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## Predictors of School Engagement for Females with Emotional and Behavioral Disabilities

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PREDICTORS OF SCHOOL ENGAGEMENT FOR FEMALES WITH EMOTIONAL AND  
BEHAVIORAL DISABILITIES

by

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B.A. North Carolina Central University, 2005  
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A dissertation submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
in the College of Education and Human Performance  
at the University of Central Florida  
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Major Professor: Lisa A. Dieker

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## **ABSTRACT**

Women in general have been historically overlooked in society and, more recently, in research females with emotional and behavioral disabilities (EBD) have been unnoticed (Rice, Merves, & Srsic, 2008). The purpose of the current study is to build a foundation of knowledge and practices for educators and researchers to better support and education this unique population of females.

To better understand females with EBD, the researcher imposed a three-phase study, situated in two frameworks—the Culturally Responsive Theory Framework (Wlodkowski & Ginsberg, 1995) and the Participation-Identification Model (Finn, 1989), to look into the predictors of school engagement for females with EBD. In the first phase the researcher utilized quantitative data from the National Longitudinal Transition Study 2 to build three structural equation models (SEM) on the predictors of school engagement for students with EBD. Results and procedures are discussed for each SEM created.

During phase two the researcher shifted the focus to females with EBD and interviewed six current females with EBD, ages 14-17. The participants were engaged in separate interviews that allowed the researcher to uncover additional variables necessary for females with EBD to engage in the school setting.

The third phase consisted of an intersection of phases one and two to create a newly developed SEM model for females with EBD merging the interviews and the SEM built in phase one. The newly developed SEM is provided for future research, as well as are the provision of recommendations and implications of the results from the study.

For Keajia, my number one fan and my truest motivation.

Also, for every voiceless female who I have fought for and will continue to fight for throughout  
my life.

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## **LIST OF ABBREVIATIONS AND ACROYNMS**

AE	Academic Engagement
AC	Assignment Completion
CRT	Culturally Responsive Teaching
GM	Group Memberships
GPA	Grade Point Average
MS	Math Score
LISREL	Linear structural relations
NCES	National Center for Educational Statistics
NLTS-2	National Longitudinal Transitional Study-2
PI	Peer Interactions
PIM	Participation-Identification Model
RS	Reading Score
SE	Social Engagement
SEM	Structural Equation Model
SPSS	Service Product used for Statistical Solution
SS	Science Score
SWD	Students with Disabilities

## CHAPTER ONE: INTRODUCTION

Females and students with disabilities have historically and consistently been provided unequal services and inadequate educational services (McIntrye & Tong, 1998; Rice, Merves, & Srsic, 2008). Through litigation and legislation many improvements for females and students with disabilities have transpired over the years. Two major historical events that have changed the course for females and students with disabilities are *Brown vs. Board of Education* (1954) and the *Education for All Handicapped Children (EAHCA; 1975)*, now called the *Individuals with Disabilities in Education Act (IDEA)*.

The legislation in *Brown vs. Board of Education* (1954) established that all children should be educated equally. This racially charged case not only led to equal education for students of color but provided the impetus for this same equality for females and students with disabilities (Ysseldyke & Algozzine, 1982). Despite the forward movement for equality created by *Brown vs. BOE* additional legislation was necessary to further elevate to the forefront the unique needs of females and students with disabilities to ensure their equal and adequate education.

A landmark shift in the education of students with disabilities occurred in 1975 with the passage of the *EAHCA*. The writers of this legislation wanted to ensure equal education for students with disabilities and included nine disabling conditions: (a) seriously emotionally disturbed, (b) orthopedically impaired, (c) mentally retarded, (d) speech impairment, (e) hard of hearing, (f) deaf, (g) visually handicapped, (h) other health impaired, and (i) specific learning disabilities (CFR § 300.8(c)(4)). These terms were created with the intention to serve all students with identifiable needs and were intended to be inclusive of females.

To frame this paper, the researcher presents information that provides a synergistic approach to the literature on females and disabilities and applies what is known to females with emotional and behavioral disabilities (EBD). Two frameworks are presented to build a foundation for the analysis of the data. These two models, Participation-Identification Model (PIM) (Finn, 1989) and the Culturally Responsive Teaching Theory (CRT) (Wlodkowski & Ginsberg, 1995) are integrated with the current literature and the data analyzed to create a hypothesis regarding ways to increase school engagement of females who are EBD. Through these frameworks, the researcher establishes current trends and issues in regards to school engagement and females with EBD. Current statistics are presented as well as related research pertaining to school engagement for females with EBD.

### Statement of the Problem

The definition of EBD has remained the same since the passage of EAHCA (1975). The definition was developed in the 50's by Eli Bower (1960) and adopted into law in 1975. Over the years, several concerns and questions have been raised regarding the federal definition for students with EBD (Forness & Kavale, 2000; Merrell & Walker, 2004). These issues include who should be served under the EBD label and how can educators best serve this population of students (Kauffman, 1986). Questions that arise when the definition is discussed include (a) what is an inability to learn? (b) Does it refer to only academic learning or can social learning be included? (c) How exactly are satisfactory interpersonal relationships defined? (d) What are normal conditions? and (e) When is unhappiness pervasive? (Cullinan, Osborne, & Epstein,

2004). These questions and issues are spawned from the originally accepted federal definitions in 1975 with the passing of the EAHCA and still persist today.

Despite one change in 1975, when the definition was adopted, this definition has stood the test of time. However, in 1975 the federal government did add one clause that was not in Bower's original definition (Kauffman, 1986). The added clause is "As defined in IDEA, emotional disturbance includes schizophrenia but does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance" (CFR § 300.8(c)(4)). This term has led to major confusion in American public school systems across the country (Kauffman, 1986). Further, social maladjustment has ultimately excluded students who may have benefitted from services under the EBD label (Cullinan et al., 2004). The federal government has not provided a definition of the term social maladjustment or guidance on how educators should identify students who may or may not be socially maladjusted versus those who have an emotional and/or behavioral disability. The lack of clarity that surrounds the EBD definition presents issues in accurate identification of students with EBD. "In fact, some think that people are identified as having this disability when adults in authority say" (Lane, Carter, Pierson, & Glaeser, 2006, p. 108) they have the disability. Others contribute identification woes to a clash of cultures or teachers' inability to appropriately deal with student behavior (Kauffman, 1986). The identification issues surrounding the EBD label has led to disproportionality among particular race-ethnic groups, specifically African American males (Cullinan & Kauffman, 2005) and within gender (McIntyre & Tong, 1998).

Disproportionality amongst gender is becoming of increasing concern (Rice & Yen, 2010). Within the EBD label, boys are more likely to be identified than their female counterparts.

Many researchers have noted that the cause of disproportionality of gender within the EBD category is that females tend to internalize their behaviors, while males externalize their behaviors (Davis, Culotta, Levine, & Rice, 2011; McIntyre & Tong, 1998; Rice, Merves, & Srsic, 2008; Rice & Yen, 2010). Researchers have noted that due to the nature of internalized behaviors, such as withdrawal or depression, girls are more likely to be overlooked for services, whereas males who may exhibit externalizing behaviors, such as throwing objects or hitting peers, tend to receive more assistance for their aggressive behaviors (Cullinan et al., 2004; Rice, Merves, & Srsic, 2008). However, the behaviors exhibited by students with EBD, regardless of internalizing or externalizing behaviors, have had a negative impact on this population of students' school experiences and postsecondary outcomes (Johnson, 2008).

Historically, students with EBD have had more negative post-secondary outcomes and in-school experiences than their peers with other disabilities (Wagner et al., 2006). The National Center for Education Statistics (NCES) reported that the overall dropout rate for all students in 2006 was 9.3%; however, one-fourth of students who dropped out were students with disabilities (30<sup>th</sup> Annual Report to Congress, 2011). In 2005-2006, the dropout rate for students with EBD was 44.9% (30<sup>th</sup> Annual Report to Congress, 2011). Data from 2007-2008 show a decrease in the dropout rates for students with EBD to 43% (Chapman, Laird, Ifill, & KewalRamani, 2011). Despite the small decrease in dropout rates, the dropout rate among students with EBD is still the highest of all disability categories. Johnson (2008) indicated "outcomes for white males and youth with learning disabilities are more positive than those for females, youth of color and youth with developmental disabilities or emotional/behavioral disorders" (p. 78). The issue

closely related to dropout has been overall classroom performance and grades to generate enough credits to graduate (Newman et al., 2011).

A foundational study for better understanding outcomes for students with EBD is the NLTS-2. The NLTS-2 is a national study that follows students for nine years from the age of 13-16 through their post-secondary experiences. Students involved in the study were 21-25 during the final year of data collection. The data collected in the NLTS-2 provides a nationally representative sample of students with disabilities in the United States. Data for NLTS-2 were collected from 2000-2009 (Wagner, et al., 2006.).

The NLTS-2 researchers collected the following data: parent and youth interviews and/or parent and youth surveys, school surveys, general education teacher survey, school program survey, school characteristic survey, student assessment data, and transcripts of all student participants. Participants included 11,270 students receiving special education. Participants were nationally represented from each of the 12-disability categories recognized by the federal government (Wagner et al., 2006). For the current study, the researcher used student assessment data collected in wave two of the NLTS2 to conduct statistical analyses and answer research question one.

In reports derived from the NLTS-2, researches have highlighted trends and outcomes for students with EBD at large (Wagner, Kutash, Duchnowski, & Epstein, 2005); however, no analyses focused solely on females have been conducted. The researcher in the current study will examine academic achievement and high school experiences of females and males with EBD separately. The NLTS-2 data have not been mined for this purpose. The researcher of the current study plans to use the disaggregated NLTS-2 data to create a profile of the responses of females

with EBD by building a model that will look at school engagement to contribute to the literature for this underserved population. The researcher begins by operationalizing key terms that will be used throughout the current study.

### Course Failure and Grade Point Averages

Students with EBD have been found to have the highest number of failed courses and the lowest grade point averages (GPA) among their peers with other disabilities (Newman et al., 2011). On average, students with disabilities earned an average GPA of a 2.3 on a four-point scale (Newman et al.). Whereas students with EBD being on the low side of that range with an average GPA of 2.0. In addition, 77.1% of students with EBD failed one or more graded courses, as compared to 66.4% of students with disabilities. Although authors reported an averaged percentage of 61.2% for females with disabilities, authors did not compare females with EBD to their peers with other disabilities. The percentage of students with EBD who have failed one or more graded courses is the highest among all disability categories (Newman et al.). Therefore, effective interventions are needed to address academic and school experiences for students with EBD, not only to increase GPA's and the amount of successful graded courses, but also to increase the number of credits earned by students with EBD.

To further corroborate the academic challenges of students with EBD, Newman and colleagues (2011) reported that the number of credits earned by students with EBD is the lowest among all disability categories in academic, nonacademic, and vocational courses. Students with EBD earned 10.5 credits on average in academic courses while their peers with other disabilities earned from 10.6 to 15.4 credits. In regards to other courses including nonacademic and non-

vocational courses, students with EBD earned an average of 4.2 credits. While students with disabilities earned well above students with EBD at 5.7 credits. Students with EBD and students with visual impairments both earned an average of 3.3 credits in vocational courses, both scoring the lowest of all disability categories, compared to the 4.5 average credits earned for all students with disabilities. Newman and colleagues also compared males and females; however, authors did not report on females with EBD versus males with EBD. There was no significant difference between males and females with disabilities in the area of credits earned (Newman et al.). The lack of course success and averaging low GPA's indicates that students with EBD are not on track to graduate in the standard four years of high school (Newman et al., 2011).

### Out of School Suspensions

The statistics for out-of-school suspensions of students with EBD are equally alarming as the aforementioned reports for school dropout, course failure, and GPA. "Children and students served under the category of emotional disturbance were more likely to be suspended or expelled for more than 10 days than children and students with other disabilities" (30<sup>th</sup> Annual Report to Congress, 2011, p. 81). It is reported that more than four percent of students with EBD were suspended or expelled for more than 10 days, far more than the overall one percent of all students with disabilities suspended for the same period (Newman et al., 2011). Students with EBD also received more multiple short-term suspensions or expulsions, summing to more than 10 days, than their peers with other disabilities. The overall average of students with disabilities who received multiple short-term suspensions or expulsions was .93%, while students with EBD averaged 3.53% (Newman et al.). Students with EBD in general spend more time than their peers



with disabilities outside of academic settings, therefore their engagement when in the classroom is critical to consider (Newman et al.). Engaging students in required content while in the classroom may be challenging; however, school engagement has the potential to decrease negative behaviors, thus avoiding harsh consequences, which lead to low grades, unearned credits, and disciplinary action such as suspension or expulsion and ultimately dropping out of school (Errey & Wood, 2011; Reschly & Christenson, 2006). The plight of females served in this category is yet to be fully considered but may further enlighten the issues for males or may provide an insight into other engagement issues and school-based social and academic problems in the field not yet actualized.

### Females with Emotional and Behavioral Disabilities

Despite a plethora of data about students with EBD, limited disaggregation by gender has occurred in previous research studies conducted on both status of and interventions for students with EBD. National reports often fail to disaggregate by gender within the EBD category. Furthermore, researchers' efforts focus primarily on males, specifically African American males with EBD (McIntyre & Tong, 1998). However, females with EBD also exhibit the same characteristics, but limited research has been conducted to identify effective interventions to serve this population of students (Cullinan, Osborne, & Epstein, 2004; Rice, Merves, & Srsic, 2008). Even without national data being disaggregated between genders, researchers identify that postsecondary options remain negative for females with EBD (Rice et al., 2008).

## Lack of Special Education Services For Females with EBD

Currently, due to a lack of gender disaggregation in reported statistics, the field of special education is unclear whether females with EBD are receiving appropriate special education services. McIntyre and Tong (1998) noted that servicing the excessive number of African American males has taken priority over providing adequate services for females with the same disabling condition. Researchers from the U.S. Department of Education (2011) report that over 7% of students with disabilities are served under the EBD label, but fail to talk about any gender differences. The causes of overrepresentation in African American males and the potential underrepresentation of females with EBD are rarely discussed in the literature; however, boys are reported to be more likely to externalize negative behaviors and react more aggressively, while girls internalize behaviors and hold in their feelings (McIntyre & Tong, 1998). The lack of research conducted on females with EBD leaves educators underprepared to ensure students are appropriately identified and to create tools that are specifically designed to increase the success of this group of students.

Rice and colleagues (2008) posit that females with EBD are infrequently the subject of research studies. This void may be due to a lack of educational resources available to help females with EBD be successful in the classroom (Rice et al., 2008). McIntyre and Tong (1998) note that females often are overlooked for services under the EBD label, possibly due to the inability of females to conceal issues that trouble them paired with a lack of appropriate services (Rice et al., 2008) to improve outcomes for this population of students.

## Outcomes of Females with EBD

The American Association of University of Women (AAUW, 2009) outlines three concerns for females with disabilities who are unidentified or do not receive adequate services: (1) “high rates of academic failure, (2) teen pregnancy, and (3) unemployment” (p. 3). From NLTS-2 (2005) data, females with disabilities are less likely to be employed than their male counterparts. Negative outcomes such as lack of education and unemployment, coupled with teen pregnancy, involvement in the justice system, and gang affiliation create challenging conditions, and result in a spiraling set of problems for females with EBD (AAUW, 2009; Al-Hendawi, 2012; Gage, Josephs, & Lunde, 2012). With limited research on interventions for females with EBD (Rice et al., 2008), many unanswered questions and issues still exist with regard to educational and societal expectations in general. Key question that need to be answered are:

1. Do current implemented interventions focused on engagement have potential bias against the issues surrounding females with EBD?
2. Will specific interventions that currently are recommended for students who are labeled EBD do they need to be modified to serve females? (Cullinan et al., 2004)

Although researchers are beginning to listen to the voices of females with EBD (Clarke, Boorman, & Nind, 2011; Nind, Boorman, & Clarke, 2012) and understand their unique characteristics (Cullinan et al., 2004; Rice et al., 2008), extensive research needs to be conducted to answer these questions and provide a framework for addressing potential issues that emerge. The intention of identifying potentially more effective ways to serve this population also could increase the level of engagement of female students in academic settings to be more successful in current as well as postsecondary educational settings.

### Purpose and Research Questions

The purpose of this study is to build a foundation of factors to understand the predictors of school engagement for females with EBD. The researcher also examined predictors of school engagement for males to notate the differences between these two populations within the category of students with EBD, if any exists. This study afforded the researcher the opportunity to create a (1) Structural Equation Model (SEM) to identify variables that contribute to or predict school engagement and to also (2) listen to the voices of females with EBD to understand their perceptions of their current need in education in relation to outcomes derived from the modeling process. The models were built from the NLTS-2 data in areas related to engagement.

The NLTS-2 researchers provide data for students with EBD, specifically females with EBD pertaining to their academic engagement and social engagement. The observed variables that measure academic engagement are assignment completion and participation in the classroom. The observed variables that will measure the latent construct, social engagement, are social activities, group memberships, and peer interactions. The researcher used items from the direct assessment which was given to participants in wave two of the NLTS-2. Based on previous literature and data from the NLTS-2 the researcher built a hypothesized model to test during the SEM process.

Once the SEM was completed, validated, and further expanded through interviews with females who have EBD, the research was written up and added to the scant literature on females with EBD by uncovering specific variables that positively affect school engagement for females with EBD. The potential impact of this research is to provide a model for experts in education

and special education, particularly experts in EBD, to build upon this model as the field continues to investigate this population more thoroughly.

Equality for students with diverse backgrounds, female students and students with disabilities serves as the foundation and areas of foci for this study. The outcome of this work is to address the potential inadequacies of current educational programming and services for this triad area of needs. The outcome of the study is to highlight potential improvements from the voices of females who are diverse with the label of EBD with the hope of creating better educational services.

To address this inequality, the researcher presents and answers three research questions and a three-phased study that accurately addressed the research questions. The first and second research questions were answered using an existing national database, National Longitudinal Transition Study -2 (NLTS-2). Specific data from the NLTS-2 was used to conduct statistical analyses. The third question was answered through qualitative methods.

Research questions include:

- 1) What are the most important factors that have a positive effect on school engagement for students with EBD?
  - a) Does students' gender moderate a relationship between antecedents of engagement and school engagement? In other words, is the effect of different factors on school engagement the same for female and male students with EBD?
- 2) What are the most important factors that have a positive effect on school engagement from a female student's perspective as identified from the NLTS-2 data?

- 3) Do current female students with EBD, after sharing the factors that emerge in an SEM model created from the NLTS-2 database, agree with these findings?

### Theoretical Framework

The researcher provides two frameworks that helped to situate the current study, the PIM (Finn, 1989) and the CRT (Wlodkowski & Ginsberg, 1995). The PIM framework relates directly to school engagement while the CRT addresses subgroups of populations from diverse populaces. The CRT allowed the researcher to focus on two distinct cultures, females and students with EBD. The frameworks presented informed the current study and allowed the researcher to ground the findings for females from the NLTS2 database into the current literature. The PIM guided the researcher in selecting specific variables from the NLTS-2 pertaining to school engagement. Whereas the CRT informed and guided phases one and two. The CRT guided and informed phase one by insuring the researcher kept the individual female at the center of all decision making while selecting variables. The CRT guided and informed phase two during the selection and creation of interview questions for the six participants in phase two. The relationship between the NLTS-2 data, the CRT, and the PIM are shown in Figure 1.

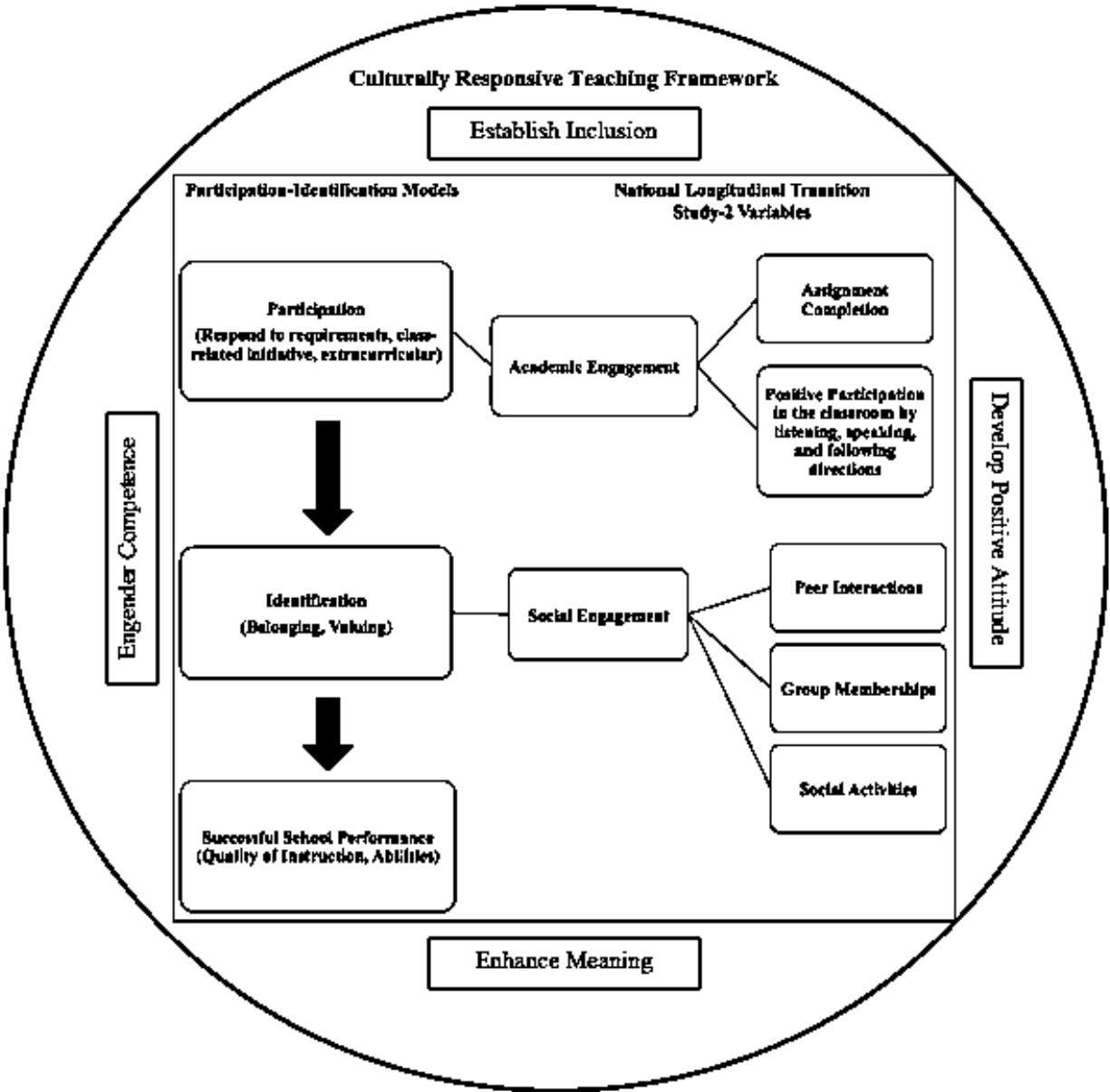


Figure 1: The relationship between two theoretical frameworks and the selected data set.

In regards to phase one, the CRT framework guided the researcher while building a model and during re-specification of the initial model. The CRT was also used to guide the interview questions provided to participants in phase two of the current study. After the completion of

phase two, the two frameworks were combined again in phase three of the study as the results from phase one and phase two were synthesized.

### Participation-Identification Model

The PIM developed by Finn (1989) addresses school dropout and school engagement by stating that when students participate in school, academically or socially, they begin to identify with school, thus reducing dropout rates. As shown in Figure 2, the cyclical process involves the encouragement of students to participate in school activities and the academic setting, as well as teachers to deliver quality instruction.

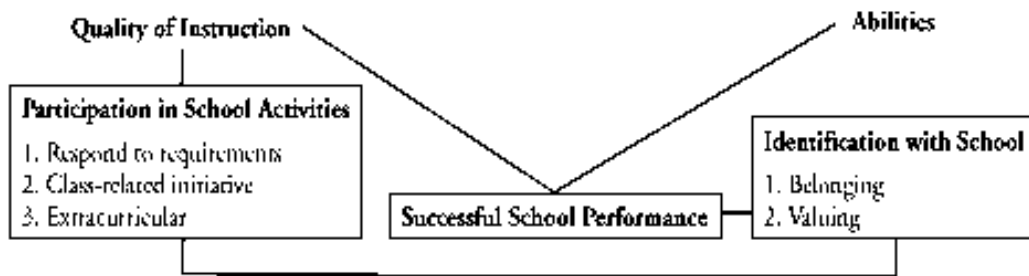


Figure 2: Finn's (1989) participation-identification model.

As students begin to participate in school activities, academically or socially, students begin to identify with school, building motivation to participate in more school activities. Students begin to feel a sense of belonging therefore, increased motivation to do well in school and a decrease in school dropouts will result (Finn, 1989). Finn's seminal work in decreasing school dropouts can be applied to all students, especially, students with EBD. This model informed the selection of latent constructs and observed variables within the NLTS-2. The SEM was created based on



components of the PIM. The two major components of PIM – social interaction and academic interaction was used to build the SEM to predict school engagement.

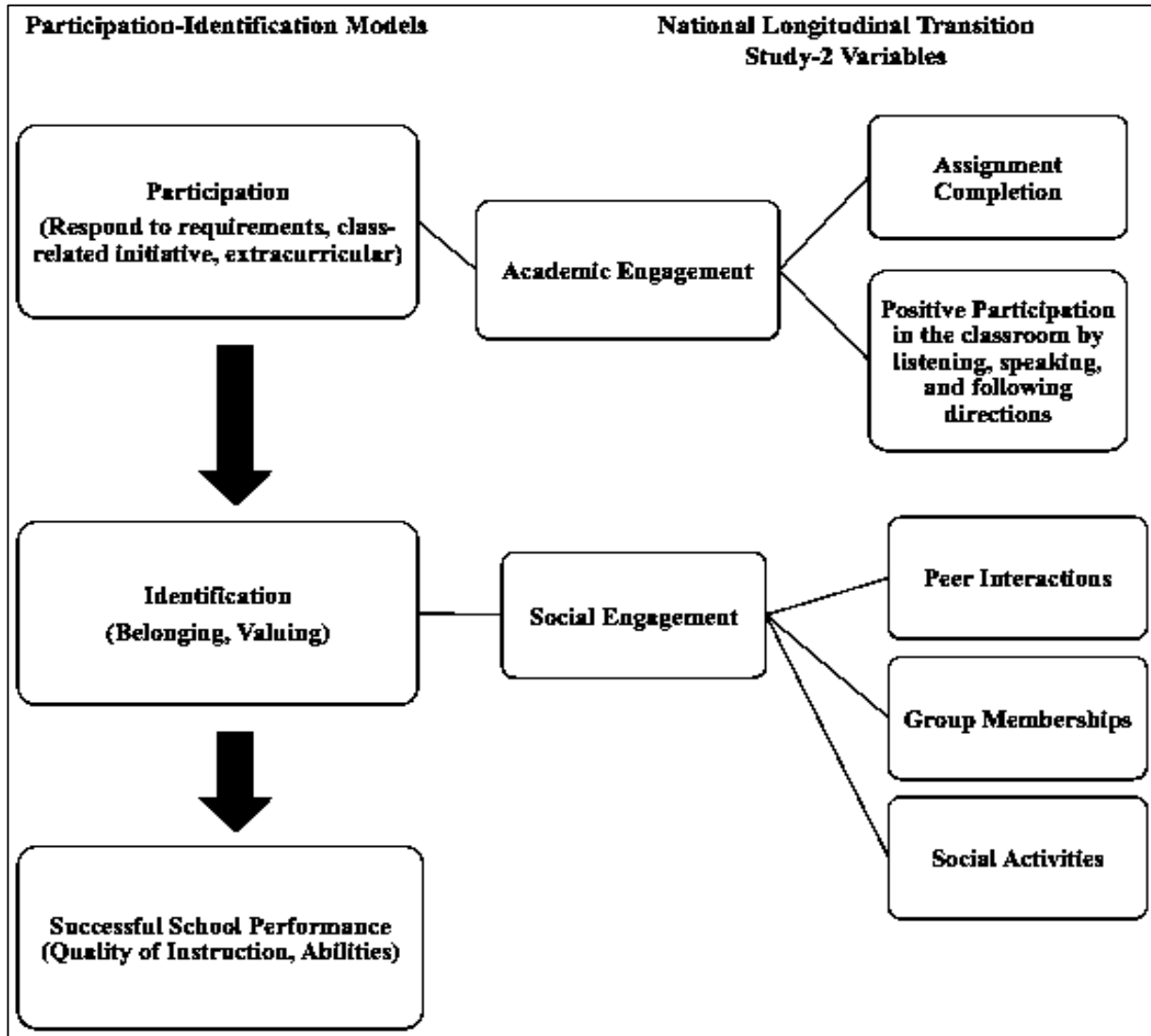


Figure 3: A visual representation of how the PIM relates to the selected data set, NLTS-2.

## Culturally Responsive Teaching Framework

According to Wlodkowski and Ginsberg (1995), developers of the CRT framework, the individual student should remain at the center of all instructional and school decisions. Wlodkowski and Ginsberg (1995), pose four conditions to ensure cultural responsiveness within the school setting (a) establish inclusion, (b) develop positive attitude, (c) enhance meaning, and (d) engender competence. The elements surrounding the CRT framework allow educators to utilize all students' abilities and diversity as strengths within the school setting to help students become successful. Wlodkowski and Ginsberg built upon Robin M. Williams, Jr. 15 cultural themes and orientations while creating the CRT framework. Williams' (1970) work served as a foundation for the current CRT framework. Williams' fifteen cultural themes and orientations include the following: achievement and success, activity and work, humanitarian mores, moral orientation, efficiency and practicality, progress, material comfort, equality, freedom, external conformity, science and secular rationality, nationalism-patriotism, democracy, individual personality, and racism and related group superiority (Williams, 1970). These 15 themes and orientations force educators to clarify their own cultural biases and values by alerting them to the cultural insensitivity that may or may not be present within their classrooms. The researcher will use Wlodkowski and Ginsberg's (1995) CRT framework to guide the selection of variables to build the SEM and to inform the interview questions in phase two of the study. Situated within two frameworks, the researcher will use three phases to address research questions and add to the limited research on school engagement of females with EBD.

### Summary of Methodology

The researcher employed a three-phased study to answer the aforementioned research questions. The first phase consisted of building an SEM to analyze and predict school engagement for females and males with EBD, separately. The researcher highlighted the differences between school engagement for females and males. The researcher obtained the National Longitudinal Transition Study-2 (NLTS-2) data for females and males with EBD. Quantitative analyses were conducted using the following quantitative analysis software: Statistical Analysis Software (SAS) and LISREL. Upon completion of phase one, the researcher engaged six females, ages 13-17, with EBD in an interview to discuss their perception of what most positively affects school engagement.

Phase two of the current study focused on direct interaction with six females with EBD. The six female students selected were as follows: three white females, two black females, and one Hispanic female with EBD. Through individual interviews, participants were asked to discuss their perspectives of school engagement and their perceptions of the results of the SEM after it was explained to them. The interviews were analyzed through qualitative methods using NVivo, a qualitative research analysis software.

Finally, the researcher combined the analyses from phase one and phase two to further hypothesize about variables that affect school engagement for females with EBD. The researcher highlighted any differences between the quantitative analyses and the qualitative analyses. The researcher then interpreted each analysis and provided the reader with figures and tables that further explained the results of the study. The researcher offered a discussion that included

recommendations and limitations of the current study related to the limited research already in the field.

