meet their accommodations to meet their goals and help them prepare for the future.” These were the individuals responsible for the content expertise, but she did express a desire to improve the combination of content from the agriculture teacher’s side and the methods and styles from her side so that her work could complement his. She indicated that communication occurred between herself and agriculture teachers in the school at least monthly, as was required for each student with a disability. Although she felt that they communicated and shared thoughts and ideas, she did state that, “I don’t really do a lot of hands on or anything down there.”

In Karla’s view, agriculture teachers entering the field needed to recognize that they are responsible for ensuring that students receive their accommodations and expressed that this was a greater need for teachers in general. “They’re the first line and… it’s their responsibility, first and foremost, to make sure that the student’s getting the information, and I feel like the ESE department is the back up for those teachers.”

Karla didn’t elaborate much on the roles of administrators, simply stating that, “They support and want to make sure that everything in their accommodations and on their IEP is being met but I don’t see you know, any differently than any of the other courses.” She also indicated that frequent changes in administration were a struggle, but felt that they did support the SBAE program and ensured that they had access to the resources they needed.

Karla felt that the most important ways to provide opportunities for students with disabilities in SBAE programs were creating hands-on experiences and recognizing students’ abilities, in spite of their disabilities. “I think that if the teacher treats the
student as a whole and realizes that everybody has a strength somewhere then they can get a lot farther.” She saw that the students enjoyed Cliff as well as the other ag teacher at School C, and felt that this was important to their success. She also added, “A lot of our kids need hands on, the kids that enroll in those classes are interested in it so that’s a pretty big motivator right there.” She felt that other students were supportive of the students with disabilities in the program, and that the status of FFA and agriculture helped to promote the students participating.

Karla didn’t see many factors that limited the participation of students with disabilities in SBAE programs, at least not within the experience she had at School C.

I feel like they can participate, at least in our school, in any degree of the program they have. You know, we’ve had kids that have been in the FFA and they’ve gone on to do great things and be very successful. We’ve had kids that they base their jobs and their careers on things that they’ve learned in ag, so I feel like it’s a huge spectrum of what ESE can do with our ag teachers.

She also expressed that the same was not true of every program at School C but was confident that the agriculture program was able to provide opportunities for success for all students.

As long as the teacher will work with the student I feel like they can be successful no matter what their disability and we’ve pretty much seen that here. I think in other schools I think it’s all about the teacher’s perspective of the student and… what they expect out of that student. If they’re ready to teach the student no matter what and, you know, they’re gung-ho, then I think the student will learn and they’ll appreciate that; but if they’re you know worried, “that’s an ESE student and I don’t know what’s going to happen...” then there might be some issues.

She ended by praising Cliff and the other agriculture teacher in the department, saying, “I think they’re amazing… it’s just their personality, and the kids really want to be around them, and… whoever’s there as long as they try, they’ll be successful, because they’ll figure out a way to get the information.”
**Structural description**

Karla’s resource room was equipped with several computers for students and was shared with other aides available to help students as they came in for additional assistance from their other classes. This room was located in the main building, detached from the agriculture department.

Of the participants, Karla was the most nervous when talking with the researcher, though she seemed to want to express her views. She answered each question thoughtfully and deliberately. By the end of the interview, she seemed to become more comfortable, and was eager to share her support and appreciation for the experiences afforded to students with disabilities by the SBAE program on campus.

**Evan**

**Textural description**

Evan was a new principal at School C but already indicated significant appreciation and support for the SBAE program. He had experience with the benefits of CTE programs, including SBAE, from a previous high school in which he worked in another state prior to starting at School C. Additionally, his son worked in his home state as an ESE teacher, and Evan, himself, taught special education math and English for one year. Evan drew on these experiences when expressing his enthusiasm for the participation of students with disabilities in SBAE programs.

The role of the administrator, in Evan’s opinion, was to ensure that the ESE department and the mainstream classes were equipped with the resources and training necessary to provide students with disabilities the assistance they need. He also saw himself as a supervisor to ensure that accommodations were being met and that the requirements for educating students with disabilities were appropriately met. Evan
reported attending IEP meetings and conducting walk-throughs. He did express remorse that he couldn’t spend more time working more closely with SBAE teachers and ESE specialists, saying:

> My job is... very demanding and you just have to parcel out your time and give what you can to each entity... I don’t give as much as I want to, but I give as much as I can. I try to do my walk-throughs, I try to visit, I try to go to competitions when I can, and I’m going to give them the support and the financial support and the moral support that I can give, and any type of recognition that we can give them here I do that. So, not as much as I’d like to, but it’s really as much as I can.

Evan felt that the role of the ESE specialist was to ensure that accommodations were being met for students with disabilities. He indicated that they also are responsible for helping mainstream teachers differentiate their instruction and provide input for helping to meet accommodations for students in the classroom.

The agriculture teacher, in Evan’s view, is responsible for “preparing the kids for the next part of their lives, whether it be college, whether it be careers, whether it be military, or any of those.” He saw the value of this preparation particularly in the farming community in which School C was situated.

> Some of them, obviously, living in a farming community, they’re going right out of the high school with their diploma, right into the field of work. One kid told me the other day, I said, “What are you going to do with your life,” he said “I want to be a peanut farmer,” I said, “That is an admirable profession!”

He also emphasized that the role of the agriculture teacher is not different for students with disabilities compared to other students in their programs. He did express the need for differentiated instruction but felt that the students should be afforded the same opportunities as their general education peers.

Evan also highlighted the content integration that occurs as part of SBAE programs in a hands-on environment. “Ag science is just that it’s a science, and you’ve
got to be able to understand complex text, you’ve got to be able to do math computations, you’ve got to be able to understand formulas.” He discussed the need for differentiated instruction, and felt that grouping strategies were also important.

Any good teacher does this, they may pair up an exceptional student, exceptionally bright student in that particular area with maybe an ESE student who may struggle, so partnering up students properly is a really good strategy to bring them along and a good teacher does that too.

The relationships between students and teachers were very important to Evan. He felt that students with disabilities, as well as the general population of students needed to be that their teachers cared and wanted to see them succeed. In his opinion, these positive relationships contribute to their overall success in the program.

The biggest challenge seen by Evan in having students with disabilities participating in SBAE programs was time and pacing. He recognized the difficulty in ensuring that the curriculum needs are met for all students in a mainstream environment.

The biggest challenge is keeping up the kid who maybe has problems struggling grasping a concept than someone who doesn’t, and the challenge is moving through the curriculum at the proper pace without leaving someone behind, and that’s where you have to have support, you have to have accommodations, whatever you can come up with.

Evan shared an appreciation for Cliff as well as the other agriculture teacher in the department throughout the interview. He included that “those are two exceptional teachers.” He also valued the benefits of a SBAE program,

The neat thing about Ag Education and CTE overall is the hands-on… I love to get my ESE and 504 kids in as many CTE programs as possible... I’m very supportive of that because we need good skilled workers in the fields to be productive citizens.

He felt some students with significant intellectual disabilities may struggle a little more to participate but seemed to feel that there were no significant barriers to most students
with disabilities that would prevent them access to the SBAE program. Evan emphasized that students with disabilities are just like any of the general population and may just need a few accommodations to be able to participate.

**Structural description**

Evan was extremely friendly and very eager to share his views. In spite of being new to the school, he seemed well aware of the reputation of School C’s agriculture program and wholeheartedly embraced it. He expressed significant respect for Cliff and the other agriculture teacher, complimenting their abilities to create opportunities for all children who joined.

He also seemed very supportive of the ESE department, and his past experiences as an ESE teacher as well as his son’s career in teaching ESE students provided him with a background that fostered his passion for promoting opportunities for these students.

Evan valued the career preparation aspect of SBAE and felt that it was especially important for the students with disabilities who may not attend college. He appreciated the development of real-world skills that could be immediately applied to the workforce and felt very strongly about teaching children to become productive, active citizens in their community.

**Summary**

This chapter outlined the findings of the study. Summaries of the interviews were included for each of the nine participants from three schools. Summaries of the data included both textural and structural descriptions to provide as much insight as possible into the participants’ perceptions of the phenomenon of the participation of students with
disabilities in SBAE programs. The participants were referenced by pseudonym throughout the chapter for the protection of their identities.
CHAPTER 5
CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

Overview

Chapter 1 served to identify the need for the study and outlined research objectives. A review of existing literature on the teaching and learning of students with disabilities and the inclusion of students with disabilities in school-based agricultural education (SBAE) programs comprised Chapter 2. The methods used to investigate the perceptions of agriculture teachers, exceptional student education (ESE) specialists, and school administrators were provided in Chapter 3, and data were collected through interviews. Summaries including textural and structural descriptions of the data were detailed in Chapter 4.

Chapter 5 identifies the themes of the data collected, illuminating how the current research informs the existing body of literature on the subject of students with disabilities participating in SBAE programs. These themes are examined through the lens of the objectives defined in Chapter 1, including the perceptions of agriculture teachers, ESE specialists, and school administrators as separate groups, as well as comparisons made between schools and between professional positions. Recommendations for research and practice are also provided.

Summary of Findings

Three schools, each of which had a selected agriculture teacher, ESE specialist, and administrator to serve as participants, contributed to this study. In considering the data from all nine interviews as a whole, six major themes were identified. These six themes included interpersonal relationships, responsibilities, challenges for students with disabilities in SBAE, needs of students with disabilities for participation in SBAE,
needs of teachers for participation of students with disabilities in SBAE, and benefits of participation in SBAE for students with disabilities. Each of these themes is briefly described below.

