A Model of Parental Involvement in the Music Education of Students with Special Education Needs

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A dissertation submitted in partial fulfillment of
the requirements for the degree of
Doctor of Philosophy

A MODEL OF PARENTAL INVOLVEMENT IN THE MUSIC
EDUCATION OF STUDENTS WITH SPECIAL EDUCATION
NEEDS

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The purpose of this study was to examine the influence of Schools’ Values and Practices, Parents’ Motivational Beliefs, and Home Musical Background on School-Based Parental Involvement in the form of a predictive model. Survey data were collected from a sample of 205 caregivers of elementary and middle school students with special education needs in the United States East Coast. All the participants’ children were enrolled in music courses at public schools when the study was conducted. Data analysis included Pearson correlation analysis, exploratory factor analysis, maximum likelihood confirmatory factor analysis, and maximum likelihood structural equation modeling. Results of the CFA indicated significant loadings of all observed variables on the latent factors, resulting in good model fit ($\chi^2 = 89.531$ (70), $p = .06$), (TLI=.948), (RMSEA=.033), (CFI=.947), (GFI=.927). Results of the SEM indicated a large effect of Schools’ Values and Practices on Parents’ Motivational Beliefs ($\beta=.66$), and moderately sized effects from Parents’ Motivational Beliefs to School-Based Parental Involvement ($\beta=.31$), and Parents’ Impressions about Music to School-Based Parental Involvement ($\beta=.29$). In addition, parental involvement was found to differ significantly by the students’ disability category.
Dedication

This dissertation is dedicated to my family. My loving parents Germán and Alicia taught me two things, dream big and work hard. That has been the backbone of my career and life aspirations. A special feeling of gratitude to my twin sister Geralis and to my husband Orlando whose words of encouragement and push for tenacity ring in my ear. All of them have never left my side and are very special. This dissertation is dedicated to the ones I love most, my family.
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INTRODUCTION

Few elements in public education are as universally recognized as the belief that parental involvement is central to the educational success of a student (Henderson & Mapp, 2002). The decisive role of parents in children’s school progress is undeniable (Grolnick, Gurland, DeCourcey, & Jacob, 2002). Many years of educational research, theory, and understanding support the perspective that parents play a key role in their children’s academic achievement and motivation (Amatea, Smith-Adcock, & Villares, 2006; Izzo, Weissberg, Kasprow, & Fendrich, 1999; Shatkin & Gershberg, 2007). When schools, teachers, and families work together to reinforce learning, children tend to do better in school.

The question of how family involvement impacts children’s participation and interest in musical activities has been a concern of many researchers in the field of music education. Studies have found persistence in music and successful instrumental outcomes to be associated with high levels of parental support (Davidson, Howe, Moore, & Sloboda, 2011; Zdzinski, 1996). Mixon (2005) claimed that parents are a crucial ingredient for developing an urban music program. Mixon emphasizes how important it is for music educators to intentionally implement projects or activities that enhance the communication between parents and teachers. Students’ enjoyment of music has also been predicted by positive teacher-parent relationships (Upitis, Brook, King, & Abrami, 2016). There is evidence that supports the idea that enjoyment, motivation, self-esteem, self-efficacy, and personal satisfaction with music lessons are enhanced when parents (a) take an interest in encouraging good teacher rapport; (b) communicate frequently with the teacher in relation to the child’s progress; and (c) exhibit interest (Creech, 2010).
Parent participation in special education is vitally important, too. While family engagement brings benefits for all students, students with disabilities generally require more parental support and advocacy to receive the same level of instruction as the other students. Lack of parental participation can lead to inappropriate and unsound educational programs for students with special education needs (Fish, 2008). Subsequently, without parental involvement, these students may receive inadequate services and instruction (Burke, 2013). The Individuals with Disabilities Education Act (IDEA) and its following reauthorizations require parental involvement in the Individualized Education Program (IEP) planning process, which confirms a critical link between parental involvement, children’s academic achievement, and high quality education (IDEA, 1990, 1997, 2004). This requirement also implies that creating successful relationships between parents of special learners and music educators is a foundational element for maximizing participation, inclusion, and learning in the music classroom. Fitzgerald (2006) argues that parental involvement is the “key to success for many students with disabilities” (p. 41), particularly in a music program.

Despite the universal acceptance of this multitude of evidence, and even though parental involvement is a cornerstone of IDEA, in practice, achieving a full partnership between all parts can be a challenging task (Boyd, 2005). One of the first steps towards finding a solution for this problem is to realize that a parent’s decision to become involved with his or her child’s school is a complex process that is influenced by many different factors. Each of these factors does not exist in solitude but rather interacts and contributes to a larger picture (Fishman & Nickerson, 2015). Gaining a deeper understanding of different variables that are related to parental involvement is important
to this study because of its potential for providing a greater insight into why parents become involved and invested in their child’s music education. However, when investigating the factors that influence music students’ parental involvement, another hurdle presents itself— the ambiguous nature of the term “parent involvement” in research.

**Defining Parental Involvement**

Despite decades of research, an explicit and widely agreed-upon definition of parental involvement continues to be a topic of debate. The variety of interpretations found across research studies describe a broad range of behaviors, activities, goals, beliefs, attitudes, and outcomes for parent involvement (Hoover-Dempsey, et al., 2005; Sheldon, 2002). Jeynes (2007) used the following explanation to create a meta-analysis study of parental involvement: “Parental involvement was defined as parental participation in the educational processes and experiences of their children” (p. 88). Parent involvement has also been described as parents’ investment of resources in their children (Sheldon, 2002; Gronlick & Slowiaczek, 1994). Additionally, Feuerstein (2000) characterized the term as a range of behaviors that extend from discussing school with children to attending parent-teacher conferences.

Other researchers have argued that the meaning of parental involvement is different for parents and students. In this case, from the parent perspective it refers to: (a) regular supervision of students’ homework; (b) development of individual relations with teachers; (c) taking advantage of extracurricular school programs; and (d) improving supportive collaboration within the community. For students, parental involvement can mean assistance with homework, stimulation, and communication between parents and
schools (Barge, & Loges, 2003). Perhaps one of the most widely used conceptions is taken from Epstein (2008), who articulated six types of parental involvement: (a) establishing home environments that support learning; (b) facilitating effective communication between school and home; (c) helping the school and supporting students; (d) learning at home, (e) participating in school decision-making processes; and (f) working with other stakeholders (e.g., students, school staff, community) to strengthen the school.

As has been demonstrated in the previous statements, although parental involvement is often simplified as a unidimensional concept, it is better to conceptualize this construct as being multifaceted in nature (Fan, & Chen, 2001). Two of the most noteworthy dimensions can be differentiated according to where the involvement occurs: either in school (school-based) or outside of school, which is referred as “at home.” Home-based parent involvement can include things such as cooperation with homework, talking to the child about academic issues and school experiences, and responding to children’s academic choices (McDonnall, Cavenaugh, & Giesen, 2012). In music learning other behaviors can be described as supervision of home practice (Davidson, Howe, Moore, & Sloboda, 1996; McPherson & Davidson, 2002; Zdzinski, 1992), and providing musical environment/activities (Brand, 1986).

School-based parent involvement occurs when parents contact the school, participate in general school meetings, communicate with teachers and administrators, attend school events, and volunteer at the school (Deplanty, Coulter-Kern, & Duchane, 2007; Pomerantz, Moorman, & Litwack, 2007). In music education this includes: (a) attendance at lessons (Davidson et al., 1996; MacMillan, 2004; Margiotta, 2011); (b)
communication between parents, music teachers and students (Creech & Hallam, 2003); 
(d) music program support (Zdzinski, 2013); and (d) parental concert attendance (Brand, 1985). When we look at this topic from the perspective of students with special 
education needs, the definition widens because it also implies parent participation in the 
Individualized Education Program (IEP) planning and/or participation in the decision 
regarding evaluations, placement, and service implementation (IDEA, 2004).

In order to understand parental involvement, it is also important to decipher the 
meaning of the word parent. Wheeler (1992) asserts that a parent does not necessarily 
have to refer to a student’s biological parent, but an “older individual who takes a special 
interest and helps a teenager develop and understand life values and to build self-
confidence” (p. 28). This definition can apply to older siblings, adult friends, employers, 
community members and school staff. Therefore, parent involvement also encompasses 
notions of caregiver or guardian involvement if the student does not have an active 
relationship with his or her parent(s) (McKenna & Millen, 2013). The use of the word 
family instead of parent has also been suggested. The following inclusive definition of 
the term family was recommended to the Office of Special Education and Rehabilitation 
Services (OSERS) by the Second Family Leadership Conference:

A family is a group of people who are important to each other and offer each other 
love and support, especially in times of crisis. In order to be sensitive to the wide 
range of life styles, living arrangements, and cultural variations that exist today, 
family…can no longer be limited to just parent/child relationships. Family 
involvement…must reach out to include mothers, fathers, grandparents, sisters,
brothers, neighbors, and other persons who have important roles in the lives of people with disabilities (Family and Integration Resources, 1991, page 37).

It is necessary to specify, at this point, that in recent years the language has changed from parental involvement and participation to parent-school partnerships, which implies the shared and equally valued roles in education described by Bronfenbrenner (1979). This term also recognizes that both parties have special skills and knowledge that can benefit the child. Another term gaining wide usage is parent engagement, emphasizing the importance of parent’s active power-sharing role as citizens of the education community rather than people who participate only when invited (Price-Mitchell, 2009). The present study was centered around the dimension of school-based parental involvement. Since music education research typically reflects trends in general education research (Creech & Hallam, 2003), studies and theories from music, general, and special education literature were used to support the development of the model.

**Initial Model**

As both educators and researchers have sought to comprehend the compound relationship between parental involvement in education and student outcomes, growing interest has been given to understanding why parents choose to become engaged in their child’s education. With this purpose in mind, Eccles and Harold (1993) and Hoover-Dempsey and Sandler (1995, 1997, 2005) developed theoretical models to address this question. Specifically, Hoover-Dempsey and Sandler suggested that three broad factors influence parents’ decision to become involved in their child’s education: (a) parental motivating factors including parental efficacy and parental role construction; (b) general invitations and demands for involvement from the child and school; and (c) parental life
context (Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey, 2005). Hoover-Dempsey and her colleagues explain that each of these variables influence parental involvement at school and in the home. In addition, Eccles and Harold (1993) delineated a series of contextual variables that were hypothesized to influence parent and teacher attitudes, parent and teacher practices, and child outcomes. These variables encompass characteristics of the parent, the family, the child, the teacher, the school, and the neighborhood in which the family resides.

Inspired by the ecological model of Bronfenbrenner (1979, 1986) a model named “the overlapping spheres of influence” was created (Epstein, 1987, 1996, 2001). This framework redefines the relationship between schools, families, and communities with the intention of increasing parental participation in education. The spheres illustrate that schools, families, and communities each have a stake and influence in the education of a child. The overlap means that the interests and influences of the stakeholders in a child's education are mutual. Specifically, two factors influence the degree of overlap of the spheres: time and experiences. That is, time in schools, the age of the child, and the experiences of the child in the family and in school.

Researchers in music education have also developed models related to parental involvement. For example, Creech and Hallam (2003) proposed different human variables that act in a musical context and that expand the preceding notions of parental involvement. Their literature-based framework includes parental factors such as, teacher factors, student characteristics, responsiveness, and self-efficacy motivation (Grolnick and Slowiacek, 1994). They also include components that are music-specific such as: (a) parent musical background; (b) home musical environment; (c) supervision; and (d)
lesson attendance. A factor analysis conducted by Zdzinski (2013) confirmed some of
these variables and included new ones: (a) home musical structure; (b) attitudes toward
music; (c) home musical environment; (d) music program support; (e) parental
expectations; (f) family participation; and (g) family musical background. All these
factors suggest that when looking at the topic of parental involvement through a music
education perspective other sets of factors specific to the home musical environment and
parent musical background should be considered.

Based on various existing theories of parent involvement, a multi-componential
model for parent involvement in the music education of students with special education
needs is suggested. Although each model takes a different route, factors influencing
parental involvement in the context of music education can be divided into four main
groups: (a) Music Background-related factors; (b) Parent-related factors; (c) School-
related factors; and (d) Student related-factors. Structural equation modeling would
provide an ideal method for understanding and clarifying the relationships among them.
Through structural equation modeling, direct effects as well as indirect effects between
each construct may be revealed while holding other effects constant (Keith, 2006). The
model being proposed in the current study intends to examine the relationships between
the latent constructs of Schools’ Values and Practices, Parents’ Motivational Beliefs, and
Home Musical Background on the latent of School-Based Parental Involvement (Figure
1.1). Although the proposed model does not encompass all potential influencing
variables, it provides a unique, interactional framework from which to understand
parents’ involvement decisions and its implication to the music class in public schools.
The remainder of this chapter will explain and define the latent variables, express the need for the study, and identify research questions and delimitations.

*Figure 1.1.* Proposed structural equation model of School-Based Parental Involvement’s predictors in music education.

**Schools’ Values and Practices**

Numerous factors impact parents’ motivation to become involved in their child’s public music education. School characteristics (e.g., school procedures, environment, staff commitment, programs) have been shown to impact parent involvement (Mannan & Blackwell, 1992; National Center for Education Statistics, 1998). For example, parents’ impressions of school climate can influence whether and how families engage with the
school (Hoover-Dempsey et al., 2005). As Griffith’s (1998) study illustrates, positive perceptions of school climate among parents are associated with higher levels of parent involvement. Similarly, Comer and Haynes (1991) stated that teacher requests made within an adequate and attractive school environment have a noticeable effect on parents deciding to get involved. When school staff promote practices that welcome parents to the school, honor their contributions, and connect them to the overall school community, respectful, caring, and meaningful relationships between parents and schools are formed. The outcomes of a study made by Mapp (2013) confirm that when parents have caring and trustful relationships with school staff, their desire to be involved increases. This means that school administrative personnel may either facilitate or inhibit parental involvement (Epstein & Dauber, 1991).

From the standpoint of special education, Fish (2006) found that parents of students with autism did not feel valued by school personnel and that they were not trained sufficiently to be involved in their child’s program. This finding suggests a need for schools to implement intentional and comprehensive parent involvement strategies (Redding, Langdon, Meyer, & Sheley, 2004). For families of students with special education needs these types of initiatives can take the form of: (a) workshops; (b) newsletters; (c) informational meetings; (d) provision of emotional support; and (e) multigenerational gatherings (Dettmer, Thurston, & Dyck, 2002). Another suggested practice related to parent involvement is the adherence to a philosophy of partnership where power and responsibility are shared and families are seen as effective advocates for their children (Parent Advisory Council, 2007).
It is also important to acknowledge that teachers can play a significant role in parents’ decisions to become involved in their children’s education (Dauber & Epstein, 1993). Therefore, it is essential for schools to have teachers who support parental involvement. Hirano and Rowe (2015) claim this is even more critical when working with students with disabilities. Teachers who encourage parent involvement and establish positive relationships with parents of children with special education needs are in a better position to provide the support needed for these parents to constructively engage in their children’s education (Colarusso & O’Rourke, 2007; Forlin & Hopewell, 2006). Creech and Hallam (2003, 2011) propose that a reciprocal sense of compromise, direction, and collaboration among parents and teachers is necessary to encourage successful and compelling music learning. Therefore, music teachers also have a vital role in increasing or decreasing involvement in their classrooms.

There is consistent evidence about how teachers’ attitudes and invitations to parents to be committed with their child’s education highly influence parents’ decisions to become involved (Dauber & Epstein, 1993). In general, teacher invitations have been positively related to parental involvement in the child’s education (Hoover-Dempsey et al., 2005). These invitations may take on a variety of forms, from requesting that parents attend a parent-teacher conference, to talking about the student’s progress, or asking them to take part in a parent workshop. Dauber and Epstein (1993) conducted a research study investigating whether teacher invitations for involvement significantly predicted parents’ actual involvement. For parents of both elementary and middle school students, teacher invitations were the strongest predictor of parental involvement: (a) at home on homework; (b) at home on reading activities; and (c) at school. The researchers noted
that teacher invitations were a better predictor than either parents’ background or student ability level. Furthermore, Anderson and Minke (2007) found that parent perceptions of preeminent teacher invitations predicted their involvement both at school and at home. A study by Creech and Hallam (2009) that investigated the impact of interpersonal interaction on teaching and learning outcomes in the context of learning a musical instrument, described a similar concept. In this case, “perceived teacher leadership” represented an important dimension of learning partnerships; parents perceived teachers as enthusiastic, providing strong direction, clearly articulating their views in relation to the subject matter and making themselves available for communication. In the context of learning a musical instrument, “perceived teacher leadership” is also the term used to describe invitations on behalf of the teacher and has been found to be one of the greatest positive effects on parental involvement (Creech & Hallam 2009).

Given the potential impact of invitations for parent involvement, it has been suggested that teachers make it an integrated part of their teaching practice. For this to happen teachers need to believe that participation from parents is important (Pajares, 1992). Teachers who do not support parent involvement or believe that it is too much work have been found to actively discourage parent involvement (Dauber & Epstein, 1993). In addition, teachers who hold low assessments of their ability to affect changes in levels of parent involvement are less likely to believe that forming partnerships is important for promoting parent involvement than teachers with a more positive perspective on parents (Landmark, Roberts, & Zhang, 2013). Epstein and Dauber (1991) found that when teachers of both elementary and middle school students have more positive attitudes concerning parental involvement, parents are more involved in their
child’s education. Teachers with more positive attitudes place more value on providing parents with feedback concerning their child and on communicating with parents about programs present within the school. Importantly, teachers who hold more positive attitudes are more likely to successfully include working parents and less educated parents.

The reality is that not all teachers are content to have parents involved in the process of learning. In a research study of piano teachers, students and parents’ attitudes towards parental involvement, MacMillan (2004) found that music teachers who have considerable experience, as well as pedagogical qualifications and functional training, tend to encourage parental support. In that study, less experienced teachers were either indifferent to parental collaboration or discouraged it. Another possible barrier to successful collaborative relationships cited in the research literature is a lack of training in working with students with disabilities and their parents. Preparation in this area has been found to increase educators’ self-confidence, enabling them to reach out to parents and to work effectively with them (Bassler, & Brassie, 1987; Hoover-Dempsey). Within the field of music education, practicing teachers have expressed frustration about their college preparation and experiences working with students with disabilities. A study by Hammel (2001a) found that many music teachers feel they do not have the necessary competences to include students with special education needs in their classrooms effectively on an ongoing basis. In the current study, the latent variable of Schools’ Values and Practices was indicated by parents’ perceptions of school climate, school leadership, music teachers’ invitations, music teachers’ attitudes toward parental involvement, and music teachers’ level of comfort with inclusion.
Home Musical Background

Recognizing the different factors that have an influence in parental involvement within the context of music education, it is important to consider the role of music in students’ home environments (Zdzinski, 2013). Research findings reinforce the notion that parents’ musical background, ideas about music education, and participation in musical activities can influence the support they provide to their child’s music learning process. Although parents of successful musicians do not need to be experts in musical knowledge (Davison, Sloboda & Howe, 1995, 1996; Howe & Sloboda, 1991), Margiotta (2011) argues that parents who have some sort of musical training or that are musically inclined tend to (a) provide more musically-minded support; (b) bring their children to more concerts and activities that are related to music; and (c) guide them more productively towards the accomplishment of music goals. In a research study developed by Suk (2014) several parents indicated that their own early musical experience prompted them to encourage their child to learn a musical instrument, suggesting that music learning can be transmittable to a next generation, especially when parents had a positive music learning experience. In contrast, Hallam (1998) suggests that parents that do not have musical training are often unacquainted with the active role they could have in the child’s musical development. Mehr (2014) investigated the potential connection between music experiences in early childhood and later music making as a parent. This study reported that the frequency of parental song in childhood holds implication for parents’ later music behaviors with their own children.