### Definition of Key Terms

#### Academic Engagement

Academic engagement refers to the act of engaging in the academic setting by participating physically and mentally in class discussions, assignments, and group activities; thus including completing classwork and homework and engaging in activities to improve academic achievement (Al-Hendawi, 2012; Christenson, Reschly, & Wylie, 2012; Martin, 2011; Strambler & McKown, 2013).

#### Emotional and Behavioral Disability

Emotional and behavioral disabilities are defined as a condition exhibiting one or more of the following characteristics, displayed over a long period of time and to a marked degree that adversely affects a child's educational performance:

- A. An inability to learn that cannot be explained by intellectual, sensory, or health factors
- B. An inability to build or maintain satisfactory interpersonal relationships with peers or teachers
- C. Inappropriate types of behavior or feelings under normal circumstances
- D. A general pervasive mood of unhappiness or depression

- E. A tendency to develop physical symptoms or fears associated with personal or school problems.

As defined in IDEA, emotional disturbance includes schizophrenia but does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance (CFR § 300.8(c)(4)).

#### Externalizing behaviors

Externalizing behaviors refer to the outward display of behaviors. Behavior patterns can consist of short or long durations of time; however, externalizing behaviors are easily noticeable (Furlong, Morrison, & Jimerson, 2004).

#### Internalizing behaviors

Internalizing behaviors are not easily noticed and refer to behavior patterns associated with academic and social withdrawal, anxiety, and depression (Gresham & Kern, 2004).

#### Latent construct

A latent construct is a variable that cannot be directly measured. Latent constructs are measured by multiple observed variables (Kline, 2005).

### School engagement

For the purposes of this study, school engagement is the academic or social engagement in any part of the school setting, including extracurricular activities, social interactions, and academic achievement (Finn, 1989).

### Social Engagement

Social Engagement refers to the act of engaging in the school setting via group memberships, peer interactions, social activities, supportive relationships, and extracurricular activities (Christenson, Reschly, & Wylie, 2012; Koegel, Vernon, Koegel, Koegel, & Paullin, 2012; Pittaway, 2012).

## **CHAPTER TWO: LITERATURE REVIEW**

Historically, women and students with disabilities have endured harsh treatment in the United States, often having to advocate for or even being denied equal educational opportunities and services (Woody, 1966). This historical lack of equity for females and students with disabilities is even further exasperated when looking at the combination of these two traits. When focusing on students with disabilities, the subgroup that tends to have the most dismal outcomes (Wagner et al., 2006) is students with Emotional and Behavioral Disabilities (EBD). Looking specifically at females with EBD, researchers in the field emphasize that this population remains voiceless, under-researched and under-served (Davis, Culotta, Levine, & Rice, 2011; Nind, Boorman, & Clarke, 2010; Rice, Merves, & Srsic, 2008). The assumed outcome for all students with EBD as well as for females served under this category is disengagement from school.

Grounded in this trifecta of issues; females, disability and EBD, the researcher in this chapter provides an in-depth review of the literature framed in three constructs that theoretically contribute to the under-researched population and potential lack of engagement for females with emotional behavioral disabilities (EBD) as depicted in Figure 1. The major constructs are presented from a thorough review of the literature that includes females, students with EBD, and school engagement. The researcher begins the chapter with a historical context for women and students with disabilities related to their evolution of rights and the creation of a foundation as to why they may be under-served in the category of EBD. Next, relevant legislation and court cases are provided to highlight the historical basis and the current foundation of special education for students with EBD. Within the context of special education, the current trends of students with

EBD at large are provided and then narrowed to females related to school engagement and the overall impact on graduation rates and life outcomes. The researcher concludes with the Participation-Identification model (PIM) (Finn, 1989) and the Culturally Responsive Teaching (CRT) framework (Wlodkowski & Ginsberg, 1995), as well as expansions in the literature that support each framework for this population of students. The frameworks presented from the literature are then merged to create an overall construct of school engagement, or lack thereof, for females and for students with EBD.

The analysis of the literature presented in this chapter allows the researcher to address each of the three constructs in Figure 4 individually; however, there is a paucity of literature regarding school engagement for females with EBD. Therefore, the current study that analyzed a national database on the outcomes for students with EBD in transition and listening to the voices of current females with EBD will add to the body of literature in regards to school engagement for this population. The researcher plans to blend the themes in the literature with the current findings in this study to make potential projections about females with EBD for future research. Figure one shows three distinct categories that will be investigated in the literature and through research, and how these findings will be intertwined to create a potential model for the field on school engagement for females with EBD.



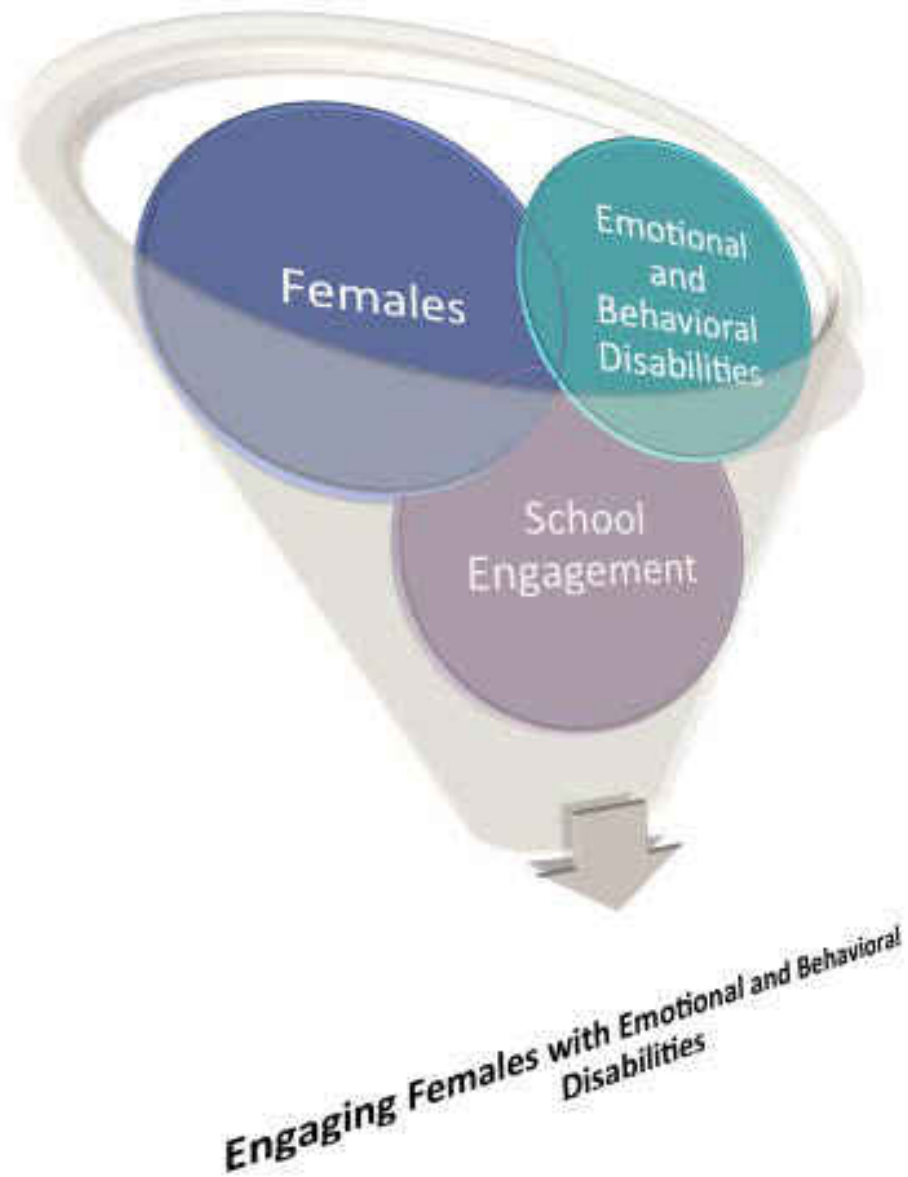


Figure 4: Major themes surrounding females with EBD.

## History of Females

When reflecting on females or women in general throughout American history, researchers and writers consistently reveal a premise of discrimination. Historically, the theme is that women have been disregarded and not given the same opportunities as their male counterparts (Clabaugh, 2010). According to Woloch (1996), “The Englishwoman had a subordinate place in the social scheme that could be defined only by deficiencies and limitations” (p. 1). In the 1800s, many believed that the woman was physically and mentally weak and could not handle effectively balancing school and other feminine duties (Cross, 1965; Joshi, 2006). “Seeing that the average brain-weight of women is about five ounces less than that of men, on merely anatomical grounds we should be prepared to expect a marked inferiority of intellectual power in the former” (Romanes, 1887, p. 128). Although the societal idea was women were inferior to men (Cross, 1965), no significant differences were found in mental capacity between boys and girls or men and women (Romanes, 1887). According to Garskof (1971) the Bible provides several references to the lack of societal status of the woman. “Men are superior to women on account of the qualities in which God has given them pre-eminence” (Garskof, 1971, p. 85). Statements such as these coupled with the apparent unfair treatment of women led to exclusion from major aspects of society and life including historically education. Clabaugh (2010) would argue that this level of exclusion and unfair treatment still persists today.

Some level of improvements in the treatment toward women came in the 1800s with the opening of high schools for example the Girls Normal School in Philadelphia (Woody, 1966). Schools during this time focused on etiquette and other duties expected of women not traditional academic as would have been observed in schools for men (McMahon, 2009). Schools for

women also taught academic courses but continued their focus on the “women duties” for several years (Woloch, 1996). In the mid-1800s women began being accepted into colleges and universities. The first American woman to graduate college by completing all necessary requirements as her male counterparts was Mary Kellogg in 1841 (Woody, 1966). Following Kellogg’s footsteps and being further catapulted to college due to World War II, a time in which fewer men were available to attend, more women were admitted into and graduated with 4-year degrees (Woloch, 1996). This swift change in educating women abruptly ended with the conclusion of World War II bringing about a decrease in admissions of female students in higher education. One school in particular, Oberlin College, ended coeducation altogether (Woloch, 1996). This lack of equal opportunities for women in higher education and in society in general continued in the United States throughout the early 1900s.

With the passing of various civil rights laws women from this point forward referred to as females, continued to be denied equal rights. Although more females became educated, major improvements did not come until the 1920s with the ratification of the 19<sup>th</sup> amendment (U. S. Constitution, Amendment 19). With the passing of the 19<sup>th</sup> amendment, all citizens of the U.S. were granted the right to vote. Amendments 13, 14, 15, and 19 of the U.S. Constitution specifically addressed equal rights for all citizens, which were ratified between 1865 and 1920. However, major movement towards equal educational opportunities was not granted to all students until the second half of the 1900s. Even with positive movement towards equal educational opportunities, Clabaugh (2010) shares that females were still at that time not given the same educational opportunities as their male counterparts.

### Students with Disabilities

Similar to females, students with disabilities also have been excluded from certain aspects of society and life. Students with disabilities were not historically provided equal rights; specifically equal educational rights (Duncan, 2010). During the 1800s when Compulsory Education Laws were in place, students with mild to moderate disabilities were able to attend school but that was the extent of services. Despite being present in school, many of the students with disabilities failed classes, which ultimately led to their exclusion from formal education (Chase 1904; Ysseldyke & Algozzine, 1982). This failure or exclusion occurred in places beyond the U.S. and in the mid-1800s, France began vocational instruction for students who consecutively failed a grade level. Educators in France took students out of “regular” classrooms and schools and placed them in special classes or schools. Students who met the requirements for the newly implemented special classes, were typically male students usually from higher socio-economic status (Chase, 1904). Vocational instruction covered job training, social skills, and life skills; however, students with disabilities rarely saw their peers without disabilities. Special classes that resembled France’s model began in the U.S. in 1878. Special academic settings for students with disabilities were in effect prior to 1899; however, no formal procedures were in place to assist teachers with referring students to special classes (Fernald, 1903). The priority for U.S. educators in the 1800s was focused on students who were severely disabled or those with physical or sensory disabilities (Chase, 1904). Students with mild or moderate disabilities frequently experienced great difficulty in attaining academic equality and success, which led educators to consider alternative educational placement for students with disabilities. Chase

(1904) stated, “vocational training and special classes were designed for students who did not do well in “regular” classes” (p. 384).

A specifically targeted group of students who were supported early on in the education system were students with behavioral challenges. For example, in 1893 Rhode Island began disciplinary schools for mischievous boys and students with mental disabilities. In 1896, Rhode Island separated the two categories by having classes solely for students with mental disabilities and a separate class for students with behavioral disabilities (Chase, 1904). It was at this time that students with behavioral disabilities began being excluded from the academic setting. Classes focused primarily on vocational skills rather than academics. Special education programming remained the same for students with EBD until 1954 with the establishment that all students be educated equally (Brown vs. Board of Education, 1954). The 1954 decision in Brown vs. Board of Education was to provide changes for segregated instruction for not only minority students, but also students with disabilities.

### The Impact of Brown v. Board of Education

Prior to 1954 and the decision of Brown v. Board of Education, students of diverse backgrounds, including students with disabilities and female students, received incomparable education and in separate settings. Students with disabilities were generally instructed in segregated locations and did not interact as much with their peers without disabilities (Ysseldyke & Algozzine, 1982). While students with more severe disabilities were institutionalized, students with mild to moderate disabilities were usually neglected, dropped out or were never allowed to attend school from the start (Ysseldyke & Algozzine, 1982). Females often were included in

one-room schoolhouses but many were educated at the lowest level, and if they had a disability excluded or not educated at all (Woody, 1966). Students of diverse backgrounds, specifically students who were Black, also were regulated to separate and often sub-par settings.

Segregating groups to provide instruction was considered a violation of the 14<sup>th</sup> amendment, at least from the perspective of race. *Brown v. Board of Education* (1954) was a court case that changed the way society addressed the violation to the 14<sup>th</sup> amendment. Justices in the *Brown v. Board of Education* (1954) stated that all students should receive an equal education. Although this ruling was a racially and culturally charged court case, it provided a foundation for future rights for students with disabilities, because the decision specified that all children should receive an equal education (*Brown v. Board of Education*, 1954). The U.S. Supreme Court Justices' in delivering the verdict noted this case was to insure equal education for all children (Ysseldyke & Algozzine, 1982), but consequently many students, teachers, and district leaders opposed the decision in this case (Hunter, 2004). Many school districts at this time resisted the change with many not having a problem with this decision, but the lack of specific guidelines in implementing the ruling (Hunter, 2004; Verdun, 2005). Although the ruling was made, many states reluctantly changed or did not respond at all in the way they educated students. Current-day historians feel that after the passage of *Brown vs. Board of Education*, school districts lackadaisically implemented the court's decision and some outright refused (Verdun, 2005). The *Brown v. Board of Education* (1954) decision went beyond race and impacted an array of students including females, students with disabilities, and students from an array of diverse backgrounds. Despite the legislative push intended by *Brown v. BOE* to educate all students, issues for students with disabilities and students of diverse backgrounds continued to

persist. The actual impact or even documentation of how these changes impacted females throughout this historical legislation pathway is limited to the extent that it is simply not noted in most accounts in history. Even further limited is any impact on females with EBD who were from diverse cultures.

### Elementary and Secondary Education Act (1965)

Despite the hope for change, leaders of the U.S. education system quickly realized that even with the passing of *Brown v. Board of Education*, inequalities in the system persisted. In an attempt to remediate some of the issues of segregation and to address a specific new emerging issue in the country; the focus shifted to another disenfranchised and often segregated group, children of poverty (Baptiste, Orvosh-Kamenski, & Kamenski, 2004). In the early 1960s President Lyndon B. Johnson acknowledged that one of the many factors that may be contributing to the academic divide between cultures was poverty and the lack of educational experiences (Cowger & Markman, 2003). To close the academic gap between the advantaged and disadvantaged, many initiatives were put forward by providing federal funds to school districts (CFR § 300.8(c)(4)). As a result of Johnson's War on Poverty, he enacted the Elementary and Secondary Education Act (ESEA) of 1965. The ESEA was geared towards providing equal educational opportunities to students in poverty. Although the legislation focused on poverty, students with disabilities were considered a part of this landmark legislation that continues to drive equal education for all students in the U.S. today. The ESEA was established to create financial ventures to improve education for students in poverty and students with disabilities to close the achievement gap and help students be better prepared to actively engage in the economic system once they leave the

educational system (Standerfer, 2006). Funds were provided under ESEA to help all students with a primary focus on students in poverty. This law also provided some funds for students with disabilities (Yell, Rogers, & Rogers, 1998), however, the funds provided did not provide necessary supports for students with disabilities. The lack of full support in this legislation to educate all students, including students with disabilities, brought about the momentum for the Education for the Handicapped Act of 1970 (Weber, 1992). Throughout these initiatives poverty and disability were beginning to be addressed but again germane were the issues related to females and especially the need to serve females with EBD.

### The Beginning of Special Education Legislation

Because the ESEA was geared towards decreasing poverty in America and closing the achievement gap, many special education advocates did not see this Act addressing students with disabilities (Weber, 1992). In fact the theme in the literature in the early 1970's was that students with disabilities were simply not receiving either an adequate education or being educated at all (Weber, 1992; Yell et al., 1998). This theme has been echoed by U. S. Secretary of Education, Arne Duncan, in 2010 where he stated that in the past students with disabilities have been “virtually ignored” and have not received appropriate services. This plethora of concerns led to the establishment of the Bureau for the Education of the Handicapped (BEH). The BEH was established under title VI of the ESEA. Although major litigation did not go into effect until 1975, title VI allowed for provisions to be made for universities and school districts to begin preparing educators to work with students with disabilities (Martin, Martin, & Terman, 1996). According to Martin and colleagues (1996) “this program, properly known as Title VI, had a



legislative title that made it the first ‘education of the handicapped act’ (p. 27). By 1972, The ESEA (1965) had been in effect for seven years before major legislation was passed to ameliorate education for students with disabilities. Improvements were being made in the U. S. in the education of students with disabilities, students of poverty, and included in this movement unintentionally but not exclusively were females. Despite forward progress, many students were still not being provided with equal educational opportunities because the accountability to provide a quality education to these populations of students was lacking. The outcome was that the achievement gap between students with disabilities and their peers without disabilities grew with still many students with disabilities being provided minimum levels, if any, education. This same gap also was observed between students of diverse cultures and their White counterparts. As more students with disabilities were identified to attend schools, schools were desegregated and students of poverty were given rights to equal education, a duality issue was arising.

### Disproportionality in Special Education

Students who were diverse and those of poverty began to be overrepresented in certain disability categories, especially males (Ansary, McMahon, & Luthar, 2012; Patton, 1998; Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Azziz, 2006). It was during this time period that the population of students with disabilities and students of diverse backgrounds collided into what today is clearly identified in the literature as overrepresentation or disproportionality of students from diverse backgrounds with disabilities; however, females were not clearly identified in this collision of cultures (J. Patton, personal communication, October 14, 2011).

Overrepresentation of minority students in certain disability categories, EBD and mental retardation (now called Intellectual Disabilities) rose to extremely high numbers as schools began to integrate students due to the decision in *Brown v. Board of Education*. Other contributing factors to the rise in students with disabilities included the use of biased assessment and identification procedures (Ferri & Connor, 2005). As the number of students in special education grew, many racially and culturally charged complaints were filed in the court of law, which led to some level of positive outcomes and improvements. Court cases that influenced this forward progress included: *Diana v. CA Board of Education* (1970), *Pennsylvania Associations for Retarded Citizens (PARC) v. the Commonwealth of Pennsylvania* (1972) and *Mills v. D.C. Public Schools* (1972). The outcomes in many of these court cases held that students with disabilities and students of diverse backgrounds including females should be provided equal services; for example in the case of *Diana v. CA Board of Education* (1970). Parents of nine Mexican-American students filed a complaint against a California school after students were assessed for mental retardation using the Stanford-Binet Intelligence Scale. The assessment was delivered to the nine students in English, which was not their first language; gender of each student is unknown. Courts decided that students' 14<sup>th</sup> amendment rights were violated, because they were not assessed appropriately. Based on *Diana v. CA Board of Education* (1970) it was declared that students cannot be placed in special education on the basis of culturally biased tests or tests given in other than the child's native language.

Other court cases that led to major outcomes and improvements in the education of students with disabilities and students of diverse backgrounds were *Pennsylvania Associations for Retarded Citizens (PARC) v. the Commonwealth of Pennsylvania* (1972) and *Mills v. D.C.*

Public Schools (1972). The decisions in both court cases established equal educational opportunities for students with disabilities; however in *PARC v. Commonwealth of Pennsylvania* (1972) the case targeted students with mental retardation. Plaintiffs filed the complaint as a class action suit to represent all students with mental retardation. An accurate count of males versus females with mental retardation at the filing of the class action suit is unknown. The decision in *PARC v. the Commonwealth of Pennsylvania* (1972) led to all students with mental disabilities receiving equal educational rights and opportunities. *Mills v. D.C. Public Schools* (1972) differed slightly from *PARC v. Commonwealth of Pennsylvania* (1972). In *Mills v. D.C. Public Schools* (1972) a complaint was filed on behalf of seven African American students with EBD and mental retardation (Intellectual Disabilities). Of the seven students involved in the case, six students were male and one was female. The complaint stated that D.C. Public Schools failed to provide students with special education services while other students labeled under the same categories received these services. *Mills v. D.C. Board of Education* (1972) led to the establishment of the right of every child with a disability to an equal opportunity for education and educational services. This case allowed parents an extension of rights for not only students with mental disabilities but for all students with disabilities to receive a free public education. The court justices emphasized that a lack of funds in this case was not an acceptable excuse for limited educational opportunities; again upholding the 14<sup>th</sup> amendment of the U. S. Constitution. Issues such as these continued to transpire throughout the U. S. leading to major legislation in 1975 for students with disabilities.

## P.L. 94-142

To expel the notion that students with disabilities were not receiving an adequate and equal education (including females with EBD), a major piece of legislation was passed to improve conditions faced by students with disabilities. In 1975, President Gerald Ford signed the Education for All Handicapped Children Act (EAHCA) also referred to as P.L. 94-142. The passage of EAHCA changed education for students with disabilities in the U. S. This law provided federal grant monies to states to improve the education for students with disabilities and to educate teachers of students with disabilities. P.L. 94-142 was a landmark event for the field of special education in that it set strict standards and guidelines that required educators to consider the individual needs of all students receiving special education services, including all cultures and genders (EAHCA, 1975). The passage of EAHCA (1975) established for all states accountability standards to receive federal grant monies to improve the education for students with disabilities. To receive funding under EAHCA (1975) each state was to submit a plan of how they would improve education and provide students with equal opportunities among students with disabilities. Every state in the U.S. with the exception of New Mexico submitted and received funding under EAHCA. The main purpose of EAHCA was to insure that students with disabilities, including females received a free and appropriate education in the least restrictive environment and for parents to be a part of each step of the special education process.

Another major component of EAHCA was the Individualized Education Program. Each student was to receive an education catered to his or her individual needs. Since this act was passed, there have been several reauthorizations and relevant court cases to ensure students with disabilities receive equal educational opportunities. Major reauthorizations to P.L. 94-142 were

made with the revisions of the Individuals with Disabilities Education Act of 1990, Individuals with Disabilities Education Act of 1997, and Individuals with Disabilities Education Act of 2004. Hence, EAHCA became the foundation of special education law and all court cases following the enactment of this important legislation (Honig v. DOE, 1988; Larry P. v. Riles, 1979; Lora v. New York Board of Education, 1978; Stuart v. Nappi, 1978; Ysseldyke & Algozzine, 1982).

When the EAHCA was signed into law in 1975, the following disability categories were included: seriously emotionally disturbed (EBD), orthopedically impaired, mentally retarded, speech impairment, hard of hearing, deaf, visually handicapped, other health impaired, and specific learning disabilities (EAHCA, 1975). These initial definitions have stood the test of time and are still the framework for the majority of the students served in special education. With the reauthorization of the law new definitions and procedures within P.L. 94-142 emerged. In 1990 a reauthorization to EAHCA was approved. Major revisions to the law were 1) the original name of Education for all Handicapped Children Act was changed to Individuals with Disabilities Act (IDEA) and 2) the law was expanded to include students with autism and traumatic brain injury (Murdick, Gartin, & Crabtree, 2002). In 1997, major revisions were made for students with disabilities, specifically students with behavioral challenges. The 1997 amendments were focused primarily on discipline and expulsions of students with disabilities; protocols were established on how to appropriately deal with behavior. School districts were charged with implementing school safety for all students. In 2004, Congress passed an IDEA reauthorization to target components of the individualized education plan. The amendments also included information regarding highly qualified teachers. The primary focus in 2004 was accountability

(Wright & Wright, 2006). Although amendments were made, the definition of EBD remained a foundational term since the passage of the law.

### Definition of EBD

Although improvements and amendments continue to be proposed and accepted for students with EBD “the definition criteria...have been riddled with confusion and controversy” (Merrell & Walker, 2004, p. 899). Seriously Emotionally Disturbed (EBD) is defined by the federal government as: A condition exhibiting one or more of the following characteristics, displayed over a long period of time and to a marked degree that adversely affects a child's educational performance:

- An inability to learn that cannot be explained by intellectual, sensory, or health factors
- An inability to build or maintain satisfactory interpersonal relationships with peers or teachers
- Inappropriate types of behavior or feelings under normal circumstances
- A general pervasive mood of unhappiness or depression
- A tendency to develop physical symptoms or fears associated with personal or school problems. [Sec. 300.8(c)(4)]

This definition originated from Bower during the 1950s (Bower, 1960; Kauffman, 1986) and the federal document, P.L. 94-142, accepted Bower's definition with the addition of one statement.

The statement that was added to Bower's definition included the term social maladjustment; which researchers claim caused major confusion in the identification of students with EBD (Artiles, Harry, & Reschly, 2002; Kavale, Forness, & Mostert, 2004). When the federal

definition was written, the term social maladjustment was not defined. The lack of a definition has left school personnel to define this rather vague term on their own (Merrell & Walker, 2004), which has been attributed to disproportionality and overrepresentation of specific subgroups of students (Ferri & Connor, 2005). Disproportionality and overrepresentation in the category of EBD in turn has been reported to led to inappropriate services and misidentification of African American males (Artiles, Harry, & Reschly, 2002) and less services for females with EBD (Gage, Josephs, & Lunde, 2012). Advocates, parents, and educators alike who have children identified as EBD or who work with this population have fought to ameliorate harsh circumstances for these students (Kauffman, 1986). Recent court cases (Honig v. Doe, 1988; Mills vs. Board of Education of the District of Columbia, 1972; Stuart v. Nappi, 1978) and legislation have paved the way to provide students with EBD more quality education and conditions.

#### Legislation for students with EBD

Many court cases and amendments to the law have been introduced that have improved the education for students with EBD. Two court cases that involved educating students with EBD included Stuart v. Nappi (1978) and Honig v. Doe (1988).

In 1978 Stuart v. Nappi was heard in a Connecticut U.S. District Court. This court case was unique in that it involved a female with EBD. This court case was the only case the researcher found that solely involved a female with EBD. In this case the plaintiff, Kathy Stuart, was a high school female with EBD. Stuart's ongoing behavior problems resulted in multiple suspensions, which, in turn led to expulsion from public schooling (Stuart v. Nappi, 1978). The

presiding judge ordered the superintendent and the Board of Education to halt the scheduled hearing to expel Stuart while a review of her current program was conducted. The court justices in their written statements said the Board of Education did not provide Stuart with an education in the least restrictive environment. Stuart was provided entry into a learning disabilities program; however, this program was not tailored to fit her academic needs. Therefore, the court officials said that Stuart did not receive an education that was individualized as required in the passage of IDEA. The decision made by the justices in *Stuart v. Nappi* (1978) has impacted everyday practice in dealing with students with EBD, specifically females with EBD, because educators were required to provide individualized educational programming that fit a student's emotional and behavioral as well as academic needs.

Students with EBD and their need for individualized services were further emphasized from the outcome of *Honig v. Doe* (1988). This case involved two African American males who were suspended and facing expulsion for school disturbances. The complaint filed by the guardians of the students was that they were being suspended and expelled from their academic placement without due process. The judge in this case decided that students with disabilities could not be excluded from school for any misbehavior that is disability related without due process; regardless of the extent of aggression or any other subjective predictor. This ruling has greatly impacted practice because schools and districts can no longer remove students who are EBD, but must provide instruction and a plan for their behavioral needs instead of automatically sending them home. This legislation also impacted practice because students with EBD were granted due process hearings to review the consequence in all instances of suspension and



expulsion. This court case ultimately led to one of the components in the 1997 reauthorization of IDEA, behavior intervention plans.

### Reauthorizations to IDEA

Aside from relevant court cases, amendments within EAHCA were passed by legislators to continue improvements of education for students with disabilities. In 1990, EAHCA was changed to the Individuals with Disabilities Act (IDEA). One major component of IDEA was individualization of education for students with disabilities. Policy-makers began to understand the unique needs of students with disabilities; therefore, individualizing education for this population began to be the focus of discussion in education. One amendment, specifically affecting students with EBD was the reauthorization of IDEA of 1997. Following the 1990 amendments to EAHCA, which changed the legal name from EAHCA to Individuals with Disabilities Education Act (IDEA), President Bill Clinton signed a major amendment in 1997 that assisted educators in understanding how to discipline students with disabilities. Functional Behavior Assessments (FBAs) and Behavior Intervention Plans (BIPs) were introduced and written into law. Functional Behavioral Assessments and BIPs are formal documentation required for any student with a disability who may have undesired behaviors. One characteristic of students with EBD is the presentation of inappropriate or undesired behaviors (Morris & Blatt, 1986). Developing and implementing FBAs and BIPs for students with disruptive behaviors insure that there is a plan in place to assist students in decreasing undesired behaviors (Yell & Drasgow, 2000; Yell & Shriner, 1998). Another major revision in the 1997 amendment included the addition of measurable goals and benchmarks to the IEP (IDEA, 1997). Measurable goals

and benchmarks have helped educators create IEPs that include annual goals that are measurable and provide smaller benchmarks to help teachers meet the individual needs of their students each year (Shriner & Yell, 1996). Although positive strides are being made to ensure an equal education for all students with disabilities, disparities continue to plague the EBD category with little known data on the impact of this area on females with this disability.

#### Racial Disparities within the EBD category

Despite the landmark passage of EAHCA (1975) and ongoing passage of case law, these legislative actions did not and cannot completely abolish inequalities in educating students of diverse backgrounds. Since the passage of EAHCA in 1975, several other racially charged complaints have been filed that have led to a decrease in overrepresentation in the identification of minority students with Intellectual Disabilities (ID) and a slight decrease of students with EBD. Despite knowing these overall changes have occurred for minority students identified as EBD and ID, the actual gender that was affected by the outcome of the court rulings was not disclosed. Table 1 provides an overview of relevant court cases and when the gender of the student(s) involved is known.