**Theme 1: Effective School and Parent Relationships**

Interpersonal relationships were frequently discussed by participants. Several types of interpersonal relationships were identified and have been classified by the researcher as either horizontal or vertical. Horizontal relationships are those which occur between peers, such as teacher-to-teacher or student-to-student. Vertical relationships are those which exist between individuals on different levels of an authoritative hierarchy, such as administrator-to-teacher or teacher-to-student.

**Theme 2: Clear Roles and Responsibilities**

Participants also identified responsibilities relating to students with disabilities in SBAE programs. Each of the participants reported on their own roles in working with students with disabilities, as well as the roles of the other professionals within their schools. The legal responsibilities of educational professionals with respect to students with disabilities were also commonly addressed.

**Theme 3: Challenges for Students with Disabilities in SBAE**

Several issues were reported by participants as potentially impacting the effectiveness and availability of SBAE programs for students with disabilities. Financial limitations were a concern for many of the participants, making necessary resources more difficult to access. Student performance also impacts participation of students with disabilities in SBAE programs, particularly with respect to test scores and remedial coursework. Limitations related to the students’ disabilities were also discussed.
Theme 4: Needs of Students with Disabilities for Participation in SBAE

Participants in the study shared a variety of teaching strategies used to help students with disabilities in general, as well as within SBAE programs. Some of these strategies, including hands-on opportunities for learning, were identified as already existent within SBAE curricula, contributing to the ability of these programs to meet the needs of students with disabilities. Student interest was also discussed as an important factor in participation within these programs.

Theme 5: Needs of Teachers for Participation of Students with Disabilities in SBAE

There were a variety of teacher needs expressed by participants in order for them to provide quality opportunities within SBAE programs for students with disabilities. Among these were training related to the teaching and learning of special education students and more time. Size of classrooms, content challenges, and the background of the teachers may also impact the participation of students with disabilities in SBAE programs.

Theme 6: Benefits of SBAE for Students with Disabilities

Many of the participants felt as though students with disabilities stand to benefit from participation in SBAE programs. The perceived value of SBAE for students with disabilities was shared by agriculture teachers, ESE teachers, and administrators. Specific benefits, such as content integration, were also discussed.

Objective 1: Describe Agricultural Teachers’ Perceptions of Teaching Students with Disabilities in SBAE

Theme 1A: Effective Horizontal School and Parent Relationships

Each of the agriculture teachers expressed having positive working relationships with ESE specialists in their schools. Cliff commented that he felt as though the ESE
specialists were there as much for him as they were for the students. All three agriculture teachers indicated that they had frequent communication with the ESE specialists in their schools and felt comfortable seeking them out for advice and assistance.

Additionally, each of the agriculture teachers shared anecdotes about times that they had collaborated with ESE units during their careers. Mary has had her classes become involved with the Trainable Mentally Handicapped (TMH) unit in her school to work on projects at the school’s land lab, Danny and his agriculture students have worked with the ESE department to construct a butterfly garden outside of one of the ESE classrooms, and Cliff’s students had developed a rose garden with the ESE classes at the first school in which he taught. These experiences were recalled with fondness by each of the participants and provided clear examples of collaborative relationships.

Relationships with parents were also discussed by all of the agriculture teachers. Each shared examples of interactions with parents of students with disabilities that contributed to the children’s success. Mary spoke about frequently emailing a parent to help her child complete work at home, sharing, “I have one young man that... his mom even works here at school, and often I’m emailing her and say “He didn't finish, this... see if you can help him at home,” and she’s real good about that.” Danny discussed how he interacts with parents regarding their students using power tools and participating in potentially risky activities. Cliff shared a story about his collaboration with the mother of a young man with a severe learning disability in order to complete a proficiency award application.
In considering the relationship between students with disabilities and general education students in the SBAE programs, teachers reported primarily positive relationships. Of the three agriculture teachers, Danny taught students with more severe disabilities. He seemed to think that as time went on and he had more and more students with disabilities in the program, the general education students became more and more accepting. Mary’s FFA members encouraged students with disabilities to participate in fair activities and work in the land lab with the Trainable Mentally Handicapped (TMH) students in the school during FFA week. Cliff felt that his students were eager to help their struggling peers and were very supportive of each other during class time and at extracurricular events. He shared a story about a young lady who aided another student who was struggling to accomplish a task in class. These teachers did not feel that students with disabilities had negative experiences with their peers in the SBAE programs.

**Theme 1B: Effective Vertical School and Parent Relationships**

Administrators seemed to have very little involvement with teachers from the perspective of the agriculture teachers interviewed. Although Mary expressed that she felt supported by Mark, she indicated she wasn’t sure of the roles of another school administrator who was new to the school. The administrators appeared to be removed from the situation in the eyes of the agriculture teachers and were not seen as major contributors to the participation of students with disabilities in SBAE programs.

The relationships between teachers and students were found to be very important to the agriculture teachers who participated in this study. Mary attributed some of the success of students with disabilities in SBAE programs to the high level of interactions between agriculture teachers and their students. Danny repeatedly
expressed that he enjoyed having them in his class and that he worked to maintain an open and honest relationship with his students. Cliff discussed the importance of showing the students that he cares and challenged himself as much as he challenged them. Each of the teachers very clearly valued their relationships with students, and felt that the success of their students with disabilities was grounded in these relationships.

**Theme 2: Clear Roles and Responsibilities**

Each of the agriculture teachers saw their roles as being facilitators for students with disabilities. Danny phrased it, “I look at it from this point of view: it’s whatever I can do to be of assistance to them.” Cliff echoed this sentiment, saying that “My role is to…hopefully have our students succeed, first and foremost.” Mary also stated that she was responsible for helping them make connections between what they learn in her class and their math and science classes. Cliff and Mary also recognized their legal responsibilities with respect to educating students with disabilities, including completing and accessing appropriate paperwork detailing the needs of the students. All three agriculture teachers discussed the need to provide accommodations for students with disabilities, and Cliff and Mary were careful to emphasize the legal aspect of accommodations. Cliff added, “I attend every meeting that I possibly can because it’s important that the teacher has input to that [IEP] plan.”

As for the roles of the ESE specialists in the schools, two of the agriculture teachers viewed them as support for the identification and employment of accommodations. Cliff discussed going to his ESE department for recommendations and as being the source for information regarding students’ IEPs. Mary said that Kathy “keeps me on track with [paperwork]… she’s the lady who crosses the T’s and dots the I’s for the law.” It was evident that agriculture teachers view the ESE specialists with whom they work as their
back-up support. They also indicated that most of their collaboration with ESE specialists occurred informally, often in passing.

The administrators’ roles, according to their agriculture teachers, were primarily supervisory in nature. Very few remarks were made on the subject of administrator involvement with students with disabilities in SBAE programs. Cliff initially stated that he didn’t know what role Evan played.

**Theme 3: Challenges for Students with Disabilities in SBAE**

Financial concerns were among the challenges expressed by agriculture teachers. Mary felt that other CTE programs were also feeling the lack of resources as a result of several years’ worth of financial struggles in the school system. The funding challenges influenced one of the major resources identified as important by agriculture teachers: paraprofessionals. Mary and Cliff both reported utilizing aides and paraprofessionals when working with students who need tests read to them, with severe disabilities that require extra assistance, and to take over their classes so that they could attend IEP meetings. Danny was frustrated that he often didn’t have paraprofessionals, despite often having enough students with disabilities in his class to match the numbers in special education classrooms, in addition to his general education students.

Academic performance was seen as a crucial factor in whether or not students with disabilities can participate in SBAE. Danny brought up that some of the other CTE teachers at his school seem to be dissuaded from allowing students with disabilities into their programs due to the standardized test results being used in teacher evaluations. Cliff expressed frustration over the time spent on standardized tests throughout the year.
The disabilities of the students themselves occasionally were seen as challenges to their participation in the programs. Social and emotional disabilities, including autism, were most frequently identified as challenging by the agriculture teachers. Communication issues between teachers and students can make instruction and fitting in with a social group difficult.

**Theme 4: Needs of Students with Disabilities for Participation in SBAE**

Each of the agriculture teachers indicated that student interest was an important need for students with disabilities in order for them to participate in SBAE programs. Mary and Cliff used examples of students who struggled in academic areas but excelled in agricultural mechanics due to their strong interest. Danny felt that he could provide opportunities for any student, provided that they were interested enough in agriculture to enroll in his program.

The agriculture teachers participating in the study also agreed that it was important to provide students with disabilities with equal treatment and equal opportunities compared to the rest of the students in the program. Cliff stated, “They can participate like every other student, there’s no, I don’t think there’s a reason to hold them back of any kind.” Mary and Danny both emphasized that they strive to give the students the same opportunities as their other students. Mary’s response was, “I always allow them to try to muddle through something to begin with to see if they can or if they can’t.” Danny shared, “I don’t want to limit the kids. If I feel like it’s something that’s within their grasp of being able to do, in a safe environment, then I’ll give them that opportunity. I don’t want to limit them.” The teachers were in agreement that students with disabilities could participate in all parts of the three-circle agricultural education model if provided the chance.
Several strategies were discussed by agriculture teachers as being necessary for ensuring the success of students with disabilities. All three teachers discussed various ways that they differentiated their instruction to meet the needs of diverse learners. Cliff described his experience in trying to grasp what was meant by differentiated instruction, “when really what that term meant [was]… “just teach every different format that you possibly can: see it, taste it, smell it, write it, interact with it, experiment with it.” Mary and Danny also gave examples of differentiation strategies used to convey the same material in different ways, such as chunking and appealing to visual, auditory, and kinesthetic learning styles.