Parents’ attitudes about the role of music education can also impact the type of support that is provided to children’s musical endeavors. Brand (1986) proposed that
parents that value music instruction develop home environments where motivation is provided and where children are encouraged to achieve the tasks required by the music teacher. Another possible influence of parental involvement related to the home musical background is the perception that parents hold about a child’s musical competence and interest. Past research studies have found that this impression can serve as a catalyst for parents to become attracted and supportive to devoting time and resources to help their children learn music (Howe & Sloboda, 1991; Sosniak, 1987). As Pomerantz and Dong (2006) point out, “inherent in this portrayal is the idea that parents view competence as relatively fixed, so that they use their perceptions to guide children toward the niches for which they believe children are suited” (p. 951). Similarly, a study related to physical education also supports the notion that parents who have favorable perceptions of their child’s ability in physical activity and sport tend to provide more opportunities and encouragement for their children in this domain than parents with lower perceptions of their children’s ability in sports and physical activities (Brustad, 1993).

All the studies mentioned above support the musical home environment factors included in this study and suggest that they are important predictors of parental involvement, from a music education viewpoint. In the current study, the latent variable of Home Musical Background was indicated by the measured variables of perceptions of music education benefits, family musical background, family musical participation, and perceptions of musical competency.

**Parents’ Motivational Beliefs**

Existing models of parental involvement in education hinge on the premise that parents’ practices are influenced by their beliefs (Eccles and Harold, 1993; Hoover-
Dempsey & Sandler, 1995, 1997, 2005). Accordingly, certain characteristics and assumptions of parents can have an impact in the type of formal involvement they have. Different types of beliefs can determine the way they choose to interact with their child, by creating an emotional climate within the family and conveying special messages and values to them (McPherson, 2009). First, the way that parents view their role in their children’s education is decisive. Parental role construction represents parents’ beliefs about what they should do regarding parent involvement and there is evidence that it is an important motivational factor for parents of different backgrounds (Hoover-Dempsey et al., 2005, Walker et al., 2005). Parents who believe that their role is only to get children to school would probably not be willing to be fully actively involved (Hornby & Lafaele, 2011).

The belief of parents in their ability to help their children succeed at school is another factor that is crucial to parental involvement. Hoover-Dempsey and Sandler (1997) point out that parents with a low level of belief in their ability to help their children are likely to avoid contact with schools because of their view that such involvement will not bring about positive outcomes for their children. A child’s musical learning progress and parental involvement can be affected by parents’ preconceived ideas about their capabilities (McPherson & Davidson, 2002). Following this idea, Margiotta (2011) argued that the provision of support in music learning is not an easy task for parents because it often requires them to be able to understand an unfamiliar language. In the context of violin study, Creech (2001) speculated that parents who possess a high sense of self-efficacy build a role for themselves in which they may engage in behaviors and activities that have been linked to musical achievement (i.e.,
providing external motivation for the child, supervising practice, instilling focus and
discipline in practice, attending lessons, communicating with the teacher, and responding
to the child’s wish for parental help and support).

Parents’ perceptions of the time and energy that they can expend to become
involved also influences their decisions (Walker et al., 2005). Work frequently serves as
a barrier for parents to devote time to attend school meetings, volunteer at the school, or
participate in other parent involvement activities (Mannan & Blackwell, 1992; Van Velsor
& Orozco, 2007). Custodero and Johnson-Green (2003) found that working mothers
provided less musical nourishment to their children. In addition, Brokaw (1983), Sosniak
(1985), and Davidson et al. (1996) suggested that one of the most crucial determinants of
the musical achievement of children is the time commitment that parents are willing and
able to make. For the current study, the latent variable of Parents’ Motivational Beliefs
was indicated by the measured variables of role construction, academic efficacy, and
perceived time and energy. In this case, taking a deeper look into the motivational beliefs
of parents can lead to understanding the best ways to support their desire to help their
child reach optimum success in school and in the music class.

Additional Variables

In addition to the variables described above, differences in School-Based Parental
Involvement based on students’ SES, sex, disability category, and school grade were
examined. Specific child characteristics (e.g., age, level of needs, and academic abilities)
have been indicated to either facilitate or inhibit parent involvement activities (Deslandes
& Cloutier 2002; Fishman & Nickerson, 2015). Specifically, different studies have found
that the recurrence of parental involvement decreases when a child begins middle school
(Epstein, 1995; Epstein & Connors, 1994; Jackson, Andrews, Holland, & Pardini, 2004; Jackson & Davis, 2000; Rutherford, 1995; Zill & Nord, 1994;). Wright and Wilfls (2003) remark that the reason behind this behavior is that young adolescents no longer desire their parents’ presence in school. Similarly, Deslandes and Cloutier (2002) found, in a study of 872 14-year-old children in the United States, that although over three quarters of adolescents were willing to show their parents what they learned or did well on at school, they did not want to invite their parents to visit their classes or to assist on a class trip. Also, in their study of children’s perspectives on parental involvement, Edwards and Alldred (2000) found that children referred to far more parental involvement occurring in the home setting than at school.

Studies related to the effect of age in parental involvement for music instruction can also be found. Zdzinski (1996) reported grade-level differences in parental involvement relationships among affective, performance, and cognitive musical outcomes. For both musical performance and cognitive musical outcomes, parental involvement was only related at the elementary level. Conversely, for affective outcomes, the strength of the parental involvement relationship increased with student age. These findings support the idea that age and school grade are highly influential factors related to school-based parental involvement within and outside music education. The influence of students’ sex, parental involvement, and music performance has also been addressed in other studies. For example, Zdzinski (1992) found a three-way interaction of parental involvement, music aptitude, and sex for performance achievement. In this study, a significant degree of parental involvement was related to inhibited performance achievement for females who had low music aptitudes. In
contrast, males who had low music aptitude and high parental involvement seemed to have an enhanced parental involvement. In the current study the relationship between sex and school-based parental involvement was examined. Although some studies that have followed this line of inquiry have not uncovered significant findings (Stevenson & Baker, 1987; Shumow & Miller, 2001), Ho and Willms (1996) did find that parents of eighth grade students talked more with their daughters about school than with their sons. In addition, they also found that parents tended to talk with the school more about their sons than their daughters.

Consideration of whether to be actively involved in schools can depend also on several factors associated to special education. Two common child characteristics that may be associated with the type of involvement are the severity of the disability and therefore, children’s performance at school (Hornby & Rayleen, 2011). When children struggle with their school work, due to learning difficulties or disabilities, parents are usually more inclined to be active in parental involvement activities (Eccles & Harold, 1993). Lastly, this study will examine differences in parental involvement based on families’ socio-economic status. In this area Hargreaves (1986) found an association between high SES, musical training, and musical activity in the home. In general education researchers have also agreed that rates of parental involvement are often lower in low-income communities than in higher income schools (Abrams & Gibbs, 2002; Lareau, 2000; O’Connor, 2001). A study by Hirano (2016) found that age, disability type, and SES impacted significantly parents’ motivation for involvement. Participants in that study were described as parents of students that at the time of the survey administration were receiving special education services.
Need for the Study

The consistent acknowledgement of the importance of parents in children’s musical development and achievement (McPherson, 2009; Sichivitsa, 2007) suggests that parental involvement is an important area of study that warrants attention. Therefore, the need for the study arises from two principal concerns. First, if parents’ involvement in their children’s schooling and the type of interaction they have with the music teacher are important to meeting the educational needs of their children, then understanding the specific variables that motivate them to get involved is vital to generating and sustaining meaningful and effective relationships.

The second concern is that the research base of parental involvement in music education lacks the inclusion of special education samples and a focus on school-based parental involvement. The unique components of involvement for parents of students in special education are rarely addressed in this field. Therefore, more empirical research is needed to inform the implementation of best practices for music education programs. A well-fitting SEM model could provide a new theoretical perspective of parental involvement in music education that will, in turn, benefit music teachers and schools by providing a basis for the development of progressive strategies to better facilitate the parent involvement of students with special education needs.

Purpose and Research Questions

Studies investigating parent involvement often examine what each system (home, family, and school) does in isolation. In that type of research, the emphasis is often on the structure of activities (e.g., parents monitoring music practice) rather than the relational factors (e.g., influences between schools and parents’ variables). A systems-
ecological orientation posits that students’ learning results from the reciprocal relationship among child/family and school/schooling systems (Rimm-Kaufman & Pianta, 2000) and supplies a structure for understanding how the many variables of human behavior and communication work together in musical learning (Creech & Hallam, 2003). Hence, the purpose of this study was to examine how variables from different entities influence the decision of parents of students with special education needs to become involved in their child’s music education. Building from different research studies and theories, the current study examined the influence of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and Students’ Characteristics on the School-Based Parental Involvement of elementary and middle school students in the form of a predictive model.

Specifically, this study sought to answer the following research questions:

1. What relationships exist within the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

2. How well do the observed variables represent the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

3. What is the predictive influence of the variables and latent factors of Schools’ Values and Practices, Home Musical Background, and Parents’ Motivational Beliefs on School-Based Parental Involvement?

4. How does School-Based Parent Involvement differ based on students’ demographic characteristics (SES, sex, disability category, and school grade)?
As a first step for examining a potential theoretical structure for School-Based Parental Involvement in the music education of students with special education needs, a structural path model of the latent factors was created from this study’s research questions (Figure 1.2):

![Diagram of theoretical latent path model of School-Based Parental Involvement’s predictors.](image)

**Figure 1.2.** Theoretical latent path model of School-Based Parental Involvement’s predictors.

**Operational Definitions**

Definitions of “school-based parental involvement” in the literature are diverse. In this study, this concept included parents’ frequency of participation in music program activities and decisions about children’s services that influence the type of participation, modification, or accommodation they have in the music class. This definition also encompassed the frequency of parents’ communication with music teachers regarding the student’s wellbeing, behavior, and learning progress (Thompson & Mazer, 2012). For this study, the term “students with special education needs” refers to students with
intellectual disabilities, hearing impairments, speech or language impairments, visual impairments, emotional disturbances, deafness and blindness, autism spectrum disorders, traumatic brain injuries, specific learning disabilities, multiple disabilities, developmental delays, or other health impairments which, by reason thereof, need special education and related services (IDEA, 2004). Additionally, the term “parent” or “caregiver” refers to “a natural, adoptive, or foster parent of a child, a guardian, or an individual acting in the place of a natural or adoptive parent (including a grandparent, stepparent, or other relative) with whom the child lives, or an individual who is legally responsible for the child's welfare” (Individuals with Disability Education Act [IDEA], 2004; Sec. 602).

The latent construct of *Schools’ Values and Practices* included the measured variables of school climate, school leadership, music teachers’ invitations, music teachers’ attitudes toward parental involvement, and music teachers’ level of comfort with inclusion (Dauber & Epstein, 1993, Hoover-Dempsey, Bassler, & Brassie, 1987; Hoover-Dempsey et al. 2005; Mapp, 2013; Redding, Langdon, Meyer, & Sheley, 2004). *Home Musical Background* was indicated by the measured variables of perceptions of music education benefits, family musical background, family musical participation, and perceptions of musical competency (Brand, 1986; Howe & Sloboda, 1991; Margiotta, 2011; Zdzinski, 2013). *Parents’ Motivational Beliefs* included the measured variables of role construction, academic efficacy, and perceived time and energy (Blatz, 2004; Hoover-Dempsey & Sandler, 1997; Hoover-Dempsey et al., 2005; McPherson & Davidson, 2002; Walker et al., 2005). Lastly, *School-Based Parental Involvement* was indicated by the measured dimensions of music program support, communication with
music teachers, and participation in decision-making processes (Zdzinski, 2013; Epstein, 2001). These definitions are visualized in the initial measurement model (Figure 1.3).

Figure 1.3. Initial measurement model. NOTE: Covariance between each latent is assumed but not shown for sake of visual clarity.

Delimitations

Although many studies on parental involvement examine various dimensions of this construct, such as parental involvement at school and in the home (Anderson & Minke, 2007; Dauber & Epstein, 1993; Green et. al 2007; Hoover-Dempsey & Sandler, 2005; Patrikakou & Weissberg, 2000), the current study was developed with all variables leading only to the School-Based Parental Involvement latent variable. Research shows that students’ outcomes improve as parents become more involved and empowered in the
special education process and with teachers in general (Fish, 2006; Stoner et al., 2005). These results suggest that parental involvement in schools is a critical aspect in special education that deserves attention. Additionally, the literature review conducted in this study revealed that studies in the Music Education field rarely focus on this dimension. This fact was taken into consideration for excluding home-based parent involvement from the study.

While family structure, parenting style, and parents’ cultural background and sex have been suggested as having an impact upon the type of involvement they will have in the musical development of their children (Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Howe & Sloboda, 1991; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Zdzinski, 1996), examination of these factors was beyond the scope of this study due to practical concerns, including fatigue of the participants, as well as general time constraints for conducting the research. However, the inclusion of these issues into an expanded version of this model will be considered for subsequent research. Lastly, it should be acknowledged that all factors were measured from the parents’ perspectives. Although the study could have gathered data on student and teacher perceptions, some scholars have argued that measurement tools must also gauge parent perspectives to get an accurate picture (Nassar-McMillan, Karvonen, Perez, & Abrams, 2009). The study was delimited to parents of elementary and middle school students with special education needs who had at least one semester of coursework in a music class (general music or music ensemble) at their public school. In addition, parents were recruited for participation if their child was, at the time of survey administration, on an IEP or 504 plan.
CHAPTER TWO

LITERATURE REVIEW

The purpose of this study was to examine the effects of Schools’ Values and Practices, Home Musical Background, and Parents’ Motivational Beliefs on the School-Based Parental Involvement of students with special education needs. The latter was measured by parents’ frequency of: (a) support to the music program; (b) communication with the music teacher; and (c) participation in decision-making processes. From this examination, a theoretical model emerged whose construction was informed by preexisting research and pedagogical schools of thought. This chapter provides a review of the literature pertaining to research associated with various aspects of parental involvement, including studies from the fields of special education, general education, and music education. Since this study is based on different frameworks of parental involvement, it will be also helpful to understand the major theories and models that led to the conceptual thoughts behind the design and rationale. Once different existing theories are delineated, relevant variables included in the model will be reviewed.

Parental Involvement in Music Education

As previously mentioned, parents are critical to students with special education needs’ ongoing success in education. This seems to be also an important component in music, a subject that involves particularly high demands (McPherson & Davidson, 2002). O’Neill (1997), who studied six-to ten-year-old instrumentalists found a significant relationship between parents’ involvement in lessons and children’s progress. Abler students tended to have parents who would seek information from the teacher about progress and how they might assist the child. In addition, Davidson et al. (1996) found
that once children start learning an instrument, parental involvement is critical as to whether the child persists or gives up. They reported that all children selected for entry to a specialist music school had parents who took an active participatory role in music lessons and daily practice. The most successful children had parents who were involved in lessons, spoke to the teacher at the end of the lesson, took notes and supervised practice, often for up to 15 years. They found that the highest achieving children received the most support from their parents up to the age of 11. Thereafter, parental support diminished while the children were increasingly driven by intrinsic motives to practice regularly by themselves.

The relationship between persistence in music study and parental involvement was also explored by Govel (2004). This researcher studied teenagers aged 11 to 15 who had thought about dropping piano lessons. In her study, she found that most students who had dropped out of private lessons reported that their parents were not as involved in their piano studies as those parents of students who had kept taking lessons. Corenblum and Marshall (1998) examined students’ intentions to continue studying music. Through utilizing structural equation modeling, they were able to separate the factors that influence student retention. Perceived parental support for the music program emerged as one of the factors. Upon analysis, the researchers discovered socioeconomic level predicted perceived parental support (β = .79) and this latter variable predicted intention to enroll in band the following year. These findings suggest music educators should encourage parents to openly communicate with their children since children’s persistence to study band may be influenced by parental personal support.
Margiotta (2011) carried out another study about parental involvement in music education. Her case-study focused on the following areas: (a) parents’ view about supervising and attending lessons; (b) students’ view about parents supervising and attending lessons; (c) students’ view about practicing and lessons; (d) parents’ musical background; and (e) parents’ view about homework assignments, competitions and exams. It included observations of 34 parents and 34 piano students, as well as participation in a survey after the end of the observation period. The results of the questionnaire were evaluated in relation to: (a) student age; (b) student grade level; (c) months of tuition; (d) location; (e) parental feedback; (f) parent interest and emotional response; (g) parental recording of lessons; (d) student effort; (e) students’ musical ability; (f) and student attainment. At the end of the process it was found that the level of self-motivation and determination of students was the most important factor for higher levels of achievement. In addition, the majority of the parents were happy to support children’s musical development, most children welcomed the involvement of parents during the learning process, and better learning results seemed to arise when parental supervision of practice occurred in conjunction with parental attendance at lessons. In contrast, a survey that included questions regarding students’ musical interests, attitudes, practice habits, and their perceptions of parental involvement in their musical participation in Hong Kong secondary schools revealed that, in this context, the overall level of parental involvement and support in students’ musical participation was low. In this circumstance financial assistance from parents was the majority part of parental involvement. As a result, the researcher emphasized that it is important to find ways to
encourage both students and parents to enjoy musical participation in schools and in the community (Ho, 2011).

Koops (2012) described the use of an online social network site by parents of young children, in order to improve the musical development of children who are enrolled in childhood music courses. The primary participants of this study were six parents who attended a 45-minute early childhood music class each week for ten weeks. The families were asked to respond to assignments each week using a private online social network. Research questions were developed for the six parent participants to investigate the perceived pros and cons of the social network. The results of qualitative analysis on the data indicated that the online social network appeared to establish deeper connections among most participants, the social network could be used as a strong communication tool between parent and teacher, the site provided a useful forum for reflection, and an obstacle of full participation was a lack of time. Sloboda and Howe (1991) also addressed how important communication between music teachers and parents can be. They interviewed successful instrumental and piano students and their parents. Forty-two students, ages eight through 18, were interviewed as well as 20 parents. At the end it was concluded that seventy-four percent of the instrumentalists’ parents either attended the music lessons or spoke regularly with the teacher, and received feedback about the lessons. It appears evident from these findings that successful students have parents who take interest in their progress and that communicate frequently with their child’s music teacher.

It is important to point out that literature related to students with disabilities in learning music also emphasize the vital role that parents have in this process. Zdzinski
(2001) found that instrumental music teachers can successfully teach learners with a variety of disabilities to play band and orchestral instruments by making minor modifications to traditional instrumental teaching techniques and by employing approaches used primarily in special education. One of the strategies suggested in this case for music teachers is to seek parental involvement. Similarly, Fitzgerald (2006) wrote an article about connecting the music teacher and the parent of a student with a disability to achieve educational goals. The article also indicated that teachers can be more effective with their inclusive efforts if they contact the students’ parents to introduce themselves, communicate with them, and show that they care about their child.

**Inclusive Music Education**

Inclusion serves as an educational model in which students with disabilities are allowed to receive instruction in a general education setting to guarantee equal education in public schools (Horrocks, White, & Roberts, 2008). IDEA (2004) mandates a least restrictive environment for students with disabilities. To comply with this legislation, more and more students with disabilities are placed in the classrooms. In such an inclusion environment, teachers are responsible for all students’ success (Casale-Giannola, 2012).