Table 1

Historical and Landmark Cases Affecting Students with Disabilities

Case	Plaintiff(s)	Gender	Overview	Outcome(s)
Diana vs. State Board of Education 1970	Nine Mexican American students	Unknown	Plaintiffs in the case were administered the Stanford Binet Intelligence assessment in English. English was not their first language.	The court ruled that the students' 14 <sup>th</sup> amendment rights were violated because they were not being assessed equally.
PARC vs. Pennsylvania City Schools-Pennsylvania Assoc. for Retarded Citizens v. the Commonwealth of Pennsylvania. 1971	All students with mental retardation (now called Intellectual Disabilities) in the state of Pennsylvania.	Male and Female (an accurate count of males and females are unknown)	After students with mental disabilities were denied the right to public education in Pennsylvania, the PARC filed a complaint against the state of Pennsylvania.	This case led to the establishment of the right to free public education for all children with mental retardation.
Mills vs. Board of Education of the District of Columbia 1972	Seven African American students with EBD	Six male students; one female student	The District of Columbia Public School System failed to provide the plaintiffs with services while other students labeled under the same categories received services.	This court case led to the establishment of the right of every child to an equal opportunity for education. It was declared that the lack of funds was not an acceptable excuse for lack of educational opportunity. Again

Case	Plaintiff(s)	Gender	Overview	Outcome(s)
Lora vs. New York Board of Education 1978	Seven black and Hispanic students	Unknown	In 1975 complaints were filed on behalf of African American and Hispanic students, arguing the disproportionality of students placed in special schools in New York. Plaintiffs argued that special day schools were purposefully segregated and used to dump minority students without due process.	upholding the 14 <sup>th</sup> amendment of the United States Constitution. The court agreed with the Class action suit and upheld that the students' 14 <sup>th</sup> amendment rights were violated. The case helped establish equal and unbiased assessments for all students.
Stuart v. Nappi 1978	One White student with EBD	Female	The case was brought before the courts after the plaintiff was expelled for presenting several aggressive behaviors. The Judge ordered the	The court did not feel the board of education provided Stuart with an education in the least restrictive environment. The court also felt that Stuart

Case	Plaintiff(s)	Gender	Overview	Outcome(s)
			superintendent to halt the scheduled hearing to expel Stuart while a review of her current program was conducted.	did not receive an education that was individualized to fit her learning needs.
Larry P. vs. Riles 1979	African American students being assessed for special education services	The case began with a male student; however the class action suit addressed the biased and un-validated assessing of all young black students.	The guardian ad litem of six children filed a complaint against a California school district on the basis that un-validated assessments were being used to assess students to be placed in special education.	Outcomes included:  Stopped the use of assessments to label minority students.  Ruled that IQ tests cannot be used as the sole basis for placing children in special classes.  This instructed school districts to correct the disproportionality of minority students within EMR. This was a racially charged court case.
Honig vs. DOE 1988	Two African American students with EBD	Male	The plaintiffs in the case were expelled for behaviors manifested by	The court justices ruled that children with disabilities could not be excluded from

Case	Plaintiff(s)	Gender	Overview	Outcome(s)
			their disabilities.	school for any misbehavior that is "handicapped-related" but that educational services could cease if the misbehavior is not related to the handicap.

During the 1970's, New York City offered special day schools for students with EBD. In 1978 complaints were filed on behalf of African American and Hispanic students in the case of *Lora v. New York Board of Education (1978)*, arguing the disproportionality of students placed in special schools. Plaintiffs argued that special day schools were purposefully segregated and used to dump minority students without due process. The courts agreed with this complaint stating that students' 14<sup>th</sup> amendment rights were violated. Students were not receiving equal educational rights based on identification procedures and the lack of due process after identification in special education has been made. Although special day schools were not disbanded at this time, *Lora v. New York Board of Education (1978)* provided for more unbiased procedures to insure equal educational rights were given to all students regardless of their race.

Further, in the 1979 case of *Larry P. v. Riles* six children from a California school district were involved in the administration of un-validated assessments. Parents filed a complaint on the basis that the un-validated assessments were being used to assess students to be placed in special education. The decision in this case forced school districts to correct the disproportionality of minority students within the Educable Mentally Retarded category (now called Intellectual

Disability) and ultimately halted the sole use of assessments to label minority students. The justices in the ruling stated that IQ tests could not be used as the sole basis for placing children in special classes.

In 1979, in the case of *Mattie T. v. Holladay* (1981), the court decided that Mississippi was required to decrease the disproportionality among students of minority backgrounds receiving special education services. In 1975, a formal complaint was filed on behalf of 26 students of minority backgrounds. Plaintiffs stated that students were inappropriately placed by the use of racially and culturally biased procedures. The plaintiffs also argued the disproportionality of minority students identified as intellectually disabled that were placed in separate settings. This case established that states were required to provide an appropriate education to students with disabilities in the least restrictive environment, including males and females and students with EBD.

#### Current trends of students with EBD

Moving from legislation to today's standard educational practices, issues still exist for students with disabilities, specifically for students labeled EBD (Kauffman, 1986). Students with EBD are generally characterized as having problematic behaviors; which interfere with their learning experiences (Wehby, Lane, & Falk, 2003). The focus of most literature regarding all students with EBD is on decreasing behavior (Evans, Weiss, & Cullinan, 2012; Canella-Malone, Tullis, & Kazee, 2011; Wehby, Lane, & Falk, 2003). According to Wehby and colleagues (2003) due to the potential severity of behaviors and increases in classroom disruption demonstrated by students with EBD, researchers are prone to study interventions for problematic behavior rather

than academic achievements. The lack of research to support academic achievement and engagement of students with EBD, specifically female students, leaves students and teachers with scarce resources and interventions for success in the least restrictive environment or the general education setting (Mooney, Epstein, Reid, & Nelson, 2003). Furthermore, students with EBD experience the most negative postsecondary outcomes compared to all students with disabilities (Newman et al., 2011; Young, Sabbah, Young, Reser, & Richardson, 2010). School and postsecondary experiences of students with EBD are highlighted in the original National Longitudinal Transition Study (NLTS) and the most recent transition study, National Longitudinal Transition Study-2 (NLTS-2). The NLTS and NLTS-2 researchers addressed all students, with disabilities; however, the findings with regards to outcomes of students EBD are consistent with previous research (Johnson, 2008; Newman et al., 2011; Shandra & Hogan, 2008). Students with EBD have more suspensions, expulsions, and experience more out-of-academic settings than any of their peers with disabilities (30<sup>th</sup> Annual Report to Congress, 2011). Students with EBD also encounter negative academic experiences with limited literature to support their academic achievement (Wehby, Lane, & Falk, 2003). Once leaving high school, the outcomes of students with EBD do not improve (Johnson, 2008). The grim postsecondary outcomes include unemployment, low wages, frequent job changes, gang affiliations and increased sexual activity (Newman et al., 2011; Shandra & Hogan, 2008; Valois, Bryant, Rivard, & Hinkle, 1997; Yampolskaya, Brown, & Greenbaum, 2002; Zigmond, 2006). Students with EBD change jobs quite frequently. Potential causes of job changes or job dissatisfaction are rate of pay and cognitive abilities. Actually, students with EBD have been found to rarely keep and maintain one job before moving on to the next (Newman et al., 2011). According to Shandra and



Hogan (2008), the severity of a student's disability is an important aspect to consider when speaking of post-secondary opportunities. The severity of the disability also plays an important role in how much a student will be paid, as well as the caliber of jobs students are able to apply for in the workforce (Shandra & Hogan, 2008). In regards to academic outcomes, many students with EBD complete job-training programs; however, they seldom attain a job in the field where they received the training (Zigmond, 2006). If students with EBD do not immediately go to school upon graduation, they rarely stay in school for long periods of time thus not completing the academic programs in which they were enrolled (Wagner et al., 2006; Zigmond, 2006). Although research exists that focuses on postsecondary interventions and decreasing undesired behaviors of students with EBD, the outcomes of students with EBD remain undesirable (Al-Hendawi, 2012; Blood, 2010; Li et al., 2011; Wehby, Lane, & Falk, 2003). Researchers thus far have focused primarily on males with EBD, specifically African American males. To address the deficits of research on the specific outcomes and interventions needed for female students with EBD, in-depth research and immediate interventions are needed.

### Current trends of females with EBD

As clearly stated, the research on the outcomes for females with EBD are simply limited at this time (Cullinan, Osborne, & Epstein, 2004). According to McIntyre and Tong (1998), the overrepresentation of African American males has taken precedence over females receiving adequate or appropriate services under the label of EBD. One potential cause of the overrepresentation of African American males and the underrepresentation of females is that boys are more likely to externalize negative behaviors and react more aggressively, while girls

typically internalize behaviors and hold their feelings inside which can later turn into anger (McIntyre & Tong, 1998). Behaviors are presented in two ways: Externalizing and Internalizing. Students who present externalizing behaviors generally display aggressive behaviors (Furlong, Morrison, & Jimerson, 2004). Students who present internalizing behaviors typically display behaviors that are harder to notice such as depression or eating disorders (Davis et al., 2011). Although the literature base is limited, research has been conducted to better understand females with EBD and their internalized behaviors. A summary of the limited research on females identified as EBD to date is provided.

Rice, Merves, and Srsic (2008) conducted a study on educators' perceptions of females with EBD to draw attention to the underrepresentation of this population. The focus of the study was to emphasize gender differences between boys and girls with EBD. Participants included 15 individuals: ten teachers, two administrators, two school counselors and one special education intern. These school personnel reflected on their work with ten participants who were labeled EBD (5 females and 5 males). Researchers used a semi-structured interview model to capture the voices of participants' perceptions of females with EBD.

In further research from Rice and colleagues, they identified six themes that echoed throughout each participant's interview. Of the six themes, four dealt specifically with behaviors and characteristics of females with EBD. Themes included females having: to hide problems, to attain a minority status in special education classrooms, to become physical (being more dangerous than boys with EBD), and being isolated from their female peers without disabilities.

School personnel involved in the study voiced their opinions of females they had previously and currently worked with in school. These personnel stated that in the past it has

been difficult to identify behaviors of students who may have EBD because, “They hold a lot of things in and they like to walk away” (Rice, Merves, & Srsic, 2008, p. 556). Female participants shared that they internalize many of their behaviors and issues, which makes it easier for them to be overlooked. If females with EBD are in a classroom where the majority of students are boys, they become the minority and are ultimately isolated from their female peers. Participants explained that females become flirtatious with their male peers or become as aggressive as their male counterparts with EBD. Moreover, females with EBD, the respondents suggested, present dangerous behaviors if aggression is a part of their disability. According to Patton (personal communication, October 14, 2011) in this day and age females are becoming more aggressive in their behaviors. Rice and colleagues (2008) state, “female students seemed unpredictable with expressions of physical aggression” (p. 558). Rice and colleagues (2008) further explain that participants stated they felt females with EBD were more difficult to teach and handle than males with EBD.

To further highlight the lack of research on females with EBD Cullinan, Osborne, and Epstein (2004) conducted research on characteristics of females with EBD. Participants included 689 females, 218 females identified as having EBD, and 471 females without EBD. Cullinan et al. (2004) discussed the characteristics of females with EBD as measured on a formal assessment, the Scale for Assessing Emotional Disturbances (SAED). The following five characteristics were measured for each participant: Inability to Learn, Relationship Problems, Inappropriate Behavior, Unhappiness or Depression, and Physical Symptoms or Fears. The researchers found that students with EBD “functioned significantly more maladaptively than their peers without ED” (p. 282). Students with EBD exceeded students without EBD in all

assessed areas. Cullinan et al. (2004) also recognized that “although this is what many would expect from a comparison of groups with and without ED, empirical results on the topic have been lacking, especially regarding girls” (p. 282). Due to the lack of research on females with EBD, Cullinan et al. (2004) wanted to insure sound research regarding the differences of females with EBD and females without EBD. Despite a strong contribution to the field on females with EBD, Cullinan and colleagues (2004) did not compare females with EBD to males with EBD.

The aforementioned studies provide a foundation for researchers to continue studying females with EBD. However, the lack of literature, interventions, and resources currently available for females with EBD leaves educators, parents, and community leaders underprepared and without clear frameworks or objectives to help females with EBD, especially in the academic setting (Rice, Merves, & Srsic, 2008). The need to determine how to best support females with EBD and increase their engagement in school and life is an area of future research (Rice & Yen, 2010)

### School Engagement

School engagement and self-advocacy have potential to affect long-term academic and social outcomes for all students (Errey & Wood, 2011). Previous researchers have reported that a strong, albeit negative, relationship exists between school engagement and school dropout (Reschly & Christenson, 2006), delinquency (Li et. al, 2011) and other undesirable post-secondary opportunities (Errey & Wood, 2011; Johnson, 2008) for students with EBD. “The goal of increasing academic engagement is to create a positive classroom environment in which students are active participants, involved, interested, and motivated to learn, which leads to

positive academic outcomes” (Al-Hendawi, 2012, p. 135). Unfortunately, Reschly and Christenson, (2006) have shown that students with disabilities, specifically students with EBD and learning disabilities, engage in academic settings far less than their peers without disabilities.

### School Engagement for Females

Although Reschly and Christensen (2006) posit the similarities between the way in which males and females engage in the school setting, researchers (Cross & Madson, 1997; Martin & Marsh, 2005; Thijs & Verkuyten, 2009) have examined the differences between males and females, with and without disabilities, in regards to relationships, motivation, and preferred teaching styles. When considering females and their perception of school and school engagement, positive relationships and teaching styles are major factors.

Most females look for positive relationships and ways to connect with teachers and peers in the school setting (Cross & Madson, 1997). Unlike males, females feel a sense of belonging and heightened self-esteem when they feel connected to peers and teachers in the school setting (Cross & Madson). However, most females do not display or seek out these qualities, rather they tend to be more independent and “may perceive the intimacy created by these behaviors as a threat to their sense of autonomy” (Cross & Madson, p. 17). Although females may look for positive relationships and connectedness with peers and teachers, the task of initiating positive relationships and connecting with those around them may be somewhat overwhelming for females with EBD, as one characteristic of students with EBD is the lack of relationship building (Cullinan et al., 2004). Females without EBD and females with EBD require similar needs; however, it appears females with EBD require a higher level of services and level of care.

The second factor found in the literature for females in general regarding school engagement was teaching styles (Martin & Marsh, 2005; Thijs & Verkuyten, 2009). Thijs and Verkuyten (2009) delve deeper into the characteristics of females by looking at preferred teaching styles. Females prefer a teacher who is engaging but provides structure in the classroom known as the authoritative style (Thijs & Verkuyten); whereas their male counterparts scored higher than females in the teaching style, authoritarian. The authoritarian style of teaching presents lower rates of engagement in a highly structured classroom (Thijs & Verkuyten). The authoritative teaching style provides females with engagement and structure in the classroom, possibly leading to enjoyable experiences.

These overall preferences for females' differences to males have been documented in the literature. How these differences might vary for females with EBD have yet to be documented. These preferences documented in the literature might reflect all females or unique characteristics that might need to be addressed to increase engagement for females with EBD is yet to be determined.

### Evidence-Based Practices

One way educators have increased academic achievement is through Evidence-Based Practices (EBP). EBPs are rigorously researched through multiple studies and found effective for specific populations (NSTTAC, n.d.). The National Secondary Transition Technical Assistance Center (NSTTAC) disseminates information regarding secondary transition for students with disabilities (NSTTAC, n.d.). The NSTTAC presents three EBPs researched for students with EBD: peer assistance, self-management, and technology.

The first EBP, peer assistance, consists of several strategies such as peer tutoring, cooperative learning, and peer instruction. Peer assistance allows students to learn and teach each other as a means to better understand the content being covered (Hughes, Carter, Hughes, Bradford, & Copeland, 2002; Scruggs, Mastropieri, & Richter, 1985; Tateyama-Sniezek, 1990).

Self-management is an EBP that is a list of strategies such as self-monitoring, self-evaluation, and self-instruction (Mooney, Ryan, Uhing, Reid, & Epstein, 2005). When using this strategy, students monitor and record their own behavior, academically and socially, to increase academic achievement (Mooney et al., 2005).

The third EBP endorsed by the NTTAC is technology to enhance academic achievement. Researchers have studied computer-based instruction (CBI), computer-assisted instruction (CAI), computer-enriched instruction (CEI), and computer-managed instruction (CMI) (Kulik, 2003; Kulik & Kulik, 1987; Okolo, Bahr, & Rieth, 1993; Posgrow, 1990). Although these technologies are the only ones listed as EBPs, researchers have discussed non-computer based technology that has helped students with disabilities (Hasselbring & Williams Glaser; 2000; Rose & Meyer, 2000). Non-computer technologies such as iPad applications, virtual environments, and educational simulation (Ainge, 1996; Jiang & Potter, 1994; Powell, 2012) are just a few that have been researched and found effective for students with disabilities. The variety of technologies available to increase academic achievement for students with disabilities has been implemented for classroom use.

## Instructional Practices

One instructional practice that is currently implemented in classrooms, but not considered an EBP is Universal Design for Learning (UDL) (Morra & Reynolds, 2010). The principles surrounding UDL allow for products and strategies to be created for people with diverse characteristics such as females with EBD (Morra & Reynolds, 2010). The principles of UDL are 1) provide multiple means of representations, 2) provide multiple means of action and expression, and 3) provide multiple means of engagement (Rose & Meyer, 2000). Although UDL has not been extensively researched, allowing students with disabilities multiple ways to express and show their skills will cater to the unique needs of diverse students (Morra & Reynolds, 2010).

Whereas academic achievement and school engagement of students with learning disabilities have been a universal issue, school engagement of students with EBD is becoming of increasing concern (Al-Hendawi, 2012; Blood, 2010; Li et al., 2011; Reschly & Christenson, 2006; Wehby, Lane, & Falk, 2003). A dearth of literature exists that targets school engagement for females with EBD; however, research has been uncovered on school engagement for students with EBD at large. From the literature two models that focus on engagement of this population emerged: PIM (Finn, 1989) and CRT Framework (Wlodkowski & Ginsberg, 1995). The research related to each model is described herein. The first model, PIM, provides researchers with a specific angle in which to address school engagement. The second model, CRT, provides strong elements in educating and engaging female students with EBD in the school setting. The PIM (Finn, 1989) is one way that researchers have situated and conceptualized school engagement in their line of research (Reschly & Christenson, 2006).



## Participation-Identification Model

The PIM was developed and proposed by Finn in 1989 and is used by professionals to address the needs of students by helping them to participate in and identify with school. Finn posits that regardless of whether students engage in social or academic interactions, students will begin to identify with school, which would ultimately begin the cyclical effort of engaging students and preventing school dropouts (Finn, 1989; Reschly & Christenson, 2006). If a student does not participate in or become engaged in the academic setting, learning environment, or social aspects of school, it is likely that the student may not identify with school and could potentially increase their chance of dropping out (Finn, 1989). For this reason, as soon as nonparticipation is recognized in a student, Finn suggests that educators, parents, or school leaders institutionalize a plan to motivate and encourage the student towards engagement as quickly as possible.

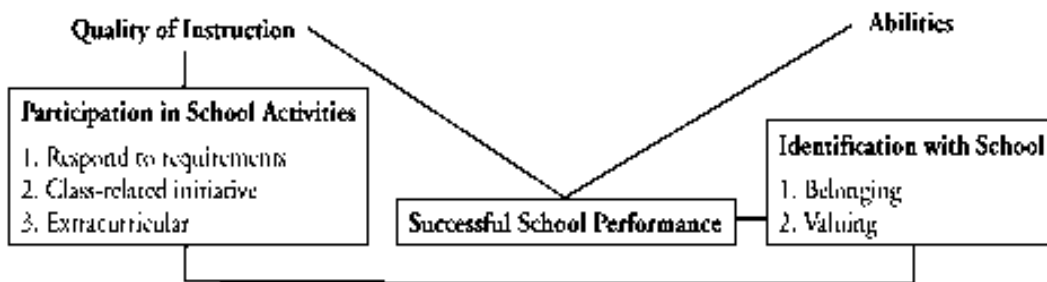


Figure 5: Finn's Participation-Identification Model.

Several researchers have confirmed and extended Finn's model (Appleton, Christenson, Kim, & Reschly, 2006; Betts, Appleton, Reschly, Christenson, & Huebner, 2010; Reschly & Christenson, 2006). Using an urban population of students and the foundation of Finn's PIM, Appleton and colleagues (2006) developed a Student Engagement Instrument (SEI) to measure

the engagement of high school students. The self-reported survey relies heavily on cognitive and psychological engagement in academic settings. Cognitive engagement includes self-regulation, relevance of school to future aspirations, value of learning, and strategizing to engage the student in the school setting. Psychological engagement includes belonging, identification, and school membership. The authors analyzed the psychometric properties of the instrument and found positive relationships between the observed factors. Appleton and colleagues noted that the findings contribute to the literature base, as there is a lack of research addressing student engagement.

Similarly, Betts, Appleton, Reschly, Christenson, and Huebner (2010) conducted a statistical analysis of the same instrument, the SEI. Betts and colleagues used 2,416 participants to conduct a SEM. The researchers employed a factorial invariance across grade levels and gender to establish differences and similarities between these two variables. Betts and colleagues found “similar variability and structural relations” between latent constructs for students in grades 6<sup>th</sup>-12<sup>th</sup>. They also found similarities between genders, indicating male and female students engage in the school setting in the same way.

However, with regards to the analyses conducted between genders, the authors found that the structural relations were similar between boys and girls. Thus in the study conducted by Betts and colleagues, the outcomes of the SEM was the same for males and females in general education classes. An analysis was not conducted that disaggregated any outcomes between general education students and students with disabilities or specifically students with EBD.

Reschly and Christenson (2006) also used Finn’s PIM model as their foundation to predict school dropouts among students with learning disabilities (LD) and EBD. These

researchers answered the following specific research questions using the PIM: (a) How does the engagement of students with mild disabilities compare to that of their average achieving peers? (b) How well do socioeconomic status (SES), achievement test scores, grade retention, and student engagement variables measured in the eighth grade predict dropouts among students with LD or EBD and students without disabilities? Reschly and Christenson found that students with mild disabilities and students without disabilities engaged in the school settings at similar rates; therefore, no significant differences between the engagement of students with disabilities versus students without disabilities were found. To address the second research question, Reschly and Christenson found that the assessed variables (SES, achievement test scores, grade retention, and student engagement variables) were significant predictors of dropout. These findings were consistent with previous studies (Reschly & Christenson, 2006). However, much like past research, Reschly and Christenson did not disaggregate the data by gender. Hence the need to employ an additional framework, like the CRT, that allows researchers to focus on subgroups of students, such as females is needed to consider unique differences in students labeled EBD.

### Culturally Responsive Teaching Framework

Beyond the PIM a second model that is reflected in the EBD literature is the CRT Framework. This framework is used by researchers to address the needs of individual students through a holistic approach (Wlodkowski & Ginsberg, 1995). The CRT framework could be used as a guide to analyze the unique individual differences of females with EBD in research studies. The use of CRT and multicultural education are not new to the educational research field (Gay, 2004). According to Gay (2004), multicultural education and CRT emerged as a necessity after

the Brown v. BOE ruling in 1954. Policy makers and school leaders neglected to think through the practical application in instruction from the Brown v. BOE ruling for minority cultures such as female students. For example students of diverse backgrounds did not have the same experiences and prior knowledge as their peers prior to 1954, therefore they were at a disadvantage in the public school system; thus beginning a push for multicultural educational approaches. Many assumptions were made by educators as to why minority students did not have the same prior knowledge as the majority students and unfortunately, assumptions generally led to lower outcomes, which often resulted in poverty due to limited education (Ladson-Billings, 2006). Frameworks such as the CRT and the PIM along with multicultural education in general were created as a way to decrease the achievement gaps between minority and majority groups of students. The same approach of creating structures and practices are needed for females and males with EBD.

Wlodkowski and Ginsberg (1995) offer four considerations when using the CRT framework to think about diverse populations in research. These considerations should include: (a) establish inclusion, (b) develop positive attitudes, (c) enhance meaning, and (d) engender competence. To better understand how educators can address these considerations, Wlodkowski and Ginsberg (1995) posited the following:

*Establishing inclusion:* Creating a learning atmosphere in which learners and instructors feel respected by and connected to one another

*Developing positive attitudes:* Creating a favorable disposition toward the learning experience through personal relevance and choice

*Enhancing meaning:* Creating challenging, thoughtful learning experiences that include

learners' perspectives and values

*Engendering competence*: Creating an understanding that learners are effective in learning something they value (p. 2)

These considerations are derived from a motivational perspective. Wlodkoswki and Ginsberg suggest that these considerations could be used to increase engagement of students from a cultural aspect and to improve academic achievement in diverse populations.

To extend the work of Wlodkowski and Ginsberg (1995), Brown-Jeffy and Cooper (2011) developed 5 themes that teachers should consider when implementing culturally responsive pedagogy. These themes are: Identity and achievement, equity and excellence, developmental appropriateness, teaching the whole child, and student-teacher relationships. A summary of how each is defined in the CRT model is provided.

**Identity and Achievement**: Identity and achievement includes five concepts, identity development, cultural heritage, multiple perspectives, affirmation of diversity, and public validation of home-community cultures. Brown-Jeffy and Cooper address the identity and achievement of the educator first, so that they are more open to helping students accept and address their own potential differences.

**Equity and Excellence**: Equity and excellence includes four concepts: dispositions, incorporate multicultural curriculum content, equal access, and high expectations for all. Equity and excellence pertains to ensuring that each student has equal access to content and all aspects of the school setting.

**Developmental Appropriateness**: Developmental appropriateness includes three concepts: learning styles, teaching styles, and cultural variation in psychological needs. When considering

developmental appropriateness, it's important for educators to acknowledge the differences in learning styles of each student and how teaching styles play a major role in the teaching-learning process.

**Teaching Whole Child:** Teaching to the whole child refers to five concepts: skill development in cultural context; bridge home, school and community; learning outcomes; supportive learning community; and empower students. Every year students bring their diverse backgrounds into the classroom. When teachers are able to consider and teach to every part of their students, they are engaging in culturally relevant pedagogy.

**Student Teacher Relationships:** Student teacher relationships include four concepts: caring, relationships, interaction, and classroom atmosphere. Teachers play an important role in a student's, academic and social development. The relationships that develop between a teacher and a student can have a long lasting effect on students and need to remain at the core of all decisions regarding each individual student.

These themes provide teachers a guide that keeps the student at the center of lesson planning and delivery (Brown-Jeffy & Cooper, 2011). These five culturally responsive pedagogical themes serve as a foundation for educating and engaging diverse students and could be applied to female students with EBD.

### National Longitudinal Transition Study-2

A database that allows for research on subgroups of individuals such as females with EBD is the National Longitudinal Transition Study-2 (NLTS-2). The NLTS-2 is a large database that includes information about the transition of students with disabilities. This study includes a

nationally represented sample of all students with disabilities under labels recognized by the IDEA. Categories recognized by IDEA include: learning disabilities, speech impairments, mental retardation, serious emotional disturbances (emotional and behavioral disabilities), other health impairments, multiple disabilities, hearing impairments, visual impairments, orthopedic impairments, autism, traumatic brain injury, and deaf-blindness. The NLTS-2 researchers sampled 1,250 participants from each category except autism, traumatic brain injury, and deaf-blindness. Researchers sampled 1,012 students with autism, 559 students with traumatic brain injury and 122 with deaf-blindness. The amount of participants sampled provides a national representation of all students with disabilities in the U.S. Participants were randomly selected from over 500 school districts around the country. The NLTS-2 researchers sampled approximately 12,000 total participants.

The NLTS-2 was funded by the U.S. Department of Education and SRI International conducted the research study. Every aspect of the study was completed by SRI International including, but not limited to study design, instrumentation, and data collection. Staff from the Office of Special Education Programs, a division of the U.S. Department of Education, oversaw the study and provided feedback as needed. A task force was established to ensure that all students with disabilities were represented accurately. The task force included stakeholders and interested audiences.

Data were collected from 2001 to 2009 during five different data collection points referred to as waves. Waves are defined as the points in time in which data were collected from teachers, students, and parents (wave 1: 2001-2002; wave 2: 2003-2004; wave 3: 2005; wave 4:

2006-2007; wave 5: 2008-2009). Researchers collected different pieces of data based on the data collection timeline established by SRI International.

The following data were collected as a part of the NLTS-2: parent and youth interviews and/or parent and youth surveys, school surveys, general education teacher survey, school program survey, school characteristic survey and transcripts of all student participants. During wave 1, the following data were collected: parent phone interview and/or survey, student assessment, school characteristic survey, school program survey, teacher survey, and transcript. During wave 2, researchers collected youth phone interviews and/or mail surveys, student assessments, school program surveys, teacher surveys, and transcripts. In waves three, four, and five only youth phone interviews and/or mail surveys, and transcripts were collected.

#### NLTS-2 Data collection tools

The NLTS-2 included five data collection instruments.

Parent/youth phone interview and/or mail survey: The phone interview and mail survey were identical tools and were administered based on convenience of the individual parent or student who completed the interview or survey. The interview and survey addressed “youth and family characteristics, non-school activities, satisfaction with school programs, and activities after high school” (Wagner et al., 2006).

Student Assessment: Student assessments were administered in waves one and two. Although assessments were administered over two waves, only one student assessment was collected for each participant included in the study. The student assessment consisted of components of the Woodcock Johnson, III and self-concept and self-determination scales. A workgroup of



assessment experts chose a series of subtests to measure reading comprehension, math skills, vocabulary, and science and social studies content knowledge. The final iteration of the Woodcock Johnson, III is referred to as the Woodcock Johnson research edition, because shorter versions of the assessment batteries were used. The student assessment also included interviews with each participant about their levels of self-concept and self-determination.

**School Program Survey:** The school program survey was used to collect data on individual student's school programming such as courses taken, related and support services, transition planning, and aspects of school performance. A school representative that knows the details of individual students school programming such as a special education teacher completes the school program survey. The information collected provided a synopsis of each student's programs and services.

**School Characteristics Survey:** The school characteristics survey is completed by a school official that can report on the characteristics of schools attended by individual participants. Information that is collected from the school characteristics survey includes, but not limited to grade levels served, demographic characteristics, size of the school, absenteeism, and rates of inclusion of students with disabilities.

**Transcripts:** Academic transcripts were collected for each participant for each year of the longitudinal study. Researchers collected grades, course taking patterns, and attendance from the transcripts.

## School Engagement for females with EBD

A thorough analysis of the data in the NLTS-2 study could be intertwined with the PIM (Finn, 1989) and the CRT (Wlodkowski & Ginsberg, 1995) to expand the gap in the literature for females who are EBD. The current literature presents specific gaps in research involving the level of school engagement for females with EBD. In a review of the literature completed by Mooney and colleagues (2003) no studies addressed academic achievement of females with EBD. Since 2003, limited research has been conducted on females with EBD and no direct studies have been conducted on overall student engagement of this population of students (Rice & Yen, 2010). However, for this level of research analyses to occur the field must first understand which variables positively and negatively affect school engagement for females. In depth research is needed to better understand the interventions that will engage females with EBD to prevent negative outcomes, such as school dropout.