Grouping strategies were frequently used among agriculture teachers, and they all discussed pairing students with peer tutors. Danny described his peer teaching strategy as utilizing students that he knows are responsible and dependable, serving as an extension of him.

Hands-on activities were also key ways that students with disabilities benefitted, according to the agriculture teachers. Cliff said that, “the key was hands-on learning” for students, and Danny emphasized that the hands-on components of his program help to bring relevance to students who are struggling to see the value in working with texts. Mary remarked, “also the hands on part is again, I can't stress that enough because usually [students with disabilities are] the ones who will jump right in to do that type of stuff.”

Establishing routines and setting standards were also seen by the agriculture teachers as valuable. Mary said, “Stability is important to them, knowing what the
expectations are and that they have to meet those. I know a lot of for those kids routine is important…” Danny added that, “you’ve got to be consistent with what you do.”

**Theme 5: Needs of Teachers for Participation of Students with Disabilities in SBAE**

Participating agriculture teachers were clear about the needs of teachers when it came to providing opportunities for students with disabilities to participate in their programs. Training was of key importance. All three agriculture teachers were considered veteran teachers, having taught between twenty and twenty-nine years. Mary considered a course that she had taken in college on diversity in education to be helpful, while Cliff wished that pre-service teachers could have more coursework to understand what an IEP is and what types of situations they might encounter. Each of the teachers reported continuing their education and participating in workshops that have assisted them in working with students with disabilities.

Time and the number of students per class seemed to be of concern for the teachers. Mary described her frustration at having a classroom of thirty students spanning across both ends of the ability spectrum and not being able to spend as much time as she wanted with the students with disabilities. Cliff felt similarly, stating that “the size of the class, and the number of accommodations required, and the variance, can be very stressful on a teacher.” Danny spoke of his support for integration but also expressed his difficulty in keeping all of the students on track, expressing a desire for a class period that he could dedicate specifically to students with special needs.

**Theme 6: Benefits of SBAE for Students with Disabilities**

The benefits of SBAE for students with disabilities were evident to the agriculture teachers interviewed, and all were enthusiastic about the value of their programs for
these students. Mary felt that agricultural education was a good fit for many students with disabilities and that they had opportunities to become productive citizens with the training provided. The teachers cited success stories of students with disabilities that had gone through their programs and found careers after high school. Mary had students working as welders and butchers, and Cliff was in the process of helping a student become certified as a welder at the time of the interview. Danny shared a goal for his students, “so when they leave here they have something that they can use to maybe earn a living.”

Content integration was also an area from which agriculture teachers saw students benefiting in their programs. Mary and Cliff spoke about the math and science concepts in agriculture topics and their roles in making connections, and Danny was particularly focused on ensuring that he was incorporating reading and writing into his curriculum: “Guided reading, we do a lot of that, and now with the Common Core coming through, I’m starting to incorporate some of those strategies with what we’re doing.”

Beyond the classroom, agriculture teachers expressed pride about their students’ participation in the total program. Students with disabilities in each of the three schools were cited as being involved in FFA and completing supervised agricultural experience (SAE) programs. Mary has had several students raise animals for the fair. Danny was proud when he shared that his students with disabilities showed plant SAE projects at the fair and that the quality of their projects was just as high as the other students. Cliff shared that through working with a student and his mother, one of his students had been a state finalist for a proficiency award for his welding SAE program. These
successes exemplified the benefits that agriculture teachers saw their students with disabilities experience through participation in these activities.

**Objective 2: Describe ESE Specialists’ Perceptions of Teaching Students with Disabilities in SBAE**

**Theme 1A: Effective Horizontal School and Parent Relationships**

Similar to the agriculture teachers’ sentiments, ESE specialists at each of the schools felt as though they had positive working relationships with their agriculture teachers. They reported frequent informal interactions with the agriculture teachers to aide in solving student issues and indicated awareness of things that occur in SBAE programs. Kathy said, “[Mary]’s great, I mean I love her dearly, she does really good with the kids” and was able to describe the hands-on activities and math integration used in the agriculture classes. Laura shared a story about Danny cooperating with another teacher in the school and reflected on a quote he gave her, “We’re so much better together than working alone.” She agreed emphatically with the sentiment, and was clear that she valued her working relationships.

Collaborative accomplishments of the agriculture departments and the ESE departments at School A and School B were remarked upon by Kathy and Laura. Both women shared their observations of their agriculture teachers’ efforts to reach students with disabilities outside of their agriculture classes by having their classes work with students in ESE classes on campus. When discussing the butterfly garden, Laura remarked that it was an opportunity for students with disabilities to learn teamwork and job skills and also to increase their self-esteem after following a project through to the end.
The ESE specialists also reported that students with disabilities were not treated differently by their general education peers in SBAE programs. Kathy stated that the large ESE population within the school helped to contribute to greater acceptance of students with disabilities by the general education population at School A. Laura seemed to have a similar experience at School B, crediting inclusion with providing more interaction between students with disabilities and students in the general population. In her words, “a lot of these kids now are really used to being around people with disabilities.”

**Theme 1B: Effective Vertical School and Parent Relationships**

Laura and Kathy both indicated that they felt as though administrators were supportive of teachers but were not able to describe the relationship between agriculture teachers and administrators. Each of these women felt that administrators communicated with them but did not report relationships in as detailed a manner as those between ESE specialists and agriculture teachers. Kathy and Karla both indicated that administrators had recently changed.

ESE specialists at each of the schools were quick to identify that the agriculture teachers had positive relationships with students with disabilities. Kathy mentioned that some faculty members struggle with willingness to provide appropriate accommodations, but that Mary did not because she’s very used to more diversity in her classroom. Laura shared that Danny has an open door policy for her students and that they frequently are able to go to his room and ask questions, knowing that he will make the time for them. Karla was quick to observe that “the kids really want to be around [Cliff].” These easily made observations demonstrate the strong relationships that the agriculture teachers in the study shared with their students.
Theme 2: Clear Roles and Responsibilities

The ESE teachers perceived that the role of agriculture teachers when working with students with disabilities as facilitative in nature. Kathy commented that the agriculture teacher’s job is to provide students with another avenue to explore, and Karla added, “to work with them and meet their accommodations to meet their goals and help them prepare for the future.” Laura contributed a similar sentiment, stating that Danny “gives them the opportunity to do things that they wouldn’t normally be able to.” In addition to the facilitation aspect, Kathy and Karla also identified the legal requirements for agriculture teachers to follow IEPs by providing accommodations.

When reflecting on their own roles, ESE specialists also viewed themselves as support for agriculture teachers, though each had a slightly different definition of support. Kathy saw herself as being available for consultation, but primarily for maintaining the legal paperwork. Laura viewed her role as promoting a love of agriculture and nature for her students. Karla discussed providing additional resources for the students and making suggestions to the agriculture teachers. Regardless of how they put it into practice, each of the ESE specialists found themselves in a supportive role for agriculture teachers in their schools.

Administrators seemed to play a smaller role in the eyes of ESE specialists. While they identified that administrators are responsible for providing support at IEP meetings and supervising to ensure that accommodations are being met, the ESE specialists’ did not have much other insight into the role of the administrators.

Theme 3: Challenges for Students with Disabilities in SBAE

Two of the ESE specialists noted financial challenges for students with disabilities that may impact their participation in SBAE programs. The concerns for
Laura and Kathy were related to students’ socio-economic status. Kathy felt that parents who were worried about providing food and shelter for their children weren’t interested in participating fully in IEP meetings and didn’t value educational opportunities as highly. Laura’s perspective was more optimistic, and she shared the importance of the SBAE program being able to provide fruits and vegetables to some of the children whose families didn’t have access to produce.

Kathy seemed very upset over the impact that academic testing has had on students with disabilities. The results of students’ FCAT tests forced some into remediation courses for math and reading, which interrupted their ability to sign up for elective classes such as agriculture and other CTE programs. Kathy valued the agriculture programs, and mourned the loss of these avenues of success for students with disabilities who were denied access due to high-stakes testing.

In addition to social and emotional disabilities, ESE teachers also felt as though physical disabilities created challenges for students trying to participate in SBAE programs. Kathy was concerned about the safety aspects of providing tools to students with behavior issues. She and Laura both felt as though students with severe physical disabilities, particularly those in wheelchairs, may have limitations. Laura shared that, “a big challenge though is for like my physically impaired kids in the wheelchairs, and the uneven ground, and even trying to fit into the greenhouse and those sorts of things, that’s the problem.” Kathy used the example of a student with cerebral palsy who has a full-time aide that must accompany him, and pointed out, “I don’t think he’s taken Mary’s class, but it would be a big deal.”
Theme 4: Needs of Students with Disabilities for Participation in SBAE

Teaching strategies appropriate for students with disabilities were noted as important by the ESE specialists. Differentiating the material to “make it… meaningful to that student” was a need identified by Karla, and Kathy discussed the use of projects versus paper-pencil tests to assess learning. Of particular emphasis was the need for hands-on learning provided by SBAE programs. Kathy used Mary’s program as an example and felt that the hands-on helped the students to see abstract math concepts that they were not able to grasp in a math class. She described it as tricking the students into learning other content but in a way that makes it more tangible for them.