According to several studies, the music classroom has been the most common place in which to integrate students with disabilities (Adamek, 2002; Cassidy, 1990; Darrow, 1999; Darrow et al., 2002; Jellison & Gainer, 1995). As a result, Gfeller (1999) pointed out the necessity for appropriate modifications to general education teachers' instructional strategies in order to integrate successfully students with disabilities into regular classrooms. Perkins (1997) noted that adaptive teaching strategies have the
additional benefit of being useful to both students with disabilities and to students without disabilities. As every individual takes up a unique position on the continuums of intellectual, physical, and psychological characteristics, educators should tailor teaching methods and strategies to each student's abilities or disabilities, strengths and weaknesses. Darrow (1990) suggested that lesson objectives should be multilevel and multi-sensorial (aural, visual, kinesthetic) to ensure the successful inclusion of students with disabilities in instrumental, choral, or general music classrooms. In addition, Adamek (2001) advised that music educators should adapt the extent of participation, as well as the difficulty level and goals or expectations for the students. She recommended using a variety of visual aids and concrete examples in teaching, as well as providing hands-on learning activities.

Hammel (2001b) conducted a study to determine the essential teacher competencies for working with special learners in general music classrooms. The author surveyed elementary music teachers ($n = 202$) and college/university faculty teaching undergraduate music education methods courses ($n = 30$), conducted interviews with three elementary music teachers considered “exceptional” by their music supervisors, observed the instruction of eight special learners over a period of eight music classes, and analyzed the syllabi of fifteen music education/music therapy courses that cover music and inclusion practices. From this data collection, Hammel was able to determine fourteen teacher competencies deemed essential to teaching special learners in the music classroom. The fourteen competencies were organized into the categories of general knowledge, legal aspects, assessment and evaluation, curriculum planning, classroom structure, classroom management, methods and materials, and communication skills.
Other factors that have consistently been associated with successful inclusion practices include administrative support, collaboration with parents, and collaboration with special educators (Atterbury, 1998; Soodak et al., 1998). Also identified is the teacher characteristic of high personal self-efficacy, which enables teachers to feel “more willing to take responsibility for meeting needs of students with learning problems in their classes” instead of referring them out of the classroom for special services (Soodak et al., 1998, p. 482).

**Music teachers’ participation in the IEP process.** Music teachers can play an integral role in a child’s education by participating in the Individualized Education Plan (IEP) process (Damer, 2001). Damer (2001) stated that “as the person who best understands the cognitive, psychomotor, and social skills needed for a beneficial experience in the music learning process, the music teacher should have significant input” (p. 17) regarding students with special education needs.

Research has sought to determine the level of involvement by music teachers in the IEP process since the enactment of the Education of All Handicapped Children Act of 1975 (Triano, 2000). Gfeller, Darrow, and Hedden (1990) surveyed music teachers in Iowa and Kansas and concluded that only 21% of music teachers were involved in the placement process and noted a lack of professional development and support services. Another study by McCord and Watts (2010) surveyed 201 music teachers from Midwestern states in the United States and found that 63.2% of respondents did not participate in the IEP process. VanWeelden and Whipple (2014) replicated the study and found that 63% percent of participants reported having either a small amount of involvement or none at all in the IEP process. When asked about being consulted about
student placement decisions, 77% were occasionally or never consulted. Reasons reported by music teachers for not participating in the IEP process are not being invited to attend meetings, scheduling issues, and logistics (Gfeller, et al., 1990; McCord & Watts, 2010; VanWeelden & Whipple, 2014). Additionally, many music teachers seem to believe they do not have enough preservice training to instruct students with special needs (Hammel, 2001a; Nordlund, 2006; Pontiff, 2004).

**Theoretical Models of Parental Involvement**

As researchers and educators from different areas have sought to more fully understand parental involvement in education, increasing interest has been given to the development of theoretical and empirical frameworks. The following section will describe, with more depth, several models that provided rationale for the theoretical conceptualization of the parental involvement model proposed for the present research.

**Model of parent–teacher–pupil interactions in instrumental music tuition.**

Creech and Hallam (2003) developed a model that discusses the dynamic relationships that occur between parents, teachers and students in instrumental music education. Their literature-based model includes parent factors as conceptualized by Grolnick and Slowiacek (1994), as well as teacher and student characteristics. According to Creech and Hallam, all of the human variables that are proposed have a direct relationship with musical achievement, enjoyment of music, professional satisfaction, personal satisfaction, interpersonal growth, and information sharing. In their work, teacher and parent involvement behaviors are not portrayed in isolation, but rather as interpersonal style within the parent-teacher-student microsystem. The notions of circularity and change present in this model imply that behavior changes in one individual will affect the others.
Parent factors include parenting style, personality, attitudes, values, ecological transitions, role expectations, and resources. Teacher factors included in the model are: (a) professional characteristics; (b) personality; (c) attitudes; (d) values; (e) ecological transitions; and (f) role expectations. Finally, in the top of the triad, the researchers placed the following children characteristics: (a) age; (b) personality; (c) attitudes; (d) values; (e) role expectations; (f) and ecological transitions.

Three years later, a study by Creech (2006) revealed several underlying dimensions for the interpersonal factors of control and responsiveness that are at the center of the initial framework and that are shared by the three systems (music teachers, parents, and students). In the case of teachers, control enclosed leadership, commitment, impatience and confidence, while responsiveness was broken down into sensitivity to students, receptiveness to new ideas, interest in the views of others, and communication skills. With respect to parents, control was found to reflect the underlying dimensions of perceived teacher leadership, communication, isolation, ambition, and parent preponderance. Responsiveness, on the other hand, reflected aspects of approachability, intimidation, reciprocity and acquiescence. Finally, with reference to students, control was found to comprise aspects of student-teacher deference, student-teacher influence and student-parent autonomy, while responsiveness encompassed dimensions of student-teacher accord, receptiveness to parental support and student-teacher reticence.
Figure 2.1. Creech and Hallam’s (2003) Model of Parent–Teacher–Pupil Interactions in Instrumental Music Tuition.

**Hoover-Dempsey and Sandler’s model of parental involvement.** Hoover-Dempsey and Sandler’s (1995, 1997) model of parental involvement in education has aimed to address the process by which parents become involved in their child’s education and how this involvement is related to students’ academic achievement. The revised version of Hoover-Dempsey and Sandler’s model (Walker et al., 2005) was a result of numerous empirical explorations and consists of five levels, the first of which describes why parents choose to become involved. Included at this level are parents’ motivations to be involved, invitations from both the child and the school to be involved, and the parents’ life context. Parents’ motivations are further divided into two subsections,
parental role construction and parent efficacy. Parental role construction entails what parents think they should do as it relates to their child’s education (Hoover-Dempsey & Sandler, 1997). Parental efficacy is defined as how capable a parent feels assisting their child in educational-related activities (Hoover-Dempsey & Sadler, 1997). Invitations for involvement are divided into three subcomponents: (a) general invitations from the child’s school; (b) specific invitations from the child’s teacher; and (c) specific invitations from the child. Hoover-Dempsey and her colleagues (2005) further noted that general invitations from the school are a reflection of parents’ perceptions of the overall school climate. Lastly, parental life context refers to parents’ knowledge and skills and time and energy to assist the child in educational activities (Hoover-Dempsey et al., 2005).

Hoover-Dempsey and her colleagues see each of these variables as influencing the forms of involvement parents engage in, such as parental involvement at school and in the home (Level 2A). The researchers, however, distinguish between these specific forms of involvement and the underlying teaching mechanisms parents utilize (Level 2B). These mechanisms include: (a) parents’ encouragement of the child’s academic endeavors; (b) parents’ modeling of appropriate skills; (c) parents’ reinforcement of the child’s behavior; and (d) parents’ specific instructions concerning schoolwork. Within the various forms of parental involvement (Level 2A), parents may utilize any of the four mechanisms of involvement (Level 2B). Level 3 consists of the child’s perceptions of the parents’ involvement, while Level 4 adds student variables, such as the student’s intrinsic motivation, academic efficacy, and self-regulatory behavior. Lastly, Level 5 includes the students’ achievement in school.
Eccles and Harold’s model of parental involvement. Eccles and Harold (1993) also proposed a theoretical model that describes why parents choose to get involved and the process by which this involvement influences student outcomes. This model of parental involvement in education (see Figure 2.3) includes the beliefs and practices of both parents and teachers, in addition to student outcomes related to education. Designed with parents of adolescent students in mind, the model is based on the idea that the beliefs of both the parent and the teacher influence the practices of the parent and teacher. In turn, the practices of the parent and teacher influence the outcomes of the child.
Among the variety of parent and teacher beliefs proposed by Eccles and Harold (1993), a few notable factors include teacher and parent role construction, teacher and parent efficacy, teacher and parent ethnic schema, and parent perceptions of the child’s abilities. Parenting practices are comprised of educational activities both in the home and at school such as volunteering in the classroom, participating in school governance, monitoring homework, and providing direct instruction with schoolwork. Teacher practices include requesting help from parents, encouraging parent participation, and providing individual feedback to parents. Eccles and Harold proposed that parent and teacher practices not only influenced one another but were also related to child outcomes, such as the child’s beliefs and values about school, academic expectations, academic achievement, and persistence in school. These influences were thought to occur through complex interactions between the parent, teacher, and child.

Eccles and Harold (1993) also outlined a number of contextual variables that were hypothesized to have an effect on parent and teacher attitudes, parent and teacher practices, and child outcomes previously mentioned. These variables include characteristics of the parent, the family, the child, the teacher, the school, and the neighborhood in which the family resides. Although proposed almost 25 years ago, little empirical work has followed from Eccles and Harold’s model. It seems that Eccles and Harold’s intentions were to provide a general framework for understanding how parents and teachers influence student outcomes rather than form an explicit model to be empirically tested.
**Figure 2.3.** Eccles and Harold’s (1993) Model of Parental Involvement and Child Outcomes

**Epstein’s school-family-community partnership model.** Epstein (1995) developed a model known as the overlapping spheres of influence inspired by Bronfenbrenner’s ecological model (1979, 1986). This model emphasizes the influence that families, schools, and communities (spheres) have on the student’s education and development and highlights the importance of both communication and collaboration between these areas. The external model of overlapping spheres of influence recognizes that the three major contexts in which students learn and grow—the family, the school, and the community—may be drawn together or pushed apart by the students’ time in schools, age, and experiences in the family and in school.

The internal components of the partnership model illustrate interpersonal relationships and patterns of influence that are important in a child's education. According to the framework, there are two types of interactions: those within
organizations and those between organizations. Additionally, there are various levels of interactions. Standard organizational interactions occur between families and schools. This kind of interaction includes communication in the form of newsletters and reports about the school's activities and performance. Specific individual interactions are those between parents and teachers. Notes for home from the teacher or conversations at a parent-teacher conference fall into this category. Finally, this model locates the student at the center based on the belief that students are the main actors in their education, development, and success in school. Schools, families, and communities have a vital role in guiding, energizing, and motivating students to produce their own successes (Epstein, 2001; Epstein, Sanders, Simon, Salinas, Jansorn, & Van Voorhis, 2002). It is important to note that work by Epstein and her colleagues suggest that school factors are the primary influence on parent involvement. In fact, the strongest predictors of parent involvement in a study by Epstein and Dauber (1991) are the specific school programs and teacher practices being used (or not used) to encourage parent involvement. This work supports the idea that when parents feel that schools are doing things to involve them, they themselves are more involved in their children’s education.

This framework also recognizes the multidimensional nature of parent involvement, proposing that any one of three overlapping spheres of influence can influence the types of parent involvement and related activities. Epstein (1987) initially identified four types of parent involvement in schools: (a) basic obligations; (b) school-to-home communication; (c) parent involvement at school; and (d) parent involvement in learning activities at home. Later, in 1992 the model evolved into six types of parent involvement including:
1. Parenting: schools assist parents in developing parenting skills and learning how to set up home conditions that support student achievement;

2. Communicating: effective two-way communication between home and school;

3. Volunteering: schools provided a variety of opportunities for parents to volunteer;

4. Learning at home: parents are involved with their child’s homework and curriculum-related activities;

5. Decision making: families participate in school-related decision-making and have the opportunity to develop as school leaders and representatives;

6. Collaborating with the community and having access to resources in the community to support their child’s learning opportunities.

Figure 2.4. Epstein’s (1995) School-Family-Community Partnership Model

A mixed-method study by Nolan (2008) sought to identify the elements of Epstein’s (1995) and Hoover-Dempsey and Sandler’s (2005) frameworks for parent involvement that were most significant to instrumental music education. In this case, six
main themes emerged from the data analysis: (a) parental musical knowledge; (b) suggestions for school-based activities or music program improvements; (c) parent contributions to the program; (d) child motivation; (e) parental involvement with or impact on children; (e) and parent-teacher communication. Based on these themes, the researcher concluded that parent involvement in instrumental music education related more to Epstein’s framework. Nevertheless, some elements of the Hoover-Dempsey and Sandler’s framework were noteworthy. The conceptualization of role construction and self-efficacy that parents held toward their involvement in different aspects of their child’s musical education was described as a particularly insightful aspect of the model. Parental musical knowledge emerged also as an important indicator for role construction and self-efficacy. Parent responses indicated that their pre-existing understanding of the working relations and levels of communication they had with their child’s musical education teacher, program, and school in general were a major determinate of how they treated the subject of parental involvement.

**Hirano and Rowe’s framework for parent involvement in secondary special education and transition.** Hirano and Rowe’s (2015) conceptual framework blends existing models of parent involvement (Hoover-Dempsey & Sandler, 1997; Wandry & Pleet, 2009), qualitative literature on parent experiences in the transition process (Bianco, Garrison-Wade, Tobin, & Lehmann, 2009; Timmons, Whitney-Thomas, McIntyre Jr, Butterworth, & Allen, 2004), and research related to predictors of post-school success for students with disabilities (Rowe et al., 2015; Test et al., 2009). The model specifically places school values and beliefs as the foundation for parent involvement in schools. Included within this are school leaders who typically set the tone for parent involvement
through their power to encourage or discourage school practices such as parent involvement initiatives (Lloyd-Smith & Baron, 2010). Also included are teacher beliefs and efficacy.

Afterwards, this model suggests that school’s values and beliefs impact the interventions schools use to promote parent involvement. These interventions are delineated as falling into four categories: (a) parental role construction; (b) parental knowledge and skills in regard to school and transition related activities which is thought to influence; (c) parental efficacy, grounded in social cognitive theory; (Bandura, 1997); and (d) parent expectations. The next level of this framework describes how schools can influence parent involvement roles and expectations. The roles that are presented are unique for parents of students with disabilities and include decision maker and evaluator, collaborator, instructor, coach, and advocate. Hirano and Howe (2015) emphasize that schools should provide parents with knowledge and skills to enable them to effectively fulfill these roles and develop their efficacy for supporting their child.

*Figure 2.5.* Hirano and Rowe’s (2015) conceptual framework for parent involvement in secondary special education and transition.
The underlying structure of parental involvement-home environment in music. The home environment can create a setting where music is valued, be supportive in the child’s musical endeavors, and provide a source for motivation for the child successfully to accomplish the tasks required by the music teacher (Brand, 1985). With this perception in mind, building on two prior studies, Zdzinski (2013) developed a scale to define with more precision the underlying structure of parental involvement and musical home environment. Students from a major metropolitan area in the southern United States enrolled in general music classes, orchestra classes, band classes, and chorus classes in grades 4-12 served as participants of the study. This process led the researcher to identify the following seven factors: (a) parental expectations for music study; (b) musical home structure; (c) current family musical participation; (d) musical home environment; (e) parental attitudes about music study; (f) family musical background; (g) music program support (Figure 2.6).

Brand (1985) also examined the musical home environment. In this case second-grade students were reported as participants. Four music-specific home environment factors were found through the use of factor analysis. These included: (a) parental attitude towards music/musical involvement with child; (b) parental concert attendance; (c) parental/child ownership of musical materials (e.g., recordings and recording equipment); and (d) parental musical instrument participation. Another factor analysis study conducted with preschool music students by Wills (2011) identified six factors related to musical home environment: (a) musical interactions; (b) concert attendance; (c) musical materials; (d) adult music experience; (e) adult value of music; and (f) music listening.
Figure 2.6. Zdzinski’s (2013) Underlying Structure of Parental Involvement-Home Environment in Music

McPherson’s model of parent–child interactions in music learning. This model illustrates how the goals parents hold for their child’s musical education lead to the types of styles and practices they adopt when interacting with their child (McPherson, 2009). In music, parental styles and practices help satisfy children’s basic psychological needs, which can be to feel competent, to feel that they have some control over the choices to be made during the learning process, to feel a strong bond between their parents and their teachers within a non-threatening learning environment and to enjoy the success that comes from engaging meaningfully as a result of personally rewarding musical experiences (McPherson & Davidson, 2006).

The reciprocal feedback loops within the model also show how parental goals, styles and practices are mediated by child characteristics and other sociocultural factors, which in turn support and help frame a number of child outcomes, the most crucial of
which are competence and achievement, a sense of musical identity and accomplishment, and the continuing desire to participate, exert effort, overcome obstacles and succeed. McPherson points out that parental influences are not a one-way process. An example of this notion is that a child’s initial interest in music can act as a catalyst for his or her parents to become supportive and interested to the extent that they will devote a large amount of time and resources to help their child learn music (Howe & Sloboda, 1991; Sosniak, 1985, 1987). Therefore, in this model children’s characteristics as well as social-contextual forces appear to be the important moderators of parental cognition, affect and behavior (McPherson, 2009; Pomerantz, Grolnick, and Price, 2005). Although this framework has a different focus, it includes variables that are particular to the music education field, and pertinent to the current study.

Figure 2.7. McPherson’s (2009) Model of Parent–Child Interactions in Music Learning.

The following sections focus on the variables that are relevant to the proposed model.
Invitations from teachers

Hoover-Dempsey and Sandler (1995) include specific invitations from the child’s teacher as playing a role in parents’ decisions to become involved. Specific teacher invitations refer to teachers reaching out to parents; these invitations are more personal and indicate to the parent that the teacher values parental input (Adams & Christenson, 2000). In general, teachers’ invitation to involvement is viewed as a particularly important predictor of parental participation. Parents are more likely to become involved when teachers make a direct request to see them rather than utilizing student prompts to meet with them (Epstein & Van Voorhis, 2001). Most of the available research suggests that teacher practices that encourage parent involvement are one of the strongest and most consistent predictors of school-based and home-based participation (Anderson & Minke, 2007; Smith et al., 1997).

Green et al. (2007) found that specific teacher invitations predicted school-based but not home-based involvement. Dauber and Epstein (1993) also assessed whether teacher invitations for involvement significantly predicted parents’ actual involvement. In this case, for parents of both elementary and middle school students, teacher invitations were the strongest predictor of parental involvement: (a) at home on homework; (b) at home on reading activities; and (c) at school. Dauber and Epstein noted that teacher invitations were a better predictor than either parents’ educational background or student ability level. In a study by Nolan (2008) a large amount of parents expressed that they wished there was more open communication with the music teacher or school, and that they thought it would be beneficial to their child if this were more consistent. In sum, previous research assessing the relationship between teacher
invitations and parental involvement in education has in most cases found that greater amounts of either perceived or real teacher invitations positively predict parental involvement at school activities. In addition, teacher invitations mediated the relationship between status variables (e.g., race/ethnicity, family income) and overall involvement in a study by Martinez-Lora and Quintana (2009). Thus, in this particular case invitations received stronger support as a critical variable in Latino parental involvement than did efficacy beliefs or role construction.

Music Teachers’ Attitudes Toward Parental Involvement

When teachers believe parent involvement is important they are more likely to enact practices with the intention of involving parents than those who do not feel as strongly (Landmark, Roberts, and Zhang, 2012). Rapp (2009) investigated middle school choral directors’ attitudes and efforts in enhancing parental involvement in their programs. An inquiry was carried out by combining the approaches of previous researchers including: (a) directors’ general attitudes regarding parental involvement; (b) methods and frequency of communication used by directors to promote involvement; and (c) directors’ intentional efforts to promote involvement—further categorized as parental musicianship, parental supervision, and parental support. The results of the inquiry suggested that directors overwhelmingly acknowledge the value of parental involvement and also indicated that directors do promote parental involvement, but in very limited ways. This study also reported that some directors still view parental involvement and partnerships as a challenging task.