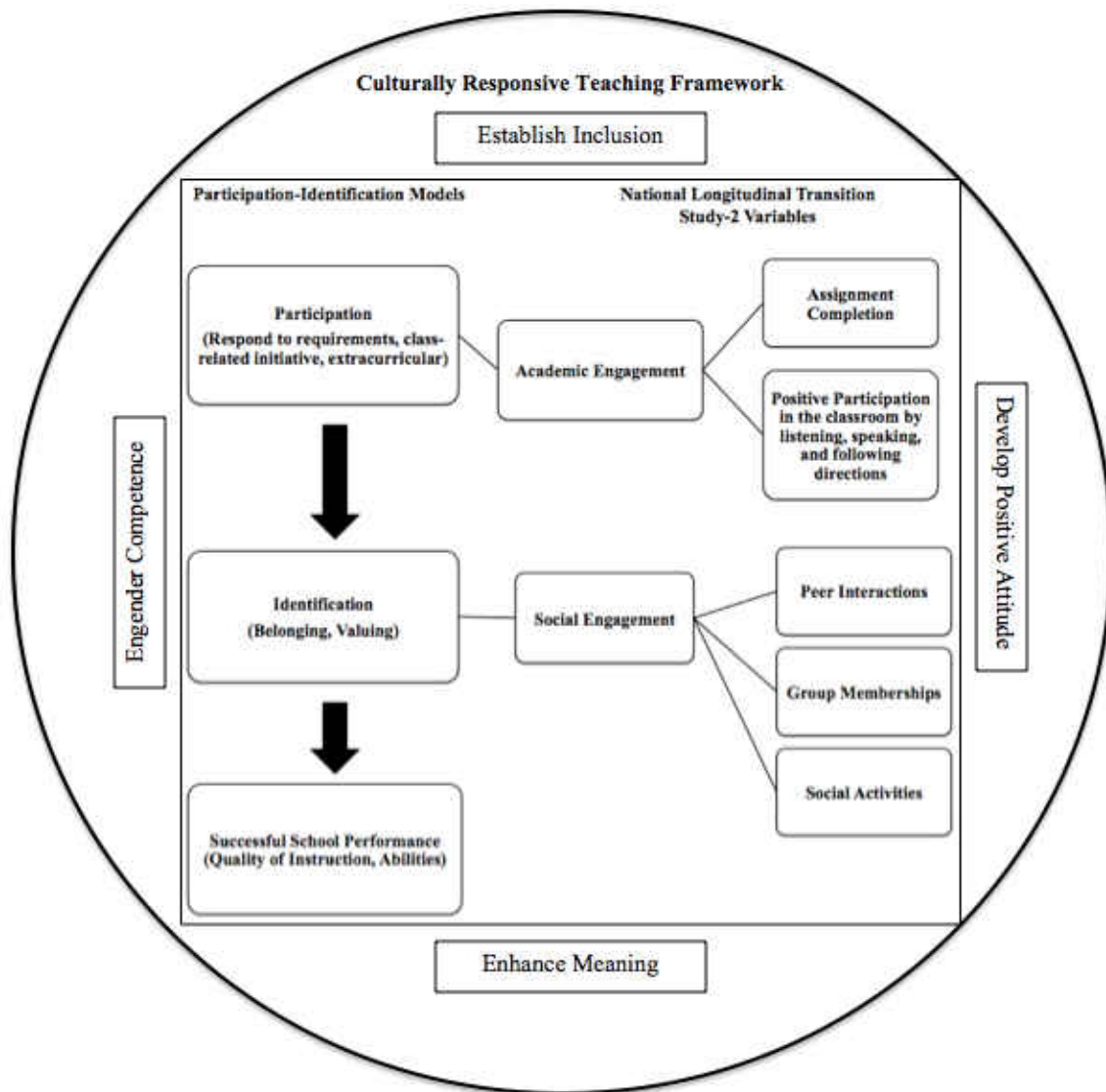


Figure 6: The relationship that could exist between the PIM, CRT, and the NLTS-2 data for females with EBD.

Figure 6 offers a potential model to link the PIM, CRT, and NLTS-2 data to create a model for the field to consider for females with EBD. As shown in figure three, the CRT framework's principles could inform the selection of variables from the NLTS-2. The four principles related to females with EBD: establish inclusion, develop positive attitudes, enhance meaning, and engender competence, is at the center of the conceptual development of ideas for engagement.

These four principles extend the work by Brown-Jeffy and Cooper (2011) in which they proposed five CRT components: identity and achievement, equity and excellence, developmental appropriateness, teaching to the whole child, and student teacher relationships. Although the Brown and colleagues model is not being used to situate the current study, it provides an in-depth look at culturally responsive teaching to engage students in the school setting.

Figure three illustrates the existing relationship between the PIM and the NLTS-2. The PIM framework caters directly to a hypothesized model for school engagement for females with EBD. Within the circle of the conceptual framework (see Figure 6), the left side highlights components of the PIM, participation, identification and school success. The meanings of each component are also listed. The right side of Figure six provides the latent constructs and observed variables that are found in the NLTS-2 data set. The PIM component of participation is defined by academic achievement and high school experiences. Based on the operational definition of academic achievement and high school experiences for the current study, the researcher used observed variables, found on the right side of Figure 6, to measure the PIM components. Academic achievement and high school experiences are latent constructs, and cannot be directly measured (Kline, 2005). Using the selected variables, the researcher will focus on understanding the variables that positively affect school engagement for females with EBD by employing a three-phase study.

## CHAPTER THREE: METHODS

The literature for females with EBD is clearly limited in what can currently be said about this population. Since 1985, the U.S. Department of Education Office of Special Education Program has collected data on the transition outcomes of students with disabilities. Data were collected in two, 9-year longitudinal studies, entitled National Longitudinal Transition Study (NLTS). The first NLTS study began in 1985 and ended in 1994 and the second study, NLTS-2, began in 2000 and ended in 2009. From the NLTS-2 study, data were gathered to represent a national sample of students with disabilities ages 13 to 17. Since the collection of the NLTS-2 database, it has been mined to produce several national reports. The researcher in this study extended the reports produced by conducting a statistical analyses of the NLTS-2 database on students with EBD and combined the outcomes with interviews from females ages, 14-17, identified as EBD to create a Structural Equation Model (SEM) for the field to reflect upon related to recommendations from this population.

The researcher in the current study attempted to enhance the thinking in the field about females with EBD by answering three overarching research questions.

- 1) What are the most important factors that have a positive effect on school engagement for students with EBD?
  - a) Does students' gender moderate a relationship between antecedents of engagement and school engagement? In other words, is the effect of different factors on school engagement the same for female and male students with EBD?
- 2) What are the most important factors that have a positive effect on school engagement from a female student's perspective?

3) Do current female students with EBD, after sharing the factors that emerge in an SEM model created from the NLTS-2 database, agree with these findings?

Based upon these questions, the researcher built three SEMs to address research question one and its sub question. Research questions two and three were answered through individual interviews administered to six females with an EBD label and by revisiting the SEM model created in question one. The frameworks to situate the current study were viewed through the Participation-Identification Model (PIM) (Finn, 1989) and the Culturally Responsive Teaching (CRT) framework (Wlodkowski & Ginsberg, 1995). Within the PIM, Finn (1989) posits that if students participate in the school setting, in either the academic or social aspects, they will begin to identify with school; thus improving school relationships, academic achievement, and school completion. In relationship to the PIM, the researcher used the CRT (Wlodkowski & Ginsberg, 1995) to focus on a subgroup of students, females and students with disabilities. The researcher further analyzed the results of the SEM by asking a current population of females labeled EBD to share their perceptions of the results.

### Research Procedures

The purpose of this study, using sequential explanatory mixed method design (Creswell, 2009; Creswell & Plano Clark, 2007; Creswell, Plano Clark, Gutmann, & Hanson, 2003; Hanson, Creswell, Clark, Petska, & Creswell, 2005) was to build a model for school engagement of females labeled EBD. The study was conducted across three phases. In the first phase, analyses of data from the NLTS-2 database occurred to create the SEMs of students with EBD, females with EBD, and males with EBD. The first phase was based on a secondary data analysis

of the existing NLTS-2 wave two large data set. Females with EBD were then interviewed to provide their perspective on the results of the SEM in phase two. The second phase involved the collection, coding, and analyses of qualitative data with an interview design, based on phenomenology (Annells, 2006; Groenewald, 2004; Morse, 2003). The third phase was to compare and contrast the findings between the interview and the SEM in trying to represent the voices of the females with EBD from the data that emerged from each phase of the study.

#### Phase 1 - Secondary Data Analysis using Structural Equation Modeling

A SEM is a set of statistical techniques used to assess hypothesized theories in an a priori manner to describe or explain the characteristics of measured variables (Hancock & Mueller, 2012). For the purposes of phase one of the study, the researcher conducted a model-generating application of SEM (Jöreskog & Sörbom, 2006). Model-generating “occurs when an initial model does not fit the data and is modified by the researcher” (Kline, 2005, p. 11). The researcher used Service Product for Statistical Solutions (SPSS, 2014) to conduct descriptive statistical analyses of the sample. Linear structural relations (LISREL, 2012), a graphical user interfaces, was utilized to conduct the analyses within the set of statistical techniques involved in SEM. The LISREL interface also was used to present visual depictions of the model and to estimate the SEM.

#### Measures

The researcher used the NLTS-2 data to complete phase one of the study. The NLTS-2 data are “intended to provide a national picture of the experiences and achievements of students

in special education during high school” (Wagner et al., 2006). The researcher used data collected from the direct assessments of the NLTS-2. Wave two of the NLTS-2 was analyzed because direct assessments were only given to students during this wave of the study (Wagner et al., 2006). The direct assessments included the following individual assessments: reading, mathematics, science and social studies content, Student Self Concept Scale (SSCS), Self-Determination Scale (SDS), and Friendship Interaction (Asher, Hymel, & Renshaw, 1984). For the purposes of the current study, the researcher used items from the SSCS, SDS, and Friendship Interaction (Asher et al., 1984) to build the SEM. Reading, mathematics, and science standard scores (Woodcock Johnson, III, 2001), as well as race, income, and urbanicity were used as demographic variables to ensure no differences existed in the samples used. Because the direct assessments are commercially developed products, the entire scales are not publicly released (Wagner et al., 2006). The researcher disaggregated the data from wave two and only used data for male and female students with EBD. The researcher used SPSS and LISREL, statistical computer programs, to estimate and analyze components of the SEM.

### Variables

The researcher investigated two latent constructs, academic engagement and social engagement in creating the model. For the purposes of this study, academic engagement refers to the act of engaging in the academic setting by participating physically and mentally in class discussions, assignments, and group activities; thus including completing classwork and homework and engaging in activities to improve academic achievement (Al-Hendawi, 2012; Christenson, Reschly, & Wylie, 2012; Martin, 2011; Strambler & McKown, 2013). Social



Engagement refers to the act of engaging in the school setting via group memberships, peer interactions, social activities, supportive relationships, and extracurricular activities (Christenson et al., 2012; Koegel, Vernon, Koegel, Koegel, & Paullin, 2012; Pittaway, 2012). Latent constructs are not directly measured; therefore, latent constructs for the current study were measured by observed variables. Observed variables for this study fall under five categories: assignment completion; positive participation in the classroom by listening, speaking, or following rules; group memberships; peer interactions; and social activities. The observed variables, assignment completion and positive participation in the classroom, measured the latent variable academic engagement. The observed variables, group memberships, peer interactions, and social activities, measured the latent variable social engagement. Table 2 shows specific questionnaire items that fall under the five categories. The questionnaire items were taken from the direct assessment of wave 2 of the NLTS-2.

Table 2

## Questionnaire Items with Latent and Observed Variable Categories

Questionnaire Item	Latent Constructs	Observed Variable Category
ACA1 = I work on schoolwork that will improve career chances.	AE	AC
ACA2 = I can do my homework on time.	AE	AC
ACA3 = I can listen when the teacher is presenting lesson.	AE	PP (listening)
ACA4 = I can speak in class when called on.	AE	PP (speaking)
ACA5 = I can finish school work easily.	AE	AC
ACA6 = I can follow classroom rules.	AE	PP (follow rules)
SOC1 = I am involved in school related activities.	SE	SA
SOC2 = I make friends with other kids my age.	SE	PI
SOC3 = I can find a friend when I need one.	SE	PI
SOC5 = I'm lonely at school.	SE	PI

Questionnaire Item	Latent Constructs	Observed Variable Category
SOC6 = I volunteer in things that I am interested in.	SE	SA
SOC7 = I can do things to be liked by classmates.	SE	GM
SOC8 = I can take turns in games/activities.	SE	GM

*Note.* AE = academic engagement; SE = school engagement; AC = assignment completion; PP = positive participation in the classroom; SA = social activities; PI = peer interactions; GM = group memberships. Questionnaire items are taken from the SSCS, SDS, and Friendship Interaction measurement, which were given to NLTS-2 participants in wave 2 of the NLTS-2.

### Materials

The researcher used two computer software programs in the analyses of phase one of the current study. The two programs included SPSS and LISREL, The SPSS (Lomax, 2007) computer program was used to mine, alter, manage, and retrieve data to conduct multiple statistical analyses. While the LISREL software (Jöreskog & Sörbom, 2006) is syntax-based and was used to specify, estimate, assess, build SEMs to present relationships between variables and create visual depictions of the SEM.

### Phase 1 Procedures

The researcher attained the data set from the Institute of Educational Research (IES) by completing all necessary paperwork required. Prior to creating the model the researcher also identified the participants that met the criteria in the NLTS-2 database and conducted multiple independent t-test to assess variables that were potentially statistically significant between the

males and females with EBD in the study. Once the appropriate IES data sets were obtained, the researcher conducted the preliminary analyses to determine the population of students to access their data to build the SEM model. Numerous tests were conducted to ensure that any variance between the males were acknowledged prior to creating the SEM. Once the homogeneity of key variables (ethnicity, social economic status) were determined five basic steps were followed to complete the SEM. To conduct the model-generating application of SEM, the researcher completed the following steps: a) specify the model, b) determine whether the model is identified, c) select measures of the variables represented in the model, d) use a computer program to estimate the model, and e) if necessary, re-specify the model (Kline, 2005).

### Participants

Participants in the NLTS-2 study included 11,270 students with disabilities. Of the 11,270 students with disabilities, 1,077 were students with EBD. The researcher used data of students with EBD (n=418) collected from the direct assessments of wave two of the NLTS-2.

Wave two included 308 males and 110 females with EBD. Due to the low population of females with EBD and their direct assessment scores in wave two, the researcher included all females with EBD, excluding those with missing data, in phase one of the analyses. Five females with EBD were missing parts of the direct assessment; therefore, those cases were removed, which afforded the researcher to use a sample of 105 females with EBD.

Preliminary analyses were conducted on the data of students with EBD who participated in wave two. An independent samples *t* test was conducted to analyze the differences between males and females (independent variable) on the following dependent variables: ethnicity,

income, urbanicity, applied problems standard score, passage comprehension standard score, and science standard score. Ethnicity refers to a group of individuals with the same racial background. Income was a demographic variable collected based on the amount of money earned by a participant's family. Urbanicity is the degree to which a specific area that a participant lives in is considered urban (Wagner et al., 2006). The final three demographic variables used for the preliminary analysis – applied problems, passage comprehension and science– are subtests within the Woodcock Johnson Research Edition (2001). Applied problems measured mathematical skills, passage comprehension measured reading comprehension skills, and the science subtest measured the amount of science knowledge participants had based on their age at the time of assessment. The total number of students with EBD (n=418) was included in the preliminary analysis. Results of the *t* test are shown in Table 3.

Table 3

## Characteristics and Differences of Students with Disabilities

Variable	Sample		Independent samples t-test			
	Female	Male	t	df	$\alpha$	95% CI
Ethnicity	n = 109	n = 308	.809	215.65	.419	[-.117, .280]
	M = 1.48	M = 1.56				
	SD = .867	SD = .995				
Income	n = 295	n = 106	.840	178.48	.402	[-.109, .270]
	M = 1.86	M = 1.94				
	SD = .856	SD = .818				
Urbanicity	n = 263	n = 87	1.181	148.41	.239	[-.066, .261]
	M = 2.14	M = 2.24				
	SD = .668	SD = .675				
Applied Problems	n = 307	n = 109	.949	213.04	.344	[-1.614, 4.608]
	M = 86.78	M = 88.28				
	SD = 13.66	SD = 15.46				
Passage Comprehension	n = 308	n = 110	-.109	195.12	.914	[-4.601, 4.120]
	M = 84.55	M = 84.31				
	SD = 19.81	SD = 20.17				
Science	n = 308	n = 110	2.64	200.71	.009	[1.268, 8.733]
	M = 85.28	M = 90.28				
	SD = 16.82	SD = 17.66				

*Note.* n = sample size, t = t score, M = mean, df = degrees of freedom, CI = confidence intervals,  $\alpha$  = p-value: significance level ( $p < .05$ ).

Due to insignificance of the independent samples *t* test, the researcher was able to use equal groups of males (n=105) and females (n=105) instead of using the entire population of males (n=308) and females (n=110). The insignificant results show that using a smaller sample size would yield similar results as using the entire sample. The researcher randomly selected 105 of the 308 males with EBD, using the SPSS random number generator. The original number of females was 110 (n=110). Five cases were excluded because they contained missing data; therefore, the number of female participants included in the SEM was 105 (n=105). The total number of participants used in the SEMs was 210; n = 210, females = 105, males = 105. The researcher used the randomly selected males to conduct remaining statistical analyses (Green & Salkind, 2011).

#### Specify the model

Based on previous literature regarding school engagement (Reschly & Christenson, 2006) and students with disabilities (Newman et al., 2011; Wagner et al., 2006), an initial model was specified (see Figure 7). The researcher used the following latent variables to specify the model: academic engagement and social engagement. Items taken from the direct assessment that fell under the following five categories were used to represent observed variables to measure the latent variables: positive participation in the classroom, assignment completion, group memberships, peer interactions, and social activities. To specify the model, the researcher used the most recent reports centered on school engagement for students with disabilities written by

NLTS-2 researchers. As stated in chapter two of the current study, students with EBD have the most negative outcomes and are not as engaged in the school setting as their peers with other disabilities. Students with EBD have the highest dropout rates, the lowest grade point averages and the highest number of course failures when compared to their peers with other disabilities (Newman et al., 2011). The researcher built a model based on reports from the NLTS-2, current literature, the PIM model and the CRT framework. The researcher specified the model as shown in figure one. To answer research questions one, the data for students with EBD, females with EBD and males with EBD was used to fit the hypothesized model. After the model was specified, the researcher then ensured the model was identified.



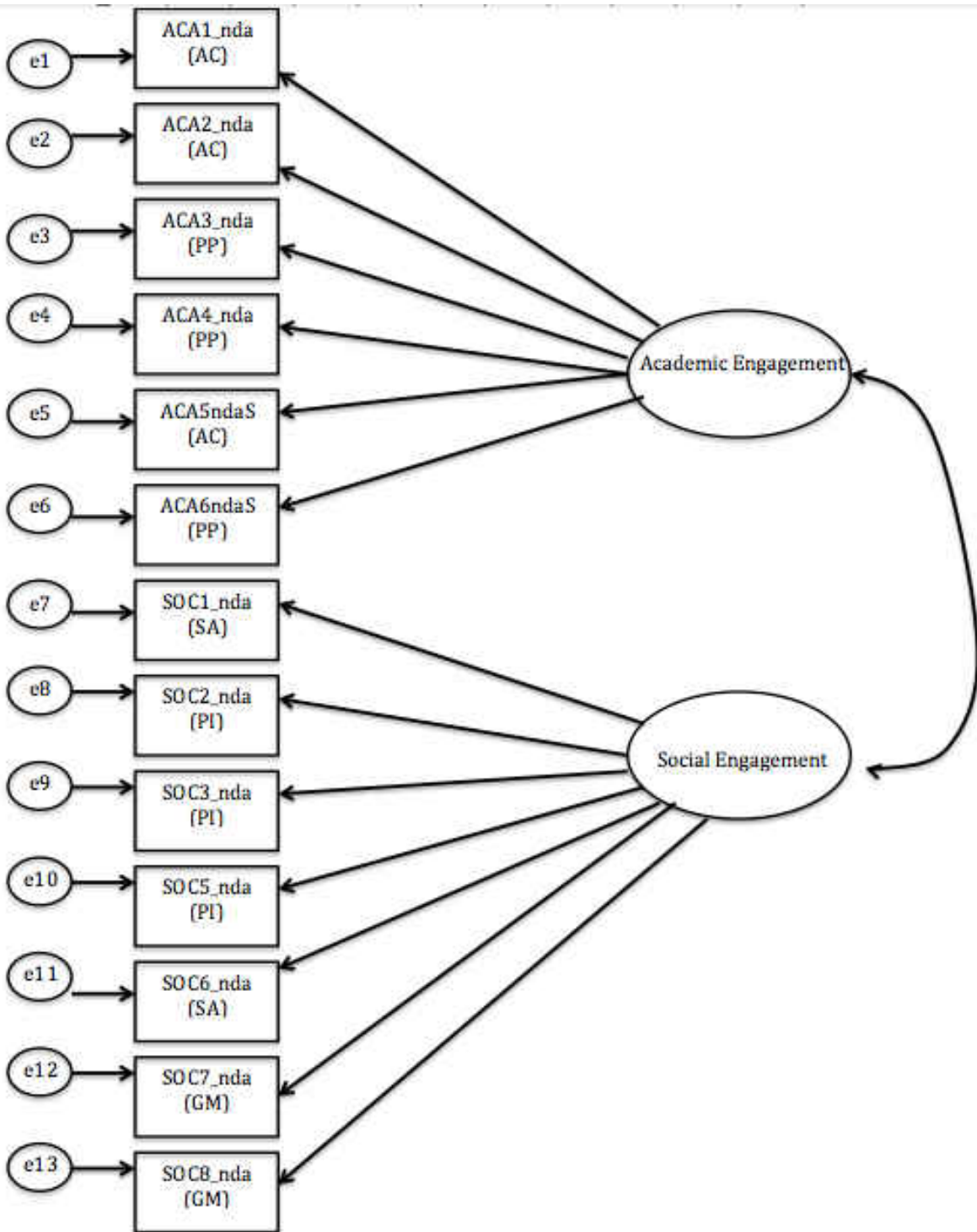


Figure 7: Hypothesized structural equation model for males and females with EBD.

Determine whether the model is identified

“A model is said to be identified if it is theoretically possible to derive a unique estimate of each parameter” (Kline, 2005, p. 64). There are two requirements to identify a SEM: (a) have as many observations as free model parameters, if not more and (b) each latent construct should be assigned a scale. Free model parameters are characteristics of the population and are estimated by the computer software program. To address the first requirement of identification, the researcher assessed and calculated the amount of free model parameters and observations. To satisfy the second requirement, each latent variable was assigned a scale. Assigning a scale to latent constructs allows the computer to estimate any effects involving each construct that is being analyzed (Kline, 2005). Once the model was identified, the researcher then moved on to the next stage of analysis.

Select measures of the variables represented in the model

While completing the next stage, the researcher operationally defined all constructs and observed variables, prepared and then screened the NLTS-2 data. The latent constructs that were analyzed were academic engagement and social engagement. Based on information provided in the PIM model, school engagement consists of academic and social engagement (Finn, 1989); therefore, the researcher used observed variables to measure the two components of school engagement. Latent constructs were measured by several observed variables. Academic engagement refers to the act of engaging in the academic setting by participating physically and mentally in class discussions, assignments, and group activities; thus including completing classwork and homework and engaging in activities to improve academic achievement (Al-

Hendawi, 2012; Christenson, Reschly, & Wylie, 2012; Martin, 2011; Strambler & McKown, 2013). Social Engagement refers to the act of engaging in the school setting via group memberships, peer interactions, social activities, supportive relationships, and extracurricular activities (Christenson, Reschly, & Wylie, 2012; Koegel, Vernon, Koegel, Koegel, & Paullin, 2012; Pittaway, 2012). During this phase the researcher also prepared and screened the data by creating three new SPSS files. Each of the three SPSS files contained all of the items used in the model; however, one file was created for students with EBD, one for females with EBD, and the final file for males with EBD. Three separate SPSS files were created to insure accuracy in running the SEM analyses.

Use a computer program to estimate the model

In step four the researcher evaluated the model fit indices and interpreted the parameter estimates. To evaluate the model fit indices, the researcher determined how well the model as a whole explains the items used from the NLTS-2 data (Kline, 2005). The researcher initially examined the Goodness of Fit Statistics, which included the Chi-square ( $\chi^2$ ) p-value, and the Root Mean Square Error of Approximation (RMSEA). The Goodness of Fit Statistics provides information to the researcher to determine if the model is significant or not. To supplement or negate the results of Chi-Square, the researcher then assessed the Model Fit Indices. According to Schumacker and Lomax (2010), fit indices are categorized into model fit, model comparison, and model parsimony. To determine the best fit, researchers should choose at least one index from each category to report (Schumacker & Lomax, 2010). The researcher assessed model-fit indices, which included Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI),

and Comparative Fit Index (CFI). The GFI “measures the amount of variance and covariance in  $S$  that is predicted by the reproduced matrix  $\Sigma$ ” (Schumacker & Lomax, 2010, p. 86). The GFI addresses the model fit category. The AGFI is similar to the GFI, but is “adjusted for the degrees of freedom of a model relative to the number of variables” (p. 86). The AGFI addresses the model fit category as well as the model parsimony category. The CFI “measures the improvement in noncentrality” when one model is compared to a second model (p. 89). The CFI addresses the model comparison category.

After assessing the Model Fit Indices, the researcher was able to interpret the parameter estimates. By interpreting the parameter estimates derived from the analyses of the NLTS-2 data using LISREL, the researcher explained the specific effects for each parameter found in the model. Due to the results of the model, the researcher then re-specified the model based on the LISREL output.

#### Re-specify the model

To re-specify the model, the researcher referred to the LISREL or examined the visual depiction of the model in the LISREL software program. The LISREL output is the primary method of respecifying the SEM. The LISREL output provided suggestions for each model, the first model for females with EBD and a second model for males with EBD. The output also provided the results of how much each item contributed to the model. However, if suggested modifications were not provided, the researcher examined the parameter estimates within the visual depiction of the SEM. Some items contributed to the model greatly, whereas some items did not. If any item did not contribute to the model appropriately, meaning the contribution was

negative or below .2, the researcher removed the item from the model, thus providing a better fitting model. After modifying the model based on the LISREL output, the researcher, once again, examined the Goodness of Fit statistics as well as interpreted the parameter estimates. Once a good fitting model was found, the researcher did not modify the model for any additional reasons.

Once the researcher completed the SEM process, a thorough description of the analyses was written up and transformed into interview questions for females with EBD who participated in phase two (See part two of the interview questions in Appendix C). The results of phase one were described to participants who were interviewed, so they could share their perceptions of the model that emerged from the national data set.

### Phase 2 - Qualitative Analysis of Interviews

Phase two of the current study consisted of interviews with six 14-17, year-old females with EBD. Phase one procedures were completed prior to the beginning of phase two; results of all statistical analyses were reviewed, drafted, and converted into questions that were asked to phase two participants. The interviews were then coded and analyzed by the researcher to create themes from the students' interviews.

#### Setting

Each interview took place via Skype™. Participants were interviewed separately in a quiet office. All interviews were audio recorded to maintain the accuracy of participant responses.

## Materials

The researcher asked each participant a series of questions pertaining to their unique school experiences and their perceptions on the results ascertained from the SEM created in phase one. Each interview was recorded for accuracy of the participant's responses.

The interview questions can be found in Appendix C. The researcher summarized and identified themes in participant responses to answer research question two using LISREL.

## Participants

Participants included six, 14-17 year old females with EBD. The requirements for a student to participate in the current study included the following: female, ages 14-17 years, and between grades 8<sup>th</sup> through 12<sup>th</sup>. The researcher conveniently selected participants based on the selection criteria, as well as the availability of females with EBD. The school staff disclosed the demographics of each participant; race: two African American, one Latina, and three Caucasian; ages: two 15-year-olds, one 16-year-old, and three 17-year-olds (see Table 4). Each student was receiving services under the IDEA category of EBD and at the time of the study had an active IEP. All participants attended a school that provided services only to girls with EBD. The school was located in an urban school district in the northeast region of the United States.

Table 4

Phase Two Participant Demographics

Participant	Race	Age	Grade Level
Participant V3	African American	17	12
Participant B6	Caucasian	16	10
Participant SA8	Caucasian	17	11
Participant CB9	Latina	15	9
Participant CH11	Caucasian	15	10
Participant AL12	Caucasian	17	12

Procedures

The researcher first obtained consent from parents (see Appendix A for consent letter). The staff briefly explained the study to parents and sent consent forms home. Once consent forms were returned to the school, school staff scanned in copies of the consent form to the researcher. The researcher then contacted parents to explain more about the study and provide the parent and participant with an orientation. A date and time was then scheduled for the participant's to be interviewed.

Prior to the interviews the researcher transferred results of the phase one SEM that was created into interview questions. The questions pertaining to phase one results are located in part two of the interview questions (see Appendix C).

Each interview was administered via Skype™. Students sat in a quiet room located in their school. A laptop computer with the Skype™ application was used for the interview. The

school staff facilitated the setup of the technology and ensured students were interviewed at their scheduled time. Each participant entered the quiet room, separately, and sat down. Once participants sat down in front of the Skype™ camera, assent was obtained verbally by reading the assent statement to the participant. The participants verbally assented. The participants were then asked if the conversations could be audio recorded. The researcher turned on the audio recorder and began the interview with the participants. The participants were told that they could stop the interview at any time or take a break if needed. The researcher asked each question, starting with part one of the interview questions, to the participant and added follow-up questions as needed. Due to the nature of the qualitative portion of this study, additional and follow up questions were added to increase the clarity and robustness of the interview (Creswell, 2013). Once questions from part one were answered, the researcher proceeded to part two. The researcher explained the definitions of school engagement, academic engagement, and social engagement to each one of the participants. The researcher answered any questions that participants had. Once participants stated that they understood the definitions and had no further questions, the researcher engaged participants in part two of the interview questions, which dealt specifically with the results of phase one of the study.

The audio recordings of the interviews were transcribed immediately after each of the sessions. All identifiable information was discarded, leaving only an alphanumeric code to identify participants' responses. The researcher then analyzed phase two results.



### Phase Two Data analyses

To analyze the data in this phase, the researcher initially grouped similar phrases and words together from the girls' interviews by providing them with a unique code. From this initial grouping, the researcher acknowledged themes and variables that were uncovered during the analysis by placing them in a table and labeling their specific theme. The themes were then defined based on the words or phrases that were placed under the respective themes. Due to the ambiguity of some of the initial themes, the researcher re-categorized phrases and words into newly defined and clearer themes. These themes were then written up and compared to the quantitative results in phase three.

### Phase Three – Intersection of quantitative and qualitative data

The third phase of the study was to compare the SEM data from the NLTS-2 themes and the interview by creating a Venn Diagram showing the intersections of phase 1 and phase 2. The purpose of this phase is to provide the field with thoughts to consider related to creating more effective programs for females with EBD that emerged from the females' voices within the NLTS-2 data base and from actual interviews with current females from this population. The purpose of this phase was primarily to create a future research agenda and discussion points for supporting females with EBD.

### Reliability

Reliability measures for each SEM were taken at three points throughout the completion of the SEMs. The researcher first addressed reliability of each questionnaire and subtest from the

Woodcock Johnson. According to Wagner and colleagues (2006), reliability for each data collection tool used was ascertained prior to beginning the longitudinal study. Each measure is commercially developed and has not been released to the public (Wagner et al., 2006).

The NLTS-2 data were delivered in SPSS files as a complete file. The participants for this portion of the current study only consisted of students with EBD from wave two of the NLTS2. During the data screening process, the researcher extrapolated a random sample from the population and created a new SPSS file. This file was then placed into LISREL for analyses. An interrater reviewed 30% of the SPSS data entered to ensure accuracy of data input into both the SPSS file and into LISREL.

Finally, the researcher addressed reliability within the SEMs. Reliability for SEMs is accounted for within the factor loadings of each model. Based on the Model fit indexes, the models are deemed reliable if they met the cutoff scores shown in table 4.2 (Hu & Bentler, 1999). To ensure the reliability of each SEM was met the researcher assessed the LISREL output, which contained the model fit information.

Upon completion of phase two, the researcher established interrater reliability for the qualitative portion of the study. After the researcher coded interview responses, an interrater reviewed and coded 30% of participant responses. Reliability was set at 90% or higher to ensure reliability (Creswell, 2013).

### Validity

For each analyses conducted, measures were taken to ensure validity of the results. To validate the SEMs, additional samples were taken from the data that included 418 students with

EBD and 308 males with EBD. The sample data were fit to the modified models for students with EBD and males with EBD. After the initial analyses were conducted the researcher evaluated the model using the model fit index cutoffs, as previously identified.

In regards to the interviews conducted in phase two of the study, once interviews were transcribed, the transcriptions were sent to phase two participants. Participants read over their transcribed responses as a means of member checking to validate the interview responses.