Theme 5: Needs of Teachers for Participation of Students with Disabilities in SBAE

ESE teachers reported a need for greater training of agriculture teachers on the legal aspects of teaching students with disabilities. Karla summed up this sentiment by stating that teachers need to recognize that they are the primary individual responsible for meeting the needs of the student in the classroom and that it is imperative that they have a greater awareness of the laws relating to teaching students with disabilities. Teachers’ recognition of their responsibilities was a felt need for both Karla and Kathy.

Theme 6: Benefits of SBAE for Students with Disabilities

Like their agriculture teachers, the ESE specialists saw great benefits from students with disabilities participation in SBAE programs. Kathy expressed a desire to make it available for even more students with disabilities, while Karla cited it as being an “outlet and lets them be successful.” Laura found her relationship with Danny to extend the benefits of SBAE beyond his program and into hers. She spoke of plans to get a miniature horse to use as therapy, and added that without Danny’s willingness to help
and provide the resources necessary for its care that she wouldn’t have the ability to do it on her own. The positive experiences that ESE specialists had observed and shared with students who were involved in the SBAE program were clearly evident. These specialists were knowledgeable enough to help students gain access to the agriculture programs and participate in the extracurricular activities, which helps to ensure that greater populations of students are exposed to these programs (Carter, Swedeen, Moss, & Pesko, 2010).

Objective 3: Describe Administrators’ Perceptions of Teaching Students with Disabilities in SBAE

Theme 1A: Effective Horizontal School and Parent Relationships

Each of the administrators brought up the relationships between parents and professionals in the school. Evan and Mark each expressed the importance of having parents as “part of the IEP team” (Evan), “because a quality IEP meeting is really a partnership with parents in school, and so if you can build that partnership than there’s also less friction,” (Mark). Gordon discussed another administrator in the school’s relationship with parents and students, as well as a parent’s involvement in the butterfly garden project alongside Danny and Laura.

Administrators, like agriculture teachers and ESE specialists, seemed to feel that there were no overall negative relationships between students in the general population and students with disabilities. One administrator, Gordon, even felt as though having students with special needs in SBAE programs had a benefit for students in the general population. He felt that seeing the challenges faced by students with disabilities helped general education students to become more compassionate. He felt that they created a
family and that it wasn’t unusual for the students to become very protective of their peers with disabilities.

**Theme 1B: Effective Vertical School and Parent Relationships**

Although administrators did not remark on specific instances of relationships that they had observed between the agriculture teachers and students in their schools, they did each express the importance of those relationships. Promoting a comfortable environment and encouraging students to participate, building confidence, and showing care to students were all cited by the administrators as important qualities for teachers to possess in order to work well with students with disabilities.

**Theme 2: Clear Roles and Responsibilities**

When discussing the roles of agriculture teachers in the education of students with disabilities, administrators confirmed what was agreed upon by the agriculture teachers themselves and the ESE teachers. These individuals recognized the need for students with disabilities to find an area within the school in which they could, in the words of Gordon, “explore a potential interest they have and allow them to come out successful.” Mark felt that agriculture teachers and their learning environments serve as motivators for students with disabilities, and Evan agreed that agriculture teachers are responsible for allowing their students to experience success while preparing them for life after high school.

The administrators were all in agreement about the roles of ESE specialists when considering SBAE programs. Collaboration with agriculture teachers to ensure that the curriculum is adapted appropriately was the primary responsibility for ESE specialists identified by all three individuals.
Their own roles in the participation of students with disabilities in SBAE programs were seen by the administrators as providing support and resources. This support occurred through supervision and observations of teachers in the classrooms often in the form of walk-throughs and attending IEP meetings. Evan’s view of the administrator’s role was, “making sure the ESE and that all the teachers who are directly involved have the support and resources they need to provide the accommodations for the ESE kids.” The leadership role of administrators seemed to be very clearly agreed upon and identified by the participants.

**Theme 3: Challenges for Students with Disabilities in SBAE**

Administrators shared a sincere concern for financial challenges relating to students with disabilities. Mark talked about budget cuts and illustrated the challenges faced in providing necessary resources. He included that difficult decisions often had to be made between hiring a teacher or providing textbooks, and he remarked that creative solutions are often necessary. Gordon reiterated this concern, when discussing Danny’s need for paraprofessionals in the classroom. He felt that some students with limited mental capacity might not be able to participate in the SBAE program because they lacked the resources to have paraprofessionals provide the level of supervision necessary for these students to be successful.

Mark was the only administrator who commented that students’ academic performance posed a challenge for their participation in SBAE programs. He expressed frustration about the requirements of students’ grade point averages (GPA), end of course exams (EOCs), and the Florida Comprehensive Assessment Test (FCAT) which often resulted in the need for remediation of struggling students. Offering more periods in the school day still didn’t seem like a complete solution in his opinion, as it would still
not be enough to catch all of the students up to the point that they would be able to participate. With the time lost in remediation, Mark regretted that students were sometimes forced out of the opportunity to take agriculture classes.

Administrators also identified disabilities as a challenge to the participation of students with disabilities. Once again, social and emotional disabilities were of key concern, with Gordon and Mark both commenting on the difficulties for students with autism spectrum disorders. Mark addressed this by including that “sometimes we build behavior plans for them to support better interactions with the others.” Gordon was concerned that “some students with autism spectrum… unless they had a one-on-one aide would probably be challenged to go in there… there are some that overstimulation – they can’t handle and they would not fit right in there.” According to Mark, “some of them with the limited mental capacity may not be able to handle it,” a thought that was repeated by Evan. Mark also explained some of the medical difficulties of arranging opportunities for students, such as providing medications on field trips and events.

**Theme 4: Needs of Students with Disabilities for Participation in SBAE**

The need for students with disabilities to be treated equally in SBAE programs was clearly identified by the administrators. Gordon reported, “Danny has opened a door for those kids to get right involved doing the same things that the other kids do, and they go in up to their elbows.” Mark and Evan also felt that it was important that the students with disabilities be given the same opportunities in SBAE programs as every other child and held the teachers responsible for ensuring equal treatment.

Like the agriculture teachers and ESE specialists, administrators recognized the need for students' with disabilities to experience certain instructional strategies to be employed by their teachers in order to ensure success in SBAE programs. Each of them
discussed differentiated instruction and its importance for reaching students of varying abilities. Grouping strategies were again brought up, and Mark felt very strongly about the need for grouping students with disabilities. As an administrator, he found that teachers who were best addressing the needs of their students were using flexible skills grouping.

Pre-teaching was another strategy administrators identified as a need for students with disabilities, to allow, in Mark’s view, “those kids who would normally struggle a little bit of a head start on the concepts that are coming, so they can see success from day one that concept’s introduced.”

The hands-on component of agriculture was also cited as very important, and Gordon cited the value of hands-on opportunities in improving attitudes of students who struggle academically. He pointed to the livestock and gardens as being important opportunities for students with disabilities. Evan was also enthusiastic about the need for hands-on learning of students with disabilities, saying, “that’s the neat thing about ag education and CTE overall, is the hands-on and… I love to get my ESE kids in as many CTE programs as possible.”

**Theme 6: Benefits of SBAE for Students with Disabilities**

Each of the administrators spoke at length about their perceived values of SBAE programs for students with disabilities. Mark was very enthusiastic about the benefits of these programs, stating that the extracurricular activities such as FFA and SAE allow students with disabilities the chance to experience success beyond the classroom and develop life and career skills. He felt that these unique extracurricular opportunities, which prepare students for education and careers beyond high school, were key
benefits of SBAE programs. Mark also identified that dropout rates were lower amongst students participating in programs like SBAE.

Gordon valued Danny as the teacher and his willingness to accept all students in his classroom, regardless of the severity of the disability and accommodations required. He also added, “there’s skills that these kids learning… getting your hands and elbows dirty, working to do these things, those are skills that that place may teach where other places won’t.” Evan also valued SBAE as a career preparation opportunity, responding that, “I’m very supportive of that because we need good skilled workers in the fields to be productive citizens.” The administrators also saw the opportunities for content integration in agriculture courses and spoke of the importance of the math and science occurring in agricultural contexts. Extracurricular opportunities afforded by SBAE programs did not go unnoticed, and Mark pointed out that participation in organizations like FFA have been important for drop-out prevention.

Objective 4: Examine Commonalities between Agriculture Teacher, ESE Specialist, and Administrators’ Perceptions of Teaching Students with Disabilities

Ag Teacher vs. ESE Specialist vs. Administrator

Theme 1A: Horizontal interpersonal relationships

Agriculture teachers and ESE specialists all expressed positive relationships with one another in each of the schools. The clear expressions from each party served to confirm that these relationships were solid and favorable. The ESE teachers were familiar with activities and opportunities provided in SBAE programs, and in some cases, had clear examples of how their agriculture teachers were functioning in the classroom. The agriculture teachers likewise seemed very comfortable going to their
ESE specialists whenever the need arose, despite not having frequent formal meetings for collaboration.

The supportive attitudes stemming from positive relationships between agriculture teachers and ESE specialists were accompanied by flexible departmentalization and program ownership, key components of the General Education Collaboration Model (Simpson & Myles, 1996). Collaborative relationships between the agriculture and ESE departments were remarked upon by agriculture teachers as well as ESE specialists. These partnerships involved a two-way exchange of support and integration, where the agriculture program participated in the ESE program and the ESE program participated in the agriculture program. These partnerships provided both all students with rich experiences that may otherwise not have been achieved.

The consensus of all of the participants was that students with disabilities are well integrated into SBAE programs as far as peer relationships are concerned. The participants seemed to agree that students with disabilities have not had struggles distinctive from their general education peers in social situations, with possible exceptions of those whose disabilities were related to social interaction. Broadly speaking, students with disabilities in SBAE programs have been reported to have similar relationships to other students as any general education peers might.