In general education, Tichenor (1998) examined the attitudes of preservice teachers toward parent involvement in elementary schools, including differences in
attitudes between preservice teachers beginning a teacher education program and
preservice teachers completing student teaching. Results indicated that preservice
teachers held fairly positive attitudes toward different areas of parent involvement. Not
surprisingly, student teachers felt more prepared to implement involvement strategies
than beginning teachers. However, neither of the groups felt very prepared to use parent
involvement strategies. In addition, 82% percent of the beginning students and 80% of
the student teachers expressed that education majors should be required to take a parent
involvement course and that education courses should include at least one class session
on parent involvement in relation to the content of the course. Finally, they felt that
teacher education programs should provide specific guidance and suggestions on how to
communicate effectively with parents.

Other studies have also noted that although teachers generally recognize the need
for increased parental involvement the amount of training they receive in this area is
minimal (Swick & McKnight, 1989). This lack of preparation in parental involvement
strategies may lead to negative attitudes and feelings of frustration as teachers are
confronted with the need to involve parents in their children’s education. These negative
attitudes may limit teachers’ abilities or desires to create successful parental involvement
components for their classrooms (McBride, 1991).

Music Teachers’ Comfort with Inclusion

The amount of preparation and comfort that teachers have with the inclusion of
students with special education needs in their classes have been found to increase their
self-confidence, enabling them to reach out to parents and to work effectively with them
(Hoover-Dempsey, Bassler, & Brassie, 1987). Research studies in the field of music
education have pointed out a general discomfort among music teachers in working with students with disabilities due to an absence of practical experiences in music education preparation to help teachers create inclusive classrooms (Jones, 2015). Frisque, Niebur, and Humphreys (1994) surveyed music educators in Arizona and found that most participants had little or no preparation or professional development in working with students with disabilities. Specifically, more than 40% of respondents said that they had received no training to work with disabled students. Twenty percent of respondents reported attending in-service training or workshops. Only ten percent participated in ongoing training once annually. Thirty-four percent received training if requested. Moreover, 44% of respondents received no training even if requested. The researchers of this study were disturbed by the lack of teacher participation in placement decisions as well as the motivations behind the placement of disabled students in music class. Seventy-two percent of the respondents did not participate in decisions about placement of disabled students in their classes. Of greater concern, 49% of respondents reported that students with disabilities were placed in their classes to develop social skills. Only 3% of the respondents indicated that placement of disabled students in their classes was based on musical ability. Thirty-four percent, however, reported placement based on the student's interest.

Wilson and McCrary (1996) also considered the issue of training. These two researchers investigated the extent to which completing a graduate music education method class focusing on special education influenced teachers’ attitudes about individuals with special needs. In pre-tests as well as post-tests, the researchers asked course participants about perceptions of their comfort, willingness, and capability
regarding instructing individuals with the following types of disabilities: (a) emotional
disabilities; (b) multiple disabilities; (c) physical disabilities; and (d) mental disabilities.
The results of the pre-test indicated that respondents felt at least somewhat comfortable
and willing to serve as music teachers for individuals with disabilities. Means scores for
comfort were 3.99 (SD= 0.55), while means scores for willingness were 4.19 (SD= 0.59).
In the area of capability, study participants were less confident with a mean score of 3.38
(SD = 0.59). On the post-test, interestingly, mean scores for comfort and willingness
decreased, while the mean score for capability increased. Comfort and willingness
received ratings of 3.78 (SD = 0.49) and 3.76 (SD = 0.62) respectively. Capability, on the
other hand, rose slightly for a score of 3.49 (SD = 0.63). A t-test of independent means
revealed no statistically significant difference between pre-test and post-test means for
comfort and capability. For willingness, however, the difference was statistically
significant (p < .05). A particularly interesting question raised by this study was the
extent to which training seemed to promote a statistically significant decline in
willingness to teach students with disabilities. Wilson and McCrary speculated that the
decline could have resulted from factors such as the lack of direct experience with
disabled individuals; the development of more sensible expectations of disabled students;
or negative reactions to aspects of the training.

Darrow (1999) investigated music teachers' perceptions of full-inclusion by
conducting in-depth interviews. The pool of informants included twenty-five women and
ten men (seventeen general music teachers, five choral teachers, and thirteen instrumental
music teachers) from a Midwestern school district where full-inclusion had been
encouraged for three years. In the interviews, Darrow asked the informants to discuss the
following topics: (a) critical issues associated with the full-inclusion of students with severe disabilities in music classes; (b) the effect of full-inclusion on teaching methodology; (c) the effect of full-inclusion on students with and without disabilities; and (d) advice to new teachers teaching in full-inclusion settings. Participants identified 13 issues that they saw as critical in serving students with disabilities. Four issues were identified as particularly critical: (a) collaboration with special education or school administration officials (77%); (b) obtaining information about specific students’ disabilities (63%); (c) the time needed to serve students with disabilities (57%); and (d) teaching students with wide ranging abilities in the inclusive music classroom (40%) (p. 262). Fifty-four percent of instrumental teachers also considered adaptation of materials critical. In addition, 46% of instrumental teachers and 60% of choral teachers considered performance expectations a critical issue.

School Climate

Hoover-Dempsey and Sandler (1995) proposed that parental involvement in education is influenced by parents’ perceptions of general school invitations. School invitations were explained as parent perceptions of the overall school climate present within the child’s school. Cohen and his colleagues defined school climate as the “quality and character of school life” (Cohen, McCabe, Michelli, & Pickeral, 2009, p. 182). School invitations could also manifest in the form of welcoming school atmospheres and responsive school practices (Griffith, 2008).

Although theory suggests that general school invitations might be a significant predictor for parents’ involvement, the research to date is mixed. Some researchers have found that schools that promote a positive climate report fewer barriers to involvement
and more school-based and home-based involvement practices (Griffith, 2008; Smith, et al., 1997). Nevertheless, Green et al. (2007) found no evidence of a predictive relationship. Assessing the relationship between school climate and parental involvement in education, Griffith (1998) determined that parents who saw the school environment as safe, empowering, and positive were more involved in their child’s education. In another case, parents were more likely to initiate involvement when interactions with school personnel were positive and less likely when interactions were negative (Lupiani, 2004). However, Griffith did not distinguish between different forms of parental involvement. Among parents of kindergarten students, Seefeldt, Denton, Galper, and Younoszai (1998) examined the relationship between parent perceptions of school climate and parental involvement both at home and at school while testing a larger model of parental involvement. School climate emerged as a significant predictor of parental involvement at school. Interestingly, parents that perceived the school climate as more negative were more involved in school activities. No significant relationship was determined, however, between school climate and parental involvement at home.

**School Leadership**

Schools’ intentional efforts to support parents through workshops and parental involvement initiatives have been found to be effective at increasing parent knowledge, skills, and efficacy. For example, Chrispeels and Rivero (2001) reported that parents’ role construction evolved as they gained new information through attending six 90-minute training sessions focused on how to interact with teachers and support their child’s academic success at home. Results indicated increases in parent-initiated communication, more positive and supportive interactions with their child at home, and
more engagement in teaching activities at home. Parents also demonstrated an increase in advocacy at school, as they pressed to see their child’s records and understand more about the child’s progress. These behavioral changes reflect a shift in role construction as parents learned the importance of an active role in education.

Parents’ belief systems also have been reported as influenced by a variety of sources, including intuition, their own raising, the social groups to which they belong, books, workshops, modeling of television and movie scenarios, and general social expectations (Hoover-Dempsey et al., 2005). Because schools are socially constructed, educational institutions may have a greater responsibility to help parents in this regard than is generally recognized, assumed, or initiated. Parents may not feel comfortable receiving such information from school officials and staff, and involvement at this level may lead to political attacks on public school administration, leading to a rejection of such ideas. Research indicated that parent involvement increased when schools initiated programs and this involvement seemed favorable to an improvement in student outcomes (Simon, 2004).

**Family Musical Background and Participation**

Family musical background was described by Zdzinski (2013) as a factor unique to studies in the music education field. Items in this area, included in his scale, enclosed past participation by parents and other family members, along with ownership of musical instruments and equipment. The researcher concluded that the significance of this factor suggests that musical participation may run in families, and that families that participate in music may encourage children to also participate in music activities. Sichivitsa (2003) designed a Choir Participation Survey to determine the reasons behind students’
persistence in choral music. In her study she stated that students who continued in vocal music through their collegiate level typically had musically competent parents who actively supported their child’s decision to participate in choir.

Mehr (2014) presented a study to investigate the potential connection between music experiences in early childhood and later music making as a parent. This study also reported the frequency of music making in an American families’ sample with young children along with parents’ opinions on possible benefits of music classes. Surveys were conducted among parents of four-year-old children on the frequency of home music activities, their early arts experiences, and other topics regarding arts education. By the end of the study it was concluded that the frequency of parental song in childhood could have strong implications for parents’ later music behaviors with their own children.

According to Asmus (1987), if parents are interested in music, students will also perceive this personal interest as reciprocally supporting their musical study.

Bonifati (1998) interviewed nineteen families to determine which aspects of the home environment influence success in instrumental music instruction. Public school teachers provided the researcher a list of 155 successful students in fourth through 12th grades from three New York counties. Participants were asked to complete a researcher-generated survey. The researcher selected 19 families to interview from the 100 returned surveys. This qualitative research suggested that the parental variables most influential to student success are parental concerns, encouragement, and support. In this particular case parents’ musical background or listening to music were important aspects of the home environment, but not as crucial as verbal praise. In a study involving piano students, Cooper (1996) asked adults to complete questionnaires to determine, among
many factors of interest, their perceptions of home influences upon childhood participation in private piano study. Over 75% of the participants ($N = 309$) stated that their parents provided the impetus to study piano. Additionally, adults who studied piano as children reported having fathers with “very positive” attitudes toward music; those who did not study music as children had fathers that were “indifferent” to music study (Cooper, 1996). Cooper concluded that home environment and parents’ musical background were significant factors in perception of skill and ratings of lessons for participants who enrolled in piano as children.

In relationship to parents’ participation with music, Brand (1986) looked closely at the musical environment in which the students were involved at home. The parents of 116 predominantly Mexican-American children were given the Home Musical Environmental Scale (HOMES), which gathers information about the musical environment in the homes of lower elementary school children. The results showed multiple aspects of parental attitudes about involvement with music, including (a) parent attitudes about music; (b) attendance at concerts; (c) ownership of recorded music; and (d) parent's ability to play a musical instrument. The students' tonal and rhythmic aptitudes were measured using the Primary Measures of Musical Audiation (PMMA), while their achievement was measured by their teachers with the Music Achievement Assessment Form (MAAF). Brand found that some elements such as parental attitudes about music and activities, such as singing with the child, had a large influence on the child, while the parent's ability to play an instrument was not related to the child’s achievement.
Lastly, an examination about how parental involvement-home music environment, family background, and parenting style factors influence success in school was conducted by Zdzinski et al. (2013). 1114 music students from six regions of the US in grade four to 12 were participants. Data about parental involvement-home environment in music (PIHEM), attitudes towards music, music achievement, parenting style, psychosocial maturity, academic and musical grades, homework and reading, and educational expectations were gathered. The result showed that musical home environment, socioeconomic status, and school level obtained direct effects for all outcomes. It is concluded that there were direct effects for musical home structure and family musical background with both musical and academic outcomes, and for attitudes towards music study with both musical and psychosocial outcomes. In this circumstance parental expectations about music study and family music participation affected musical outcomes directly. PIHEM factors also had an effect on various educational outcomes directly and indirectly. Similarly, Asmus (1987) concluded that family background was stated as a reason for success to a greater extent by ninth graders than by students of higher grade levels.

**Music Education Benefits**

Items in the factor “attitudes toward music” included in Zdzinski’s (2013) scale of parental involvement musical home environment are related to statements regarding the importance of music study, including benefits (doing better in other subjects, keeping out of trouble, worthwhile cultural experience), as well as statements encouraging music participation and providing parents with a source of pride. Within the special education population, this factor may have special interest due to the association of music education
as an ideal place to help students develop or improve vital social skills. Research has also shown that the benefits of musical involvement include (a) facilitation of self-expression; (b) development of interpersonal skills; (c) facilitation of positive changes in social behaviors; (d) stimulation of nonverbal expression; (e) facilitation of social play; (f) development of group cohesion; and (g) improvement in on-task behaviors (Gooding, 2009). Siebenaler (2006) discovered that strong family values regarding music are among the most reliable predictors of singers’ participation in high school programs and concluded his report, in part, by saying that students whose came from homes where music was relatively important where most likely the ones that continued to participate in school choral music.

Dai and Schader (2001) interviewed parents of 203 students who were enrolled in pre-college programs or youth orchestra. From 14 questionnaire statements, parents were asked to select the five items perceived to be the most important reasons for their support. Dai and Schader were assessing parents’ intrinsic and extrinsic reasons for supporting their child’s music lessons. The majority of students were studying violin, viola, cello, or piano, with a varied level of training. Researchers discovered that parents emphasized intrinsic rewards, rather than extrinsic rewards pertinent to music study. Intrinsic rewards included examples such as appreciation of the aesthetic qualities of music or enrichment of inner life. Results suggest that beliefs relating to intrinsic benefits are perceived to be the most powerful motivational force influencing parental support. Students studying the fine arts, including music, reported that intrinsic goals were associated with positive performance and emotional outcomes (Lacaille, Koestner, & Gaudreau, 2007).
Youm (2013) investigated South Korean parents’ goals, practices, needs and understanding in music education for their children, using qualitative research methodology to examine the diverse points of view relevant to frameworks comprising the parents’ realities. He designed four research questions. The research was based on the data collected by using in-depth interviews, observations, written questionnaires, family music materials, and journals. Participants were 22 South Korean mothers whose children younger than five years old attended music programs in the Seoul metropolitan area. The results indicated that these parental goals for the children’s participation in music programs included enhancing the children’s development, enriching the children’s lives, preparing for future learning, and providing opportunities to play through music. It was found that the practice in the family included listening to music, playing instruments, dancing, and singing. Parents described the programs according to the activities they observed or experienced but did not show deeper understanding about the program’s history or philosophy.

**Child’s Musical Competence**

In general terms, researchers have posited that older children's, adolescents', and adults' competence-related beliefs predict their (a) achievement performance; (b) amount of effort exerted; (c) achievement goals; (d) and overall sense of self-worth, even after previous performance was controlled (Bandura, 1997; Schunk, 1991; Stipek & Mac Iver, 1989). Eccles et al. (1983) proposed further that individuals' competence beliefs and values are based in part on parents' and teachers' judgments of children's competence, and they found that parents' judgments do relate to adolescents' beliefs and values. Marsh and Craven (1991) revealed that parents' judgments of their third through sixth grade
children's self-concepts in domains such as reading, physical skills, and general school related more closely to children's own self-concepts than did teachers' judgments.

Literature in music education shows that parental perceptions of children’s competence with music can shape the type of expectations and involvement that parents display toward their children (Davidson & Borthwick, 2002). For example, Howe, Davidson, Moore, and Sloboda (1995) conducted research that enabled them to gain retrospective data related to this area. The participants (N = 257) were children ranging from eight to 18 years of age at the time of the interviews. Children who had ceased playing their instrument were compared to high achievers. The high achievers’ success was based upon entrance to a specialty music school. The structured interview format involved questioning both children and their parents. Questions were asked about many aspects of the child’s musical life. Questions pertinent to the current study ascertained the parental role in practice and lessons. Data revealed high achieving students experienced a greater degree of musical input from their parents and were younger in age when they first sang as compared to those who had ceased playing. Parents of high achievers also tended to initiate the following musical behaviors significantly earlier: (a) listening to music together; and (b) providing musical toys. Since parents displayed these behaviors from an early age, this presupposes the argument that parents were simply responding to early exceptional signs and simply encouraging these behaviors.

In a related manner, Sloboda, Davidson, and Howe (1994) proposed the existence of a folk psychology of talent, which postulates substantial innately determined differences between individuals in their own capacity for musical accomplishment. For instance, O’Neill (1996) demonstrated that children as young as eight years old are
already more likely to believe that musical ability cannot be improved by effort. Davis (1994) also found that more than 75% of a sample comprised mainly of educational professionals believed that composing, singing, and playing musical instruments required a special or natural talent. The results addressed above support the idea that musical ability is seen by many individuals as something fixed and therefore, as a reason to stay away from musical activities, if a lack of talent is perceived.

**Parental Role Construction and Self-Efficacy**

As previously mentioned, Hoover-Dempsey and Sandler's (2005) model noted that parental involvement is motivated by two beliefs: role construction and parental efficacy. Both of these factors promote the premise that the parent has a sense of shared responsibility and that their actions with their child will help them succeed. Parental role construction in educational settings is defined as what parents believe they should do as it relates to their child’s education (Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey, 2005). Hoover-Dempsey and Sandler identified this factor as being parent-focused, school-focused, or partnership-focused. Parents with a parent-focused role construction believed that a child’s educational success was largely the responsibility of the parent. Parents with a school-focused role construction believed that schools were ultimately responsible for a child’s success. Parents with a partnership-focused role construction believed that a child’s success was optimized by a parent-school partnership.

Most of the empirical research examining the relationship between parental role construction and parental involvement in education has been conducted with parents of elementary school aged children. In general, these studies suggest that parents holding a more active role construction are more involved in their child’s education (Anderson &
Minke, 2007; Sheldon, 2002). For instance, Sheldon found that parental role construction significantly predicted parental involvement both at home and at school. More specifically, parental role construction predicted these two outcome behaviors more than parental ethnicity, school location, and the social networks of the parents. While testing a broader model of parental involvement in education with parents of elementary aged students (Grades 1-6), Green, Walker, Hoover-Dempsey, and Sandler (2007) also found that parental role construction significantly contributed to parental home involvement, but not parental involvement at the school. Green and her colleagues noted that perhaps the reason why parental role construction was not a significant predictor of parents’ school involvement was because of role construction’s significant relationship with invitations to be involved from the child and the teacher (correlations between these constructs ranged from .30 to .54). Multicollinearity between parental role construction with invitations from the child and the teacher may have therefore suppressed the importance of parental role construction in predicting parental involvement at school in the regression analysis.

Deslandes and Bertrand (1995) examined the relationship between parental role construction and parental involvement among parents of seventh through ninth grade students. For parental involvement at home, parental role construction was a significant predictor for parents of seventh grade students. On the other hand, for parental involvement at school, parental role construction was a significant predictor only for parents of both seventh and ninth grade students. In their discussion, Deslandes and Bertrand noted that parental role construction had the most influence on parents’ decisions to become involved in school compared to the other predictor variables. They
stated, “parents must comprehend that parent involvement at school is part of their responsibility before they decide to become involved” (p. 172). These findings provide support that parental role construction is a significant predictor of parental involvement in education for parents of both elementary and middle school aged students.

Self-efficacy is defined as “beliefs in one’s capabilities to organize and execute the course of action required to produce given attainments” (Bandura, 1997, p. 3). If individuals do not think their actions will yield the outcomes they desire, they will have little motivation to act. Hence, parents’ sense of efficacy related to education involves beliefs about how competent a parent feels assisting the child in educational activities, rather than parents’ personal feelings of competence in academics. For this reason, researchers have adopted the term parental academic efficacy to describe how competent parents believe they are in assisting their child in academic domains (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996).