### Human Participants and Ethics Precautions

The researcher completed official documents to submit to the Internal Review Board (IRB) Committee prior to beginning the current study. Phase two of the current study exposed the researcher to direct interaction with students with EBD. The study was voluntary and participants were able to withdraw from the study at any time.

To minimize the risks to participants in the current study, the researcher locked all data (qualitative and quantitative) in a secure room in the Teaching Academy at the University of Central Florida. The quantitative data that included identifiable data from the NLTS-2 was kept under a password-protected file on a secured computer in a secured room in the Teaching Academy. The NLTS-2 data were returned and no longer used once the researcher completed the study. In regards to qualitative data, each participant was assigned an alphanumeric code. Once participants were assigned their alphanumeric codes, the researcher discarded all identifiable data from paperwork and recordings. One form with corresponding names and alphanumeric codes of the qualitative portion of the current study was maintained in a locked file in room 205 of the Teaching Academy at the University of Central Florida.

To ensure participants and their guardians were informed of the study, each participant and their guardians had the opportunity to speak to the researcher via a telephone conference for an informational session. The telephone conference was in place for participants and guardians to learn more about the current study and to ask any questions of the researcher.

#### Additional ethical concerns

Due to the nature of qualitative research, it is necessary to establish the researcher's positionality (Creswell, 2013). Positionality refers to disclosure of any biases a researcher may have based on their past experiences and backgrounds. The researcher is an African American woman of 31 years. Her professional background includes teaching assignments in Durham, North Carolina and Orlando, Florida. The researcher has taught students in Kindergarten through 12<sup>th</sup> grade. Teaching assignment settings include resource room, pull-out, push-in, inclusion, and separate setting. The researcher has taught students with a variety of abilities from mild disabilities to severe disabilities. Prior to teaching, the researcher worked with a mental health agency supporting children ages 8-18. Her educational background includes an undergraduate degree in Mass Communication, a Master's degree in Special Education with a concentration in Behavior and Emotional Disabilities, and is currently working on a Ph.D. in Exceptional Education. Most of the researcher's teaching assignments and experiences have been geared towards students with emotional or behavioral disabilities. The researcher's interest in EBD stems over ten years ago. The researcher's interest in females with EBD recently blossomed after reading extensive literature that pertained mostly to African American males and the disproportionality of the EBD label. As a part of her research agenda, the researcher is

determined to shed light on the inadequacy of services provided to females with EBD and to add to the literature base for this population of students.

## **CHAPTER FOUR: RESULTS**

### Overview

The researcher in this study created a new model for the field to consider with regard to working with females with Emotional Behavioral Disorders (EBD) in education. In this chapter the results from the research study are provided. The researcher used data from the National Longitudinal Study Phase 2 (NLTS-2) database to create a Statistical Equation Model (SEM). This model was further shaped, confirmed and negated via interviews with girls with EBD. Assumptions of SEM's and how the researcher addressed these assumptions, as well as, the results of each hypothesized and modified SEM are provided related to each research question. The researcher concludes the chapter by presenting reliability and validity outcomes for all phases of the data collection and analyses.

### Phase 1 – Factors effecting school engagement

The first research question addressed was what are the most important factors that have a positive effect on school engagement for students with EBD? In phase one, the data of all students with EBD (n=210) were analyzed from the NLTS-2 database to create a SEM to answer this initial research question. The hypothesized model was fit to the data that included 210 participants with EBD (105 males, 105 males).

### Preliminary analysis

Preliminary analyses were completed on all data for students with EBD in wave two of the NLTS-2. Because the data provided in the direct assessments for students with EBD and

between the number of males and females in this category were dramatically unequal in sample size (74% versus 26%, respectively), the researcher conducted an independent t-test to examine if a statistically significant difference existed between females and males, using the entire population of students with EBD collected for wave two of the NLTS-2. The variables analyzed included ethnicity, income, urbanicity, applied problems, passage comprehension, and science content.

Each variable was found to be insignificant between males and females. With each independent t-test, males and females scored similarly in their means and standard deviations. The outcome of the analyses for each characteristic is presented in Table 5.

Table 5

## Characteristics and Differences of Students with Disabilities

Variable	Sample		Independent samples t-test			
	Female	Male	t	df	$\alpha$	95% CI
Ethnicity	n = 109	n = 308	.809	215.65	.419	[-.117, .280]
	M = 1.48	M = 1.56				
	SD = .867	SD = .995				
Income	n = 295	n = 106	.840	178.48	.402	[-.109, .270]
	M = 1.86	M = 1.94				
	SD = .856	SD = .818				
Urbanicity	n = 263	n = 87	1.181	148.41	.239	[-.066, .261]
	M = 2.14	M = 2.24				
	SD = .668	SD = .675				
Applied Problems	n = 307	n = 109	.949	213.04	.344	[-1.614, 4.608]
	M = 86.78	M = 88.28				
	SD = 13.66	SD = 15.46				
Passage Comprehension	n = 308	n = 110	-.109	195.12	.914	[-4.601, 4.120]
	M = 84.55	M = 84.31				
	SD = 19.81	SD = 20.17				
Science	n = 308	n = 110	2.64	200.71	.009	[1.268, 8.733]
	M = 85.28	M = 90.28				
	SD = 16.82	SD = 17.66				



*Note.* n = sample size, t = t score, M = mean, df = degrees of freedom, CI = confidence intervals,  $\alpha$  = p-value: significance level ( $p < .05$ ).

### Assumptions

With each statistical analyses a set of assumptions must be satisfied or addressed prior to running the analyses. For an SEM the following assumptions must be satisfied: multivariate normality, missing data, sufficiently large sample size, and correct model specification (Byrne, 2009).

#### Multivariate normality

To establish that the data were normal, the researcher examined the kurtosis and skewness of each test item used in the analyses from the NTLIS-2 database. The data are said to be normal when skewness is -1 to +1 and kurtosis is -3 to +3. The data used for the current study fell within the normal skewness and kurtosis range (-.734-1.1; -1.357-.061, respectively); therefore, the data were assumed to be normal in each of the analyses. The skewness and kurtosis results are shown in Table 6.

Table 6

## Descriptive Statistics of Questionnaire Items

Item (n=210)	M	SD	Variance	Skewness	Kurtosis
(ndaF1_friend) I can find a friend when I need one	1.51	.843	.710	1.131	-.627
(ndaF2_lonely) I 'm lonely at school	2.11	.564	.318	.024	.061
(ndaSd1_MakeFriends) I make friends with other kids my age	2.69	.956	.913	-.108	-.970
(ndaSd4_School) I am involved in school-related activities	1.94	1.066	1.135	.809	-.646
(ndaSd5_Volunteer) I volunteer in things that I am interested in	2.68	1.031	1.062	-.085	-1.188
(ndaSc8b_5liked) Important: I can do things to be liked by classmates	1.82	.786	.618	.332	-1.308
(ndaSc8b_2turn) Important: I can take turns in games/activities	2.15	.736	.541	-.248	-1.117

Item (n=210)	M	SD	Variance	Skewness	Kurtosis
(ndaSd8_ImproveChances)	2.64	1.018	1.036	-.078	-1.127
I work on schoolwork that will improve career chances					
(ndaSc8b_4hmwk)	2.33	.752	.566	-.625	-.980
Important: I can do my homework on time					
(ndaSc8b_7listen)	2.37	.653	.426	-.555	-.661
Important: I can listen when teacher is presenting lesson					
(ndaSc8b_10speak)	2.17	.684	.468	-.232	-.861
Important: I can speak in class when called on					
(ndaSc8b_13wrk)	2.40	.706	.499	-.734	-.690
Important: I can finish school work easily					
(ndaSc8b_1rule)	2.19	.802	.643	-.358	-1.357
Important: I can follow classroom rules					

*Note.* n = 210, M = mean, SD = standard deviation. Data is said to be normal if skewness = -1 to 1; kurtosis = -3 to 3.

### Missing data

The sample used for the statistical analyses in this study did not include any cases with missing data in the NLTS2 database. The final sample of participants whose data were analyzed in this study included a total of 210 participants, 105 males and 105 females who were identified as EBD with complete data sets in the NLTS-2 database.

### Sufficiently large sample size

Based on G-power, a power analysis computer based program, the suggested sample size for analysis to create an SEM was recommended to be 152; however, a sample size of 100 was considered acceptable. To assess the model for students with EBD, the suggested sample size was attained, as the sample included 210 participants; however, once gender was disaggregated, the sample size used fell below the suggested sample size (female = 105; male = 105) but was still within the acceptable sample size range. To address the smaller sample size, the researcher evaluated the model using Minimum fit function Chi-square, because it is not sensitive to sample size. By using Minimum Fit Function Chi-Square, a more accurate evaluation of the gender-disaggregated model was made. To supplement Chi-Square, four additional fit indexes were used to evaluate each model, which are later discussed.

### Correct model specification

The model was specified based on literature pertaining to females, students with EBD, and school engagement. Each model was specified and respecified based on the results of the analyses. To correctly specify the model, the researcher used previous literature as foundational

frameworks, the PIM and the CRT. If specific items lined up with the tenets of the PIM and the CRT, the items were included in the model and modified as needed to ensure the best fitting model was produced. Statistical procedures of SEM

### Specify the model

#### The measurement model

Prior to the SEM analyses, the researcher developed a hypothesized model (see Figure 8). The model included 13 items from three assessment scales given to students in Wave Two of the NLTS-2. The items chosen can be categorized under the operational definitions of academic engagement or social engagement. Figure 8 shows the hypothesized model. The actual items, used as observed variables, are abbreviated in the model. Abbreviations are as follows: ACA1 = I work on schoolwork that will improve career chances (assignment completion), ACA2 = I can do my homework on time (assignment completion), ACA3 = I can listen when the teacher is presenting lesson (positive participation in the classroom), ACA4 = I can speak in class when called on (positive participation in the classroom), ACA5 = I can finish school work easily (assignment completion), ACA6 = I can follow classroom rules (positive participation in the classroom), SOC1 = I am involved in school related activities (social activities), SOC2 = I make friends with other kids my age (peer interactions), SOC3 = I can find a friend when I need one (peer interactions), SOC5 = I'm lonely at school (peer interactions), SOC6 = I volunteer in things that I am interested in (social activities), SOC7 = I can do things to be liked by classmates (group memberships), SOC8 = I can take turns in games/activities (group memberships).

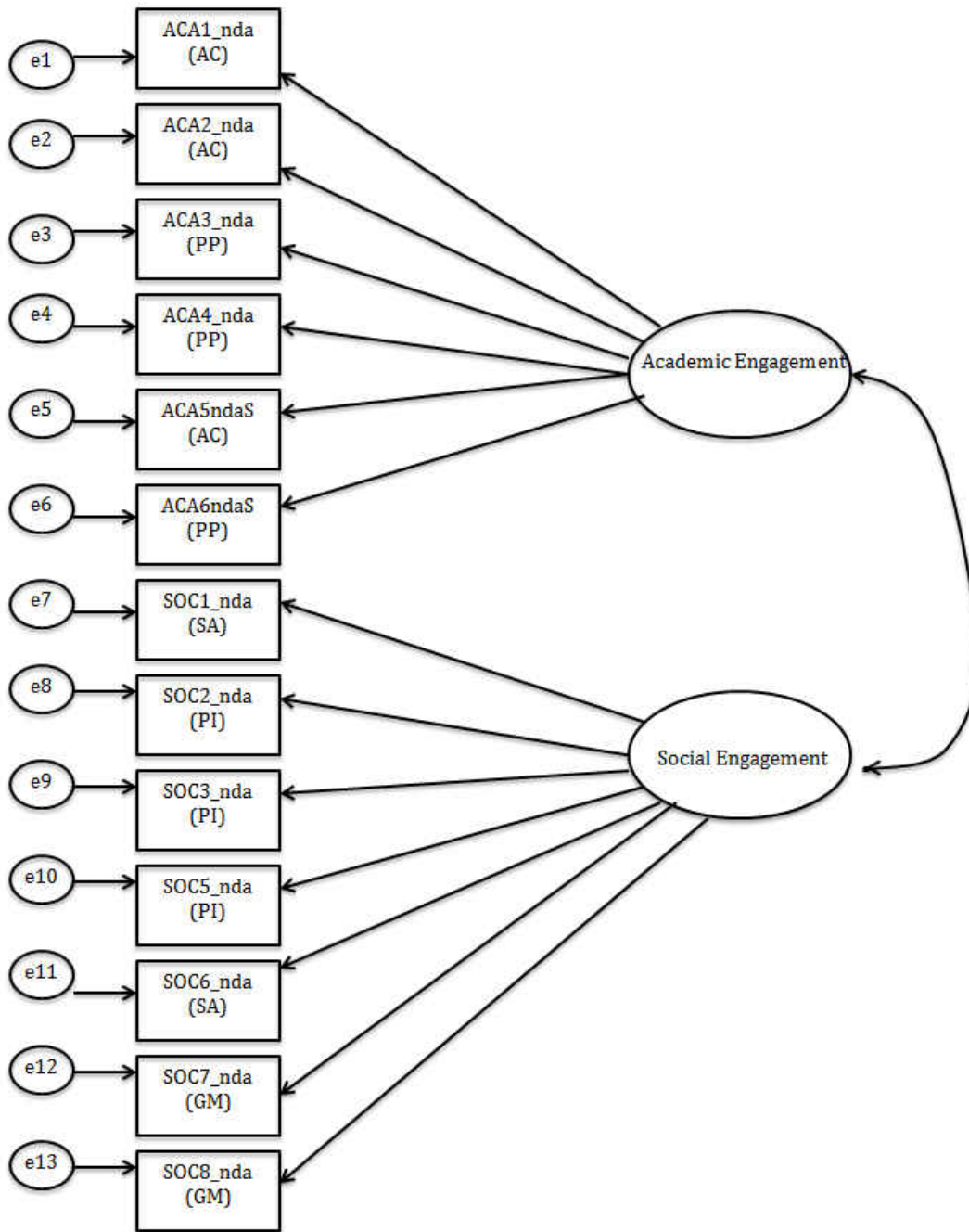


Figure 8: The hypothesized model for students with emotional and behavioral disabilities, females with emotional and behavioral disabilities, and males with emotional and behavioral disabilities.

### Determine if the model is identified

There are two requirements in identifying an SEM: (a) have as many observations as free model parameters, if not more and (b) each latent construct should be assigned a scale. An observation is represented by the observed variables and has a value provided by the entered data (Schumacker & Lomax, 2010). The hypothesized model included 13 free model parameters and 13 observations, which indicates the model is identified. The hypothesized model appropriately met the first requirement, by having as many free model parameters as observations. In regards to the second requirement, the computer software (LISREL) was used to assign a scale to the latent constructs during the SEM analyses. Therefore, both requirements were met to ensure SEMs were identified that reflected the data used.

### Select measures of the variables represented in the model

To measure each variable, items from assessment questionnaires of the NLTS-2 were used. Each questionnaire used is commercially developed and owned and therefore cannot be released. In selecting the measures of variables used, the researcher modified SPSS files to ensure participants were accurately entered and SPSS files did not contain unnecessary data.

Three SPSS files were created for the analyses. One newly created SPSS file contained 210 students with EBD. The file contained no missing data from the 210 participants. The second newly created SPSS file contained 105 females with EBD. The file contained no missing data from the 105 participants. The third newly created SPSS file contained 105 males with EBD. The file contained no missing data from the 105 participants. Each of the three files contained all of the latent, observed, and NLTS-2 items used in the analyses. Once the data were

prepared and screened and measures of each variable was selected, the researcher started the SEM analyses.

### Estimation and respecification of the model

#### Data-model fit

To assess the hypothesized model, the researcher used LISREL, a graphical interface software used in SEM research. The LISREL output provides several indices by which researchers are able to determine if a good-fitting model was produced. Each fit index is broken down into three categories: model fit, model comparison, and model parsimony. According to Schumacker and Lomax (2010), at least one fit index from each category should be used to determine if the tested model is the good-fitting model. Aside from Chi-Square, the researcher used four model fit indices to determine if the data accurately fit the hypothesized model. Indices used include: Chi-Square ( $\chi^2$ ), Root-mean-square error of approximation (RMSEA), Goodness of Fit (GFI), Adjusted Goodness of Fit (AGFI), and Comparative Fit Index (CFI).  $\chi^2$ , Chi-Square is the most traditional way in measuring model fit. LISREL provides two different Chi-square results: Minimum Fit Function Chi-square and Normal Theory Weighted Least Squares Chi-Square. For the current study, the researcher used Minimum Fit Function Chi-square. Unlike Normal Theory Weighted Least Squares Chi-Square, Minimum Fit Function Chi-square is not sensitive to sample size. Due to the low sample size used in the current study, the Minimum Fit Function Chi-square was selected as it was expected to provide a more accurate depiction of the fit of the model to the sample data (Byrne, 2009). Chi-square measures “the magnitude of discrepancy between the sample and fitted covariance matrices” (Hu & Bentler, 1999, p. 2).



Although Chi-Square is the traditional way of evaluating model fit for SEMs, several fit indexes, such as RMSEA, GFI, AGFI, and CFI, were created to account for issues in SEM such as small sample sizes and continuous versus dichotomous data. Chi-square does not address many of these issues, which provides erroneous results (Hu & Bentler, 1999). The fit indexes used to further evaluate the SEMs herein are RMSEA, GFI, AGFI, and CFI (see Table 7). The RMSEA focuses on “the error of approximation in the population” (Byrne, 2009, p. 112). An RMSEA of  $p < .05$  indicates a good fit,  $p > .05$ , but  $p < .08$  indicates a reasonable fit, and  $p > .08$  indicates a poor fit (Byrne, 2009; Hu & Bentler, 1999; Schumacker & Lomax, 2010). The RMSEA, as well as, GFI fall under the model fit category. The GFI measures the variance and covariance in the sample data. A GFI score of  $p \geq .90$  reflects a good fitting model. For the purposes of this study, the AGFI will fall under the Model Parsimony category, as it is able to measure the parsimony of the initially tested and final models for each population. The AGFI is exactly like the GFI, measuring the variance and covariance in the sample data; however, the AGFI adjusts for the degrees of freedom for the respective model being tested. An AGFI of  $p \geq .85$  indicates a good fit. Finally, the CFI was chosen to determine the best fitting model because it alleviates underestimation of fit often caused by smaller sample sizes. The sample sizes used herein are considered acceptable; however, using a sample size of 152 for each model would have provided more accurate results. Due to the smaller sample sizes used in this study, the CFI will provide accurate results of a best fitting model. CFI measures model comparison and  $p \geq .95$  reflects a good fit.

Table 7 Selected Fit Indices and Acceptable Scores

Model Fit Index	Accepted
Chi-Square ( $\chi^2$ )	“Compares obtained $\chi^2$ value with tabled value for given $df$ ” (Byrne, 2009, 76). Chi-Square and the significance or $p$ -value are traditionally used to evaluate SEMs.
Root-mean square error approximation (RMSEA)	$p \leq .05$ indicates a best fitting model; $p > .05$ , but $p \leq .08$ indicates an acceptable model; $p > .08$ indicates a poor fitting model.
Goodness of Fit Index (GFI)	Value close to .90 or .95 reflects a good fit. For the purposes of this study, $p \geq .90$ indicates a good fit.
Adjusted Goodness of Fit Index (AGFI)	Value closest to 1 indicates a good fit. For the purposes of this study, $p > .85$ indicates a good fit.
Comparative Fit Index (CFI)	$p \geq .95$

## Respecification

If the initial model was not found to be a good fit, the model was respecified. To respecify the initially tested models, the researcher took two approaches. The primary approach was to adhere to any suggested modification indices provided by the LISREL output. If after the researcher respecified the model and it fell within the criteria to be considered, a good-fitting model, the researcher did not modify the model again. However, if for any reason the LISREL output did not provide any modification indices, the researcher examined the factor loadings and removed any item that negatively contributed to the model or the contribution was extremely low, i.e.  $p \leq .2$ . By removing the items that did not contribute significantly to the model, this indicated that the variables were also removed. Factor loadings or parameter estimates refer to the relationship between the regression coefficient and its factor. If the factor loading affects the model negatively and the LISREL output does not provide any suggestions for the model, negative or low contributions can be removed (Byrne, 1998; Schumacker & Lomax, 2010). The researcher first examined the modification indices provided in the LISREL output, if any. If there were no suggestions provided the researcher removed negative or low contributions.

## Results of Phase 1

Three different models were created based on three different sets of data. The results of the first model, which analyzed what important factors contribute to school engagement for students with EBD, resulted in the following outcomes. As shown in Figure 9, data of students with EBD was fit to the hypothesized model. The five variables included in the model were,

group memberships (Liked, Turns), social activities (Volunteer, Activities), peer interactions (Friend1, Friend2, Lonely), assignment completion (Improve, Homework, Work), and positive participation in the classroom (Listen, Speak, Rules). Results of the initially tested model of school engagement for students with EBD are as follows:  $\chi^2=121.78$ ,  $df=64$ ,  $p\text{-value}=.00$ , and  $RMSEA=.067$ . Based on the goodness of fit indices,  $GFI=.92$ ,  $AGFI=.88$ , and  $CFI=.92$ . As shown in Table 7, the model did not satisfy the requirements of a good-fitting model.

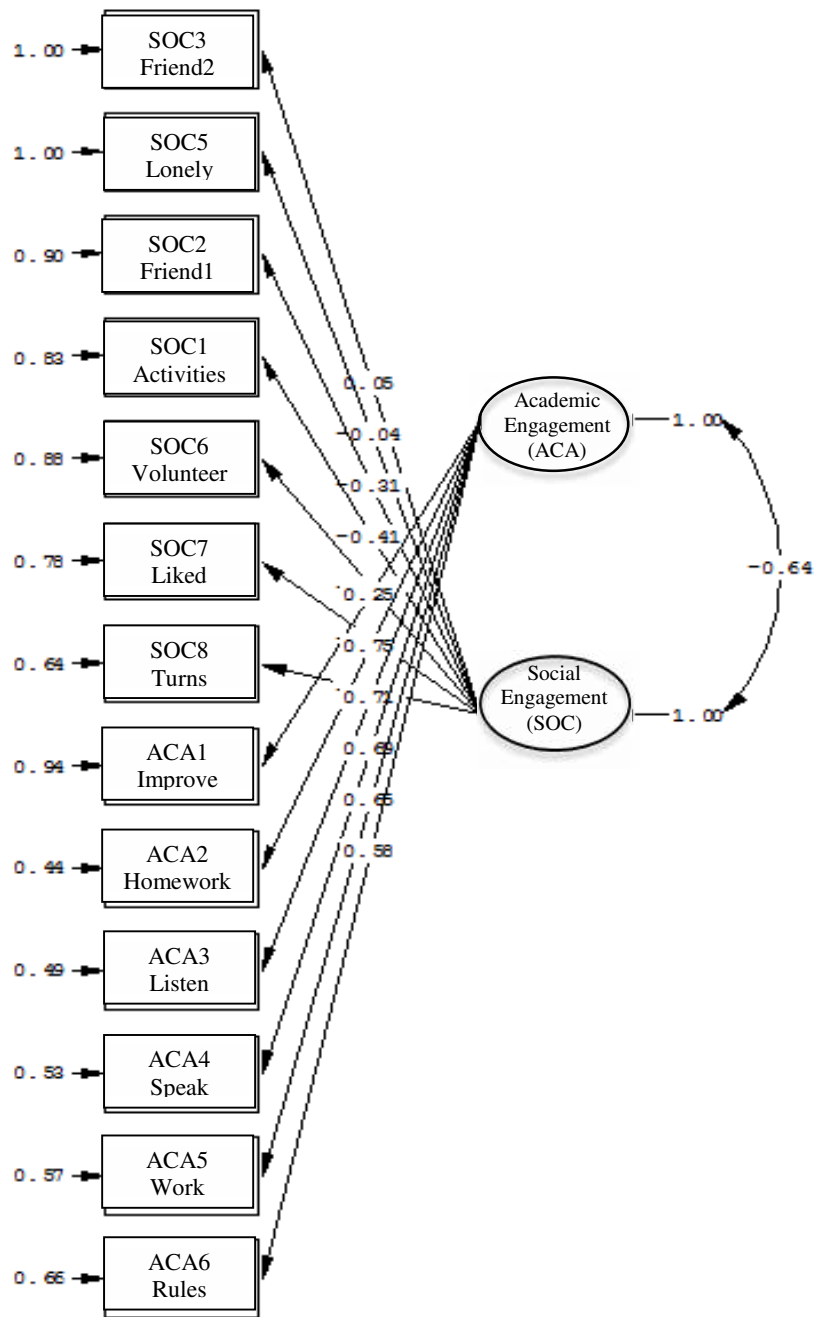


Figure 9: The initially tested structural equation model for students with emotional and behavioral disabilities. (Please Note: Friend1=find a friend when in need, Friend2=make friends.)

Due to the results of the initially tested model for students with EBD, the researcher then modified the model based on the indices provided by LISREL software. The suggested modification indices were to include an error covariance between Friend1 and Friend2 and another one between Friend2 and Rules. An error covariance allows the errors of each item to correlate, providing a better fitting model for students with EBD. As shown in Figure 10,  $\chi^2=102.89$ ,  $df=62$ ,  $p\text{-value}=.00$ , and  $RMSEA=.056$ . Based on the goodness of fit indices,  $GFI=.93$ ,  $AGFI=.90$ , and  $CFI=.95$ . After reviewing the fit indices, results indicate a good-fitting model. The researcher did not remove or add any variables or paths to the model, only error covariances, which were suggested by the LISREL output. Because a good-fitting model was found after one modification of adding two error covariances between Friend1 and Friend2 and again between Friend2 and Rules, the researcher did not make any additional modifications to the model. Table 8 provides the results of the initially tested model as well as the modified model for students with EBD.

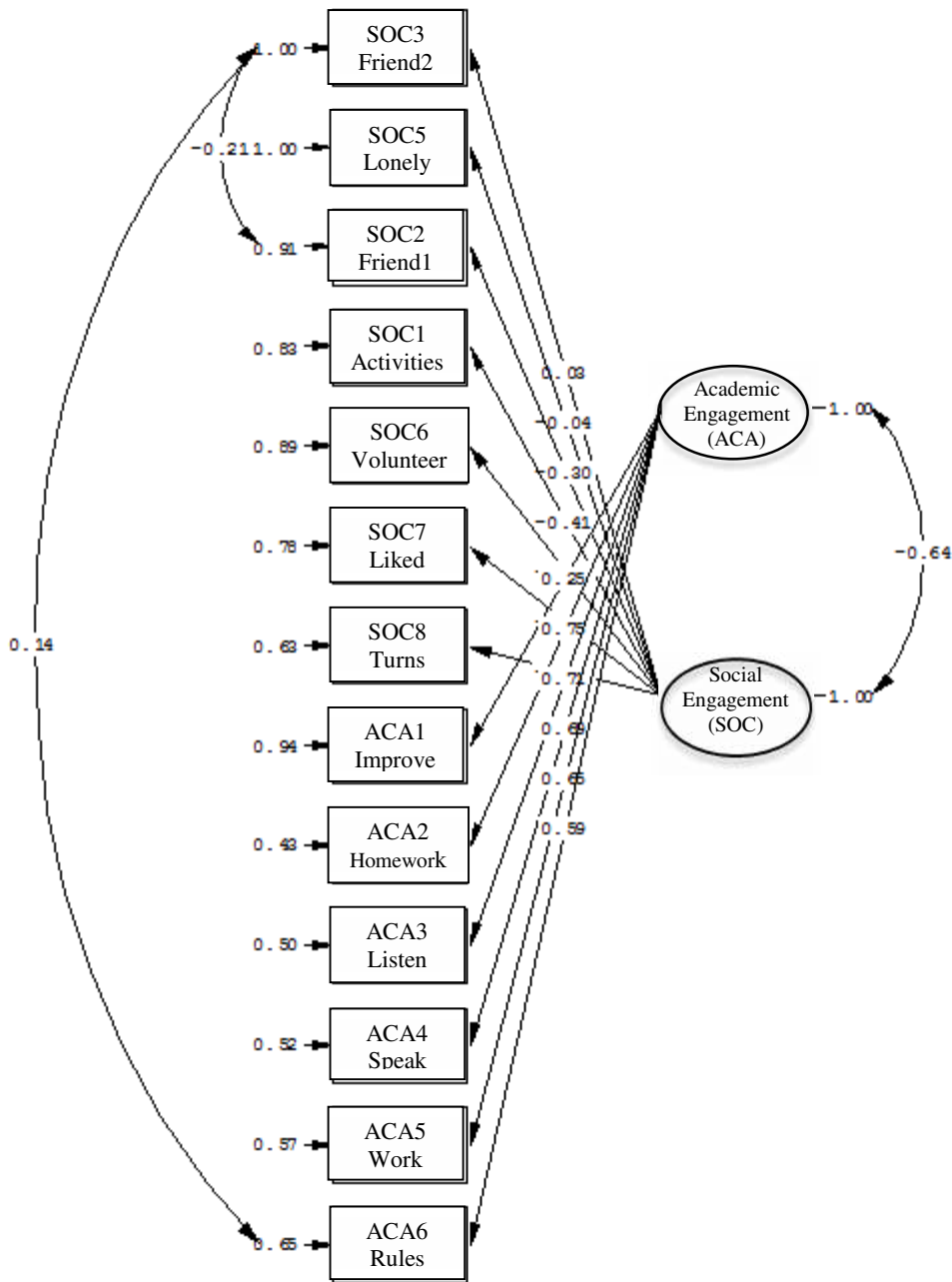


Figure 10: The modified structural equation model for students with emotional and behavioral disabilities. (Please Note: Friend1=find a friend when in need, Friend2=make friends.)

Table 8

## School Engagement Factor Loadings for Students with Emotional and Behavioral Disabilities

Paths	Variable	Initial Model	Final Model
ACA6 → ACA	Rules (PP)	.58	.59
ACA5 → ACA	Work (AC)	.65	.65
ACA4 → ACA	Speak (PP)	.69	.69
ACA3 → ACA	Listen (PP)	.71	.71
ACA2 → ACA	Homework (AC)	.75	.75
ACA1 → ACA	Improve (AC)	.25	.25
SOC8 → SOC	Turns (GM)	-.60	-.61
SOC7 → SOC	Liked (GM)	-.47	-.47
SOC6 → SOC	Volunteer (SA)	-.34	-.34
SOC1 → SOC	Activities (SA)	-.41	-.41
SOC2 → SOC	Friend1 (PI)	-.31	-.30
SOC5 → SOC	Lonely (PI)	-.04	-.04
SOC3 → SOC	Friend2 (PI)	.05	.03
<i>Selected fit indices</i>			
$\chi^2$		121.78	102.89
<i>df</i>		64	62
<i>p</i> value		.00	.00
RMSEA		.067	.056
GFI		.92	.93



Paths	Variable	Initial Model	Final Model
AGFI		.88	.90
CFI		.92	.95

*Note.*  $\chi^2$  = Chi Square, *df* = degrees of freedom, *p*-value = significance, RMSEA = Root-mean square error of approximation, GFI = Goodness of Fit index, AGFI = Adjusted Goodness of Fit Index, CFI = Comparative Fit Index, Friend1=XX, Friend2=XX. Please Note: Friend1=find a friend when in need, Friend2=make friends.

### Male versus female model

The sub-question (1a) was does students' gender moderate a relationship between antecedents of engagement and school engagement? In other words, is the effect of different factors on school engagement the same for female and male students with EBD? The data from males with EBD and females with EBD were run through the hypothesized structural model separately to examine any differences between the two models.

### SEM for females with EBD

To decouple gender, the researcher first fit the items to the female data that included 105 females with EBD. As shown in Figure 11,  $\chi^2=92.20$ , *df*=62, *p*-value=.01, and RMSEA=.06. Based on the goodness of fit indices, GFI=.89, AGFI=.84, and CFI=.93. The results indicate that the model is an acceptable fit. The five variables included in the initially tested model were, group memberships (Liked, Turns), social activities (Volunteer, Activities), peer interactions (Friend1, Friend2, Lonely), assignment completion (Improve, Homework, Work), and positive participation in the classroom (Listen, Speak, Rules).