Agriculture teachers and administrators both brought up the importance of relationships between educators and parents. Whether eliciting support from parents in the everyday work in which students are asked to participate or having their participation in IEP meetings, these groups valued the involvement of parents of students with disabilities in SBAE programs.
Theme 1B: Vertical interpersonal relationships

Relationships between agriculture teachers and administrators were found to be lacking. Although they were able to identify that administrators provided support in some capacity, agriculture teachers and ESE specialists occasionally were not sure of the roles of administrators in providing opportunities for students with disabilities in SBAE programs. The participants of this study did not indicate significant interaction between teachers and administration. Administrators at the schools did not provide any insight into their relationships with teachers.

All parties valued the relationships that occurred between students and teachers in the SBAE programs. The agriculture teachers and ESE specialists were able to recall specific examples of these relationships to support their role in the participation of students with disabilities in SBAE. Administrators recognized the importance but did not share anecdotes to highlight these relationships.

Theme 2: Responsibilities

All three groups of professionals agreed that agriculture teachers serve to facilitate the participation of students’ with disabilities in their programs. Providing them opportunities that they otherwise might not have to experience success was of key importance. The legal responsibilities of agriculture teachers were identified by agriculture teachers and ESE specialists but were not emphasized by the group of administrators.

The increased responsibility of the agriculture teachers was seen again when participants discussed the roles of ESE specialists. ESE specialists were seen by all groups of professionals to be in a supportive role to the agriculture teachers. Their role
was described as providing resources or suggestions for teachers regarding the employment of accommodations and adaptation of curriculum.

The roles of administrators were described by each of the groups as primarily supervisory in nature. Agriculture teachers and ESE specialists seemed to share less information about the roles of administrators compared to the other two roles. The administrators themselves were the only group to consistently identify that they also provided resources.

**Theme 3: Challenges for students with disabilities in SBAE**

The lack of desired funding was a challenge felt by all groups of participants in this study. Agriculture teachers and administrators expressed a need for more paraprofessionals to aid teachers, but financial considerations served as a limiting factor for this resource. Several participants identified the other resources that may be limited by financial support.

Students’ academic performance was seen as a challenge for agriculture teachers. These individuals felt the pressures of standardized tests and remedial courses more than the other groups, although Kathy and Mark each recognized this challenge.

The disabilities of the students themselves were also seen as a potential challenge for their participation in SBAE programs. Each of the groups discussed social and emotional disabilities, including autism spectrum disorders, as being particularly challenging, though not necessarily impossible to fit into the program.

**Theme 4: Needs of students with disabilities for participation in SBAE**

Agriculture teachers were the only group to agree that student interest was a particular need for the participation of students with disabilities in their programs.
Administrators and agriculture teachers did agree that equal treatment of students with disabilities and their general education peers was an important component. Both groups felt as though students with disabilities should be permitted full access to the programs and should be allowed to strive for the same goals.

All three groups of professionals discussed strategies required for students with disabilities to succeed in SBAE programs. The use of differentiated instruction and hands-on experiences were cited by all. Grouping strategies were also viewed as important by agriculture teachers and administrators alike.

**Theme 5: Needs of teachers for participation of students with disabilities in SBAE**

Agriculture teachers were the only group that reflected on the pressures imposed by limited time frames to educate high numbers of students with a variety of needs in their classrooms. ESE teachers did confirm the importance of training, which was expressed as a need by agriculture teachers. Administrators did not comment at length on needs of agriculture teachers to support the participation of students with disabilities within SBAE programs.

**Theme 6: Benefits of SBAE for students with disabilities**

The extracurricular opportunities provided by SBAE programs were seen as a significant benefit for students with disabilities by agriculture teachers and the administration. Career preparation and post-high school success were also considered valuable benefits to students with disabilities by both of the aforementioned groups. Ensuring that students with disabilities did not drop out, instead earning valuable life and career skills, were clearly important benefits seen by the participants of this study.
School A vs. School B vs. School C

Theme 1A: Horizontal interpersonal relationships

Danny and Laura at School B had the strongest relationship of the participants interviewed. They had ongoing collaborative projects, and Danny shared sections of his gardens and greenhouse with the ESE department, including Laura and several other ESE specialists. The butterfly garden had been continued through the collaboration of both programs for three years at the time of the interview and was remarked upon with pride by all of the participants from School B. The participants at this school embodied the spirit of the General Education Collaboration Model (Simpson & Myles, 1996), clearly demonstrating flexible departmentalization, program ownership, classroom modifications supportive of inclusion, and the identification and development of supportive attitudes.

All of the schools reported parent involvement as being important to the participation of students with disabilities in SBAE programs. Participants from each school cited specific examples of interactions with parents that served to promote the success of their students. These relationships were valued in formal contexts, such as IEP meetings, as well as informal contexts, including assisting with projects and class assignments.

Additionally, participants from each of the schools shared the feeling that students with disabilities experienced the same relationships with peers in the SBAE programs as would be expected had they not been identified as disabled. The relationships between students were described as neutral or positive.
Theme 1B: Vertical interpersonal relationships

Schools A and C had recently experienced changes in administration and seemed to be experiencing a greater disconnect between administration and teachers as compared to School B. In none of the schools was administrative involvement considered high; however, the administrator at School B seemed to have greater involvement and had even purchased a hog from one of the students at a recent fair.

All of the schools seemed to demonstrate positive relationships between students and teachers. The compassion and caring demonstrated by the agriculture teachers was evident in their interviews as well as in the observations of the ESE specialists with whom they worked. Stories of past and current students with disabilities were easily recalled with fondness by the teachers.

Theme 2: Responsibilities

School A seemed to be experiencing significantly more pressure to consider legal ramifications of providing educational opportunities to students with disabilities. Kathy and Mark both commented on the need for teachers and faculty to observe the laws related to educating students with disabilities, and Kathy referred to a lawsuit several years prior in which the school had been involved related to the matter.

None of the participants from School B spoke about the legal requirements of teaching students with disabilities. This did not appear to be a concern for any of the participants, and they focused more on the responsibilities of professionals to work together and provide access for students with disabilities to the programs.

Theme 3: Challenges for students with disabilities in SBAE

When considering academic performance as a challenge for the participation of students with disabilities in SBAE programs, the participants from School A were
significantly more concerned about standardized test results and remedial coursework compared to those from the other schools.

   The students at School B had more severe disabilities compared to the other schools, with multiple self-contained units existing within the school. Danny had higher numbers of students with disabilities in his classes. Danny, Laura, and Gordon all brought up the need for paraprofessionals and cited the lack of paraprofessionals in his class as a major challenge for students with disabilities.

**Theme 4: Needs of students with disabilities for participation in SBAE**

   No differences were noted between schools regarding the needs of students with disabilities. Participants in each school discussed strategies that included differentiated instruction, hands-on learning, and grouping techniques. Representatives of each school also noted the value of students with disabilities being treated equally compared to their general education peers by the teachers.

**Theme 5: Needs of teachers for participation of students with disabilities in SBAE**

   In each of the schools, the needs of the teachers were seen mainly in the form of training to become better prepared to provide accommodations and opportunities for students with disabilities. Teachers also desired more time to work with students in disabilities but felt pressured due to large class sizes. Gordon, the administrator in School B, was the only administrator who seemed to recognize needs of agriculture teachers, and Laura was also attuned to this need. All three participants from School B felt a need for more paraprofessionals to allow Danny to more effectively assist more students with disabilities more successfully in his program.
Theme 6: Benefits of SBAE for students with disabilities

All participants from all of the schools believed SBAE programs to be beneficial for students with disabilities. Each of the schools valued the opportunities for students with disabilities to participate in the full program. School B seemed to have the most support, with the administrator demonstrating knowledge of the specific events in which students engaged and actively supporting them. Career preparation and skill development were discussed by participants in each of the schools.

Conclusions from the Study

Based on the findings of this study, several conclusions were drawn regarding the successful inclusion of students with disabilities in SBAE programs. Relationships are of key importance in SBAE programs which demonstrate effective inclusion of students with disabilities, and the resulting collaboration between the professionals is likewise essential. The roles and attitudes of each of the professionals involved in the inclusion of students with disabilities in SBAE programs have similarly been identified where success in this area is found.

Relationships and Collaboration

Agriculture teachers and ESE specialists have a very close, cooperative, respectful, and collegial working relationship that involves frequent, if not daily, interaction. This may occur outside of formal interactions, such as IEP or 504 meetings. Hallway conversations, contact on an as-needed basis, and collaborative projects between departments are among the ways in which agriculture teachers and ESE specialists interact.

Where SBAE programs are effectively including students with disabilities, school administrators are very supportive of the agriculture teacher and the program.
Administrators are particularly interested in the teachers’ efforts in teaching students with disabilities, but they only occasionally find the time to discuss inclusion strategies with the teacher. Interactions with agriculture teachers and ESE specialists are often limited to participation in IEP and 504 meetings and classroom observations due to a wide range of responsibilities.

Agriculture teachers routinely communicate with the parents of students with disabilities in providing positive student learning experiences. Communication may occur for a number of reasons, including requesting assistance for the student in the completion of a classroom assignment, collaboration to aid students in achieving recognition and awards for participation in FFA and SAE, and recognizing student success in addition to student struggles. Parents are also involved in IEP and 504 meetings, and administrators are also observant of the benefits to having positive relationships with parents of students with disabilities in preparing the best outcomes for all parties involved.