Gronlick, Benjet, Kurowski, and Apostoleris (1997) study of parental involvement from an individual, contextual, and institutional perspective concluded that when parents see themselves as efficacious and in the role of a teacher to their child, they are more likely to become involved in their child's education. They recommended that cultural factors such as parents' ideas about how to teach their children should be factored in efforts to increase parental involvement. This is an important factor when dealing with low-income parents who may lack social and civic capacity as well empowerment in community and with institutions. The concept of self-efficacy also refers to how well one uses judgments to execute courses of action necessary to deal with potential situations (Bandura, 1992). What parents believe about themselves translate into the type of
behavior they will execute on behalf of their children. In addition, self-efficacy theory suggests that parents make their decisions to become involved based on their perception of what type of outcomes will follow their actions (Bandura, 1997).

Anderson and Minke (2007) found that among parents of elementary school aged students, parental academic efficacy significantly predicted parental involvement at home, but not parental involvement at school. More specifically, the more efficacious parents felt to assist their child in academics, the more involved these parents were in activities such as homework. Sheldon (2002) found parental academic efficacy to be significantly correlated with both parental involvement at home and at school in a sample of parents with elementary school-aged children. When parental academic efficacy, however, was tested within a larger parental involvement in education model that included parental role construction and parents’ social networks, this construct did not significantly predict either form of parental involvement. In special education, a similar line of thought also prevails. Specifically, parents who believe they advocate for their children (e.g., understand special education law and possess advocacy skills) consequently think their children will receive improved special education services (Johnson & Duffett, 2002).

In the context of instrumental music education Creech (2001) suggested that parents who, irrespective of their own musical ability, possess a strong sense of self-efficacy may engage in behaviors and activities that are linked to musical achievement (i.e., providing external motivation for the child, supervising practice, instilling focus and discipline in practice, attending lessons, communicating with the teacher, and responding to the child’s wish for parental help and support). This implies that, in reference to music
education, efficacy can play a major factor in parents’ willingness to be more involved in their child’s’ musical growth. While approximately 50 per cent of respondents indicated that they felt less efficacious as the child progressed and matured past age 11, a mere eight percent of parents surveyed believed that the child would have progressed equally with or without parental involvement. These results suggest that parental efficacy may have been a factor in sustaining their children’s interest in learning the violin throughout the early stages of learning. Furthermore, it would seem that parental self-efficacy possibly changes as a result of life transitions such as the onset of adolescence, and perhaps diminishes as the child acquires musical expertise.

**Parents’ Time and Energy**

Hoover-Dempsey and Sandler acknowledged that parental life context influences parents’ decisions to become involved. This element suggests that external factors outside of parent’s control also predict parents’ decision to become involved in their child’s education (Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey, 2005). Life context issues are usually barriers to parental involvement that need to be acknowledged by schools, including (a) low socioeconomic status; (b) parents' knowledge, skills, time, and energy; (c) and family culture (Hoover-Dempsey & Sandler, 2005). Green et al. (2007) suggested that these context variables may moderate the relationship between the model constructs and parents’ actual involvement. This study was the first to explicitly test both the direct and moderating role of parental barriers on the Parental Involvement in Education Model. Jackson’s (2009) Parental Involvement Barriers scale yielded three types of parental barriers: (a) work-related barriers; (b) discomfort with education; and (c) logistical non-work barriers. These variables are similar to two of Liontos’ (1991)
descriptions of parental barriers, namely (a) logistical and time constraints; and (b) general feelings of distrust toward the school.

Perceived time and energy for involvement has been shown to predict both parents’ school-based involvement and home-based involvement (Green, Walker, Hoover-Dempsey, & Sandler, 2007). Further, parents’ reports of having “no time” to devote to their child’s education due to work and other family priorities is noted as a common barrier to parent involvement (Dwyer & Hecht, 1992). As a matter of fact, a study conducted by the National Center for Education Statistics (1998) found that 87% of the surveyed schools indicated a perceived lack of time on the part of parents to be a “great” or “moderate” barrier to parent involvement. In a study by Joshi, Eberly, and Konzal (2005) teachers perceived parents’ struggle with time as being the dominant reason for lack of involvement. In a research study on the use of private online social network with parents of children enrolled in an early childhood music class, Koops (2012) examined the experience of nine parents engaged in weekly blog posts and other forms of interaction during seven weeks. Data included posts by participants on the social network and transcripts of exit interview regarding the experience. There was a mixed response to the use of the social network site in this study; parents seemed to recognize and identify benefits, but participation was tempered by a lack of time.

Conclusion

Parental involvement is a multidimensional issue that calls for investigation from many viewpoints. In fact, the goal of developing a channel of communication with parents of students with disabilities is a recurring theme in the field of music education (Hammel & Hourigan, 2011). The different frameworks for parental involvement that
were addressed in this literature review have important implications for music teachers wishing to increase parental involvement in their programs. Specifically, the review of literature revealed the existence of several theories of parent involvement that support the development of a multi-componential model specific to the context of music and special education (Eccles, & Harold, 1993; Hoover-Dempsey, & Sandler, 1995, 1997, 2005; Epstein, 1987, 1996, 2001; Grolnick, & Slowiacek, 1994; Creech, & Hallam, 2003; Zdzinski, 2013). This review of the literature also has shown clear justification for the consideration of four possible latent factors: (a) Home Musical Background; (b) Parents’ Motivational Beliefs; (c) Schools’ Values and Practices; and (d) School-Based Parental Involvement.

While several studies have investigated the influence of each of these factors on Home and School-Based Parental Involvement, none have attempted to study the interaction of all of these areas simultaneously, which would arguably present a more comprehensive and representative understanding of real-life relationships. In addition, it was evident that the latent factors proposed in this study have never been systematically applied to the context of music education. An examination of these interactions via structural equation modeling should therefore provide a deeper understanding of the topic of parental involvement in relationship to music teaching and learning. Because the model proposed in this study is selective rather than exhaustive, many additional variables probably also exist. Nonetheless, in this literature review, I have chosen to describe the studies and topics that I feel are a good starting point for understanding complex issues that relate to the school-based parental involvement of students with special education needs.
CHAPTER THREE

METHOD

The main purpose of this study was to examine the influence of School’s Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and Students’ Characteristics on the School-Based Parental Involvement of students with special education needs. Through the use of structural equation modeling, the following research questions were addressed:

1. What relationships exist within the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

2. How well do the observed variables represent the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

3. What is the predictive influence of the variables and latent factors of Schools’ Values and Practices, Home Musical Background, and Parents’ Motivational Beliefs on School-Based Parental Involvement?

4. How does School-Based Parent Involvement differ based on students’ demographic characteristics (SES, sex, disability category, and school grade)?

For the remainder of this chapter, I describe the participants, measurement instruments, and research design used to answer these research questions. Data analysis through structural equation modeling methodology are outlined in relation to the research questions.
**Sample Size**

At the moment consensus has not been reached in the structural equation modeling (SEM) literature on how to determine the imperative sample sizes to achieve acceptable power (Fritz & MacKinnon, 2007). Different recommendations prevail for adequate ratios of cases to variables for factor analysis (i.e. ranging from 3:1 to 20:1) (Hogarty, Hines, Kromrey, Ferron, & Mumford, 2005); nonetheless, rules do not affect the stability of factor solutions (Arrindell & Van der Ende, 1985). Consequently, this study used the convention in SEM that a sample of 200 or more is desirable (Kline, 2011).

**Participants**

The participants selected to participate in the study were based on several criteria: (a) parents of students formally enrolled in a music course (general music or instrumental ensemble) with at least one semester of coursework; and (b) parents of students that at the time of survey administration were on an IEP, 504 plan, or enrolled in a school specialized in students with disabilities. IEP (Individualized Education Program) refers to a plan in which teachers, administrators, and parents work together to determine what services to provide students with disabilities. A 504 plan can be described as a blueprint of the services and changes to the learning environment that have to be followed in order to meet the needs of the child as adequately as other students (U.S. Office of Special Education Programs, n.d.). The term “students with disabilities” includes students who have a physical, emotional, intellectual, or social challenge (American Psychological Association, 2010). Participants of the study were caregivers of early elementary (1st, 2nd, and 3rd grade) \((n = 51)\), late elementary (4th and 5th grade) \((n = 65)\), and middle school
(6th, 7th and 8th grade) (n = 89) students from public schools in the East coast United States (N = 205).

Concerning this particular sample, 40 (19.5%) parents reported a yearly household income of $0-$50,000, 68 (33.2%) earned $50,000-$100,000, 53 (25.9%) earned $100,000-$150,000, 23 (11.2%) earned $150,000-$200,000, and 21 (10.2%) earned more than $200,000 a year. For their relationship with the child 183 (89.3%) participants reported that they were biological parents, 3 (1.5%) reported being step-parents, 18 (8.8%) reported being adopted parents, and 1 (0.5%) reported being a biological grandparent. Tables 3.1, 3.2, and 3.3 detail information related to the grade level, special education diagnosis, and sex of the participants’ children.

Table 3.1
Grade level of the participants’ children

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Grade</td>
<td>10</td>
<td>4.9</td>
</tr>
<tr>
<td>Second Grade</td>
<td>23</td>
<td>11.2</td>
</tr>
<tr>
<td>Third Grade</td>
<td>18</td>
<td>8.8</td>
</tr>
<tr>
<td>Fourth Grade</td>
<td>24</td>
<td>11.7</td>
</tr>
<tr>
<td>Fifth Grade</td>
<td>41</td>
<td>20</td>
</tr>
<tr>
<td>Sixth Grade</td>
<td>14</td>
<td>6.8</td>
</tr>
<tr>
<td>Seventh Grade</td>
<td>34</td>
<td>16.6</td>
</tr>
<tr>
<td>Eighth Grade</td>
<td>41</td>
<td>20</td>
</tr>
</tbody>
</table>
Table 3.2

Special education diagnosis of the participants’ children

<table>
<thead>
<tr>
<th>Special Education Diagnosis</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism Spectrum Disorder</td>
<td>78</td>
<td>38</td>
</tr>
<tr>
<td>Multiple Disabilities</td>
<td>36</td>
<td>17.6</td>
</tr>
<tr>
<td>Other Health Impairment</td>
<td>26</td>
<td>12.7</td>
</tr>
<tr>
<td>Intellectual Disability</td>
<td>26</td>
<td>12.7</td>
</tr>
<tr>
<td>Specific Learning Disability</td>
<td>22</td>
<td>10.7</td>
</tr>
<tr>
<td>Speech or Language Impairment</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Emotional Disturbance</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Developmental Delay</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Hearing Impairment</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Deaf and Blindness</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Traumatic Brain Injury</td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Table 3.3

Sex of the participants’ children

<table>
<thead>
<tr>
<th>Sex</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>150</td>
<td>73.2</td>
</tr>
<tr>
<td>Female</td>
<td>55</td>
<td>26.8</td>
</tr>
</tbody>
</table>

According to a report from the National Center for Education Statistics (2016), between years 2013 and 2014, the most prominent disabilities represented in public
schools across the United States were: (a) Specific Learning Disabilities; (b) Speech or Language Impairments; (c) Other Health Impairments; and (d) Autism Spectrum Disorders. Although there are similarities with the percentages represented in the current study, a large number of participants reported that their child’s special education diagnosis was “Multiple Disabilities.” This was expected given the fact that one of the organizations contacted to recruit participants specializes in providing support to this particular population. In addition, it is important to mention that all participants were solicited via convenience sampling due to difficulty in identifying these sparsely scattered and varying inclusive criteria (Berg, 2009). The schools and non-profit organizations that were contacted to search for participants will be described in the following sections.

Schools

The school in North Central Florida was located in an urban area, and is described as a center school. These types of schools are public and specialize in a particular student population. In this one, all students have significant special needs (e.g., intellectual, physical, behavioral, or mental health disabilities) between the ages of three and 22. Students are referred to this school when the schools where they are enrolled cannot meet their needs. Once there, students receive an adapted curriculum based on their situation. The school operates through a variety of departments that include art, clinic, food service, guidance, hearing impaired, media center, music, occupational therapy, physical education, and speech and vision impaired department. The music program serves the entire student population and offers band, choir, musical theatre, general music, keyboard, and world music ensembles. In addition, this program is linked with universities and music programs internationally through research, cooperative music
making, and professional music education organizations. This initiative seeks to provide inclusive opportunities for all students.

The second school was located in Central Pennsylvania. This rural elementary public school serves students in pre-K through fifth grade. All students receive weekly general music lessons. In addition, students in fourth and fifth grade have the opportunity to participate in a chorus class, if they desire. This ensemble serves approximately 60 members and participates in school concerts and assemblies. Students with special education needs participate in music classes under an inclusive setting. The third public school involved in the study was located in West Central Virginia. This rural middle school offers band and choir classes. For each, they are divided by grade level. Students with special education needs participate mostly in the choirs. Other two elementary schools from this region were also included. Both offer regular general music classes, choir, and ukulele ensembles. In these two locations students with special education needs participate in music classes under an inclusive setting.

A suburban elementary public school located in Northern Virginia was also involved in this study. In this school all students from kindergarten through fifth grade receive weekly general music lessons. In addition, students in fifth and sixth grade have the opportunity to participate in chorus, string, and band ensembles during the school day. After school activities include a Korean drumming ensemble and rehearsals for participating in honor choirs and all county choral festivals. Two sections of music lessons are offered once a week for 30 minutes for enhanced autisms classes. Therefore, all students in this group get a total of 60 minutes of music class per week. This particular program supports the special education instruction of students with autism and
related disorders through the use of principles of Applied Behavior Analysis. ABA focuses on the application of behavioral principles to shape behaviors and teach new skills.

The last school where parents were invited to participate was in a small suburban town located north of downtown Boston, Massachusetts. The district where this elementary school is placed provides an extensive program of optional instrument lessons and ensembles for students in grades three to six to complement the general music classes. Lessons are organized by instrument family and grade level before or during the school day. Students receive one 45-minute lesson per week on the same day each week. In addition, students are encouraged, but not required, to participate in weekly ensembles that complement the lessons. As in most of the participating schools, students with special education needs participate in music classes under an inclusive setting. Table 3.4 provides a summary of each school’s description.

Table 3.4

*Description of Participating Schools*

<table>
<thead>
<tr>
<th>State</th>
<th>Zone</th>
<th>Level</th>
<th>Type of School</th>
<th>Music Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>First School</td>
<td>North Central Florida</td>
<td>Urban</td>
<td>Ages 3-22</td>
<td>Center Public School</td>
</tr>
<tr>
<td>Second School</td>
<td>Central Pennsylvania</td>
<td>Rural</td>
<td>Elementary School</td>
<td>Public School</td>
</tr>
</tbody>
</table>
### Non-Profit Organizations

Due to the need to obtain a larger sample, different non-profit organizations were contacted. These programs were selected because they provided support to families with children with special health care needs and disabilities. Therefore, they had direct access to the type of participants that were needed for the current study. Regional and state coordinators in the East Coast were contacted as potential channels for participant recruitment. Some coordinators responded to recruitment emails and agreed to disseminate a survey link via parent email lists and social media pages. Because
participating organizations disseminated the survey link, the total number of invited participants and overall response rates are unknown.

**Procedures**

Once University of Miami IRB approval had been granted, recruitment and data collection began. Due to the specific criteria needed for participation, purposive sampling took place and suitable schools were recruited through direct contact of teachers and appropriate administrators via email. Music education professors provided recommendations of music teachers working with special needs learners. Although music teachers were not the primary participants of the study, their role and support was vital because they were asked to contact their students’ caregivers to request their participation and to send an online survey. Data collection began at the selected schools during time periods agreed upon by the researcher, classroom teacher, and site administration. Prior to data collection, the classroom teachers and administrators received information pertaining to review boards/site permissions, parental consent, survey administration, and unanticipated issues with the study.

During the data collection period music teachers sent their students’ caregivers, that met the inclusion criteria, an electronic link. This was done with the University of Miami’s Qualtrics survey tool. The first page of the survey asked all participants to complete an informed consent form indicating the voluntary and anonymous nature of their participation, their right to end their participation at any time, as well as the ability to skip any questions they did not wish to answer. This process allowed me to collect consent from the respondents before starting and prevented them from answering the statements if they did not give that consent. When the data collection process was
completed in all schools the same process was repeated with several non-profit organizations, as stated previously. The total proposed timeline of data collection was five months. The survey instrument was comprised of 100-items and the general anticipated time for answering the entire measurement tool was 25 minutes.

**Latent Predictors of School-Based Parental Involvement**

The purpose of statistical modeling in this study is to examine linear causal relationships among the latent variables proposed in the theoretical model. In order to thoroughly understand the initial specified model, an explanation of its structure is required. In order to best accomplish this task, the first step in the process includes an examination of the latent variables and the paths that connect them. In the diagrams found throughout this study, latent (unmeasured) variables are represented by ovals and observable (measured) variables by rectangles, as is common in structural equation modeling analysis (Kline, 2011).

*Figure 3.1. Initial structural equation model.*
This section offers a description of each latent variable independently, and then provide theoretical and empirical justification for the paths and relationships to the other latent constructs that were proposed at the beginning of the study. The latent predictors and the outcome variable are shown in Figure 3.2 as part of the a priori theoretical structural model.

Figure 3.2. Theoretical latent path model of predictors of School-Based Parental Involvement in the music education of students with special education needs.

**Schools’ Values and Practices**

Schools’ Values and Practices have shown to have a significant influence on Parents Motivational Beliefs regarding parental involvement at school. Whitaker and Hoover-Dempsey’s (2013) exploratory study indicated that parents’ perceptions of school expectations for involvement and the school’s climate predicted their beliefs about their own involvement in their child’s education. These findings suggest that schools’ actions and environments work to encourage positive parental beliefs about what they are supposed to do to support their child’s learning. School practices that welcome,
encourage, value, see, and respect parents as participants in students’ education are often critical contributors to parents’ beliefs. A study by Loomans (2014) also confirmed this relationship with a sample of parents from two Title I middle schools. The linkage that is being proposed in the current study is also addressed in the field of special education through Hirano and Rowe’s conceptual framework for parent involvement in secondary special education and transition (2015). This model places school values and beliefs as the foundation for parent involvement in schools and as the principal influence in the interventions schools use to promote parent involvement regarding parents’ role construction, knowledge and skills, efficacy, and expectations.

Literature likewise points out that within a school structure, teachers are important components of the social organization, and therefore have the potential of being responsible for conveying norms established by the school to parents (Whitaker & Hoover-Dempsey, 2013). Parents’ interactions and relationship with the student’s teacher often influence the development of parental beliefs about what they should do in relation to their children’s schooling (Green et al., 2007; Hoover-Dempsey & Sandler, 1997, 2005). All of these studies suggest that Schools’ Values and Practices exert a direct effect on Parents’ Motivational Beliefs and an indirect effect on School-Based Parental Involvement. The following diagram illustrates the linkages discussed above in isolation (Figure, 3.3).
Parents’ Motivational Beliefs

Theory highlights parents’ beliefs as having a direct effect on parents’ involvement in children’s learning at school (Hoover-Dempsey, Whitaker, & Ice, 2009; Pomerantz, Moorman, & Cheung, 2011). Research has also indicated that ‘Parents Motivational Beliefs’ are the driving force behind parents’ involvement in their children’s education (Hoover-Dempsey & Sandler, 1997). This linkage exhibits that parents may choose specific involvement activities in schools in response to the degree of their perception of why they should become involved (Peiffer, 2015). In a similar way, Eccles and Harold (1993) depicted parental involvement as the interplay between parents’ perceptions and influences regarding their beliefs about whether and how they should be involved with their child’s education. Respectably, the Eccles’ expectancy-value model asserts that parents’ beliefs about a domain shape parents’ behaviors geared toward promoting children’s engagement in that domain. Simpkins, Fredricks, and Eccles (2012) tested this
model with mothers over a 12-year period and found that mothers’ beliefs in sports, music, and math positively predicted their behaviors in these areas one year later.