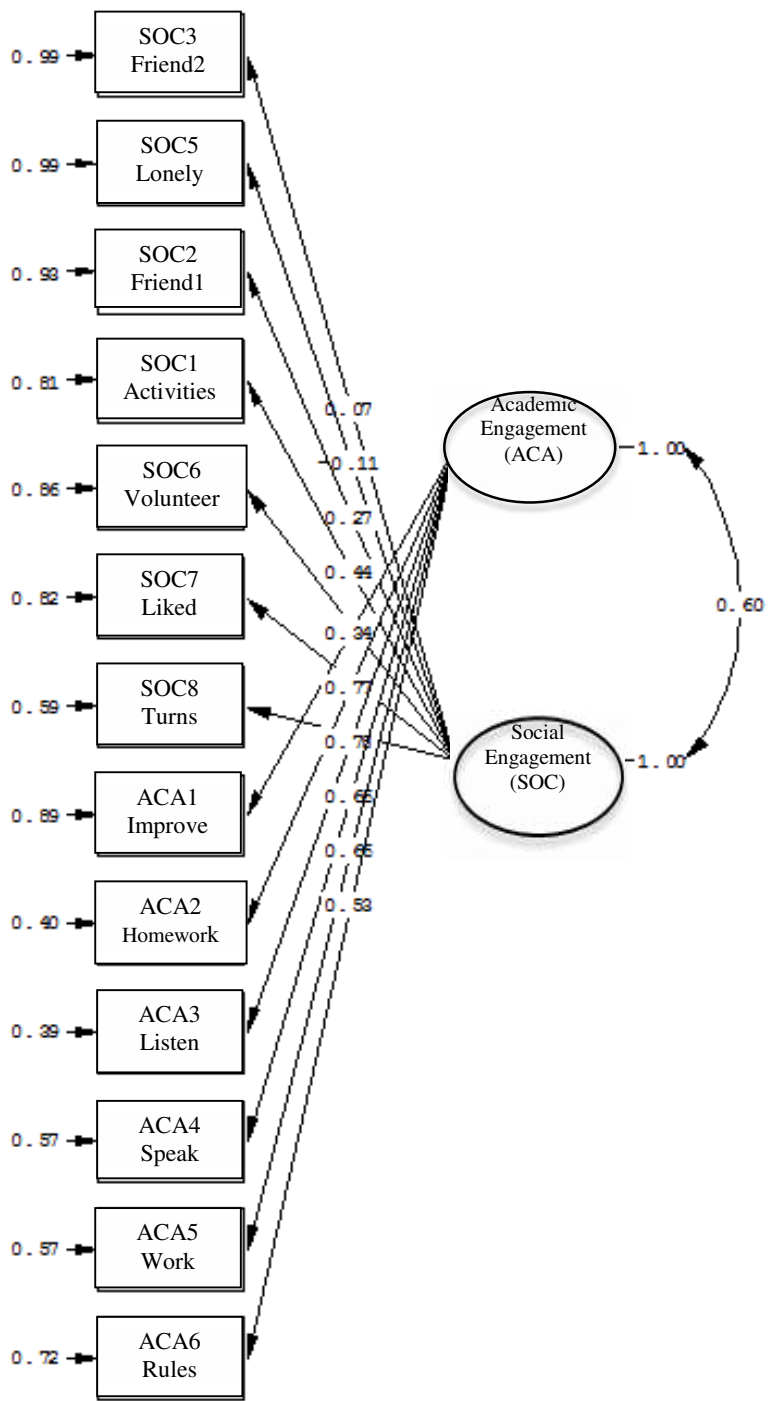


Figure 11: The initially tested structural equation model for females with emotional and behavioral disabilities. (Please Note: Friend1=find a friend when in need, Friend2=make friends.)

To ensure a better fitting model was found for females with EBD, the researcher modified the hypothesized model. The LISREL modification indices did not provide any suggestions; therefore, the researcher assessed the parameter estimates (Byrne, 1998; Schumacker & Lomax, 2010). Any items that negatively contributed to the model or the contribution to the model was extremely low ( $\leq .2$ ), were removed from the model. Due to the low numerical contributions that items Friend2 (.07) and Lonely (-.11) made to the model, the researcher removed those items to improve the model for females with EBD. The variables included in the modified model are: group memberships (Liked, Turns), social activities (Activities, Volunteer), assignment completion (Improve, Homework, Work), and positive participation in the classroom (Listen, Speak, Rules). The modified model results are as follows:  $\chi^2=59.94$ ,  $df=43$ ,  $p\text{-value}=.11$ , and  $RMSEA=.05$  (see Figure 12). Based on the goodness of fit indices,  $GFI=.91$ ,  $AGFI=.87$ , and  $CFI=.95$ , the modified model presents a good-fitting model. Once a good-fitting model was found, there were no additional modifications made to the school engagement model for females with EBD.

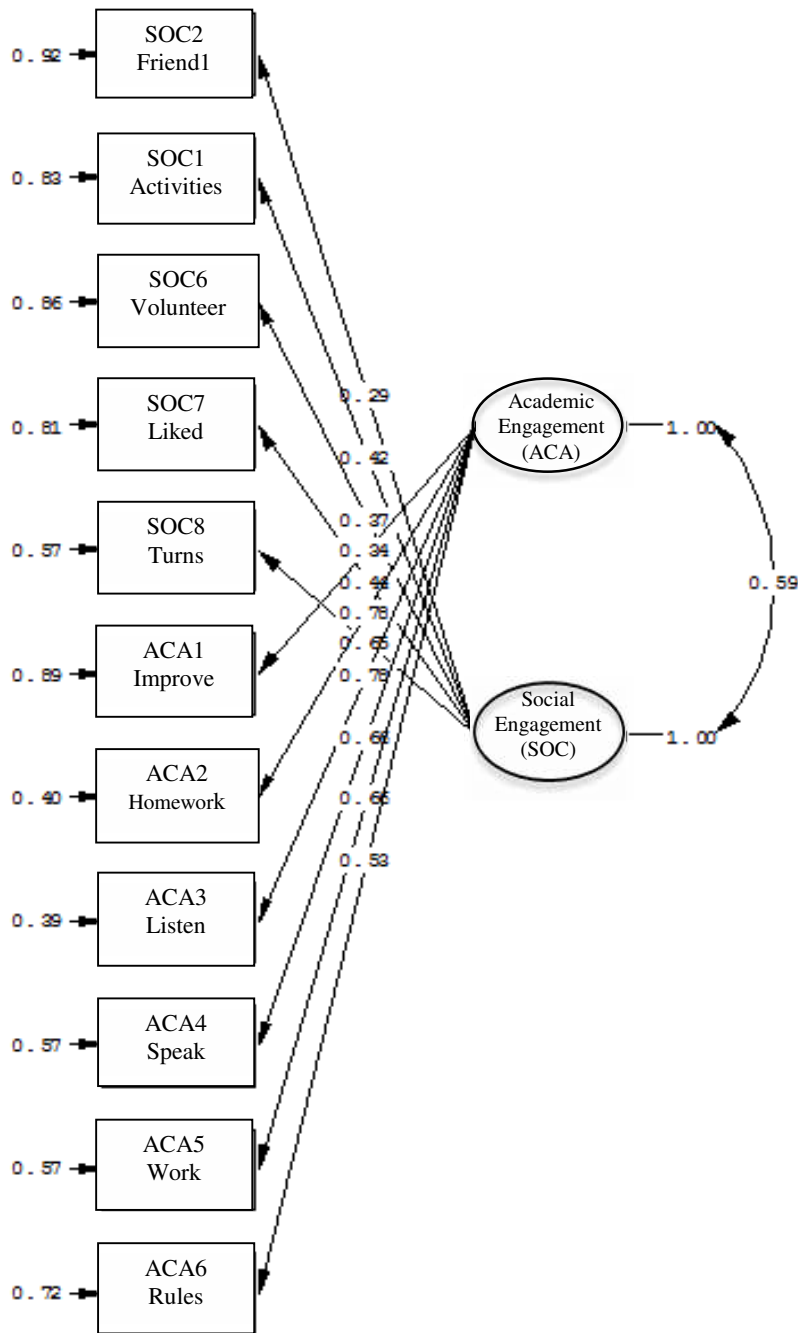


Figure 12: The modified structural equation model for females with emotional and behavioral disabilities. (Please Note: Friend1=find a friend when in need.)

Table 9

## School Engagement Factor Loadings for Females with Emotional and Behavioral Disabilities

Paths	Variable	Initial Model	Final Model
ACA6 → ACA	Rules (PP)	.53	.53
ACA5 → ACA	Work (AC)	.66	.66
ACA4 → ACA	Speak (PP)	.66	.66
ACA3 → ACA	Listen (PP)	.78	.78
ACA2 → ACA	Homework (AC)	.77	.78
ACA1 → ACA	Improve (AC)	.34	.34
SOC8 → SOC	Turns (GM)	.64	.65
SOC7 → SOC	Liked (GM)	.43	.44
SOC6 → SOC	Volunteer (SA)	.38	.37
SOC1 → SOC	Activities (SA)	.44	.42
SOC2 → SOC	Friend1 (PI)	.27	.29
SOC5 → SOC	Lonely (PI)	-.11	removed
SOC3 → SOC	Friend2 (PI)	.07	removed
<i>Selected fit indices</i>			
$\chi^2$		92.20	59.94
<i>df</i>		64	43
<i>p</i> value		.01	.05
RMSEA		.057	.05
GFI		.89	.91

Paths	Variable	Initial Model	Final Model
AGFI		.84	.87
CFI		.93	.95

*Note.*  $\chi^2$  = Chi Square, *df* = degrees of freedom, *p*-value = significance, RMSEA = Root-mean square error of approximation, GFI = Goodness of Fit index, AGFI = Adjusted Goodness of Fit Index, CFI = Comparative Fit Index. (Please Note: Friend1=find a friend when in need, Friend2=make friends.)

#### SEM for Males with EBD

The hypothesized model was then fit to the male-only data, which included 105 males with EBD. Figure 13 shows the results as,  $\chi^2=98.08$ , *df*=64, *p*-value=.00, and RMSEA=.07. Based on the goodness of fit indices, GFI=.88, AGFI=.82, and CFI=.91. Based on the SEM results, the model is determined to be an acceptable model. The five variables included in the initially tested model were, group memberships (Liked, Turns), social activities (Volunteer, Activities), peer interactions (Friend1, Friend2, Lonely), assignment completion (Improve, Homework, Work),

and positive participation in the classroom (Listen, Speak, Rules).

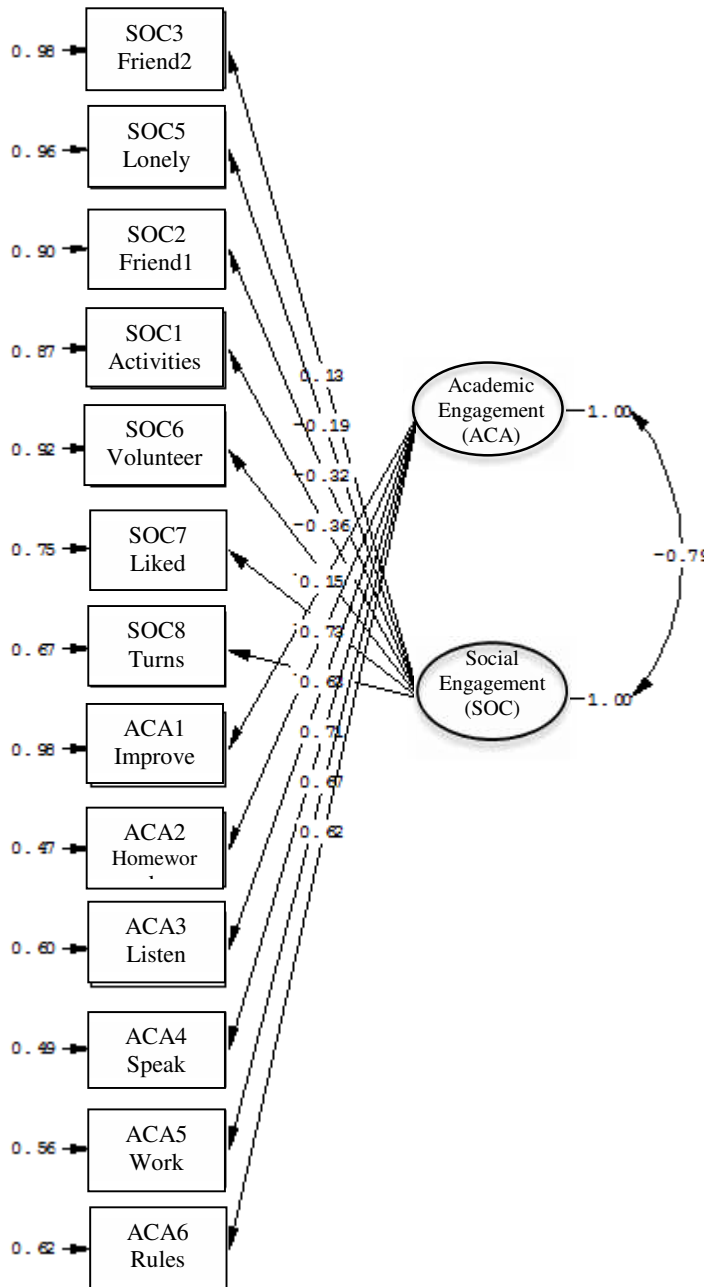


Figure 13: The initially tested structural equation model for males with emotional and behavioral disabilities. (Please Note: Friend1=find a friend when in need, Friend2=make friends.)

To ensure the best-fitting model, the researcher modified the model based on suggested modification indices provided by the LISREL software. The LISREL output suggested two modifications to make the model better fitting. Suggestions included adding an additional path from Speak (representing positive participation in the classroom) to SOC and adding an error covariance between Friend1 and Friend2, both representing peer interactions. The suggestions provided indicate that Friend1 and Friend2 have something in common with each other. By adding an error covariance to the errors of the two items, Friend1 and Friend2, which both represent peer interactions, a correlation occurred to produce a better fitting model for males with EBD. Results of the modified model, as shown in Figure 14, are as follows:  $\chi^2=77.30$ ,  $df=62$ ,  $p\text{-value}=.09$ , and  $RMSEA=.04$ . Based on the goodness of fit indices,  $GFI=.90$ ,  $AGFI=.85$ , and  $CFI=.96$ , a good-fitting model was found. The modified model included group memberships (Liked, Turns), social activities (Activities, Volunteer), peer interactions (Friend1, Friend2, Lonely), assignment completion (Improve, Homework, Work), and positive participation in the classroom (Listen, Speak, Rules). An additional path from Speak, which represents positive participation in the classroom, to social engagement was added and an error covariance from Friend1 to Friend2, peer interactions. No further modifications were made to the school engagement model for males with EBD.



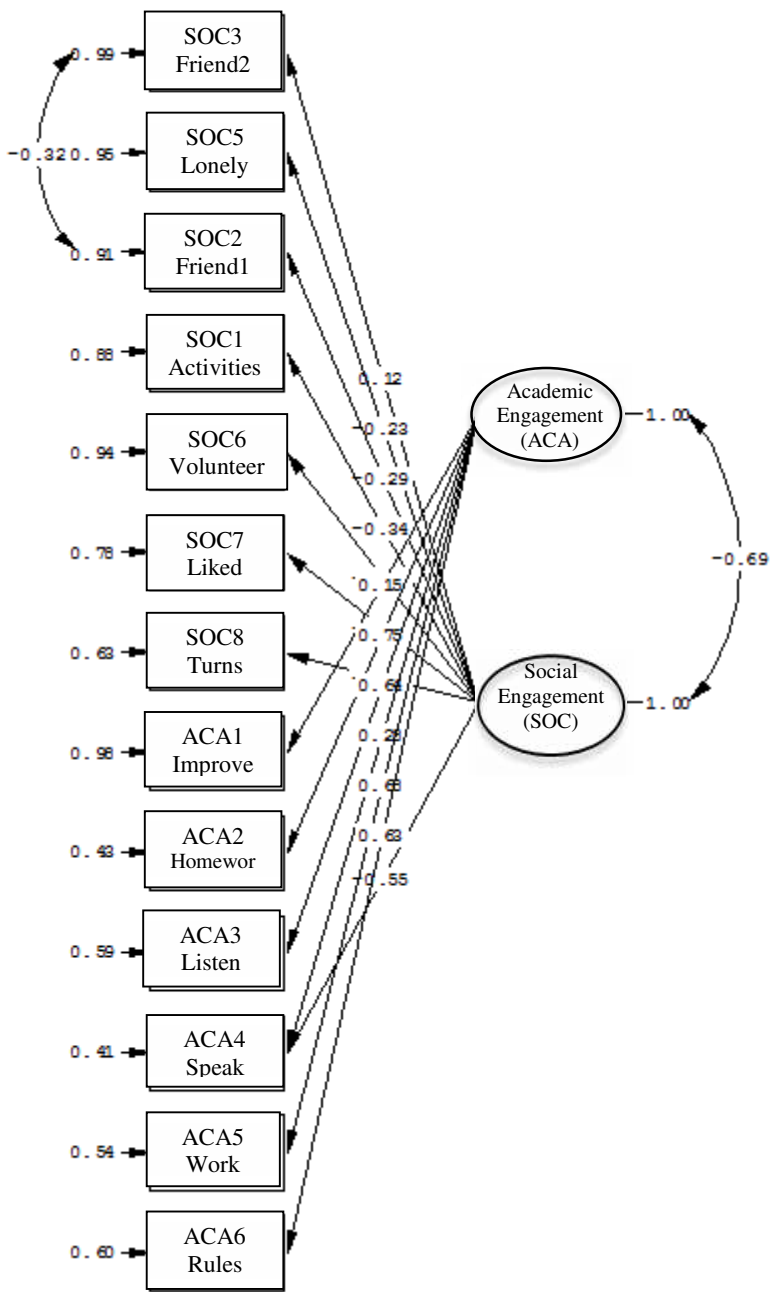


Figure 14: The modified structural equation model for males with emotional and behavioral disabilities. (Please Note: Friend1=find a friend when in need, Friend2=make friends.)

Table 10

## School Engagement Factor Loadings for Males with EBD

Paths	Variable	Initial Model	Final Model
ACA6 → ACA	Rules (PP)	.62	.63
ACA5 → ACA	Work (AC)	.67	.68
ACA4 → ACA	Speak (PP)	.71	.28
ACA3 → ACA	Listen (PP)	.63	.64
ACA2 → ACA	Homework (AC)	.73	.75
ACA1 → ACA	Improve (AC)	.15	.15
SOC8 → SOC	Turns (GM)	-.57	-.61
SOC7 → SOC	Liked (GM)	-.50	-.47
SOC6 → SOC	Volunteer (SA)	-.28	-.25
SOC1 → SOC	Activities (SA)	-.36	-.34
SOC2 → SOC	Friend1 (PI)	-.32	-.29
SOC5 → SOC	Lonely (PI)	-.19	-.23
SOC3 → SOC	Friend2 (PI)	.13	.12
ACA4 → SOC	Speak (PP)	Not Included	-.55
<i>Selected fit indices</i>			
$\chi^2$		98.08	77.30
<i>df</i>		64	62
<i>p</i> value		.00	.10
RMSEA		.07	.044

Paths	Variable	Initial Model	Final Model
GFI		.88	.90
AGFI		.82	.85
CFI		.91	.96

*Note.*  $\chi^2$  = Chi Square, *df* = degrees of freedom, *p*-value = significance, RMSEA = Root-mean square error of approximation, GFI = Goodness of Fit index, AGFI = Adjusted Goodness of Fit Index, CFI = Comparative Fit Index. (Please Note: Friend1=find a friend when in need, Friend2=make friends.)

To answer the sub-question of research question one, the researcher noted in the data a difference in variables when looking at the female's model versus the male's model that emerged. The predictors included in the female's model are group memberships, social activities, positive participation in the classroom, and assignment completion. The predictors included in the male's model are group memberships, social activities, peer interactions, positive participation in the classroom, and assignment completion. For the male's model, an additional path was added from Speak, which represents positive participation in the classroom by speaking, to social engagement. This path was not added to the female's model. Next the researcher addressed research question two through interviews with females with EBD.

## Phase Two

### Interviews with females with EBD

The second research question, “what are the most important factors that have a positive effect on school engagement from a female student’s perspective as identified from phase two interviews” was then addressed.

During phase two of the current study, the researcher interviewed six females with EBD. Interviews were conducting via Skype for 14-17 year old females with EBD. Each interview was audio recorded. Interviews were then transcribed. After transcription, the researcher assessed participants’ responses and provided each response with a code. Common phrases with the same code were placed into a codebook, to visibly see common themes that emerged.

While interviewing females with EBD, ages 14-17, participants provided their perspective of factors that contribute to academic and social engagement. Phase two participants stated that peer supports, individualized instruction, and smaller class sizes would help them engage in the academic setting of school. Specifically, when asked “what helps you the most when you want to engage in the academic setting of school”, participant 6 stated, “If my friends are in the classroom, and they can help me when I am having a bad day”. Participants 4 and 5 emphasized the need for one-on-one support from their teachers and individualized education. Finally, participant 2 felt that she would be more successful in the classroom if the class sizes were smaller, while participant 5 discussed the desire to work independently.

In regards to social engagement, phase two participants stated that supportive relationships would help them to engage in the social setting of school. Each participant at some point throughout their interview discussed the importance of caring teachers and staff.

Participant 1 indicated that her favorite teachers “listened, were friendly, guided me on what was good versus what was bad. They could tell when I was having a bad day. They were concerned about me.” Participant 2 stated, “I started loving math because she (favorite teacher) took time with me.” Participant 4 had a similar experience with her favorite teachers, stating, “They were there to talk to me and they actually cared.” Based on these prior experiences with the girl’s favorite teachers and staff members, as well as the variables that would help phase two participants better engage in the school setting, five out of six participants felt they could be successful in the school setting.

### Phase Three

#### Participant’s views on quantitative results

After analyzing the interviews, the researcher addressed research question 3: Do current female students with EBD, after sharing the factors that emerge in an SEM model created from the NLTS-2 database, agree with these findings? In understanding if phase two participants agreed with quantitative results regarding group memberships, mixed outcomes emerged. Fifty percent of the participants agreed with the quantitative results, 20% of the participants disagreed, and 30% of the participants gave mixed reviews of the model. Three participants agreed with Phase One results indicating that group memberships were necessary to engage in the school setting. One participant stated that group memberships were not necessary to engage in the school setting, another student stated that “it’s preferable but it’s not necessary” and finally one

student explained that “yes because you are around a lot of people, but no because some people don’t like to be around others.”

In examining if Phase Two participants agreed with Phase One results regarding social activities, mixed comments were received. Four out of six participants, 70%, agreed with the quantitative results indicating that social activities were necessary to engage in the school setting. One of the participants who agreed further explained that social activities are “very” necessary to engage in the school setting because it keeps students interested in the high school experience. However, two participants who disagreed with the results stated the following. Participant 1 stated, “I don’t feel they help you engage in the school setting”, while Participant 4 suggested that social activities can cause a lot of drama.

Table 11  
Participant Responses from females with EBD

Participant	Group Memberships	Social Activities	Peer Interactions	Assignment Completion	Positive Participation
1	Agree	Disagree	*Neither agree nor disagree	Agree	Agree
2	Agree	Agree	*Neither agree nor disagree	Agree	Agree
3	Disagree	Agree	*Neither agree nor disagree	Agree	Agree

4	*Neither agree nor disagree	Disagree	Disagree	Agree	Agree
5	Agree	Agree	Agree	Agree	Agree
6	*Neither agree nor disagree	Agree	Disagree	Agree	Agree

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*Note.* \*participants may have provided reasons as to why they did not give a yes or no answer.

In analyzing if Phase Two participants agreed with Phase One results regarding peer interactions, mixed results were received. One participant agreed with Phase One results, stating, “If you are around someone for too long it may become a problem. When you have girls in one room at the same time girls get stressed out” Two participants completely disagreed with similar responses, explaining that peer interactions are important for girls with EBD to engage in the school setting. Participant 3 posited “It is good to be with others and make friends” and Participant 6 stated, “You don’t want to just talk to teachers. You want to talk to your peers too.” The Majority (70%) of the participants indicated that peer interactions could be helpful, but not always. “Some people work better together and some work better alone. I work better with other people as long as they are friends and it depends on my mood” (Participant 1). Another participant had this to say regarding peer interactions “Yes because you have peer support but no because it can be damaging because people are petty” (Participant 4).

While investigating if Phase Two participants agreed with Phase One results regarding assignment completion, results were found unanimous. All participants agreed that assignment completion was necessary to engage in the school setting. Participant 1 posited, “you have to complete your assignments or how would your teacher know that you are learning the content”.

Participant 4 also agreed and stated, “If no completion then it affects me socially because then I feel bad about myself.”

Phase Two participants also unanimously agreed that positive participation in the classroom is necessary to engage in the school setting. Participant 2 explained “if you have a negative attitude in the classroom and you don’t do what you are supposed to do then you won’t learn.” Participant 4 stated, “everyone should participate because you won’t learn anything if you don’t”. Participants emphasized the need for classroom discussions and all students participating so that everyone would gain more from the lesson. Finally, participant 5 summarized her thoughts with, “you will not get information, will not get work done, or graduate.”

Once Phase One and Phase Two were complete, the researcher analyzed the two phases together to examine if a new hypothesized model could be derived based on the results of phase one and phase two to be tested in future studies. The results of the quantitative and qualitative portions differed slightly for females with EBD. Figure 15 provides a visual depiction of the results of phase one and the results of phase two. Quantitative results indicate that the modified model presents items that greatly contribute to school engagement for females with EBD. Items representing group memberships, social activities, positive participation in the classroom, and assignment completion all contribute to school engagement for females with EBD. However, qualitative results uncovered the following school engagement variables: peer supports, individualized education, smaller class sizes, and supportive relationships.



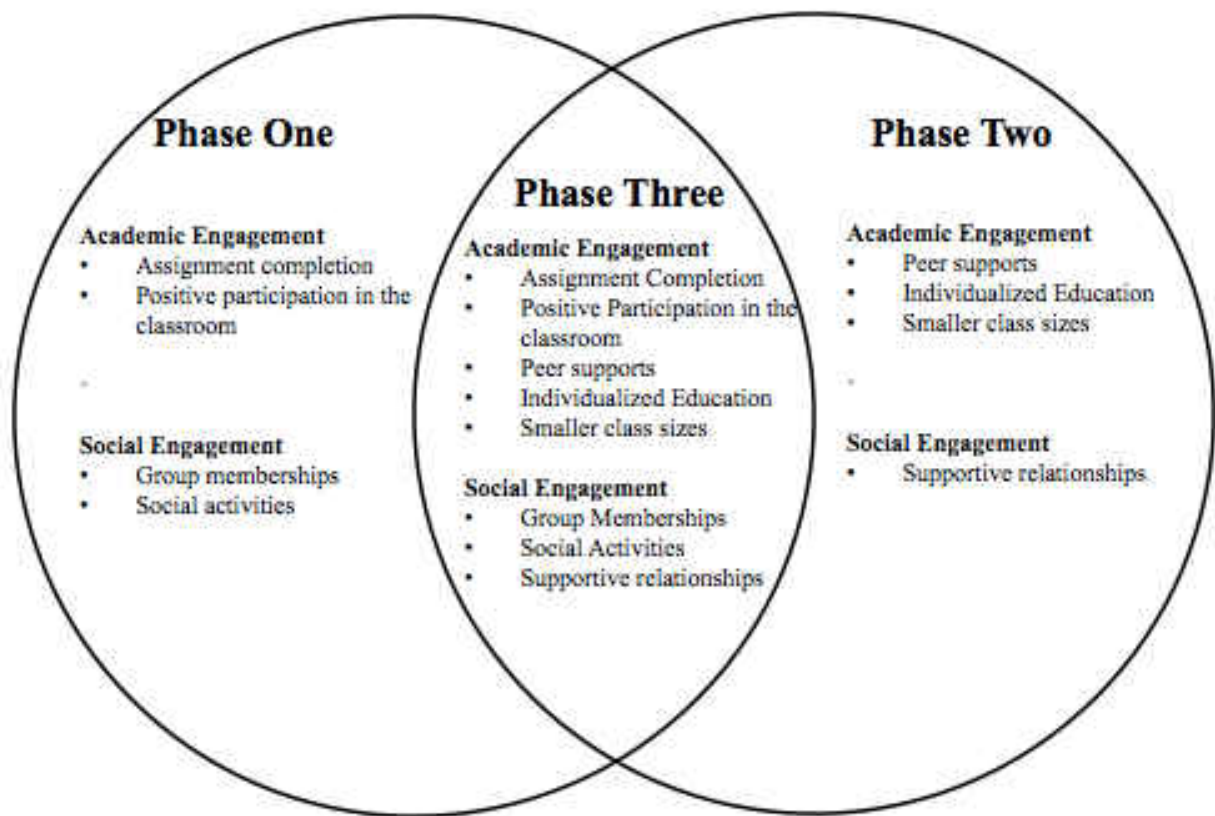


Figure 15: The results of Phase One and Phase Two.

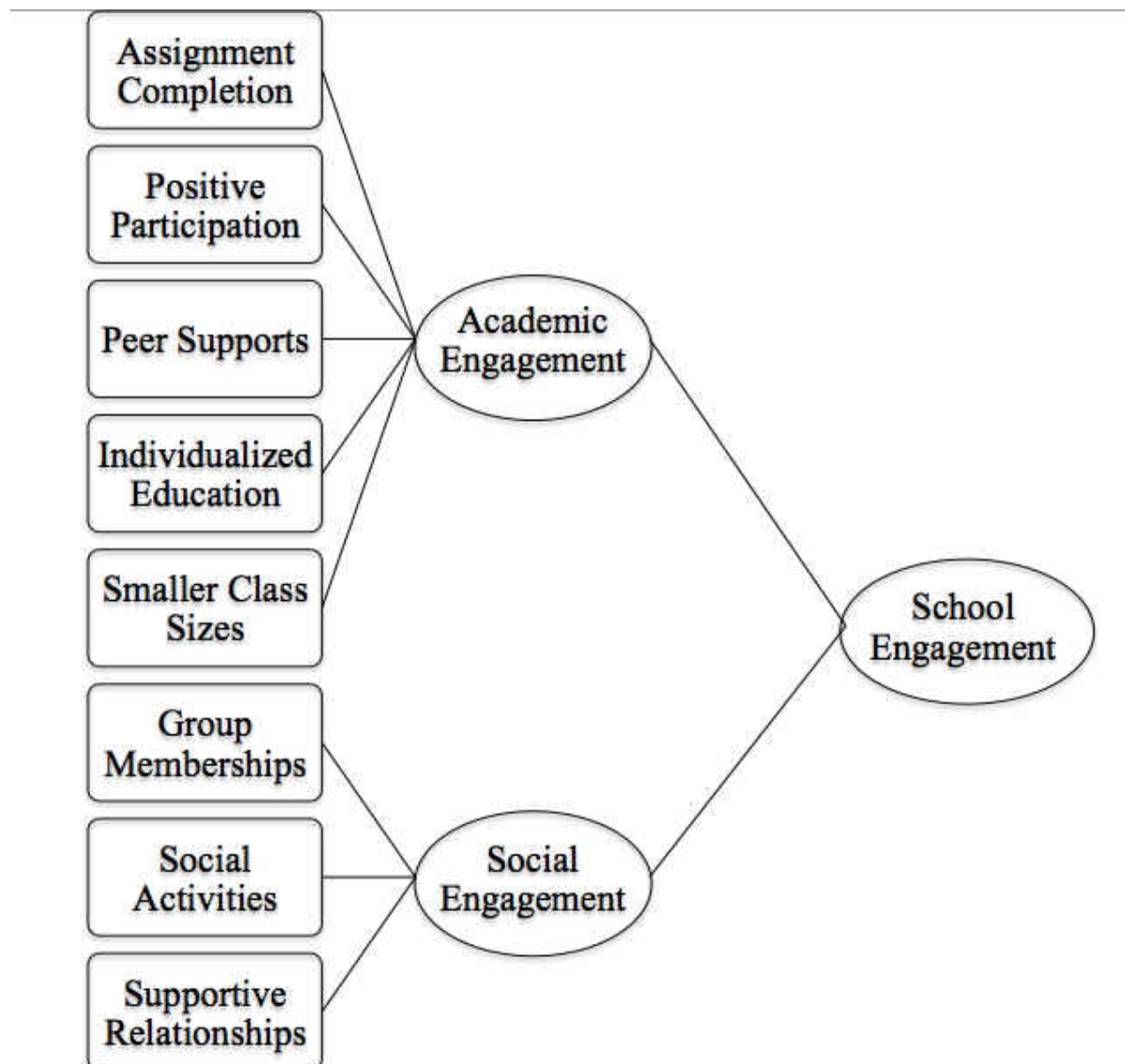


Figure 16: A newly developed model to test school engagement for females with EBD.