Students in the school, in general, are accepting and respectful of students with disabilities. In schools with higher rates of participation of students with disabilities, the general population of students becomes even more accepting and respectful. Students with disabilities often thrive while doing group work with their peers, and SBAE programs which are effective with regard to inclusion practices provide students with opportunities to work with their peers in a variety of different capacities. This work facilitates relationships between students and provides for enhanced learning opportunities.
Agriculture teachers value their relationships with students in their programs, and strive to demonstrate concern and compassion to each of their students individually. When effectively including students with disabilities into SBAE, agriculture teachers recognize the need for patience and understanding. It is important to the agriculture teachers that students know that they are valued and that the agriculture teachers care.

**Roles and Attitudes**

Agriculture teachers practicing effective inclusion embrace the opportunity to teach students with disabilities and routinely challenge them to do their best in all aspects of the program. These professionals see themselves as facilitators who provide access to the resources and knowledge that students with disabilities require to thrive in SBAE programs. Special needs students participate in FFA and SAE much like the general student population and experience success in these arenas. Students with disabilities are treated as equals to their general education peers by their teachers. Effective agriculture teachers are committed to providing well-rounded opportunities for all of their students, regardless of ability level.

Agriculture teachers’ knowledge and experiences are also crucial to the success of inclusion practices in an SBAE setting. Those teachers who are experiencing success with the inclusion of students with disabilities continuously search for ideas that will help them more effectively teach these students in their classes. Agriculture teachers participate in professional development opportunities in the form of workshops, seek advice and resources from qualified professionals experienced in working with students with disabilities, and implement many different instructional strategies within their SBAE programs.
In schools experiencing effective inclusion of students with disabilities in SBAE programs, the agriculture teachers have an awareness of the laws pertaining to students with disabilities and recognize the responsibilities associated with these laws. IEP meetings are attended by the agriculture teachers, and they are familiar with documentation requirements which serve to ensure that students are receiving appropriate accommodations.

The ESE specialists serve as resources on teaching methods and strategies for students with disabilities in their programs. These professionals also are the experts on legislation and policies for teaching students with disabilities. Although the agriculture teachers are expected to put this knowledge into practice, the ESE specialists act as consultants. ESE specialists are also supportive of programs such as SBAE because they recognize the benefits of extracurricular activities and increased opportunities for student success compared to academic courses.

Administrators in schools with effective inclusion of students with disabilities are knowledgeable about the opportunities gained by this population of learners through SBAE, including participation in SAE and FFA. They value the career and life skills that students with disabilities earn through participation in the programs, and recognize the wide use of hands-on learning experiences as contributing to the success of these learners.

**Discussion of Findings**

**Observations of Schools A, B, and C**

The schools selected for participation in this study were well chosen, as each demonstrated successful inclusion of students with disabilities in SBAE programs from the perspectives of the agriculture teachers, ESE specialists, and administrators.
interviewed. While each of these schools may serve as an example of successful inclusion to other programs, School B was unique in its adoption of inclusive practices which fostered participation of students with disabilities to an extraordinarily high degree compared to School A and School C. The culture of School B was such that students with disabilities truly were part of the typical landscape, and the high proportion of students with disabilities within the school was likely a significant contributing factor.

Upon entering School B, students with disabilities were immediately obvious, greeting visitors and staff as they passed through the front office. One young girl who was belted in a wheelchair was particularly cheerful and inviting, happy to share jokes and give visitors the details of her latest crush. Her conversation with the secretary at the front desk indicated a well-established relationship. Students in the ESE program were eager to show off their butterfly garden and point out the insect and reptile inhabitants. One young girl was particularly excited about the baby rabbits that had recently been born in the land lab, proudly sharing that Danny told her that she could have one if she continued to take such good care of them.

The set-up of School B was such that students could easily reach each of their classes via connecting interior hallways, which were well supervised by staff and teachers. Gordon’s office was located in very close proximity to a lab which had been set up for students with severe disabilities to practice skills that might help them in occupational settings, including filing and organizing tasks. Upon entering, students would fill out time cards as might be expected of them at a place of employment, and open a notebook which would inform them of their responsibility for the day. A kitchen area was available for students to practice domestic activities in the lab. Gordon was
very knowledgeable about the lab, and appeared to have a positive relationship with the teacher who was primarily responsible for managing the lab.

The agriculture classroom at School B consisted of long columns of individual desks facing the front of the classroom. A wall of windows allowed natural light to enter the classroom. Students visiting the land lab would exit the classroom and walk across the athletic fields to the other end of the campus in order to care for livestock. A garden area which also included a greenhouse and shade house was located adjacent to the classroom.

School A consisted of several buildings, and each of the professionals interviewed were housed in separate areas. The agriculture department was located at the back of the school, but seemed to have a calming atmosphere. Students sat with peers at tables versus individual desks, a set-up which served to facilitate group work. The lights were turned off, and large windows along one wall allowed natural light to filter through the classroom. Tennis balls had been placed on the bottoms of each of the student chairs as a means of muffling the sound of the chairs sliding across the floors. The land lab was located behind the agriculture building not far from the classroom.

School C had a similar design, wherein the agriculture department was located in a separate building behind the school. The ESE department and administrative offices were located in the main building, just down the hall from one another. Unlike School A’s agriculture classroom, School C’s classroom did not have windows, requiring fluorescent lighting to be used. A new greenhouse was located directly behind the agriculture classroom, along with a shade house and large garden, and the building contained a large shop area with a computer room and welding and woodworking
stations. The land lab which housed the program’s animals was located off-site, and a bus transported students to the land-lab during a block period.

**Connections to the Literature Base**

**Effective school and parent relationships**

A common factor between each of the schools was the positive relationship between each agriculture teacher and the ESE specialist. ESE specialists were able to pull clear examples of activities that occurred within the SBAE programs which benefitted students with disabilities. These observations would not be expected were these relationships not significant. Agriculture teachers were also very comfortable in calling on their ESE specialists when they had any questions pertaining to students with disabilities in their programs, and felt supported by these professionals. These relationships contributed to collaboration between departments, to enrich the experiences of students participating in both the SBAE programs as well as the ESE programs.

When considering these relationships and collaborations with respect to Simpson and Myles (1996) General Education Collaboration Model, the agriculture teachers and ESE specialists in the study demonstrated identification and development of supportive attitudes, flexible departmentalization, and program ownership. Additionally, these characteristics were indicative of all three components of Azjen’s (1991) Theory of Planned behavior, including behavior, normative, and control beliefs held by the professionals in support of inclusion of students with disabilities in SBAE programs.

Although participants didn’t indicate animosity between administrators and teachers or ESE specialists, the participants didn’t share much on the subject of relationships with administrators. When comments were made, they indicated a lack of
relationship, rather than a positive or negative relationship. Administrator turnover may have an influence on the development of relationships between teachers and administrators. This lack of relationship could impact flexible departmentalization (Simpson & Myles, 1996), as the roles of administrators were unclear to the other professionals. In spite of the limited involvement of administrators, the agriculture teachers and ESE specialists in this study exhibited strong behavior beliefs (Azjen, 1991) in favor of inclusion of students with disabilities in SBAE programs.

Relationships with parents were deemed important by all. Examples of agriculture teachers’ interaction with parents were readily shared and demonstrated cooperation for the benefit of students. These relationships are particularly important when considering that parents have been identified as the primary source of support for students participating in extracurricular activities (Kleinert, Miracle, & Sheppard-Jones, 2007). The results of this study also correspond to Yeaman’s (2011) study in which teachers identified parent support as a factor for the participation of students with disabilities in SBAE programs in North Carolina.

All participants seemed to agree that students with disabilities experienced similar relationships with general education peers as might be expected if they did not have disabilities. This seems to support previous research which suggested that students with disabilities experience benefits of relationships with their peers as a result of participation in organizations like FFA (Carter, Trainor, Cakiroglu, Swedeen, & Owens, 2010).

Relationships between students with disabilities and their teachers seemed to be overwhelmingly positive in this study. Each of the participants stressed the importance
of positive relationships in order to effectively include students with disabilities in all aspects of SBAE. These relationships are aided by the time spent with students outside of the classroom in other facets of SBAE (Phipps, Osborne, Dyer, & Ball, 2008), a point which was best highlighted by Mary.

**Clear roles and responsibilities**

The agreed upon role for agriculture teachers was to serve in a facilitative capacity for students with disabilities, deferring to the ESE specialists as back up for assistance with strategies and better implementation of fitting techniques for educating students with disabilities. This finding was consistent with current recommendations that agriculture teachers take a more active role in providing opportunities for students with disabilities as well as objectives and strategies, while allowing ESE specialists to assume leadership roles on IEP teams (Newcomb, McCracken, Warmbrod, & Whittington, 2004).

The agriculture teachers and ESE specialists typically reported that collaboration most frequently occurred in short bursts as they found spare moments in their time-limited schedules. This is consistent with previous research which has shown a lack of sustained, formal collaboration between ESE specialists and general education teachers (deBettencourt, 1999; Kanellis, 2008).

Administrators’ roles were not necessarily clear to agriculture teachers. The involvement of administrators with students with disabilities was not commonly discussed by the other professionals. This seemed to corroborate Hoerst and Whittington’s (2009) concern that administrators need to be providing more support and resources to agriculture teachers and promoting more formal collaboration between general education teachers and ESE specialists.
The roles and responsibilities exhibited by the professionals in this study demonstrated flexible departmentalization and program ownership (Simpson & Myles, 1996). Normative beliefs in the perceptions of roles played by their colleagues, behavior beliefs regarding their own roles and responsibilities, and control beliefs about what they were able to do in order to support inclusive practices in SBAE were made evident.