These findings justify the inclusion of the Parents’ Motivational Beliefs latent variable in the model as a predictor of School-Based Parental Involvement, as well as the inclusion of involvement behaviors associated with students’ music education. Additionally, within this context, McPherson (2009) proposed that Parents' beliefs and aspirations determined the way they choose to interact with their child’s musical development. The following diagram illustrates the linkages discussed above in isolation (Figure 3.4):

![Diagram](image)

**Figure 3.4.** Parents’ Motivational Beliefs as latent in isolation.

**Home Musical Background**

Although no studies to date have examined a direct relationship between home musical background and school-based parental involvement, results of several studies suggest that some sort of association exist. For example, research evidence that parents with a rich musical background or those currently involved in music tend to provide and support more musical experiences for their children (Custodero & Johnson-Green, 2003;
Galliford, 2003; Zdzinski, 2013). In addition, studies by Gfeller, Driscoll, Smith, and Scheperle (2012) and Driscoll et al. (2015) support the premise that preschool children, elementary school-aged students, and adolescents with disabilities whose families place value in musical participation are often more involved in music. Therefore, with the purpose of developing new explanations for these results, the current study will hypothesize that these outcomes are a result of a direct linkage between the latent variables of Parents’ Motivational Beliefs and School-Based Parental Involvement. The following diagram illustrates this connection in isolation (Figure, 3.5).

![Diagram](image)

*Figure 3.5. Home Musical Background as latent in isolation*

**Indicator Variables**

In structural equation modeling, observed variables are labeled as indicators and are portrayed as rectangles within the model figures (Keith, 2006; Kline, 2011). This section will explain the connections between the latent variables and their indicators.
through individual measurement models, as well as provide descriptions of the measurement instruments that were used for data collection.

**Schools’ Values and Practices**

Welcoming school environment ratings have been significantly and positively correlated with parents’ ratings of their involvement in school-based activities (Mapp, 2013). When parents feel valued and welcomed in schools they are more likely to take active roles in the school and in their children’s education. Therefore, this study included an indicator named “school climate” that was assessed with a portion of the *California School Parent Survey (CSPS)*. This instrument was developed as one of three integrated surveys that comprise the California School Climate, Health, and Learning Survey (Cal-SCHLS) System and is part of a comprehensive effort by the California Department of Education (CDE) to help schools foster positive learning and teaching environments that promote academic achievement and youth well-being. The parent survey consists of 33 items and all items have Likert-scale response options. It has been subject to reliability testing (alpha= .82) with very large sample sizes and has been used as a school- and district-level assessment (Hanson, 2011). A total of six items were selected to be part of this study. Examples of such items are: “My child’s school is a positive welcoming place” and “This school has a supportive learning environment for my child.”

*The Measure of School, Family, and Community Partnerships (MSFCP)* (Salinas, Epstein, & Sanders, Davis, & Douglas, 2009) was used to assess if schools reached out to involve parents, community members, and students in a meaningful manner through parent involvement programs or activities. This idea was included in the present student as the indicator “school leadership.” From a total of 42 initial items, six were included in
the current study. Statements related to schools’ initiatives to provide information and ideas to families about how to help students at home with homework were excluded. A score of three, four, or five indicates that the activity or approach is strong and prominent, while a score of one, or two indicates that the activity is not yet part of the school’s program, or needs improvement. The scale includes items such as “This school encourages families and the community to be involved with the school in a variety of ways” and “This school provides ongoing and specific information to parents on how to assist students with skills that they need to improve.” This instrument has been used in many parental involvement research studies over the past twenty years and the reliability coefficient has been figured at .96, falling in an acceptable range.

A modified version of Hoover-Dempsey and Sandler’s (2005) Parental Perceptions of Specific Teacher Invitations to Involvement Scale (PSTIIS) was used to assess parents’ perceptions of teacher invitations to be involved in general education and music-related activities. This indicator was labeled in the current model as “music teachers’ invitations.” The original questionnaire consisted of parents’ perceptions of common requests that teachers raise, was scored on a six-point Likert scale ranging from “Never” to “Daily”, and yielded an Alpha reliability of .81. Four out of six items were included. The first two statements were omitted because they are related to parents’ support at home. In order to compensate for this elimination, two similar items from Sheldon and Epstein’s (2007) Parent Survey of Family and Community Involvement were included. One example of the final scale is “My child's music teacher contacted me (e.g., sent a note, phoned, e-mailed).”
Researchers (e.g., Hoover-Dempsey & Sandler, 1997) suggest that a child’s teacher is the key to actualize positive parental involvement in childhood education programs. Hence, the patterns of teachers’ attitudes are important to many parents’ decisions about participation in children’s schooling and have the potential of inhibiting home-school linkages (Lazar & Slostad, 1999). An indicator named “music teachers’ attitudes about parental involvement” was measured using an adapted version of a questionnaire entitled “Survey of Kindergarten Teachers’ Attitudes Toward Parental Involvement (SKTAP)” (Gu, 2006). The original scale had 35 question items, which are divided into three parts: demographic information, teachers’ attitudes toward school-based parental involvement and teachers’ attitudes toward home-based parental involvement. For the demographic information, five open-ended questions were included. For each of the two parts about teachers’ attitudes, 15 questions with a four-point Likert-type response scale were included. Cronbach’s Alpha coefficient was computed to assess the internal reliability of the instrument. The coefficient for pilot and final studies was 0.89. The present study included six statements from the teachers’ attitudes toward school-based parental involvement section and were adapted to portray the parents’ point of view.

Cochran’s (1998) Survey of Teacher’s Attitudes Toward Inclusive Classrooms (STAIC) was developed to survey teachers’ attitudes toward inclusion. This study included six items from this survey that describe teachers’ level of comfort including students with disabilities in the general education classroom. Cochran indicated a consistent Cronbach alpha reliability coefficient of .89, which held consistent for the total group as well as individual groups of elementary, secondary, regular, and special
education teachers. In this case a five point Likert scale was used. In addition, all items were adapted to be answered by parents and to describe their perceptions of their child’s music teacher.

Figure 3.6. Schools’ Values and Practices indicators.

**Home Musical Background**

Two of the three proposed indicators of Home Musical Background, family musical background and family musical participation, were measured with subscales of the *Parental Involvement and Home Environment in Music (PI-HEM) survey* by Zdzinski (2013). Building on two prior studies (Zdzinski, 1992, 1996), Zdzinski created and refined a scale with the intention of further defining the underlying structure of parental involvement and musical home environment. The measurement instrument has six subscales: background, environment, expectations, participation, structure and parental attitude. All of these factors are consistent with components often cited in the literature on parental involvement (Creech & Hallam, 2003). The PI-HEM scale has an alpha coefficient of 0.85. In this study all statement were modified so that they could be
answered by parents. Originally, all items were intended to portray students’ perceptions of their parents. Both subscales together include a total of 12 questions and are related to parents’ current musical participation, past music participation by parents and other family members, and ownership of musical instruments and equipment.

The third indicator, parents’ perceptions of music education benefits, was assessed using a reduced version of the *Parents’ Perceptions of Benefits of Music to Their Children Scale (PPBMCS)* (Choi, So, Tse, & Yeung, 2005). The questionnaire items were designed to elicit parents’ perceptions about music education. The six items that were used include information regarding whether parents believe that music education can have an impact in students’ interest, motor coordination, and cognitive, affective, and academic development. Items were coded such that higher scores reflected more favorable perceptions. The Alpha reliability of each section ranges from .66 to .83.

Past research studies have found that parental involvement in music is related to the perception that parents hold about their child’s musical competence and interest (Howe & Sloboda, 1991; Sosniak, 1987). In this study, this indicator was assessed with the *Iowa Parent Assessment of Child Inventory (IPACI) instrument*. This scale is intended to measure parental perceptions of their children's competencies. The instrument was designed by Clark, Crase, and Pease (1980) in the Department of Child Development at Iowa State University. The IPACI is intended as a parental rating instrument for measuring five theoretical categories of children's competencies. The five theoretical categories are: physical-motor, intellectual, social, responsibility-taking, and artistic abilities. Each of the five theoretical categories consists of 15 behaviorally descriptive items. The ratings are on a certainty scale from one, representing "very poor"
to 99, representing "very good." A factor analysis by Park (1981), intended to refine the instrument, reported the following factors: (a) Factor 1 (Responsibility-Taking); (b) Factor 2 (Physical-Motor); (c) Factor 3 (Art); (d) Factor 4 (Nice); (e) Factor 5 (Intelligence); (f) Factor 6 (Social); and (g) Factor 7 (Music). The latter reported an alpha reliability of .86. In the current study, six items that measure parents’ perception of a children’s musical interest and ability in music were included. All six items were rephrased in order to be measured with a Likert Scale.

![Figure 3.7. Home Musical Background indicators.](image)

**Parents’ Motivational Beliefs**

The first indicator, parental role construction, assesses parents’ beliefs about what their responsibilities and activities should be in relation to their child’s education and was measured with Hoover-Dempsey and Sandler’s (2005) *Role Activity Beliefs subscale (RAB)*. This one consists of ten items where participants are asked to rate each question using a six-point Likert scale ranging from “Strongly Disagree” to Strongly Agree.” Hoover-Dempsey and Sandler reported an alpha coefficient of .80 in a sample of parents
of fourth through sixth grade students. It should be noted that four items were omitted because they focus on home-based parental involvement, a dimension that is out of the focus of this study. Adaptations made to the original Hoover-Dempsey scale include modifying questions so that they can be relevant to special education and music instruction. A study by Hirano (2016) used a similar modified version and reported acceptable internal consistency (ordinal alpha .93). The final scale included a total of six items. As mentioned, all sentences that mentioned the words “teachers” or “classroom” were modified to “music teachers” and “music classrooms.” Sample questions from the adapted scale include: (a) “I believe it is my responsibility to communicate with my child’s music teacher regularly”; and (b) “I believe it is my responsibility to make sure my child is receiving the support at school necessary to help him/her achieve his goals in the music class.”

The Parent Efficacy for Helping the Child Succeed in School subscale (PEHCSS) was used to assess parental academic efficacy (Hoover-Dempsey et al., 1992). This scale was constructed to assess parents’ beliefs that their efforts to utilize their knowledge and skills to help their child will be successful. Participants included in its developmental phase were elementary school aged children (grades K-4). An alpha reliability of .81 for the measure using a five-point Likert scale was reported. Subsequent studies modified the scale using a six-point Likert scale and obtained an alpha reliability of .78 (Walker et al., 2005). The current study employed the latest version and adapted items to focus in the context of music education. Sample questions from the six items that were used are: (a) “I know how to help my child do well in the music class”; and (b) “I feel successful about my efforts to help my child learn.”
The *Time and Energy subscale (TE)* (Hoover-Dempsey, & Sandler, 2005) was employed to gauge parents’ perceived levels of time and energy for involvement in their child’s education. Two items related to students’ homework were omitted and two other sentences were added to include statements related to special education (Hirano, 2016). The scale includes items such as “I have enough time and energy to communicate with my child's music teacher regularly” and “I have enough time and energy to make sure my child is receiving the services and supports he/she needs to be successful in the music class.” The latter was modified to focus on this specific context. Internal consistency reported in the original scale was an Alpha reliability of .84. Hirano’s modified scale also reported acceptable internal consistency (ordinal alpha= .93). The final measure contains six items.

![Figure 3.8. Parents’ Motivational Beliefs indicators.](image-url)
School-Based Parental Involvement

The endogenous latent variable of School-Based Parental Involvement was indicated by the factors of music program support, communication with music teachers, and participation in decision-making processes. The first one, music program support, also forms part of Zdzinski’s (2013) *Parental Involvement and Home Environment in Music Survey (PI-HEM)*. The latter was developed using a sample of students in grades 4-12 and examined through factor analysis the construct of parental involvement-home environment (PI-HE) in music. The music program support indicator was also found by Brand (1985) and Zdzinski (1996b) in music studies, and in general education by Fan and Chen (2001), Grolnick and Ryan (1989), Keith and Keith (1993), Mau (1997), Steinberg et al. (1992), and Trivette and Anderson (1995). All six items were included as they relate to concert and rehearsal attendance, and providing fundraising and other music program support services. Although the scale is related to the dimension of parental involvement at home, all the items in this subscale describe activities in which parents can participate in their child’s school. As previously mentioned, Cronbach’s Alpha of the overall scale was .88.

The frequency of parents’ communication with music teachers was assessed by the *Parental Academic Support Scale (PASS)* (Thompson & Mazer, 2012). In the study conducted by the scale developers, participants indicated how often each type of support occurred over the last month by responding on a five-point Likert-type scale (not at all, once or twice, about once a week, several times a week, about every day). The communication activities are related to students’ academic performance, classroom behavior, preparation, peer interactions, and health. Cronbach’s alpha estimates indicated
that the items were reliable ranging from .77 to .84. A total of six statements were included in the current study. Other subscales of the measurement instrument were omitted because they fall out of the delimitations of the study.

Lastly, participation in decision-making processes was measured with six items developed by the researcher. These statements included information related to the frequency of participation that parents have in IEP or 504 meetings, as well as in other types of meetings that are related to general evaluations, changes of services, and determinations of modifications or adaptations for the music class. Two parents of students with disabilities and a special education teacher provided feedback about the scale readability and appropriateness. An example of the statements that were used to measure this indicator is “How often do you attend IEP or 504 meetings held for your child?” Participation in decision-making processes (PDMP) will be the name that will used to identify the items of this section. Reliability results of these items will be provided in the next chapter.

![School-based Parental Involvement Diagram]

*Figure 3.9. School-Based Parental Involvement indicators*
Demographics

Five demographic items were also included: (a) the role of the person completing the survey; (b) the child’s sex; (c) the grade level of the student, (d) the student’s special education status, and (d) the family’s socioeconomic status.

Data Analysis

The survey link was activated a total of 223 times during recruitment. After the survey was closed, it was determined that the link had been accessed by unintended recipients and therefore 18 cases were excluded prior to initial data cleansing and analysis for a total of 205 valid responses. Data collected were analyzed by SPSS and Amos. Data were initially analyzed to test for normality, homogeneity, sphericity, and missing values. The descriptive statistics were then evaluated to establish fitness for inferential analysis.

1. What relationships exist within the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

With the purpose of addressing the first research question referring to the relationships within and between the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement, significant bivariate correlations were examined. The resultant correlation matrix was used for further analysis.
2. How well do the observed variables represent the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

To answer the second research question, the indicators on the latent factors were examined through confirmatory factor analysis (CFA) of the measurement model (Figure 3.10). The objective of CFA is to test a priori hypotheses about relations between observed variables and latent variables (Jackson, Gillaspy, & Purc-Stephenson, 2009). To achieve this task, the indicators were regressed on the latent factors in order to produce beta weight results. The CFA also serves the purpose of measuring covariances between the latent factors.

![Measurement model](image)

Figure 3.10. Measurement model. NOTE: Covariance between each latent is assumed but not shown for sake of visual clarity.
3. What is the predictive influence of the variables and latent factors of Schools’ Values and Practices, Home Musical Background, and Parents’ Motivational Beliefs on School-Based Parental Involvement?

To answer the third question, the use of structural equation modeling was applied. This approach uses different techniques to illustrate relationships between variables, with the goal of offering a quantitative test of a theoretical model hypothesized by the researcher (Schumaker, & Lomax, 2010). Variables in a model include both measured and latent variables. Latent variables can be described as hypothetical constructs that cannot be directly measured. In SEM each construct is represented by using multiple measured variables that serve as indicators of the construct. A structural equation model, then, offers patterns of directional and nondirectional linear relationships among sets of measured and latent variables (MacCallum, & Austin, 2000).

In music education, SEM is usually used as a mixture of path analysis and confirmatory factor analysis (CFA). In path analysis, causal relationships are only modeled with measured (observed) variables. With CFA, latent variables are modeled to affect measured (observed variables). The power of SEM relies on the fact that it can overcome these two limitations by allowing latent variables to impact other latent variables and by concurrently analyzing both latent and observable variables (Stefanic, 2015). Hence, the third research question involved structural regressions to discover path coefficients, standard error, confidence intervals, and p-values of the a priori model between the latent variables. Finally, model-fit was addressed using the heuristics of fit indices (Kline, 2011).
4. How does School-Based Parent Involvement differ based on students’ demographic characteristics (SES, sex, disability category, and age)?

As a final analytic step, IBM SPSS Statistics 24.0 was utilized to examine the main effects of four demographic differences (i.e. SES, sex, disability category, and age) on school-based parental involvement. A Factorial ANOVA was used for this purpose. The variable labeled as Socioeconomic status was recoded as: (a) working class; (b) lower middle; (c) upper middle; (d) lower upper and (e) upper upper. Sex was included as a dichotomous variable with female and male division. Disability category was measured as: (a) specific learning disability; (b) intellectual disability; (c) traumatic brain injury; (d) autism spectrum disorder; (e) emotional disturbance; (f) speech or language disturbance; (g) visual impairment; (h) deaf and blindness; (i) multiple disabilities; (j) developmental delay; (k) hearing impairment, and (l) other health impairments. Finally, age was recoded in three groups: (a) early elementary (first and second grade); (b) late elementary (third, fourth, and fifth grade), and (c) middle school (sixth, seventh, and eighth grade).
CHAPTER FOUR

RESULTS

This study proposed a theoretical model based on the literature that explains the relationships between Schools’ Values and Practices, Parents’ Motivational Beliefs, Home Musical Background, and School-Based Parental Involvement. In order to provide a comprehensive evaluation of the model, a preliminary analysis of the data through descriptive and reliability procedures was conducted. This step provided vital information related to the suitability of the data for subsequent analyses. Posterior sections report the study findings in relation to each of the following research questions posed:

1. What relationships exist within the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

   Pearson’s product-moment correlation analysis using IBM SPSS Statistics 24.0 software was used to consider correlations within the proposed latent factors.

2. How well do the observed variables represent the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

   To answer the second research question, the indicators on the latent factors were examined through confirmatory factor analysis (CFA) of the measurement model using IBM SPSS Amos statistical modeling software.
3. What is the predictive influence of the variables and latent factors of Schools’ Values and Practices, Home Musical Background, and Parents’ Motivational Beliefs on School-Based Parental Involvement?

IBM SPSS Amos was utilized to examine the predictive relations between the latent variables. In addition, several fit indices were used to determine how the proposed model fit the observed data. SEM provides a framework that helps test the hypothesized underlying relationships between latent variables by providing the following information: path coefficients, standard error, confidence intervals, and $p$-values between the latent variables (Violato & Hecker, 2007).

4. How does School-Based Parent Involvement differ based on students’ demographic characteristics (SES, sex, disability category, and school grade)?

A Factorial ANOVA was conducted to determine if School-Based Parental Involvement differed significantly by the students’ SES, sex, disability category, and age, after concluding the structural equation modeling analysis.

**Descriptive Analysis Results**

**Schools’ Values and Practices.** Table 4.1 displays descriptive results for the indicators of Schools’ Values and Practices. Items related to School Climate revealed that participants had positive, adequate, and attractive impressions of the school environment. The high mean ($M = 4.17$) and negative skewness (-1.29) also reflected the presence of caring and trustful relationships between parents and school staff. School Leadership indicated a moderately strong amount of parent involvement strategies on behalf of schools. The
negative bias (-.32), as well as the positive kurtosis indicated that schools developed occasional to frequent workshops and meetings with caregivers. Invitations from Music Teachers appeared to be the indicator with the lowest mean ($M = 1.89$). This delineated that participants perceived that music teachers did not invite or encourage families enough to be involved with their child’s music education. The items in this scale also reflected that music teachers did not make themselves available for communication frequently. The high standard deviation ($SD = 1.45$), compared to other indicators, shows less agreement between the study’s participants on this specific area.