Based on quantitative and qualitative results, the following variables measuring school engagement should be tested in the future (see Figure 16): to measure academic engagement, assignment completion, positive participation, peer supports, individualized education, and

smaller class sizes were included; to measure social engagement, group memberships, social activities, and supportive relationships were included.

The purpose of phase three was to intertwine the quantitative and qualitative results to assist researchers in finding a better model to fit females with EBD. The current study examined: (a) group memberships, (b) social activities, (c) assignment completion, (d) positive participation, and (e) peer interactions for females with EBD. However, phase two participants discussed new variables, which may present a better fitting model for females with EBD. In the qualitative portion of this study, the researcher identified new variables to be tested in future studies as well as provided clarity regarding variables from phase one. Phase two participants were asked if they agreed or disagreed with phase one participants' ideas from the NTLs-2 database. The variables measuring academic engagement, assignment completion, and positive participation in the classroom were agreed upon by phase two participants. However, participants did not unanimously agree with the variables measuring social engagement: group memberships (50% agreed), social activities (70% agreed), and peer interactions (about 30% disagreed).

For group memberships, 50% of the females in phase two were favorable, but did not see its necessity in engaging in the school setting. Group memberships allow for collaboration and oftentimes members are working towards a common goal. Although a supportive community such as belonging to a particular group is favorable, participants felt they could engage without this variable. However, when assessing the female SEM, group memberships positively contributed to the model, indicating that, if teachers steer females with EBD to appropriate group

memberships that they are interested in, females will engage in the group membership experience thus leading to engagement in the school setting.

Unlike group memberships, the majority of phase two participants agreed that social activities were necessary to engage in the school setting, confirming the quantitative results. Social activities can oftentimes be fun and enjoyable for students and have the potential to capture their attention. Social activities may or may not be provided in large group settings, which gives some females, who may not enjoy large groups, the freedom to engage in social activities, thus engaging in the school setting.

The final and most controversial variable measuring social engagement is peer interactions. The female's SEM shows that peer interactions were not predictors of school engagement for females with EBD. However, the majority of phase two participants explained that peer interactions were necessary; however, it depends on the peer. Personality clashes, mood swings, and immature behavior were all variables identified by phase two participants that can disrupt peer interactions, leaving negative experiences on some interactions. One common theme throughout the interview responses was the distaste for forced group assignments and activities. To facilitate healthy cooperative working relationships pairing up females with EBD and a friend or a peer would help females with EBD engage in the school setting. The newly developed model does not include peer interactions, however a new variable, supportive relationships, emerged. Even though peer interactions was a variable taken out of phase one and disagreed upon in phase three, it can appear within the new variable that emerged in phase two, supportive relationships. Participants felt supportive relationships were definitely necessary, indicating the need for caring and supportive teachers and peers. Based on the results of phase

one and two, nine variables were included in the newly developed model that are broken up into two categories, measuring academic engagement and measuring social engagement. The nine variables are: to measure academic engagement, (a) assignment completion, (b) positive participation in the classroom, and (c) individualized instruction to measure social engagement, (d) group memberships, (e) social activities, and (f) supportive relationships.

### Reliability

Reliability data were collected at three points throughout the quantitative portion of this study. Reliability checkpoint one was completed prior to the current study. The questionnaires used for the study were validated in prior research. The questionnaires consisted of the Student Self Concept Scale (SSCS), Self-Determination Scale, and the Friendship Interaction (Asher et al., 1984). The outcomes of these surveys, initially used in the NLTS-2 study (Wagner et al., 2005), were used in this research study; however, specific reliability scores for each scale was not found.

Reliability measures for reliability checkpoint two involved an interrater reviewing 30% of the data entered from data sources for the SEM analyses. The data sources were the questionnaires used for the current study. To ensure the reliability of the data entered for analyses, an interrater examined 30% of each sample data set entered. Reliability was established at 100% for the entered data.

Finally, each model was evaluated for reliability to satisfy the third reliability checkpoint. As previously stated, reliability of SEMs is accounted for within the factor loadings of each

SEM. Based on the work of Hu and Bentler (1999) on Model fit indexes, a model is deemed reliable if it fits the cutoff scores shown in table 4.2. In each of the modified models, the SEMs created met the respective cutoff scores, indicating the models were reliable. The fit indexes of each SEM was evaluated for reliability by an interrater.

In regards to the qualitative portion of the current study, an interrater reviewed the participant responses. The interrater grouped similar words and phrases and provided them with a code. These codes between the research and the research assistant were matched for each interview to ensure the codes reflected the actual interviews. Interrater reliability was attained at 100%.

### Validity

To determine validity of each model, a new sample of participants' data were fit to the model to ensure the same results were found. The researcher drew a random sample, using the SPSS random generator, to conduct a validity check of the models. When checking the validity of the model containing students with EBD ( $n = 210$ ), the model was found to be a good fitting model:  $\chi^2=83.87$ ,  $df=62$ ,  $p\text{-value}=.03$ , and  $RMSEA=.04$ . Based on the goodness of fit indices,  $GFI=.94$ ,  $AGFI=.91$ , and  $CFI=.97$ . Because the data from a different randomly selected sample of students with EBD was fit to the model and found to be a good fitting model, the SEM for students with EBD is validated.

The researcher also drew a random sample of males with EBD to validate the school engagement model for boys. The model for boys with EBD was also found to be validated:

$\chi^2=101.58$ ,  $df=62$ ,  $p\text{-value}=.00$ , and  $RMSEA=.05$ . Based on the goodness of fit indices,  $GFI=.90$ ,  $AGFI=.85$ , and  $CFI=.95$ , indicating a good fitting model.

The school engagement model for females with EBD could not be validated, as the 105 participants used in the current study were the only females to be given the direct assessment in Wave Two. Additional studies will need to be conducted to validate this particular model and is a current limitation in this study.

### Conclusion

The results from Phases One, Two and Three occurred with the outcome being an appropriate visual representations to enhance comprehension of the results. For Phase One, a best fitting model was found for students with EBD, females with EBD, and males with EBD. The researcher noted the differences between the female and male models and included new variables that emerged during phase two of the study. Direct quotes from Phase Two of the study were included to add a voice to assist readers in better understanding the results from a holistic perspective of females. The results of Phase One and Phase Two were intertwined to answer research question three, and a newly hypothesized model is introduced for further research and validation by the field for females with EBD.

## CHAPTER FIVE: DISCUSSION

### Overview

The purpose of this study was to create a Statistical Equation Model (SEM) that is a hypothesized school engagement model to consider for students with EBD, specifically females with EBD. The initially tested SEM was modified for males and females with EBD separately, from data that emerged from intertwining the outcomes of a statistical analysis of the NLTS-2 database with interviews with females with EBD currently being served in an educational setting. This chapter begins with a summary of findings from the SEM process and how it was shaped and reshaped from three sources: the literature, the NTL-2 database and the voices of females with EBD. This shaping was aligned with each of the research questions over three phases. Interpretations of the results of each phase of the study, as it relates to the current literature in the field, are provided as well as implications for females with EBD. Recommendations for practice, policy, and future research are discussed. The researcher concludes with limitations to address in future studies regarding female students with EBD.

### Research Question 1 – Quantitative data

The first research question addressed the factors that have a positive effect on school engagement for students with EBD. The sub-question addressed was: Does a student's gender moderate a relationship between antecedents of engagement and school engagement? In other words, is the effect of different factors on school engagement the same for female and male students with EBD? Students with EBD are by definition characterized as having undesirable behaviors that impact their education, which leads researchers more often to study how to



decrease negative behaviors rather than address the low academic achievement or lack of engagement of this population (Canella-Malone, Tullis, & Kazee, 2011; Evans, Weiss, & Cullinan, 2012; Wehby, Lane, & Falk, 2003). Researchers, who examined the NLTS-2 database for this population, along with other researchers in the literature most often address the negative postsecondary outcomes for students with EBD (Newman et al., 2011; Young, Sabbah, Young, Reser, & Richardson, 2010). Findings from these past studies show that students with EBD tend to have higher suspension and expulsion rates, leaving them out of the academic setting more than their peers with other disabilities (30<sup>th</sup> Annual Report to Congress, 2011). The data reported by the collective research on students with EBD tends to be either global in the approach or often focuses on the dismal outcomes for this population typically emphasizing male students. The reason for this plethora of focus on males with EBD in the current research is that they are most often overrepresented in the category of EBD. This emphasis on males has led to a lack of research on females with EBD, leaving educators ill-prepared to work with or to even potentially engage females with EBD in the school setting (Rice & Yen, 2010).

The researcher in this study shifted the focus from males with EBD to females with EBD to determine what might emerge from the existing data. The data analyzed in the study from the NLTS-2 database focused on literature from Culturally Responsive Theory (Wlodkowski & Ginsberg, 1995) and Participation-Identification Model (Finn, 1989) and included variables that predict school engagement for students with EBD, specifically females with EBD, by creating an SEM of the responses of females with EBD in the NLTS-2 data.

## Summary of findings

The hypothesized SEM that emerged related to the first question was fit to three different data sets: 1) students with EBD, 2) males with EBD, and 3) females with EBD. The hypothesized model contained items representing the following variables (a) assignment completion, (b) positive participation in the classroom, (c) peer interactions, (d) group memberships, and (e) social activities. Assignment completion and positive participation in the classroom are observed variables that measure academic engagement, whereas, peer interactions, group memberships, and social activities are observed variables that measure social engagement. The models for students with EBD and males with EBD differed only in an additional path that was added to the male's model. The additional path was from positive participation in the classroom (by speaking) to social engagement; indicating positive participation in the classroom is a predictor of social engagement. Each variable included in the hypothesized model for students with EBD and males with EBD were maintained in the modified models for these two groups. However, the final model, females with EBD, did not include all five variables. The observed variable, peer interactions, was removed from the female's modified model because it did not positively contribute to the model. The females with EBD model only contained four variables (a) assignment completion, (b) positive participation in the classroom, (c) group memberships, and (d) social activities, creating a potential difference in the way to support females with EBD. This change in the female model is a new contribution to the field as the predictors were not the same as the male model. Since the predictors of school engagement for females with EBD were only group memberships, social activities, assignment completion, and positive participation educators should use caution when thinking about peer interactions for

females versus males with EBD. As previously noted, peer assistance has been considered an EBP for students with and without disabilities; however, when grouping females with EBD with other students a deeper level of consideration is necessary. During phase two of the current study, females with EBD stated that they felt peer interactions were necessary if the peers they are interacting with have shown caring relationships and demonstrated they have the female with EBD's best interest in mind. In other words, when considering groupings for females with EBD, teachers could allow at least one friend of the female with EBD to be included in the group, rather than completely random groupings.

### Recommendations

The differences noted by the researcher through data analysis between the male model and the female model were that different strategies should be used in the classroom when considering school engagement. During phase one, the researcher found that the predictors of school engagement for males with EBD were (a) assignment completion, (b) positive participation in the classroom, (c) peer interactions, (d) group memberships, and (e) social activities. The predictors of school engagement found for females with EBD during phase one were (a) assignment completion, (b) positive participation in the classroom, (c) group memberships, and (d) social activities. This finding negates previous literature stating that males and females learn and engage in the school environment similarly (Betts, Appleton, Reschly, Christenson, & Huebner, 2010). Forcing peer interactions in the academic or social setting may cause issues for females with EBD, which could contribute to undesirable behaviors often seen in students with EBD. Peer assistance is considered an Evidenced-Based Practice (EBP) for

students with EBD; however, limited research exists that shows the effectiveness of peer assistance for females with EBD (Hughes, Carter, Hughes, Bradford, & Copeland, 2002; Scruggs, Mastropieri, & Richter, 1985; Tateyama-Sniezek, 1990). Educators should use caution when implementing group work or other activities that include peer interactions or provide students with peer assistance coaching to ensure a smoother experience during peer interactions. Further enhancements and clarity on the emergence of this new finding in the literature is provided in phase two from the voices of females with EBD.

### Research Question 2 – Interviews

Phase two of the study was the qualitative portion to address the second research question, what are the most important factors that have a positive effect on school engagement from a female student's perspective as identified from females with EBD ages 14-17? Researchers note that females with EBD tend to internalize many of their behaviors as opposed to males with EBD who often externalize their behaviors (McIntrye & Tong, 1998). Due to this difference in the reported display of behaviors by females with EBD, teachers may need to identify different strategies and techniques to support stronger engagement in the school setting (Davis et al., 2011). Females with EBD have been found to often hide problems and in general have problems with relationships (Cullinan, Osborne, & Epstein, 2004; Rice, Merves, & Srsic, 2008). This hidden voicelessness goes back in time to the primitive idea that women were inferior to men and was not capable of making decisions (Garskof, 1971). The negative generational ideas that have followed women for centuries continue to persist today with few improvements. The literature base for females with EBD is quite scarce; however, a foundation

of information, including the current study, is being built to help educators better serve females with EBD.

### Summary of statements

In phase two, six females with EBD were asked to add their voice to this study regarding what strategies or techniques helped them engage in the school setting. Using part two of the interview questions in Appendix C, females discussed variables pertaining to academic and social engagement. To engage in the academic setting of school, females discussed individualized instruction, smaller class sizes, and peer supports based on past experiences. To engage in the social setting of school, participants only discussed the need for supportive relationships.

Newly emerged variables from phase two of the current study included smaller class sizes, individualized education, peer supports, and supportive relationships. To further support the qualitative findings, the Individuals with Disabilities Act (IDEA) (1990) addresses individualized education for students with disabilities. One major component of the individualized education program is to provide students with supports geared towards their specific needs, for them to be successful in the classroom. While interviewing females with EBD, they adamantly spoke about one-on-one supports and instructional activities they could easily complete or get help on from their teachers or peers. Based on the purpose of IDEA, regardless of the gender of the student with a disability the “I” in IDEA and Individualized Education Program (IEP) is individualized. Educators must maintain individualized instruction for students with disabilities, particularly females with EBD.

Providing students with disabilities, specifically females with EBD, a quality education that is individualized to fit their needs is the law, not a suggestion. Phase two participants attended a small school that provided services only to females with EBD. Participants provided information about their past school experiences as well as their current academic placement. In their previous placements participants felt teachers did not notice they were even in the classroom, let alone provide them with adequate and challenging instruction (Participant 1; Participant 3). Responses are related to the theme of internalizing versus externalizing behaviors. Davis and colleagues (2011) discuss the prevalence of females with EBD displaying internalizing behaviors rather than externalizing behaviors. When internalizing behaviors are expressed, it usually results in the withdrawal of students from the educational setting and their teachers ignoring them. Once the participants experienced the different settings, they felt smaller class sizes would lead them to successful academic outcomes. The power that arises in phase two participant's responses further validates the need for individualized education that fits each individual student's needs. If smaller class sizes, individualized instruction, and peer supports lead to improved academic outcomes for females with EBD, these three variables should become a priority in classrooms. Strategies such as CRT (Wlodkowski & Ginsberg, 1995), PIM (Finn, 1989), and evidence-based practices (EBP) would allow for teachers to ensure instruction is individualized, as well as, other predictors of school engagement for females with EBD are implemented. If these variables are added, females with EBD will engage in the school setting and past negative perspectives on school will be changed into more positive perspectives and experiences.

### Results supports or negates the literature

In regards to supportive relationships, participants stated when they knew teachers cared, they wanted to participate in class, but when it was obvious that teachers did not care, the students did not care. Students with EBD, specifically females with EBD have been known to have negative experiences in the school setting and often in their home lives (Wehby, Lane, & Falk, 2003). Researchers have found that when females with EBD feel that someone, such as a teacher or their peers, care about their well-being, they are more engaged in the school setting (Wlodkowski & Ginsberg, 1995). Participants supported this statement, they shared they wanted to learn in a warm and supportive climate, which aligns clearly with the CRT Framework (Wlodkowski & Ginsberg, 1995). The CRT Framework tenets offer instructions for educators to create a warm and supportive climate. The findings from interviews with females with EBD, further proves the effectiveness of the CRT framework in supporting students. The tenets of CRT include establishing inclusion, developing positive attitudes, enhancing and engendering competence. These tenets were supported by several comments made by the participants during their interviews.

When analyzing qualitative results, participants state factors they felt were important for them to engage in within the school setting. One area that each participant spoke positively about was supportive relationships within the school setting. According to Al-Hendawi (2012), the goal of school engagement is to immerse students in a warm and positive atmosphere that is conducive to academic achievement. As noted, each tenet of the CRT provides educators with instructions on how to best help students engage by using a cultural responsive approach. The

results of this study align specifically with the first three principles: (1) establish inclusion, (2) develop positive attitudes, and (3) enhance meaning.

### Establish inclusion

The first principle, establish inclusion, helps educators to understand how to include students in an atmosphere that is warm and conducive to learning (Wlodkowski & Ginsberg, 1995). When qualitative participants were asked about their school environment, the consensus from the females with EBD was that their current academic placement was enjoyable because it was evident that teachers care about them. When females with EBD feel that teachers do not have their best interest in mind, they may withdraw from the school setting. Participant 1 stated that she enjoyed school when she knew educators were “concerned about me”. Establishing inclusion helps motivate students to engage in the school setting, because they feel respected and connected to their teachers and peers (Wlodkowski, 2003). When inclusion is not established, participants felt they were just another number and did not feel like they could succeed in the school setting. Females with EBD often have trouble maintaining relationships (Rice, Merves, & Srsic, 2008). Educators can circumvent this issue by establishing inclusion for females with EBD.

### Develop positive attitudes

Helping students develop a positive attitude is another principle of the CRT (Wlodkowski & Ginsberg, 1995). Students with EBD, specifically females with EBD, have been known to



have negative attitudes toward the school setting (Wehby, Lane, & Falk, 2003). The responsibility of changing the negative perspective is a role that educators need to consider in working with students from a range of backgrounds. Females with EBD realized the importance of having a positive attitude towards school, “If you have a negative attitude in the classroom and you don’t do what you are supposed to do, then you won’t learn” (participant 2). Participants revealed they had a more positive attitude toward the school setting if teachers took a genuine interest in what was important to them and if the teachers incorporated their interests into the content. Females with EBD shared they wanted to feel a part of their educational experience, but they also wanted to insure the tasks they completed were both important and enjoyable. If females with EBD do not feel instruction is of importance, teachers may experience internalizing or externalizing behaviors from this population (Davis et al., 2011). One interesting way participants felt they were been able to develop positive attitudes was through social activities. Participant 5 stated, “We go on trips, and we do a lot of fun things.” Overall, the participants stated that teachers facilitate social activities that promote positive attitudes; participants stated they enjoyed that about their current school setting. When considering the quantitative results, social activities positively contributed to the model for school engagement; upholding the second principle of developing positive attitudes.

### Enhance meaning

The third principle, enhance meaning, refers to creating challenging experiences for females with EBD that use their strengths and perspectives to learn. Participants discussed the differences between their current placement versus their previous placements. Participants did

not feel they were challenged in any way in the past, because there were too many students in one particular classroom. “There were so many kids in the classroom they didn’t even know I existed” (Participant 4). It is important for students with EBD, especially females with EBD, to have teachers that are interested in getting to know them. Oftentimes students with EBD lack support and motivation in their home lives (Wehby, Lane, & Falk, 2003). When teachers exhibit behaviors that exclude students from the educational setting as well as not provide this population with challenging experiences, negative behaviors can occur. Participants adamantly described their new placement as a better fit for them because there were smaller class sizes, and teachers were able to challenge and help them. “The work is difficult, but teachers help you finish” (Participant 1). To solidify the alignment between the results and the CRT framework, participant 6 said, “They [teachers] give you challenging work, and if you participate in class discussions they use some of your opinions in the discussions.” When opinions of females with EBD are used in discussions and embedded into the content, these females said they were more engaged and a part of the discussion.

### Engender competence

The fourth and final principle of the CRT framework is engender competence. Although participants did not provide responses that aligned with this principle, it is possible that future studies will delve deeper into conversations with female participants to better understand how this principle affects females with EBD.

## Recommendations

To answer research question two, participants provided new variables necessary for them to engage in the school setting. Responses to interview questions (see Appendix C) aligned with the CRT variables that are considered tenets important for females with EBD to engage in the school setting. The outcome of addressing the CRT tenets in the classroom is to increase females' engagement levels thus potentially decreasing dropout rates and increasing grade point averages and course completion for this population. To establish CRT in the classroom, teachers should consider the following array of activities as an outcome of this study; (a) implement activities that speak to each student's strengths, (b) allow students to learn from one another's past experiences and cultural backgrounds, (c) model positive attitudes for students, and (d) reiterate the importance and purpose of the content being taught using student's ideas (Brown-Jeffy & Cooper, 2011; Wlodkowski & Ginsberg, 1995). Implement relevant activities

Teachers should implement activities that speak to each student's strengths. By doing this teachers will establish inclusion and help develop positive attitudes towards the classroom and in general education. Students should be given multiple ways they can learn the material, and to complete the assignments much like the principles of Universal Design for Learning (Morra & Reynolds, 2010). For example, some students may be stronger at giving presentations than writing; both opportunities should be available for students, using students' strengths instead of their weaknesses, so their best work is assessed.

### Participation in instruction

Allow students to learn from one another's past experiences and cultural backgrounds. Depending on what content is being taught, if a student has a diverse opinion or has experience in that particular content area, educators should allow the student an opportunity to share with the class or implement the EBP, peer assistance (Hughes, Carter, Hughes, Bradford, & Copeland, 2002; Scruggs, Mastropieri, & Richter, 1985; Tateyama-Sniezek, 1990). Peer assistance allows for students to work and learn together. If diverse options are given for students to share ideas engagement will increase. Students could be given the opportunity to produce a movie, presentation, brief speech, or through other creative modes of delivery. Allowing students to participate in instruction enhances meaning and establishes inclusion for students, especially females with EBD.

### Model positive attitudes

According to Wlodkowski and Ginsberg (1995) developing positive attitudes is one way to respond to differences in the classroom. To develop positive attitudes in students, teachers should model positive attitudes. Enthusiastic teachers can influence student's enthusiasm for instruction and school in general. If teachers model positive attitudes in the school settings as well as build positive rapport with students, teachers will develop positive attitudes in females with EBD. Brown-Jeffy and Cooper (2011) discussed student-teacher relationships as an important aspect when considering individual students. Positive student-teacher relationships can increase positive attitudes in the school. Moreover, these positive attitudes could change the outcomes for students.

### Reiterate importance of school

Teachers should always let students know how and when they may possibly use the content or lessons being taught in the future. If teachers tie content to real life issues that students may face on a daily basis, comprehension of the importance of content being taught will increase. Reiterating the importance of school by relating content to real life issues will enhance meaning of the information for females with EBD. The core value of Finn's (1989) model is helping students understand and engage in the school setting. Engaging females with EBD academically and socially in the school setting, will reiterate the importance of school.

When educators establish CRT within their classrooms, students feel a sense of belonging and can then engage in the school setting. Using CRT practices could ameliorate postsecondary outcomes for females with EBD, and this outcome is one in need of further investigation.

### Research Question 3 – Intersection of Analyses

The researcher addressed research question three, “Do current female students with EBD, after sharing the factors that emerge in an SEM model created from the NLTS-2 database, agree with these findings” by merging the outcomes of the NTLs-2 data with the voices of the current female students with EBD. This merger occurred by sharing the factors that became evident in the final female SEM model from the NLTS-2 database and by talking with phase two participants, to see if they agreed with these phase one findings. Historically females have been marginalized and not provided adequate services to be included and effective in society (Woloch, 1996; Woody, 1966). The idea of the size of a woman's brain was originally used to indicate

that women were not capable of making decisions and being included in society (Romanes, 1887). To confirm past ideas of the inadequacies of women, Garskof (1971) referred to Biblical references, stating that God placed responsibility on the man, not the woman . In regards to education, females were often forced to learn house duties rather than academic or core material such as Science, Mathematics, Social Studies, or Language Arts (Cross, 1965). Although studies report no differences between the mental capacity between males and females, members of society (predominately led by males) rated women lower than men (Leuba, 1926). This long history of unequal treatment and opportunities persists and is evident in the research pertaining to females with EBD or the lack thereof.

#### Literature supports or negates results

The results of phases one and two confirm previous literature for students with EBD. The National Secondary Transition Technical Assistance Center (NSTTAC) provides three evidence-based practices (EBP) for students with EBD: self-management, technology, and peer assistance. Self-management, also referred to as self-monitoring, self-instruction, and goal setting, is used to engage students with EBD in the school setting (Mooney et al., 2005; Reid, Trout, & Schwartz, 2005). When considering academic engagement variables (assignment completion, positive participation in the classroom, individualized education, and smaller class sizes) self-management is an EBP that supports and will increase academic engagement. Although literature was not found to support the use of self-management for females with EBD solely, the purpose of this practice is to engage students by allowing them to manage themselves and take a part in their education. Based on the results of phases one and two of this study, this

practice is one teachers should implement as important for females with EBD. By using self-management, females with EBD learn to take ownership for their actions by managing or monitoring their own academic achievement or behaviors. Assignment completion and positive participation in the classroom are two additional variables that teachers can help females with EBD to learn to manage.

Another tool teachers should consider using that also aligns with the new variables identified in phase three is technology. Technological tools can engage students academically and socially (Fitzpatrick & Knowlton, 2009). Incorporating technology-based practices such as iPad applications, computer software, internet-based applications, and even cell phone applications can engage females with EBD in instruction or in a social environment (Rose & Meyer, 2000). Many students today use their cellular devices for multiple uses and are quite engaged in mindless games and other activities (Morra & Reynolds, 2010). If teachers use cellular devices for instructional use, females with EBD may engage in the school setting because they are interested in the use of technology. Other creative ways to use technology in the classroom will help teachers implement the principles of Universal Design for Learning (UDL) (Rose & Meyer, 2000). Although technology provides females with EBD only a few modes to express their skills, it is untraditional and can be tailored to fit the unique needs of this diverse population (Morra & Reynolds, 2010). Unfortunately, studies showing the effectiveness of technology for females with EBD solely are not currently available; further research is needed to confirm the effectiveness of technology and the use of UDL for females with EBD.

Peer assistance, including peer tutoring, cooperative learning, and peer instruction (Hughes, Carter, Hughes, Bradford, & Copeland, 2002; Scruggs et al., 1985; Tateyama-Sniezek,

1990) are other tools that align with the outcomes of this study but should be used with a caveat in mind. Although peer assistance aligns closely with peer interactions, a variable removed from the female's SEM, in the current study is the idea that peer assistance has been negated. Phase two participants, however, provided clarity about the issues of peer interactions. Empirical evidence exists illustrating the success of peer assistance for students with EBD, but for females with EBD teachers must take a further step. Females with EBD need to interact with peers they trust such as friends or other peers who care about them. Educators should use caution in assigning this population of students to large group activities because of personality clashes and the likelihood of unsupportive peers. Purposefully grouping females with EBD is very important, as noted in the SEM and by females in this study, to their success in the school setting. Therefore, peer assistance is necessary for females with EBD to engage in the school setting confirmed from previous literature (Farley, Torres, Wailehua, & Cook, 2012; Fitzpatrick & Knowlton, 2009; Hughes et al., 2002; Niesyn, 2009; Scruggs et al., 1985; Tateyama-Sniezek, 1990), but a new level of consideration about the supportive nature of peers in the group needs to be at the forefront of teachers working with this population.

Finally, just like the CRT was confirmed through the results of the study, so was the Participation-Identification Model (PIM). The PIM was upheld and confirmed based on the results of phase one and two. Finn (1989) in relation to the PIM states that if students participate in the academic or social setting of school, they will in turn begin to identify with school, thus beginning a positive cycle of engaging in the school setting (Finn, 1989; Reschly & Christenson, 2006). Based on quantitative and qualitative results of the study, variables that relate to social



and academic engagement predict school engagement. Therefore, the framework of the PIM holds true and is validated.

### Implications for the Field

#### For Practice

School leaders and professionals across the country are often ill prepared to handle the delicate issues that females with EBD face on a daily basis (Rice, Merves, & Srsic, 2009). Using the limited previous literature, the researcher of this study sought to introduce foundational work to create a model from females with EBD to help practitioners become better prepared to support and educate this population of students. Currently, strategies and interventions exist to help students with EBD, but the interventions and strategies primarily target changing negative behaviors because undesirable behaviors are common characteristics among students with EBD (Wehby, Lane, & Falk, 2003). Current literature also emphasizes boys with EBD or students with EBD at large (Cullinan, Osborne, & Epstein, 2004; Davis et al., 2011; Furlong, Morrison, & Jimerson, 2004; McIntyre & Tong, 1998). Although national research studies, such as the NLTS-2 (Newman et al., 2011), have shown the grim academic outcomes of students with EBD (Wagner et al., 2005), this topic is rarely discussed by gender, leaving teachers without academic support to most effectively assist students with EBD. To begin to address the needs of females with EBD, the researcher recommends using current strategies and interventions (Farley, Torres, Wailehua, & Cook, 2012; Fitzpatrick & Knowlton, 2009; Hughes et al., 2002; Niesyn, 2009; Scruggs et al., 1985; Tateyama-Sniezek, 1990) that target the four variables found to be predictors of school engagement for females with EBD. Strategies and interventions such as (a)

implement technology to enhance instruction (Fitzpatrick & Knowlton, 2009), (b) peer assistance (Farley, Torres, Wailehua, & Cook, 2012; Hughes et al., 2002; Niesyn, 2009), and (c) self-management (Mooney et al., 2005; Reid, Trout, & Schwartz, 2005) have been proven successful and should be considered. Incorporating technology and social activities into instruction to assist with assignment completion and positive participation in the classroom will help engage females with EBD. Building relationships and understanding the interests of this population will help practitioners guide students to appropriate groups and organizations where females with EBD can become involved. Equipping practitioners with the necessary tools to help females with EBD is important because teachers, staff, and school officials can have a major impact on the success of this population. While interviewing phase two participants, the term “support” was continuously mentioned. Supportive relationships in the form of caring teachers and warm and enjoyable atmosphere to learning, rang through each participant’s interview responses. Although all females enjoy learning in a warm environment (Cross & Madson, 1997), females with EBD require a more in-depth level that only caring teachers can provide. While females without disabilities may enjoy caring teachers and learning in warm and inviting atmospheres (Cross & Madson, 1997), females with EBD seem to yearn for a warm and conducive learning environment, which would include all caring and supportive personnel that surrounds the particular female with EBD, including but not limited to teachers, staff, and peers. Educators should build positive rapport with females who have EBD. Positive rapport takes time and energy, but worth the effort if students are able to engage in the school setting. Culturally Responsive Teaching Framework

The CRT Framework introduces four tenets educators can implement to create a climate conducive to engaging females with EBD (Wlodkowski & Ginsberg, 1995). The four previously mentioned tenets have been researched (Brown-Jeffy & Cooper, 2011; Wlodkowski, 2003) and vetted by phase two participants to ensure their effectiveness for this population. The four tenets address a variety of issues geared towards centering all decisions around the individual student. If tenets are implemented, educators will unlock a positive flow of knowledge provided for females with EBD. Without the CRT, females with EBD may continue to be withdrawn and experience negative postsecondary outcomes.