**Challenges for students with disabilities in SBAE**

Lack of resources, including paraprofessionals to assist agriculture teachers with students with disabilities in SBAE classroom environments, were frequently cited as challenges. These resources serve as classroom modifications that support the inclusion of students with disabilities in SBAE programs as per the General Education Collaboration Model (Simpson & Myles, 1996), but their absence indicates a weakness in this area. The frustration expressed by the participants of the study indicated that these contributed to decreased control beliefs (Azjen, 1991) regarding the inclusion of students with disabilities.

Pense (2009) asserted that agriculture teachers are lacking knowledge relating to the social and behavioral needs of students with disabilities. This assertion was confirmed by the agriculture teachers who participated in this study. Students with social, emotional, and behavioral disabilities were seen as having the greatest challenges in their participation within SBAE programs.

According to Danny, some of the teachers at School B that might have provided CTE opportunities for students with disabilities were concerned about the ramifications of promoting special populations’ participation within their programs. The impact of student FCAT scores on teachers’ evaluations served to exemplify the fear expressed by others throughout the state (FlaglerLive, 2012; Kourkounis, 2012a).
Kathy expressed very similar fears to Rose Coon about the future of special education and the impacts that the current assessment environment will have on these students (Kourkounis, 2012b). Although neither of the other two ESE specialists brought up this concern, students with disabilities may have restricted access to SBAE programs as a result of academic struggles. Concerns related to assessments and legislation can be classified under normative and control beliefs as per Azjen’s (1991) Theory of Planned Behavior.

**Needs of students with disabilities for participation in SBAE**

Student interest in SBAE was identified as a vital need for the participation of students with disabilities in SBAE. Their exposure to agriculture in their special education classes may help to foster that interest. Projects conducted in these classes allow students to find the option of SBAE, and teachers identify when students are excelling in this arena. Recommendations can then be made for these students to participate in SBAE programs in a more typical manner.

Several methods of differentiated instruction were identified as helpful for meeting the needs of students with disabilities in SBAE programs. Hands-on instruction, chunking, and connecting with various learning styles were among those methods discussed by the professionals who participated in this study. These methods were consistent with current recommended practices (Jenkins, Antil, Wayne, & Vadasy, 2003; Newcomb, McCracken, Warmbrod, & Whittington, 2004). Grouping students with disabilities in a variety of situations with their peers was also a commonly cited technique. The use of cooperative learning has long been recommended practice for students with disabilities (Scruggs, Mastropieri, Bakken, & Brigham, 1993; Jenkins, Antil, Wayne, & Vadasy, 2003). These classroom modifications supportive of inclusion (Simpson & Myles, 1996).
demonstrate agriculture teachers’ control beliefs (Azjen, 1991) relating to the inclusion of students with disabilities in SBAE.

**Needs of teachers for participation of students with disabilities in SBAE**

The importance of teacher preparation programs and continuing education for teachers was expressed, particularly those which specifically address teaching and learning for students with disabilities. Cliff was especially concerned with having pre-service teachers become more knowledgeable about IEPs and 504 plans prior to becoming first year teachers. This may be an indication that the call for more special education training by Mallilo, Bagget, and Curtis (1983) may have been answered, in spite of findings in other areas that indicate that training is still a weak point (Stair, Moore, Wilson, Croom, & Jayaratne 2010; Yeaman, 2011).

ESE specialists echoed the need for more teacher preparation related to students with disabilities. Those participating in the study expressed a desire for content area teachers, including agriculture teachers, to have a better ability to recognize their responsibilities and requirements in teaching students with disabilities. This need was consistent with findings from several other studies that agriculture teachers are generally found to be lacking knowledge related to laws and services for students with disabilities (Elbert & Baggett, 2003; Andreasen, Seever, Dormody, & VanLeeuwen, 2007).

Increasing teacher knowledge and awareness of laws relating to and methods for teaching students with disabilities can contribute to more supportive attitudes, increased program ownership, and classroom modifications supportive of inclusion (Simpson & Myles, 1996). These, in turn, can promote behavior and control beliefs (Azjen, 1991) that support the inclusion of students with disabilities in SBAE programs.
The lack of relationships with administrators seemed to be the most important area for improvement. More support from administrators may help teachers become more prepared and better able to meet the needs of the students in their classrooms, despite experiencing a wide-range of abilities within a high number of students. Without much knowledge of SBAE programs and the challenges faced by agriculture teachers and their students with disabilities, administrators may not be aware of what supports are needed.

Benefits of SBAE for students with disabilities

Agriculture teachers recounted many successes of students with disabilities in their agriculture programs. The benefits of SBAE were found in each aspect of the program, including SAE and FFA. The findings of this study demonstrated significant benefits from extracurricular participation, consistent with other research (Carter, Trainor, Cakiroglu, Swedeen, & Owens, 2010; Carter, Trainor, Cakiroglu, Swedeen, & Owens, 2010; Townsend & Carter, 1983; Wingenbach & Kahler, 1997; Yeamen, 2011). The participating agriculture teachers also indicated confidence in their own ability to involve students in extracurricular activities associated with SBAE (Stair, Moore, Wilson, Croom, & Jayaratne, 2010).

Administrators involved in this study were likewise enthusiastic of the long-term benefits of SBAE for students with disabilities. The importance of extracurricular activities for students with disabilities was not lost on the administrators, and they remarked on the career preparedness achieved through these activities. Life and career skill development through extracurricular activities like FFA and SAE have been shown to benefit students in later careers (Wagner, Blackorby, Cameto, & Newman, 1993). Additional remarks in this study regarding drop-out prevention being decreased as a
result of participation in CTE programs, including SBAE, were consistent with previous research (Carter & Lunsford, 2005; Wagner, 1991; Corbett, Clark, & Blank, 2002; Wagner, Blackorby, Cameto, & Newman, 1993).

Supportive attitudes (Simpson & Myles) toward inclusive practices within SBAE programs are indicative of the participants’ behavior beliefs (Azjen, 1991) with respect to students with disabilities. The benefits of SBAE for students with disabilities were easily identified by each of the professionals, and their strong behavior beliefs helped to reinforce their efforts toward inclusion.

**Recommendations from Findings**

**For Education Professionals**

**Agriculture teachers**

Agriculture teachers should invest time in trainings that provide them with a clearer understanding of students with disabilities, including the legal requirements of making accommodations as well as techniques for employing accommodations in their classrooms and programs. Lack of training has long been considered a problem for agricultural educators in serving students with disabilities (Mallilo, Bagget, & Curtis, 1983). With laws changing so frequently, training must occur continuously to allow teachers access to updated information. School districts should provide these opportunities, as should university programs preparing pre-service teachers for the field.

Additionally, agriculture teachers should participate in students’ IEP meetings and develop relationships with other individuals involved in these processes, including ESE specialists and administrators. Improved relationships with administrators could potentially increase opportunities for resources and support from these individuals. Without significant relationships, it may be difficult for administrators to appropriately
identify needs of agriculture teachers concerning students with disabilities. Developing positive relationships with ESE specialists can provide greater opportunities for collaboration between programs and extend agricultural education to a greater audience. This can only serve to increase the value of SBAE programs within the school, as more students are able to get involved and participate while increasing their literacy on agricultural topics.

Several examples of successful collaboration have been illuminated by the participants of this study. SBAE programs can work on shared projects with ESE programs, including gardens and the care of animals. Students participating in FFA can gain valuable leadership opportunities by teaching peers with disabilities in the ESE department when working on shared projects, or by celebrating National FFA week and similar events with the ESE department. Many other opportunities abound for developing positive, collaborative relationships, and agriculture teachers should consider the resources to which they have access when planning activities and projects.

Also important to note is that each of the teachers from Schools A, B, and C can be considered veteran teachers, with over twenty years of experience in SBAE programs. Relationships with other professionals, collaborative projects, and overall confidence and knowledge relating to working with students with disabilities are not characteristics that are realistic for first-year teachers. Time is needed to build relationships, participate in workshops, plan projects, and develop the kinds of programs observed in this study. It is important that agriculture teachers consider this factor when creating SBAE programs which are supportive of inclusion, and remain patient and diligent as they grow in this area.
ESE specialists

Students with disabilities stand to gain from participation in agricultural education, obtaining skills that prepare them for jobs and careers as well as providing them opportunities to learn core academic principles in a hands-on context. By engaging in professional, collaborative relationships with agriculture departments in their schools, ESE specialists can help their students to reap the benefits of participation in agriculture programs. By helping students to find SBAE programs and encouraging them to participate, a wider group of students with disabilities may be able to access these programs.

Additionally, ESE specialists should collaborate with agriculture teachers to strengthen both programs. Resources can flow between programs, offering students in all areas with more opportunities for success and growth. The use of plants and animals in an ESE environment can be beneficial for students even if they have not enrolled in an agriculture class, and collaboration with agriculture teachers can mean greater access to the necessary supplies and access to information and content knowledge. Studying agriculture can also allow for greater opportunities for hands-on learning and allow ESE teachers the opportunity to show students the value of typically more abstract concepts, such as those in mathematics, by placing them in an agricultural context.