The last two indicators related to Schools’ Values and Practices, Attitudes toward Parental Involvement and Music Teachers’ Comfort with Inclusion, had similar scores. Caregivers’ appeared to have neutral opinions about the music teachers’ attitudes regarding parental involvement ($M = 3.30$). Once again, the standard deviation ($SD = 1.07$) in this case shows that participants agreed less in their views toward this variable. The negative skewness (-.19) displays that scores fell toward the higher side of the scale, which indicates a fair amount of caregivers perceived that teachers had positive attitudes toward their involvement and participation. In a similar way, parents appeared to generally have neutral and moderate impressions toward their music teacher’s confidence in their ability to teach students with special education needs ($M = 3.33$). Due to negative wording, certain subscale items were coded reversely in order to prevent falsely negative correlations (Kline, 2011).

All scales had high levels of reliability. Initially the indicator labeled as Music Teachers Comfort displayed a modest internal reliability ($\alpha = .68$). After looking at the Alpha if Item Deleted column in the SPSS output the last item of the scale was
eliminated. This process yielded a much higher and acceptable reliability ($\alpha = .91$).

Therefore, in subsequent analyses one of the six items was not included. The data preparation and screening process also included the assessment of the assumption of normality, which analyzed the skewness and kurtosis of the data. All variables in this section fell into the acceptable range for skewness of +/- 2.

Table 4.1

Schools’ Values and Practices Characteristics

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Skew</th>
<th>Kurt</th>
<th>Cronbach’s $\alpha$</th>
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<tr>
<td>School Climate</td>
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<td>-.35</td>
<td>.91</td>
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<td>MT Comfort with Inclusion</td>
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<td>.97</td>
<td>.16</td>
<td>-.03</td>
<td>.91</td>
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</table>

*Note.* Scores indicate average parent perception of school’s values and practices characteristics on a Likert scale that ranged from 1 to 5.

**Home Musical Background.** Table 4.2 shows descriptive results for the observed variables of Home Musical Background. Scores indicated the presence of low moderate participation ($M= 2.42$) of the caregivers in musical activities. All items in this
section related to musical participation in and outside the home. The high standard deviation ($SD = 1.10$), in comparison to other variables, indicates different types of experiences between participants. In contrast, participants appeared to have a very high amount of past experiences with music ($M= 1.80$) in both formal and informal contexts. The high negative bias (-1.54) and low standard deviation ($SD = .38$) in comparison to the mean confirm that music, at some point, has been part of most participants’ lives. Items related to this indicator were developed with “Yes” and “No” questions. Number ones was labeled as “No” and number two as “Yes.”

An observed variable designated as Music Education Benefits had the highest mean in the area of Home Musical Background ($M = 4.68$). The high negative bias (-2.88) and positive kurtosis (12.77) shows that most caregivers had a positive attitude towards the value and role of music instruction. This general consensus was expected due to the large amount of current research that supports the benefits of using arts and music with students with special education needs (Malley & Silverstein, 2014). This conglomeration of positive attitudes caused a ceiling effect and resulted in a deviation from normality. As stated by West, Finch, and Curran (1995), estimations of skewness (>2) and kurtosis (>7) are of primary concern since non-normal univariate distributions lead to multivariate non-normality. Bootstrapping, a recommended method for dealing with non-normal distributions, was used in the current study to help correct for the non-normal distribution of the music education benefits variable (Fouladi, 1998; Hancock & Nevitt, 1999; Nevitt & Hancock, 2001). Additionally, participants seemed to hold strong moderate views of their children’s musical aptitude ($M = 3.74$). In general, most
caregivers thought that they displayed average to good talent and interest towards music. This is confirmed by the negative skewness (-.85).

All scales displayed good and acceptable internal reliability with the exception of Family Musical Background ($\alpha = .65$). This modest alpha coefficient likely reflects the small number of indicators of the scale and the fact that a few items were chosen to represent the conceptual breadth within the construct (Ryff & Keyes, 1995).

Table 4.2

*Home Musical Background Characteristics*

<table>
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<tr>
<th></th>
<th>$n$</th>
<th>M</th>
<th>SD</th>
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<th>Kurt</th>
<th>Cronbach’s $\alpha$</th>
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<td>Music Education Benefits</td>
<td>205</td>
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<td>-2.88</td>
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<td>.76</td>
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<tr>
<td>Child’s Musical Competence</td>
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<td>3.74</td>
<td>1.16</td>
<td>-.85</td>
<td>-.05</td>
<td>.85</td>
</tr>
</tbody>
</table>

*Note.* High scores indicate greater participation in music or the presence of positive attitudes toward it.

**Parents’ Motivational Beliefs.** Table 4.3 shows descriptive results related to the observed variables of Parents’ Motivational Beliefs. All indicators were normally
distributed. Participants appeared to hold strong beliefs about what they should do regarding parent involvement ($M = 5.40; SD = .59$). A high sense of belief in their abilities to help their children succeed in school and music lessons was also present during the data collection timeframe ($M = 5.05$). This is confirmed by the negative bias (-1.09) and low standard deviation ($SD = .80$). In a similar way, participants appeared to have a high perception of the time and effort they were willing to make to be involved ($M = 5.17$). All subscales displayed excellent or good reliability scores except for the Role Construction items. Once again, this was expected because the measure of Cronbach’s Alpha is very susceptible to the number of items. Hinton, Brownlow, McMurray, and Cozens (2004) explain that for this type of studies scores between 0.50 and .70 can be considered to have a moderate reliability. All of the variables showed normal distribution.

Table 4.3

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<td>Role Construction</td>
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<td>-.77</td>
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<td>.65</td>
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<td>Academic Efficacy</td>
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<td>5.05</td>
<td>.80</td>
<td>-1.09</td>
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<td>.82</td>
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<tr>
<td>Time and Energy</td>
<td>205</td>
<td>5.17</td>
<td>.76</td>
<td>-.83</td>
<td>.46</td>
<td>.78</td>
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</tbody>
</table>

*Note.* High scores indicate a strong idea of what caregivers should do to help their children’s succeed in school.

**School-Based Parental Involvement.** Table 4.4 shows descriptive results for the indicators of School-Based Parental Involvement. This factor’s scores showed normal
distribution. The high mean ($M = 4.19$), low standard deviation ($SD = .69$) and negative skewness (-1.24) in the observed variable labeled as Participation in Decision-Making Processes suggest that caregivers participate very often in meetings related to general evaluations, changes of services, and adaptations or modifications for the music class. In contrast, caregivers appear to generally be less engaged with the schools’ music programs. Standard deviations of the music program support ($SD = 1.33$) and communication with music teacher ($SD = 1.31$) indicated less agreement among participants. All subscales had good and acceptable levels of reliability.

Table 4.4

<table>
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<tr>
<th></th>
<th>$n$</th>
<th>M</th>
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<td>Music Program Support</td>
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<td>Communication with Music Teacher</td>
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<td>.69</td>
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<td>2.73</td>
<td>.76</td>
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</table>

*Note.* High scores indicate greater parental involvement

**Correlational Analysis Results**

**Schools’ Values and Practices.** A Pearson’s product correlation analysis showed small positive significant correlations between most variables. In addition, moderately positive correlations were found between School Climate and School Leadership ($r = .50$,
and between Music Teachers’ Attitudes toward Parental Involvement and Invitations from Music Teachers ($r = .49, p < .01$). The lack of high correlations between indicators suggests discriminant validity and quasi-independence between the subscales, which was confirmed by participants’ responses in this study. Table 4.5 shows the correlations between factors.

Table 4.5

*Pearson Bivariate Correlations of Schools’ Values and Practices Variables*

<table>
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<tr>
<th>School Leadership</th>
<th>MT Invitations</th>
<th>MT Attitudes toward PI</th>
<th>MT Comfort with Inclusion</th>
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<td>.19**</td>
<td>.25**</td>
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<tr>
<td>School Leadership</td>
<td>.22**</td>
<td>.16*</td>
<td>.22**</td>
</tr>
<tr>
<td>MT Invitations</td>
<td></td>
<td>.49**</td>
<td>.43**</td>
</tr>
<tr>
<td>MT Attitudes</td>
<td></td>
<td></td>
<td>.36**</td>
</tr>
<tr>
<td>toward PI</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* **Correlation is significant ($p < .01$) *Correlation is significant ($p < .05$)

**Home Musical Background.** Table 4.6 shows the relationships among the variables of home musical background. A Pearson’s product-moment correlation showed low and not-statistically significant correlations between Family Musical Participation and Music Education Benefits, between Family Musical Background and Music Education Benefits, and between Family Musical Background and Child’s Musical Competence. The lack of commonality between factors suggests that some of them should not be included in the same category.
Table 4.6

*Pearson Bivariate Correlations of Home Musical Background Variables*

<table>
<thead>
<tr>
<th></th>
<th>Family Musical Participation</th>
<th>Music Education Benefits</th>
<th>Child’s Musical Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Musical</td>
<td>.25**</td>
<td>.10</td>
<td>.23**</td>
</tr>
<tr>
<td>Background</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Education</td>
<td>.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td>.32**</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* **Correlation is significant (p < .01)**

An exploratory factor analysis was run on the Home Musical Background subscales to identify new groups of inter-related variables. The suitability of the factor analysis was assessed prior to analysis. Inspection of the correlation matrix showed that one item had no correlation coefficients greater than 0.3, and was thus removed. Additionally, upon observation of the anti-image correlation matrices, the individual Kaiser-Meyer-Olkin (KMO) measure for one item appeared to be below the minimum of 0.5. That item was therefore removed. The overall KMO measure of the analysis post removal of this item was 0.8 with individual KMO measures all between .5 and .9. Bartlett’s Test of Sphericity was statistically significant (p < .001), indicating that the data were likely factorable.

The analysis revealed six factors with eigenvalues greater than one. Visual inspection of the scree plot confirmed this result. The six-component solution explained 70.51% of the total variance. A Varimax orthogonal rotation was employed to aid
interpretability. No cross-loadings were found to be above .4. The interpretation of the data resulted in two new factors: (a) an ownership factor, composed of items related to the ownership of musical instruments by caregivers; and (b) a musical interest factor, focused on the children’s interest in musical activities. Table 4.7 displays the retained factors, variables, and loadings.

Table 4.7

Exploratory Factor Analysis of Home Musical Background with Varimax Rotation

<table>
<thead>
<tr>
<th>Item</th>
<th>Benefits</th>
<th>Musical Competence</th>
<th>Musical Participation</th>
<th>Musical Background</th>
<th>Musical Interest</th>
<th>Instrument Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>QID41_4</td>
<td>.925</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>QID41_3</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>QID41_2</td>
<td>.864</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>QID41_1</td>
<td>.859</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID41_6</td>
<td>.848</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>QID41_5</td>
<td>.789</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID23_2</td>
<td></td>
<td>.851</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID23_1</td>
<td></td>
<td>.835</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID23_3</td>
<td></td>
<td>.834</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>QID24_1</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>QID20_3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.772</td>
<td></td>
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<td>.693</td>
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<tr>
<td>QID22_1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.653</td>
<td></td>
</tr>
<tr>
<td>QID20_2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.641</td>
<td></td>
</tr>
<tr>
<td>QID21_2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.816</td>
<td></td>
</tr>
<tr>
<td>QID21_1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.804</td>
<td></td>
</tr>
<tr>
<td>QID21_4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.780</td>
<td></td>
</tr>
<tr>
<td>QID24_2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.832</td>
<td></td>
</tr>
<tr>
<td>QID24_3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.765</td>
<td></td>
</tr>
</tbody>
</table>
Each of the retained subscales, except for the Musical Instrument Ownership items ($\alpha = .31$), produced acceptable and good levels of reliability, as determined by Cronbach’s alphas of .94, .88, .74, .77, and .78. Due to the low reliability found in the Musical Ownership factor it was determined that the indicator should not be included in further analyses. New correlational analyses exhibited the possibility of dividing all the factors into two latent variables. This new configuration resulted in all correlations being significant, but low enough to ensure that all manifest variables measure different aspects of the same construct. Family Musical Participation and Family Musical Background were re-conceptualized as Parents’ Musical Involvement and included only items related to actions. Music Education Benefits, Child’s Musical Competence, and Child’s Musical Interest were classified as Parents’ Impressions about Music and included items related to opinions. Tables 4.8 and 4.9 show the Pearson’s product-moment correlations between all factors.

Table 4.8

<table>
<thead>
<tr>
<th>Pearson Bivariate Correlations of Parents’ Musical Involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Musical Participation</td>
</tr>
<tr>
<td>Family Musical Background</td>
</tr>
</tbody>
</table>

*Correlation is significant ($p < .05$)
Table 4.9

**Pearson Bivariate Correlations of Parents’ Impressions About Music**

<table>
<thead>
<tr>
<th></th>
<th>Child’s Musical Competence</th>
<th>Child’s Musical Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Education Benefits</td>
<td>.27**</td>
<td>.43**</td>
</tr>
<tr>
<td>Child’s Musical Competence</td>
<td></td>
<td>.22*</td>
</tr>
</tbody>
</table>

*Note.** Correlation is significant (*p* < .01)

**Parents’ Motivational Beliefs.** Table 4.10 shows the relationships among the observed variables of Parents’ Motivational Beliefs. A Pearson’s product-moment correlation showed small significant linear relationships between all factors. This suggests discriminant validity and quasi-independence between the subscales, which was confirmed by participants’ responses in this study.

Table 4.10

**Pearson Bivariate Correlations of Parents’ Motivational Beliefs**

<table>
<thead>
<tr>
<th></th>
<th>Academic Efficacy</th>
<th>Time and Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Construction</td>
<td>.19**</td>
<td>.36**</td>
</tr>
<tr>
<td>Academic Efficacy</td>
<td></td>
<td>.28**</td>
</tr>
</tbody>
</table>

*Note.** Correlation is significant (*p* < .01)

**School-Based Parental Involvement.** A Pearson’s product correlation analysis showed small positive significant correlations between all variables with the exception of Communication with Music Teacher and Participation in Decision-Making Processes.

Table 4.11 shows the correlations between factors
Table 4.11

**Pearson Bivariate Correlations of School-Based Parental Involvement Variables**

<table>
<thead>
<tr>
<th></th>
<th>Communication with Music Teacher</th>
<th>Participation in Decision-making Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Program Support</td>
<td>.22**</td>
<td>.25**</td>
</tr>
<tr>
<td>Communication with Music Teacher</td>
<td>-.08</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* **Correlation is significant (p < .01)**

**Measurement Model Factor Analysis**

A confirmatory factor analysis using maximum likelihood (ML) estimation on IBM SPSS Amos was conducted to determine if the observed variables in the data set adequately represented the latent variables of Schools’ Values and Practices, Parents’ Motivational Beliefs, Parents’ Musical Involvement, Parents’ Impressions about Music, and School-Based Parental Involvement. Maximum likelihood estimation is the most commonly used method in confirmatory factor analysis and SEM models in literature (Kline, 2011). In the initial CFA, the software indicated that the resulting matrix was not positive definitive, which meant that further analysis would be invalid. The output indicated that the problem involved the latent variable of Parents’ Musical Involvement. The parameter of the indicator “Family Musical Participation” appeared to be not-significant and “Family Musical Background” yielded an estimate that was higher than 1. McDonald (1985) explains that a common cause of this is a failure to represent each latent with a sufficient number of variables with large loadings. As a consequence, it is suggested that researchers insure that every common factor is defined by at least 3, and
preferably 4, variables with large loadings on it. Due to the instability of this latent, Parents’ Musical Background had to be removed from the model.

A new CFA reported poor model fit across all fit indices (root mean square error of approximation [RMSEA] > .10; comparative fit index [CFI] < .90; Tucker-Lewis index [TLI] < .90); goodness of fit index [GFI] > .90, indicating problems with the measurement model. Huck (2012) explains that it is common to find that the initial model is inadequate. This author also points out that when the model fit turns out to be less than ideal, the researcher usually modifies it by doing new exploratory factor analyses (EFA) with the purpose of examining unforeseen cross loadings, low factor loadings, or problematic observed variables. An exploratory factor analysis was run to analyze the underlying nature of the variable proposed as “Parents’ Motivational Beliefs.”

The analysis revealed four factors with eigenvalues greater than one. The four-component solution explained 70.82% of the total variance. A Varimax orthogonal rotation was employed to aid interpretability. The interpretation of the data resulted in a new factor related to parents’ role construction, but with an emphasis in the music class. In response to this finding the factor previously labeled “Role Construction” was re-specified as “General Role Construction.” Table 4.12 displays the retained factors, variables, and loadings. A decision to keep an item with a cross-loading between Time and Energy and Role with Music Class was made. Although this item relates to parents’ willingness to make time to get involved with their child’s education, it is the only one that includes information related to the music class. Therefore, it was included as part of the fourth factor, which deals specifically with this subject. The retained subscales
produced acceptable and good levels of reliability, as determined by Cronbach’s alphas of .82, .74, .73, .and .67.

Table 4.12

*Exploratory Factor Analysis of Parents’ Motivational Beliefs with Varimax Rotation*

<table>
<thead>
<tr>
<th>Item</th>
<th>Academic Efficacy</th>
<th>Time and Energy</th>
<th>General Role Construction</th>
<th>Role with Music Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>QID27_5</td>
<td>.890</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID27_4</td>
<td>.817</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID27_2</td>
<td>.803</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID27_1</td>
<td>.750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID27_6</td>
<td>.638</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID28_4</td>
<td></td>
<td>.772</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID28_5</td>
<td></td>
<td>.746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID28_6</td>
<td></td>
<td>.737</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QID28_1</td>
<td></td>
<td></td>
<td></td>
<td>.621</td>
</tr>
<tr>
<td>QID26_1</td>
<td></td>
<td></td>
<td></td>
<td>.873</td>
</tr>
<tr>
<td>QID28_2</td>
<td></td>
<td></td>
<td></td>
<td>.727</td>
</tr>
<tr>
<td>QID26_4</td>
<td></td>
<td></td>
<td></td>
<td>.678</td>
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<tr>
<td>QID26_3</td>
<td></td>
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<td></td>
<td>.651</td>
</tr>
<tr>
<td>QID26_2</td>
<td></td>
<td></td>
<td></td>
<td>.623</td>
</tr>
<tr>
<td>QID28_3</td>
<td></td>
<td></td>
<td></td>
<td>.545</td>
</tr>
</tbody>
</table>

Another exploratory factor analysis was run to analyze the underlying nature of the variable proposed as “School-Based Parental Involvement.” This determination was made because this was the first study that used this latent in the context of music education, as well as with the purpose of minimizing problems with model fit in new analyses. The output revealed four factors with eigenvalues greater than one. The four-
component solution explained 68.9% of the total variance. A principal axis extraction with a Varimax rotation was utilized to identify those items that converged onto one component. Factor loadings included in the analysis ranged from .58 to .88. The interpretation of the data resulted in four factors: (a) Music Program Support; (b) Communication with Music Teacher; (c) Participation in School Decision-Making Processes; and (d) Participation in Decision-Making Processes for the Student. This configuration is very similar to what was proposed initially, but makes a distinction between decisions that relate to the school and those that have a direct effect on the participants’ children. All subscales produced acceptable and good levels of reliability, as determined by Cronbach’s alphas of .88, .87, .79, and .83. Table 4.13 displays the retained factors, variables, and loadings.

Table 4.13

*Exploratory Factor Analysis of School-Based Parental Involvement with Varimax Rotation*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q133_4</td>
<td>.824</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q133_1</td>
<td>.799</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Q133_2</td>
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</tr>
<tr>
<td>Q133_5</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Q133_3</td>
<td>.750</td>
<td></td>
<td></td>
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<tr>
<td>Q133_6</td>
<td>.712</td>
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<td>.819</td>
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<tr>
<td>QI32_1</td>
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<tr>
<td>QI32_2</td>
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<tr>
<td>QI34_6</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>QI34_3</td>
<td>.860</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.1 shows the respecified model based on a priory theory, literature, preliminary analyses, exploratory factor Analysis, and logic.