#### Implementing Culturally Responsive Teaching Framework

While research exists on the tenets of the CRT framework (Brown-Jeffy & Cooper, 2011; Wlodkowski, 2003; Wlodkowski & Ginsberg, 1995), additional information to help teachers implement the framework is necessary. According to Irvine (2012), culturally responsive teachers enhance classroom experiences by building on the lived experiences of learners, hold students to high standards by engaging them in high level activities, and combine learning objectives with materials that emulate the diverse schools and communities of the students.

Diverse learners are provided varying experiences, especially academic experiences. When teachers build on the experiences they have already provided it could be easier for diverse learners to engage in the school setting; however, if teachers use a one-size-fits-all approach by assuming students have had certain experiences it may be more difficult for diverse learners, such as females with EBD, to engage in the school setting.

To implement culturally responsive pedagogy, educators must maintain high standards for all students, including females with EBD (Irvine, 2012). Maintaining high standards provides diverse learners with something to work towards and makes them feel teachers care that they succeed in the school setting. When teachers are able to build a relationship with females with EBD, they are able to learn the strengths and challenges of their students. Once teachers learn who their students are, maintaining high standards for diverse learners should be easier for teachers.

Finally, teachers can implement the principles in the CRT framework by strategically selecting instructional materials that relate to and reflect the communities and schools of diverse learners. When activities and instructional materials relate to diverse learners they are more likely to engage in the school setting (Irvine, 2012).

#### Teacher preparation programs and CRT

The current study proves the importance of CRT; however, additional instruction and preparation is needed to help teachers effectively implement CRT strategies to diverse populations such as females with EBD. Merely lecturing to pre-service and in-service teachers about the tenets of CRT may not prepare teachers to effectively deal with the daily needs of students from diverse cultures. Teacher preparation programs throughout the U.S. need to offer instruction from faculty members who have had hands-on experience in diverse settings. One way to help pre-service and in-service teachers effectively become culturally responsive is for faculty members within teacher preparation programs to model CRT strategies during instructional times (Haston, 2007; Pressley & Harris, 1990). Rather than lecturing about CRT,

modeling could provide pre-service and in-service teachers appropriate guidance in implementing CRT tenets. Modeling can consist of modifying instructional materials to include CRT components, choosing materials that best fit diverse populations, building positive rapport with students, and including each principle of the CRT framework into higher education course and talking about the intentionality of these structures as a core component of good teaching (Wlodkowski & Ginsberg, 1995)

Another way to assist pre-service and in-service teachers in becoming culturally responsive teachers is for preparation programs to offer and require hands-on experiences in diverse settings. Many teacher preparation programs require “field experiences” where teacher candidates go into classrooms to gain hands-on experiences of how to teach in the classroom. If teacher candidates were given the opportunity to teach in diverse settings, they would have the opportunity to implement strategies learned during their respective teacher preparation programs, thus providing additional learning and experiences in becoming culturally responsive. Teacher candidates would also have the opportunity, through CRT strategies, to practice how to engage diverse learners, which would then allow teachers to practice and implement the PIM (Finn, 1989).

#### Participation-Identification Model

According to Finn (1989) the PIM was built on the foundation that if a student participates in the school setting academically or socially, he or she will begin to identify with school. Once students identify with school, they begin to want to participate even more, thus increasing engagement.

Based on the quantitative results, females with EBD will engage in the social setting of school through activities and group memberships. If educators create appropriate social activities and guide females with EBD to appropriate group memberships with positive and supportive peers, school engagement is predicted to increase. Appropriate social activities are contingent upon the individual student's interest and strengths. All social activities may not interest all students; therefore understanding strengths, interests, and needs is critical to a positive rapport. Group memberships, including school clubs, organizations, and extracurricular activities, vary from school-to-school and district-to-district. Although it may not be easy to find appropriate group memberships for females with EBD, according to phase one results and the PIM, this level of effort is essential for this population to engage in the school setting (Finn, 1989). School engagement is so critical to postsecondary outcomes for females with EBD, that new clubs or organizations may be needed to fit the unique needs of this population.

Quantitative and qualitative results also revealed that assignment completion and positive participation in the classroom are necessary for females with EBD to engage in the academic setting of school. To help females with EBD engage in the academic setting, educators need to understand what will make a student complete their assignments and positively participate in the classroom. By building positive relationships and learning the strengths and challenges of the individual females with EBD can help teachers understand what engages them as individuals to complete assignments and participate in the classroom. Females with EBD are a unique population. Educators must get to know them and their individual needs prior to implementing strategies and interventions.

## For Policy

Policy is often created through extensive research. Unfortunately, national studies often refrain from disaggregating gender and disability level. Due to the lack of disaggregation, policy to ameliorate outcomes of females with EBD, specifically, do not exist. Females with EBD continue to be marginalized, thus continuing the historical treatment of females and students with disabilities. National studies focusing on students with EBD are oftentimes out-of-date; however, these specific studies provide longitudinal data that analyzes trends of specific disabilities such as EBD. Although national studies, as well as seminal works and research studies should be referred to when making policy decisions regarding females with EBD, the results found herein also can be used to make changes in the grim statistics that surround students with EBD, especially females with EBD. The quantitative results present a clear visual image of the predictors of school engagement for females with EBD. During phase two of the current study, participant's voices powerfully stated what helps them engage in the school setting. By looking at the female's SEM and considering the newly developed hypothesized model, policy makers can ensure these variables are addressed when post-secondary options, high school dropout rates, and overall school outcomes are being examined for change. The modified SEM for females with EBD, was tested and a good-fitting model was found. These results indicate that if policymakers, such as making appropriate group memberships a requirement, consider this SEM, females with EBD will be successfully engaged in the school setting.

## For Research

The negative outcomes of females with EBD are rarely researched. To address the persistent issues and assist in providing helpful skills and tools to practitioners working with this population, it is recommended that current interventions and best practices that focus on the four variables found to be predictors of school engagement for females with EBD begin to be examined for females with EBD. Oftentimes researchers analyze interventions for students with EBD at large; however, as addressed in research question one, the path to school engagement is different for males and females. Each strategy and intervention that is successful for all students with EBD may not be as effective when considering females only. It is recommended, for large national studies, that researchers collect and disaggregate data by gender. When gender is disaggregated, researchers are able to look more closely at trends and issues of the currently targeted population, females with EBD. Finally, previous researchers discuss the attendance, postsecondary outcomes, and dropout rates of students with EBD (Johnson, 2008; Newman et al., 2011; Shandra & Hogan, 2008; Young, Sabbah, Young, Reser, & Richardson, 2010). The originally chosen data for the current study was the youth surveys of the NLTS-2. The researcher planned to use wave three data to construct the SEM; however, the data for all students with EBD included several cases of missing data. The data collection method used for the NLTS-2 was face-to-face interviews or mailed surveys. Unfortunately, students with EBD have low rates of school attendance, high rates of school dropouts and negative postsecondary outcomes. Therefore, participants may not have been in attendance when interviews were conducted or participants may have dropped out. To ensure females with EBD are included in research,



unique data collection methods must be used specifically females with EBD, to ensure their voices and needs are represented in the literature.

### Limitations

As with any study, limitations arise that affect the outcomes of the study. Limitations have been broken down into phase one, two, and three.

#### Quantitative analyses

Phase one consisted of the following limitations: (a) small sample size, (b) sample for females with EBD, and (c) validation of the female's SEM, missing data, attrition, and the date of when data were collected. As noted wave 3 data did not represent females with EBD therefore only wave 2 data could be used to represent the voices of females.

#### Small sample size

Three SEM models were assessed, using three different samples. The first sample included 210 (n=210) students with EBD. The second sample included 105 males with EBD. The third sample included 105 females with EBD. Based on G-power, computer based power analysis software, the suggested sample size was 152, with a sample size of 100 being acceptable. The initial model tested using data from 210 students with EBD, met the suggested sample size; however, the final two models did not meet the suggested sample size; however, they are considered an acceptable sample.

### Sample for females with EBD

As previously stated, the sample used for females with EBD included 105 cases. To ensure an acceptable sized sample was used, the researcher exhausted the amount of cases for females with EBD to be used in phase one of the current study. Wave 3 could not be used due to the lack of missing data in the third wave. Because the researcher used all cases for females with EBD (n=105), the data could not be randomly selected. This lack of randomization also caused a problem with validating the SEM for females with EBD. To properly validate the SEMs a separate randomly selected sample was chosen, and the data were fit to the modified model of each SEM. However, the validation process could not be implemented for females with EBD, which poses a limitation to the SEM.

### Missing data

Initially the researcher planned to use data from the youth survey, which was collected in waves two through five of the NLTS-2. The youth survey contained items that were closely related to school engagement; however, the amount of missing data for students with EBD was too great to conduct statistical analyses on the data. In future studies, the methods to attain data from students with EBD will need to be thoughtfully considered to ensure data are collected from this population of students.

The data that were used for the current study also contained missing data but the missing data did not impact the model. Any cases that were missing data in the items chosen for analysis were removed. This limitation exists because the missing cases could have provided differing results.

### Response Rates within NLTS-2 data

The response rates for completed surveys in the NLTS-2 were not desirable. Out of the 9,414 students with disabilities who were eligible to take the direct assessment, only 5,222 were administered each part of the assessment, which returned a response rate of only 55.4% (Wagner et al., 2007). Although the response rates for students with EBD, researchers of the NLTS2 stated that if at least one question on the surveys or direct assessment protocols could be answered, the student was included in the in the study (Wagner et al., 2007). The low percentage of response rates affected the NLTS-2 results just as it affected the current study. Similar to the limitation of the small sample size, response rates found in the NLTS-2 affects the current study because the students who did not participate in the direct assessment portion of the NLTS-2 could have provided differing results for the current study.

### The date of data collected

The final limitation found in phase one of the current study was the date the data were collected. The NLTS-2 was a longitudinal study, beginning in 2000 and ending in 2009. Participation in the NLTS-2 was highest at the beginning of the study. The data used for the current study were collected from 2002-2004, at least ten years from the present time. As time progresses, it is possible student responses to the NLTS-2 survey items would be different, which poses a limitation to the current study outcomes.

## Qualitative analyses

The researcher faced several limitations in phase two of the study. Limitations fall into two categories: delivery method of interviews and issues with participants.

### Researcher interactions with participants

During phase two of this study, the researcher interacted directly with females with EBD. All interviews were conducted via Skype rather than face-to-face. It is possible that responses would be different if the researcher interviewed participants onsite. Although the researcher spoke with parents of participants, the Skype interviews were the first time participants spoke with the researcher. Many participants stated they did not enjoy socializing or speaking to others, they would rather not be bothered. Because the researcher did not conduct interviews face-to-face and positive rapport was not built between the researcher and the participant, some participants refused to expound on some of the interview questions. If the researcher felt the participant was uncomfortable or did not want to answer a particular question, the researcher moved on to the next question. The lack of in-depth responses effected overall study results.

### Issues with participants

The researcher only interviewed six females with EBD. Using a larger sample may have provided differing and more diverse results. All phase two participants attended the same academic institution. Being that the participants were from the same academic placement and the academic placement served only females with EBD, a nationally represented sample was not used.

Finally, the voices of female's who participated in phase two were weighted equal to and at times have considerably consistent more strongly than the data used in phase one. This is a limitation because there were only six participants in phase two of the study and they were not considered a national representation of females with EBD, while the participants in phase one were greater (n=105) and were a part of a national representative sample. The responses received from phase two participants were, however, more current than the data used from the NLTS-2, which was collected from 2002 to 2004.

#### Intersection of analyses

The variable, peer interactions, was not included in the model, even though some of phase two participants felt it was important. Because there were low sample sizes in quantitative and qualitative sections of the study, additional interviews would need to be conducted to better understand if peer interactions should be included in the model separately or if combining peer interactions with supportive relationships is sufficient for females with EBD. Although limitations exist in the current study, measures can be taken to address limitations in future research studies.

#### Future Research

In moving forward, the researcher has identified several directions for future research studies. To address limitations, the current study should be conducted again, addressing all limitations. One major limitation found was the SEM for females with EBD was not validated

because of the small sample sizes in the NLTS-2. In a future study, an additional SEM will need to be tested to ensure validation of results with a national sample.

Also, phase three presents a new SEM that could possibly ameliorate outcomes for females with EBD. The new model (see Figure 9) includes the following variables to be examined for school engagement for females with EBD: (a) group memberships, (b) social activities, (c) supportive relationships, (d) assignment completion, (e) positive participation in the classroom, (f) individualized instruction, (g) small class sizes, and (h) peer supports. Future studies should include appropriate measures to assess each variable using effective reliability and validity measures building upon the CRT framework (Wlodkowski & Ginsberg, 1995) and the PIM (Finn, 1989). Due to the lack of current collected data and literature on females with EBD, it is possible that this study may involve building a new database of females with EBD. Current researchers discuss the lack of research, interventions, and studies for females with EBD (Cullinan, Osborne, & Epstein, 2004; Rice, Merves, & Srsic, 2008). Within this particular future study, researchers should ensure that effective and efficient data collection methods are practiced. The NLTS-2 provides interesting trends of students with disabilities; however, characteristics of students with EBD make it difficult to collect sufficient data on this population and further aggregate by gender.

### Conclusion

In the current study the researcher examined the predictors of school engagement for females with EBD. Previous literature focuses on males with EBD, specifically African American males with EBD (Ferri & Connor, 2005; McIntyre & Tong, 1998). While the focus of

most research in the area of EBD is geared towards decreasing overrepresentation of African American males (Ferri & Connor, 2005; McIntyre & Tong, 1998), females with EBD or females at-risk of having EBD, are currently slipping through the cracks. More research to add to the literature base about the characteristics of females with EBD and how to engage them in the school setting is essential. According to Rice and colleagues, (2008) females who present externalizing behaviors often become more aggressive than their male counterparts. When teachers are not prepared to handle the unique needs of females with EBD, the teacher is at a disadvantage and further marginalizes females with EBD by providing inadequate or inappropriate services, leading to females being disengaged in the school setting.

In the current study, the researcher identified predictors of school engagement for females with EBD. Predictors for females with EBD identified in phase one include group memberships, social activities, assignment completion, and positive participation in the classroom. Predictors revealed by the researcher during the qualitative portion, or phase two of the current study, included individualized instruction, peer supports, small class sizes and supportive relationships. The limited research on females with EBD, does not address increasing school engagement. Students with EBD, including females, have the lowest G.P.A.s and lowest course completion of all students with disabilities (Newman et al., 2011). When teachers are ill prepared to incorporate and implement strategies catered to the predictors of school engagement for females with EBD, this population remains disengaged, allowing the grim statistics to be upheld (Rice, Merves, & Srsic, 2008). Failure to engage females with EBD also will lead to negative postsecondary outcomes such as higher dropout rates, increased gang affiliation, and increased teenage pregnancies (AAUW, 2009; Al-Hendawi, 2012; Gage, Josephs, & Lunde,

2012). In the current study the researcher built a foundation to continue to conduct research on females with EBD to better assist educators in handling the needs of this unique population.

In analyzing the predictors of school engagement, the researcher found that females and males engage in the school setting differently. Based on the current study the variable of peer interactions is a predictor for males with EBD, whereas it is not a predictor of engagement for females with EBD. Additionally, when conducting interviews with current females with EBD, these participants revealed new variables that have a significant impact on school engagement for this population. New variables included (a) supportive relationships, (b) individualized instruction, (c) smaller class sizes, and (d) peer supports. During phase three, the researcher analyzed phase one and two results together. Current females with EBD were asked if they agreed or disagreed with phase one results. Participants completely agreed with the variables, assignment completion and positive participation in the classroom; however, the remaining variables, Group memberships, social activities, and peer interactions, prompted differing results. After the intersection of phase one and phase two was complete, a new model was created based on phases one and two to be tested in future studies. The variables in the new model are (a) group memberships, (b) social activities, (c) supportive relationships, (d) assignment completion, (e) positive participation in the classroom, (f) individualized instruction, (g) smaller class sizes, and (h) peer supports.

The results of this study add to the scarce literature base for females with EBD. Females with EBD face horrible statistics that could affect them well past their educational journey. If educators do not embrace the results as well as implement suggestions found herein, females



with EBD will continue to experience inadequate services leading to negative academic and social outcomes.

## **APPENDIX A: INFORMED CONSENT LETTER**

## APPENDIX A: INFORMED CONSENT LETTER



### Predictors of School Engagement for Females with Emotional and Behavioral Disabilities

#### Informed Consent

Principal Investigator(s): Stacey Hardin  
Faculty Supervisor: Lisa Dieker, PhD  
Investigational Site(s): University of Central Florida

#### **How to Return this Consent Form:**

After careful review of this form, please return the signed form to Stacey Hardin at the University of Central Florida by mail or by email.

Stacey Hardin  
4000 Central Florida Blvd.  
Orlando, FL 32816  
Teaching Academy  
Room 306  
[Stacey.hardin@ucf.edu](mailto:Stacey.hardin@ucf.edu)

**Introduction:** Researchers at the University of Central Florida (UCF) study many topics. To do this we need the help of people who agree to take part in a research study. You are being asked to allow your child to take part in a research study; which will include between 6-12 students. Your child is being invited to take part in this research study because she is a female, between the ages of 13-16 years old, and has been identified as a student in special education with an emotional and behavioral disability.

Stacey Hardin, a doctoral student at the University of Central Florida, Exceptional Education Department, will conduct the research. Because the researcher is a doctoral student she is being guided by Lisa A. Dieker, Ph.D., a UCF faculty supervisor in Exceptional Education.

### **What you should know about a research study:**

- Someone will explain this research study to you.
- A research study is something you volunteer for.
- Whether or not you take part is up to you.
- You should allow your child to take part in this study only because you want to.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide it will not be held against you or your child.
- Feel free to ask all the questions you want before you decide.

### **Purpose of the research study:**

The purpose of this study is to build a foundation of factors to understand the predictors of school engagement for females with EBD. The researcher will also look at predictors of school engagement for males to notate the differences between these two populations within the category of students with EBD, if any exists. This study will afford the researcher the opportunity to create a (1) Structural Equation Model (SEM) to identify variables that contribute to or predict school engagement and to also (2) listen to the voices of females with EBD to understand their perceptions of their current need in education in relation to outcomes derived from the modeling process. According to Rice, Merves, and Srsic (2008) females with EBD are infrequently researched. A lack of research is also paired with limited resources offered to teachers to help females with EBD become successful in the classroom and society. According to McIntyre and Tong (1998), females are often overlooked for services under the EBD label. This underrepresentation may be due to female students' ability to conceal issues that trouble them (McIntyre & Tong, 1998). This study will afford researchers the opportunity to understand the characteristics and needs of females with EBD to help them succeed in the school setting.

### **What your child will be asked to do in the study:**

Your child's expected time commitment for this study is approximately 3 hours. The expected time commitment will span over three months. The research is expected to begin in January 2014 and conclude in May 2014.

The research project involves answering a series of interview questions that would allow participants to explain certain characteristics and/or behaviors they present in the classroom that affect academic engagement. Participants will also be able to provide their perceptions of the

results of the structural equation model. Participants will tell if they agree or disagree with the results.

Once parent consent and participant assent has been obtained, participants will be interviewed. The interview includes questions that allow participants to discuss their perceptions of their classroom behaviors and school engagement. The goal of this study is to give your child an opportunity to share her school experiences.

<b>Date</b>	<b>Item</b>	<b>Notes</b>
<b>January-February 2014</b>	<b>Recruitment of participants and consent attained from parents</b>	
<b>February-March 2014</b>	<b>Begin interviews</b>	
<b>March 2014</b>	<b>Conclude interviews</b>	
<b>April 2014</b>	<b>Data Analysis</b>	
<b>May</b>	<b>Complete data analysis and write-up results</b>	

Your child will interact with the researcher. The research is expected to end by May 2014. Your child does not have to answer every question or complete every task. You or your child will not lose any benefits if your child skips questions or tasks.

**Location:** For local participants, each phase of the research will be conducted at the University of Central Florida. Your child will be expected to travel to the University of Central Florida to be apart of this research study. For participants out-of-state, a Skype session can be arranged. Out-of-state participants are encouraged to participate. The researcher will insure to communicate all necessary information with all participants.

**Time required:** Your child's expected time commitment for this study is approximately 3 months. The research is expected to begin in January 2014 and conclude in May 2014. The research consists of one orientation that will last approximately 1.5 hours and one interview that will lasts approximately 1.5 hours.

**Audio or video taping:**

Your child will be video taped during this study. If you would prefer for your child's identity to be blurred, this is an option. If you do not want your child to be video taped, your child will still be able to be in the study. If your child is video taped, the tape will be kept in a locked, safe room at the University of Central Florida. The video will be kept up to seven years to preserve the

richness of the interviews, including body language and other nonverbal communication presented. After the seventh year, the video will be destroyed.

**Risks:**

There are no expected risks for taking part in this study. There are no reasonably foreseeable risks or discomforts involved in taking part in this study. The risks of this study are minimal. These risks are similar to those you experience when disclosing school-related information about your child to others. You or your child may decline to answer any or all questions and you may terminate your child's involvement at any time if you choose.

**Benefits:**

There will be no direct benefit to you or your child for your participation in this study, however the information provided will contribute to the body of literature on females with EBD. We also hope that the information obtained from this study will provide teachers with additional information, tools, and strategies to help females with or at risk of emotional and behavioral disabilities become more successful in academic settings.

**Compensation or payment:**

There is no compensation or payment for your child's part in this study

**Confidentiality:** We will limit your personal data collected in this study. Efforts will be made to limit your child's personal information to people who have a need to review this information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB and other representatives of UCF. To insure your personal information is limited, all identifying information will be replaced with different names or codes. The name of your child, will remain confidential and will not be used in any report, analysis, or publication. In addition, I am requesting your permission to collect photographs and video of your child during this process. If you would prefer to have your child's picture blurred out, this option is available.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints, or think the research has hurt your child, talk to Stacey Hardin, doctoral student, Exceptional Education Program, Department of Child, Family and Community Sciences, (919) 328-9030; e-mail [stacey.hardin@ucf.edu](mailto:stacey.hardin@ucf.edu) or Dr. Lisa Dieker, Faculty Advisor, Department of Child, Family and Community Sciences at (407) 823-2598 or by email at [lisa.dieker@ucf.edu](mailto:lisa.dieker@ucf.edu).

**IRB contact about you and your child's rights in the study or to report a complaint:** Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research &

Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901. You may also talk to them for any of the following:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You want to get information or provide input about this research.

**Withdrawing from the study:**

Your child will not be withdrawn from the study by principal investigators for any reason, but your child may withdraw at any point in the study, if you deem necessary. If a participant begins the interview but wishes to not complete the study and would like to withdraw from the study, their data will be discarded immediately.

Your signature below indicates your permission for the child named below to take part in this research.

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**DO NOT SIGN THIS FORM AFTER THE IRB EXPIRATION DATE BELOW**

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Name of child participant

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Signature of parent or guardian

---

Printed name of parent or guardian

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Date

- 
- Parent  
 Guardian (See note below)

Assent\_\_\_\_\_ Obtained verbally

### **CONSENT FOR PHOTOGRAPHY AND VIDEO**

\_\_\_\_\_ I voluntarily agree to release consent for photographs and video collected during this study.

\_\_\_\_\_ I voluntarily agree to release consent for photographs and video collected during this study;  
however, I would like my identification (my face) to be blurred to maintain confidentiality.

**OR**

\_\_\_\_\_ I do not agree to release consent for photographs or video collected during this study.

**Note on permission by guardians:** An individual may provide permission for a child only if that individual can provide a written document indicating that he or she is legally authorized to consent to the child's general medical care. Attach the documentation to the signed document.



## **APPENDIX B: STUDENT ASSENT LETTER**

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Dear Student,

My name is Stacey Hardin, and I am a student at the University of Central Florida located in Orlando, Florida. As a part of my studies, I must complete a research project, and I need your help. For my school project, I would like to interview you to better understand your perceptions of your classroom experiences. I would also like to ask you questions that will help me confirm results from another part of my research study. Everything will be explained to you and if you have questions, I will answer your questions in-depth. If you agree to help me out, we will begin with questions about your classroom experiences and end with questions about the results of the first part of my study.

I would also like to photograph and video record this process. The photographs and video taken of you will only be used for educational purposes and will not be used in any other manner. To insure your confidentiality, I will not use your name in any report, analysis, or publication. All identifying information, with the exception of photographs and video, will be replaced with different names or codes. If you would like your participation in photographs and video to be blurred, this is an option.

If you do not live in Florida, this is ok. You will still be able to participate in the study. You will be able to participate through a Skype session or over the phone. I will ask you questions while on Skype or over the phone.

You have the right to refuse to participate at any time during the study. You will be reminded of this right prior to your interview. You will have the right to withdraw at any time during the study if you choose to. You will not receive any compensation for participating in the study. Do you have any questions? Would you like to participate in this study?

**My contact information is as follows:**

Stacey Hardin  
4000 Central Florida Blvd.  
Orlando, FL 32816  
Teaching Academy  
Room 306  
919-328-9030

**My advisors contact information is as follows:**

Lisa Dieker  
4000 Central Florida Blvd.  
Orlando, FL 32816  
College of Education  
Room 315M  
407-823-3885

## **APPENDIX C: PHASE TWO INTERVIEW QUESTIONS**

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### **Interview questions for phase 2 of the current study:**

My name is (researchers name). I will be asking you several questions. I will record your responses with this video camera (point to video camera). Is this ok?

If yes, begin video recorder.

“Hello. Thank you so much for talking with me for a little while. I want to ask you some questions about your school, your neighborhood, and you. There are two parts to the interview. The first part will be all about you. During the second part, I will give you the results of a research study, and I will ask you how you feel about specific parts of the study. If you don’t want to answer one of the questions, that is ok. Please just let me know by saying ‘pass’ and I will move on to the next question. Is this ok? Also, if you want to stop talking at any time, this is ok too, just let me know by saying ‘end please’. Are you ready to get started?”

### **PART ONE**

#### **Demographics**

1. How old are you?
2. What grade are you in?

#### **School Behavior**

**“I want to start by asking you questions about your school behavior”**

1. Tell me a little bit about your school. What do you like about it? What don't you like about it?
2. Do you like school? Why or why not?
3. Have you ever liked school? If yes, when did that change? If no, what makes you dislike school?
4. Do you have a favorite class, if so which class? Why is this your favorite class?
5. Have you ever had a favorite teacher? If so, why was this your favorite teacher?
6. Can you think of a lesson that any of your teachers have given you that you thought was fun and you would want to do that again? If so, tell me about this lesson.
7. What is your favorite part of the school day?
8. What does it mean to you to behave appropriately?
9. What does it mean to your teachers for you to behave appropriately?
10. Do you always behave well when you are at school?
11. When are you on your best behavior? Why?
12. When do you not behave appropriately? Why?
13. Do you ever get in trouble?
14. What happens when you get in trouble?
15. What types of things do you get in trouble for?
16. Do you like to get in trouble? If yes, why? If no, how do you change your behavior so that you don't get in trouble again?
17. When you get upset, what do you do?
18. What types of things make you upset?

## **Classroom behavior**

**“Now I would like to talk with you about your classroom behavior”**

1. When you walk in to class what is the first thing you do?
2. Do you have trouble in any of your classes? Behaviorally or the way you act?  
Academically or the way you learn? Socially or the way you speak to others? If so, why do you think you are experiencing this difficulty?
3. When you are having difficulty in class, what do you do?
4. How do you handle difficult situations when you are in class?
5. When the teacher is teaching do you listen most of the time, sometimes, or never? If you don't listen all the time, what do you do when you are not listening?
6. When your teacher asks a question, do you always answer or want to answer? If not, why not?
7. When you do not understand what your teacher is teaching, what do you do?

## **Community Behavior**

**“Now I would like to ask you just a few questions about your behavior in your neighborhood or community.”**

1. Do you act the same way in school that you do outside of school? Why or why not?
2. What is different in your behavior inside of school versus your behavior outside of school?
3. When are you on your best behavior outside of school? Why?

4. Is there a difference in consequences or punishment when you are in school versus outside of school?
5. How can teachers or school administration help change your behavior? What types of things would make you want to change your behavior?

### **EBD specific questions**

**“Now I would like to ask you a few questions about your understanding of the term emotional and behavioral disabilities.”**

1. Do you know what an emotional or behavioral disability is?
2. What does it mean to you to have an emotional and behavioral disability?
3. Do you think teachers would treat someone differently if they had EBD?
4. How does it feel to have an EBD?

## **PART TWO**

Before starting part two, the participant will be provided a 15-minute break.

“I am now going to explain to you some information from a study that I conducted. The study was about looking at engaging in school and what factors are associated. When I say factors I mean teacher-student relationships or school environment. Do you understand everything thus far? Do you have any questions?”

The researcher will explain results of phase 1

“When we talk about school engagement, we are considering academic engagement and social engagement. So not only are we speaking of engaging in your schoolwork while in your classroom but also, the social aspect of school. Social engagement will include participating in extracurricular and group memberships. Do you have any questions?”



1. The study revealed that **group memberships** had a positive effect on school engagement. Do you feel that **group memberships** are necessary for you to engage in the school setting?
2. The study revealed that **social activities** had a positive effect on school engagement. Do you feel that **social activities** are necessary for you to engage in the school setting?
3. The study revealed that **assignment completion** had a positive effect on school engagement. Do you feel that **assignment completion** is necessary for you to engage in the school setting?
4. The study revealed that **positive participation in the classroom** had a positive effect on school engagement. Do you feel that **positive participation in the classroom** is necessary for you to engage in the school setting?
5. The study revealed that **peer interactions** had a negative effect on school engagement. Do you feel that **peer interactions** are necessary for you to engage in the school setting?
6. What helps you the most when you want to engage in the academic setting of school?
7. What helps you the most when you want to engage in the social setting of school?

“We have now come to the end of the interview. Thank you so much for your participation in this study.”

**APPENDIX D: IRB APPROVAL LETTER**

## APPENDIX D: IRB APPROVAL LETTER



University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Approval of Human Research

From: UCF Institutional Review Board #1  
FWA00000351, IRB00001138

To: Stacey E. Hardin and Co-PI: Lisa A. Dieler

Date: March 10, 2014

Dear Researcher:

On 3/10/2014, the IRB approved the following minor modifications to human participant research until 01/14/2015 inclusive:

Type of Review: IRB Addendum and Modification Request Form  
Modification Type: An additional recruitment strategy is being added as well as a change to the age of the study participants. A new Parent Consent for use in Pasco County Public Schools has been approved for use.

Project Title: Predictors of School Engagement for Females with Emotional and Behavioral Disabilities  
Investigator: Stacey E. Hardin  
IRB Number: SBE-13-09940  
Funding Agency:  
Grant Title:  
Research ID: N/A

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form cannot be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 01/14/2015, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dznegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

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A handwritten signature in cursive script that reads 'Joanne Muratori'.

IRB Coordinator

## LIST OF REFERENCES

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