Administrators

The support of administrators is important to the success of any program within a school. Administrators should invest time in visiting programs as frequently as possible to recognize the value of the program for students. By becoming involved in the extracurricular activities associated with SBAE, administrators can better see the
application of the concepts learned in an agriculture classroom, and better identify student success. This is especially true for students with disabilities, who may struggle academically, but thrive in an environment that allows them to utilize other skill sets, such as a career development event or supervised agricultural experience. The support of administrators in the inclusion of students with disabilities in SBAE programs also helps to promote collaboration between ESE specialists and general education teachers, including agriculture teachers (Brownell & Pajares, 1999).

Administrators should also work to foster positive relationships between departments, allowing teachers opportunities to collaborate and share information. Flowers, Mertens, and Mulhall (2000) found that allowing common planning time between education professionals on a regular basis helps to enhance program success. Time was identified by the participants in this study as a scarce resource, and by providing teachers with opportunities for trainings and collaboration, administrators can help teachers to more effectively assist students even outside of their own areas of expertise.

**For Future Research**

This study served as a precursory approach to investigating the phenomenon of students with disabilities participating in school-based agricultural education (SBAE) programs. Future studies should be conducted to more fully examine this phenomenon, investigating the “essence” of the phenomenon (Creswell, 2003). Deeper insight into the participants’ background and experiences with students with disabilities in their personal and professional lives would serve to illuminate how these individuals work to provide SBAE opportunities to students with disabilities.
The culture of School B varied significantly enough from those of School A and School C that an in-depth case study of the school should be conducted. This would provide an opportunity for a researcher to more fully understand how the agriculture teacher, ESE specialist, and administrator work together, as well as identify other important players involved in teaching students with disabilities. The current research did not adequately capture the full extent of the collaboration between the ESE department and the agriculture department at School B. A case study would serve to exemplify how this school manages such collaboration and enriches opportunities for all students.

Investigating the phenomenon of the participation of students with disabilities in SBAE will lack key information without insight from students themselves. Students are major stakeholders, and their input is important to include in future research. Interviews and case studies with students involved in these programs would do much to inform the current research from the perspective of the students.

The participants in this study spoke about the relationships with parents, and future research should strive to include these partners of SBAE programs in subsequent studies. Like students, parents are key stakeholders whose perceptions influence the participation of their children in SBAE programs.

Finally, the findings of this study were not generalizable beyond Schools A, B, and C. More research in other schools identified as having collaboration between the ESE department and agriculture department could provide additional insight into this phenomenon. The current research examined only schools located in North Central
Florida. Future studies should be conducted in other regions throughout the state of Florida, as well as other parts of the United States.

**Summary**

This study sought to investigate the perceptions of agriculture teachers, ESE specialists, and school administrators at three schools to gain a deeper understanding of their relationships and experiences with the phenomenon of students with disabilities participating in SBAE programs. Six themes were described by the participants. These themes consisted of interpersonal relationships, responsibilities, challenges for students with disabilities in SBAE programs, needs of students with disabilities in SBAE programs, needs of teachers for participation of students with disabilities in SBAE programs, and the benefits of SBAE programs for students with disabilities. The research provided confirmation of existing literature and recommendations for future researchers and programs seeking to improve the opportunities for students with disabilities in SBAE.
APPENDIX A
AGRICULTURE TEACHER INTERVIEW GUIDE

1. Tell me a little about your program.

   Follow-up question: What courses do you teach?

   Follow-up question: How long have you been teaching?

   Follow-up question: Have you taken any courses or workshops that focused on teaching students with disabilities?

   Follow-up question: How many students with disabilities (students with IEPs) are in your program?

2. What experience do you have working with students with disabilities?

   Follow-up question: What do you see as your role in working with students with disabilities?

   Follow-up question: What do you see as the ESE specialist’s role in working with students with disabilities?

   Follow-up questions: What do you see as the administrator’s role in working with students with disabilities?

3. What resources or assistance do you feel you need in order to better provide educational opportunities for students with disabilities?

   Follow-up question: What strategies have you found most helpful in teaching students with disabilities?

   Follow-up question: What have you found most challenging in accommodating students with disabilities in your program?
Follow-up question: How frequently and in what capacity do you work with ESE specialists and administrators to design successful learning opportunities for these students?

4. How can students with disabilities participate in school-based agricultural education programs (SBAE)?

Follow-up question: What factors support the participation of students with disabilities in SBAE?

Follow-up question: What factors limit the participation of students with disabilities in SBAE?

Follow-up question: What effect (if any) does the participation of students with disabilities have on other students in the agriculture program?

5. Do you have anything else you’d like to add about students with disabilities in school-based agricultural education programs?

6. Would you mind if I contact you in the future to clarify any of the points we discussed today?
APPENDIX B
ESE SPECIALIST INTERVIEW GUIDE

1. What do you see as your role in working with students with disabilities?

   **Follow-up question:** What do you see as the agriculture teacher’s role in working with students with disabilities?

   **Follow-up question:** What do you see as the administrator’s role in working with students with disabilities?

2. What resources or assistance do you feel an agriculture teacher needs in order to provide better educational opportunities for students with disabilities?

   **Follow-up question:** What strategies have you found most helpful in teaching students with disabilities?

   **Follow-up question:** What have you found most challenging in accommodating students with disabilities in school-based agricultural education programs?

   **Follow-up question:** How frequently and in what capacity do you work agriculture teachers and administrators to design successful learning opportunities for these students?

3. How can students with disabilities participate in school-based agricultural education programs?

   **Follow-up question:** What factors support the participation of students with disabilities in SBAE?

   **Follow-up question:** What factors limit the participation of students with disabilities in school-based agricultural education programs?
**Follow-up question:** What effect (if any) does the participation of students with disabilities have on other students in the agriculture program?

4. Do you have anything else you’d like to add about students with disabilities in school-based agricultural education programs?

5. Would you mind if I contact you in the future to clarify any of the points we discussed today?
APPENDIX C
SCHOOL ADMINISTRATOR INTERVIEW GUIDE

1. What do you see as your role in working with students with disabilities?

   **Follow-up question:** What do you see as the ESE specialist’s role in working with students with disabilities?

   **Follow-up question:** What do you see as the agriculture teacher’s role in working with students with disabilities?

2. What resources or assistance do you feel an agriculture teacher needs in order to provide better educational opportunities for students with disabilities?

   **Follow-up question:** What strategies have you found most helpful in teaching students with disabilities?

   **Follow-up question:** What have you found most challenging in accommodating students with disabilities in school-based agricultural education programs?

   **Follow-up question:** How frequently and in what capacity do you work with agriculture teachers and ESE specialists to design successful learning opportunities for these students?

3. How can students with disabilities participate in school-based agricultural education programs?

   **Follow-up question:** What factors support the participation of students with disabilities in SBAE?

   **Follow-up question:** What factors limit the participation of students with disabilities in school-based agricultural education programs?
Follow-up question: What effect (if any) does the participation of students with disabilities have on other students in the agriculture program?

4. Do you have anything else you’d like to add about students with disabilities in school-based agricultural education programs?

5. Would you mind if I contact you in the future to clarify any of the points we discussed today?
APPENDIX D
INFORMED CONSENT

Informed Consent
Project Title: Perceptions of teaching students with disabilities

Purpose of the research study:
The purpose of this investigation is to understand the perceptions of agriculture teachers, ESE specialists, and administrators regarding students with disabilities in agriculture education programs.

What you will be asked to do in the study:
Complete a brief interview with the researcher

Time required:
60 minutes

Risks:
No risk of physical, psychological, or economic harm to participants is foreseen.

Benefits/Compensation:
There will not be compensation or other direct benefit for participation in this study.

Confidentiality:
Your identity will remain confidential to the extent provided by the law. Information that you have provided will be assigned a code. The list connecting your name to this number, tapes and transcripts of the interview will be kept in a locked file. Your name will not be used in any reports of the data.

Voluntary participation:
Participation in this study is completely voluntary. There will not be any penalty should you choose to not participate.

Right to withdraw from the study:
You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study:
Brandi K. Phillips, Master's Student
Dept of Agricultural Education & Communication
P.O. Box 110540
Gainesville, FL 32611-0540
Phone: (352) 273-2093
E-Mail: brandikphillips@ufl.edu

Brian E. Myers, PhD
Dept of Agricultural Education & Communication
P.O. Box 110540
Gainesville, FL 32611-0540
Phone: (352) 273-2567
E-Mail: bmyers@ufl.edu

Whom to contact about your rights in the study:
UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone: (352) 392-0433.

Agreement:
I have read the procedure described above. I voluntarily agree to participate in the procedure and have received a copy of this description.

Participant: ___________________________ Date: __________
Principal Investigator: ___________________________ Date: __________
Supervisor: ___________________________ Date: __________
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

Brandi Phillips was born and raised in Pinellas County, Florida. Her early years were spent working with animals, including household pets, racehorses, primates, and wildlife. After graduating from Palm Harbor University High School in 2006, she moved to Gainesville. Brandi completed her Associate of Arts degree with a concentration in Zoology in 2008, and earned her Bachelor of Arts degree in Psychology from Saint Leo University in 2010. From 2007 to 2012, she owned and operated A Plus Pet Nanny, and married her high school sweetheart, Rob Agnese, in 2010.

Excited for a career in education, Brandi began her Master of Science degree through the department of Agricultural Education and Communication at the University of Florida in 2011. During this time, she was involved in writing the curriculum for a large animal rescue training course through a grant from U.S. Homeland Security, completed her student teaching experience with Chris Wilder at Williston High School, and conducted her thesis research. Brandi graduated in August 2013 and plans to teach agriculture to secondary school students in her home state of Florida, with the intention to focus on special education and minority populations.