![Respecified proposed model](image)

After respecifying the model accordingly and analyzing the data, all fit indices improved, but some still indicated that model fit was poor: TLI = .846; CFI = .846;
RMSEA = .055; GFI = .848; $\chi^2 = 137.807$ (98), $p < .01$. Bowen and Guo (2012) explain that in the measurement model, the magnitude and statistical significance of loadings and factor variances should be examined because this could have an effect in the overall fit of the model. Using this idea as a guide to continue the analysis, it was noted that parameter estimates for the indicators of “Efficacy” and “Communication with Music Teacher” were not-statistically significant, with “Efficacy” at 0.10 ($p = .20$) and “Communication” at 0.15 ($p = .17$). Hence, they were dropped from the model with the intention of having parsimony and as a result, most probably, better fit indices.

“When engaged in model respecification, researchers can get help from the modification indices that are produced in the analysis of the initial model” (Huck, 2012, p.523). Each of these indices displays how much the overall model chi-square in the would change if a particular parameter is changed and their size reflect the potential benefit of revising the relevant parameter. In this case, examination of the modification indices for covariances suggested that a linkage between $e_4$ (error in School Climate) and $e_5$ (error in School Leadership) could produce a large drop in the $\chi^2$. Some researchers argue that modifying models based on suggestions generated by SEM software is acceptable if the modifications (a) are minimal, (b) are theoretically sound, and (c) do not result in significant changes to the model’s parameters (Byrne, Shavelson, & Muthen, 1989). These criteria were met in the current study.

A final analysis revealed that all indices supported the measurement model fit, indicating that the model with a correlated error among two indicators in the Schools’ Values and Practices latent was appropriate for the next stage of analysis. Indices of model fit revealed a non-significant chi-square estimate ($\chi^2 = 89.531$ (70), $p = .06$). As
mentioned, other indices also supported the conclusion that the model is consistent with the data (TLI = .948, CFI = .947, RMSEA = .033, GFI = .927). Examination of the measurement model analysis provided evidence that the measured variables adequately represented the four suggested constructs. The respecified theoretical measurement model with standardized parameter estimates is shown in Figure 4.2. The curved double-arrowed lines represent the covariance between each latent factor. The low values confirm that they are unique factors, with minimal shared variances. The long straight lines represent the predictive power of the latents on the observable variables, indicated by standard estimates. All standard estimates were statistically significant at \( p < .01 \). The shorter lines to the right of the observable variables represent the variance not explained by the latent variable, indicated by standard error values. The good fit of the CFA suggests that estimation of the predictive latent model is plausible.
Structural Equation Model

The final structural equation model was respecified based on several exploratory factor analyses (EFA), and then confirmatory factor analyses (CFA) of the measurement model. This two-step process of using confirmatory factor analysis to inform and

Figure 4.2. CFA with standardized maximum likelihood parameter estimates. **p < .01.
respecify a structural model is considered stronger than a one-step process as it allows for unique examination of both the measurement and structural models independently. Bollen (2000) explains that testing the whole model in a single step makes locating the sources of poor fit extremely difficult. Therefore, it makes sense to establish through confirmatory analysis (CFA) that one’s measures of constructs are valid and consistent with the data from a current sample before using those measures to test theory. Figure 4.3 shows the respecified structural model with standardized parameter estimates. In this step straight arrows represent a measure of the true relationship between latent constructs (Keith, 2006; Kline, 2011).

![Figure 4.3. Structural model with standardized maximum likelihood path estimates.](image)

Structural equation modeling (SEM) using maximum likelihood (ML) estimation in IBM SPSS Amos was conducted to determine the predictive relationships between the latent constructs in the hypothesized structural model. Relative fit indices also supported
model fit: $\chi^2 = 92.431$ (73), $p = 0.06$; GFI = .919; TLI = .938; CFI = .938; RMSEA = .033.

Schools’ Values and Practices had a large positive effect on Parents’ Motivational Beliefs ($\beta = .66$). Parents’ Motivational Beliefs had a moderately sized positive effect on School-Based Parental Involvement ($\beta = .31$). Likewise, Parents’ Impressions about Music had a medium effect on School-Based Parental Involvement ($\beta = .29$).

Additionally, Schools’ Values and Practices had a medium-sized indirect effect on School-Based Parental Involvement ($\beta = .20$). An indirect effect between two variables occurs when no single straight line or arrow directly connects them, but when the first variable may be reached through one or more variables via their paths (Schumacker & Lomax, 1996). In this case, Schools’ Values and Practices predicts Parents’ Motivational Beliefs, which in turn predicts School-Based Parental Involvement. This implies that the effect of Schools’ Values and Practices on School-Based Parental Involvement is mediated by Parents’ Motivational Beliefs. These findings are insightful as this SEM model provides a new theoretical perspective of parental involvement in the field of music education.

Analysis of Variance of Demographic Variables

A Factorial ANOVA was conducted to determine if school-based parental involvement differed significantly by the students’ SES, sex, disability category, and school grade. The Levene’s test revealed that the homogeneity of variance assumption was not met ($p < .001$), due to unequal numbers of subjects in the various categories. When this happens the results of the Factorial ANOVA are less reliable. Therefore, as it has been suggested, all $p$-values were compared with an alpha of 0.01 instead of 0.05 (Algina & Olejnik, 1984). The first independent variable, socioeconomic status, included
five groups: (a) working class (M = 3.38, SD = 1.21, n = 40; (b) lower middle (M = 2.88, SD = 1.20, n = 68); (c) upper middle (M = 3.08, SD = 1.46, n = 53); (d) lower upper (M = 3.13, SD = 0.97, n = 23); and (e) upper upper (M = 3.43, SD = 1.21, n = 21). The main effect for socio-economic status yielded an F ratio of $F(4, 90) = 3.00$, $p = .02$, $\eta^2 = .21$ indicating that school-based parental involvement did not vary depending on the participants’ socio-economic status, according to the robust alpha of 0.01.

The second independent variable, students’ disability category, included 12 groups: (a) specific learning disability; (b) speech or language impairment; (c) intellectual disability; (d) emotional disturbance; (e) autism spectrum disorder; (f) multiple disabilities; (g) developmental delay; (h) hearing impairment; (i) visual impairment; (j) traumatic brain injury; (k) deaf and blindness; and (l) other health impairment. The ANOVA revealed a statically significant difference, $F(10, 90) = 4.55$, $p < .001$, $\eta^2 = .55$, indicating that school-based parental involvement varied depending on the disability categories of the participants’ children. Table 4.14 provides a summary of the descriptive results. Visual impairment was not included in the analysis because no participants reported having a child with this type of disability.

Table 4.14

<table>
<thead>
<tr>
<th>Type of Disability</th>
<th>M</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disability</td>
<td>2.05</td>
<td>1.05</td>
</tr>
<tr>
<td>Speech or Language Impairment</td>
<td>2.40</td>
<td>1.34</td>
</tr>
<tr>
<td>Intellectual Disability</td>
<td>3.54</td>
<td>1.17</td>
</tr>
<tr>
<td>Emotional Disturbance</td>
<td>3.75</td>
<td>.96</td>
</tr>
<tr>
<td>Autism Spectrum Disorder</td>
<td>3.10</td>
<td>1.37</td>
</tr>
<tr>
<td>Multiple Disabilities</td>
<td>3.50</td>
<td>.88</td>
</tr>
<tr>
<td>Condition</td>
<td>Mean</td>
<td>Std Dev</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>Developmental Delay</td>
<td>3.33</td>
<td>1.15</td>
</tr>
<tr>
<td>Hearing Impairment</td>
<td>3.67</td>
<td>2.31</td>
</tr>
<tr>
<td>Traumatic Brain Injury</td>
<td>3.00</td>
<td>.....</td>
</tr>
<tr>
<td>Deaf and Blindness</td>
<td>2.00</td>
<td>.....</td>
</tr>
<tr>
<td>Other Health Impairment</td>
<td>3.12</td>
<td>1.26</td>
</tr>
</tbody>
</table>

Post hoc comparisons to evaluate pairwise differences among group means were conducted with the use of Tukey HSD test. This test revealed that parents of students with intellectual disabilities ($M = 3.54$, $SD = 1.17$), autism spectrum disorders ($M = 3.10$, $SD = 1.37$), multiple disabilities ($M = 3.50$, $SD = .88$), emotional disturbances ($M = 3.75$, $SD = .96$), and other health impairments ($M = 3.12$, $SD = 1.07$) had significantly higher involvement than parents of students with specific learning disabilities ($M = 2.05$, $SD = 1.05$). Traumatic brain injury and deaf and blindness were excluded from this analysis because both groups were represented by only one participant.

Students’ school grade included eight groups (1st grade, 2nd grade, 3rd grade, 4th grade, 5th grade, 6th grade, 7th grade, and 8th grade). The analysis yielded a non-statistically significant result, $F(7, 90) = 1.91, p = .08, \eta^2 = .23$, indicating that school-based parental involvement did not vary depending on the grade level of the participants’ children. Table 4.15 provides a summary of the descriptive analysis. The last variable included in the analysis was sex. In this case there was not a significant difference in the scores for females ($M=3.38$, $SD=1.03$) and males ($M=3.02$, $SD=1.32$); $F (1, 90) = .24, p = .61, \eta^2 = .00$. Although caregivers of females appeared to be more engaged, the difference was not significant.
Table 4. 15

*Descriptive results for students’ school grade*

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>$M$</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Grade</td>
<td>2.70</td>
<td>1.16</td>
</tr>
<tr>
<td>Second Grade</td>
<td>3.30</td>
<td>1.26</td>
</tr>
<tr>
<td>Third Grade</td>
<td>2.83</td>
<td>1.10</td>
</tr>
<tr>
<td>Fourth Grade</td>
<td>2.65</td>
<td>1.07</td>
</tr>
<tr>
<td>Fifth Grade</td>
<td>2.71</td>
<td>1.33</td>
</tr>
<tr>
<td>Sixth Grade</td>
<td>3.29</td>
<td>1.38</td>
</tr>
<tr>
<td>Seventh Grade</td>
<td>3.53</td>
<td>1.21</td>
</tr>
<tr>
<td>Eighth Grade</td>
<td>3.51</td>
<td>1.14</td>
</tr>
</tbody>
</table>

**Discussion**

The purpose of this study was to examine the influence of Schools’ Values and Practices, Parents’ Motivational Beliefs, and Home Musical Background on the School-Based Parental Involvement of students with special education needs in the form of a predictive model. Several statistical analyses were conducted to understand the data with the goal of testing an a priori theory and answer the study’s research questions:

1. What relationships exist within the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?

2. How well do the observed variables represent the latent factors of Schools’ Values and Practices, Home Musical Background, Parents’ Motivational Beliefs, and School-Based Parental Involvement?
3. What is the predictive influence of the variables and latent factors of Schools’ Values and Practices, Home Musical Background, and Parents’ Motivational Beliefs on School-Based Parental Involvement?

4. How does School-Based Parent Involvement differs based on students’ demographic characteristics (SES, sex, disability category, and school grade)?

**Relationships**

To answer question one, descriptive analyses, correlational analyses, and exploratory factor analyses were conducted to understand the relationship between variables and how they grouped. Correlations between all indicators of Schools’ Values and Practices were found to be statistically significant. This analysis was an important first step because it confirmed that these variables have something in common. The moderate correlation found between School Climate and School Leadership \((r = .50)\) was consistent with previous studies and confirmed the idea that general invitations for involvement from the school relate to the its general atmosphere or climate (Walker et al., 2005). Similarly, a study found that for African American parents, general school invitations for involvement resulted in a positive perception of school climate (Archer-Banks, & Behar-Horenstein, 2008). A moderate positive correlation was found between Music Teachers Invitations and Attitudes Toward Parental Involvement \((r = .49)\). This finding also confirmed the general understanding that teachers that do not support parent involvement or believe that it is too much work tend to actively discourage it (Dauber & Epstein, 1993). Dauber and Epstein’s study addressed that teachers with positive attitudes toward parental involvement place more value on providing parents with
feedback concerning their child and on communicating with parents about programs present within the school.

A positive correlation between Music Teachers Invitations and their Comfort with Inclusion was suggested by the current study’s data ($r = .43$). This supports previous research regarding barriers to successful collaborative relationships between teachers and parents. Hoover-Dempsey, Bassler, & Brassie (1987) found that training in working with students with disabilities and their parents increased the educators’ self-confidence and enabled them to reach out to parents and to work effectively with them. School Climate and Music Teachers’ Comfort with Inclusion yielded a positive statistically significant correlation ($r = .39$). This is unsurprising, as both indicators are logically closely related. School climate is based on patterns of people’s experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures (Cohen, McCabe, Michelli, & Pickeral, 2009). Therefore, it is reasonable to assume that when music teachers exhibit competence to effectively include students with special education needs in their classrooms a positive school climate arises.

It is interesting to note that the descriptive analysis indicated that Music Teachers’ Invitations for Involvement was the observed variable with the lowest mean ($M = 1.89$). In the same manner, Nolan (2008) found that a large amount of parents expressed that they wished there was more open communication with music teachers, and that they thought it would be more beneficial to their child if it was more consistent.

Some low and non-statistically significant correlations were found between indicators of the latent labeled as “Home Musical Background.” The lack of commonality between factors suggested that they probably related to different constructs. As a result, an
exploratory factor analysis was conducted to develop a better understanding of the variables. The analysis resulted in six factors. All were consistent with the proposed model, but the interpretation of the data revealed the presence of two new factors that were not accounted for at the beginning stages of the study: (a) Instrument Ownership; and (b) Child’s Musical Interest. The “Instrument Ownership” factor aroused from items related to Family Musical Background proposed by Zdzinski (2013). Although all items were found to be related in previous studies, the present study’s data revealed the possibility of seeing the ownership of musical instruments and equipment as a separate underlying factor. The “Child’s Musical Interest” indicator aroused from items related to “Child’s Musical Competence.” Although all items were conceptualized in this study as being related to musical ability only, a deeper examination of past studies confirmed that they were developed with the intention of also describing parent’s perceptions of children’s musical interests (Park, 1981; Darrow, 1993).

After the exploratory factor analysis, a new correlational analysis exhibited the possibility of dividing all the factors into two latent variables. At this point, Family Musical Participation and Family Musical Background were re-conceptualized as Parents’ Musical Involvement. Music Education Benefits, Child’s Musical Competence, and Child’s Musical Interest were classified as Parents’ Impressions about Music. Instrument Ownership was not included in further analyses due to the low reliability that was found among its two items. This was not a surprise given the fact that theory indicates that, all other things being equal, more items lead to better construct representation and the primary way to make measures more reliable is to increase the number of items (Emons, Sijtsma, & Meijer, 2009). The new configuration of latent
variables is somehow intuitive and logical since they include indicators related to actions and opinions.

A weak but significant correlation was found between Family Musical Participation and Family Musical Background \((r = .15)\) indicating that as participants’ past musical experiences increased, so did their future engagements with musical activities. Although this specific relationship has not been explored in other studies, Custodero (2003) found that higher levels of parental musical experience (i.e., whether they were sung to as a child, past or current participation in choir or a musical group, playing a musical instrument, or taking private music lessons) were positively associated with higher levels of music interactions in the home \((p < .01)\). These results contradict the findings of another study that found that past parental experiences were not related to future musical interactions at home \((\text{Wills, 2011})\). The correlation between Music Education Benefits and Child’s Musical Interest \((r = .43)\) confirms the results of a study in which parents perceived their children’s interest in music as one of the most important benefits their children would gain from extracurricular music lessons \((\text{Choi, Tse, Ni So, & Yeung, 2005})\). In the current study, positive correlations were also found between Music Education Benefits and Child’s Musical Competence \((r = .27)\), and between Child’s Musical Competence and Musical Interest \((r = .22)\).

Correlational analyses of the Parents’ Motivational Beliefs indicators revealed small significant linear relationships between all factors. The strongest relationships were found to be between Role Construction and Time and Energy \((r = .36)\) and Academic Efficacy and Time and Energy \((r = .28)\). These correlations indicated that as the participants’ role construction and academic efficacy increased, their perceived levels of
time an energy for involvement in their child’s school activities also increased. Likewise, Gronlick et al.'s (1997) study of parental involvement from an individual, contextual, and institutional perspective concluded that when parents see themselves as efficacious and in the role of a teacher to their child, they are more likely to dedicate more time and energy in their child's education. In contrast, other study found that parental role construction and efficacy significantly related to time and energy expended at home, but not at schools (Green, Walker, Hoover-Dempsey, and Sandler, 2007).

Role Construction and Academic Efficacy yielded another positive correlation ($r = .19$). Parents’ sense of efficacy in education involves beliefs about how competent they feel assisting their child in educational activities, and in the context of this study, in musical activities (Bandura, Barbanelli, Caprara, & Pastorelli, 1996). Hence, it makes logical sense to suggest that parents that hold strong ideas of what they should do in their child’s music education also have solid understandings of what they could do to produce changes in different academic situations. This particular relationship has not been addressed in other studies. Therefore, the present research serves as a starting point to understanding this association.

The positive and significant correlation between Music Program Support and Communication with Music Teacher ($r = .22$) was not a surprise given that it is very probable that as communication with music teachers increases, the amount of support that parents provide to a music program also increases. Participation in Decision-Making Processes and Music Program Support were also found to be significantly associated ($r = .25$). Although this correlation has not been explored in other studies it makes sense to suggest that parents that are highly involved in their child’s music education are
consistently engaged in different school organizations and contexts. Conversely, Communication with Music Teacher and Participation in Decision-Making Processes had a very small, negative, but non-significant correlation. This non-significant relationship was interesting because it indicated that these two factor were quite unique and independent in this study.

**Factor Analyses and Models**

The preliminary descriptive and correlational analyses indicated that the data were suitable for further investigation. The measurement model showed what combinations of variables could be used for prediction of School-Based Parental Involvement, answering the second question of this study. At this stage, Parents’ Musical Involvement variables failed to combine in a way that could be modeled. This decision was made after obtaining a non-positive definite covariance matrix that prevented further analysis of the CFA. Despite its support of inclusion in the model, the Parents’ Musical Involvement latent was dropped due to low loadings and best practices of needing at least two observed variables for confirmatory factor analysis (Kline, 2011). It should be noted that this was the first time that the indicators “Home Musical Background’ and “Home Musical Participation” were grouped to represent a latent variable. Therefore, they could potentially work in future studies if other combinations are explored. After removing the confounding variable, a positive definite covariance was produced through a respecification of the measurement model.

A new CFA reported poor model fit across all fit indices, indicating that there were still problems with the measurement model. Two new EFAs were conducted with the latents proposed as “Parents’ Motivational Beliefs” and “School-Based Parental
Involvement.” At this point, the analyses revealed that both variables had four indicators and not three as it was initially expected. This finding was anticipated given the fact that some items were modified, so that they could be specific to the context of music education. After respecifying the model consequently and analyzing the data, all fit indices improved, but still indicated that the model did not fit the data. As a consequence, the indicators “Efficacy” and “Communication with Music Teacher” were removed from the model because they yielded non-statistically significant loadings. Finally, modification indices were examined to see if the correlation of error terms could produce a drop in the model chi-square. The correlation between School Climate and School Leadership’s errors suggest that they might be related to other unknown source (Gerbin, & Anderson, 1984). Therefore, future studies should hypothesize the existence of another latent, unmeasured variable. A new CFA was used to test the fit of the respecified measurement model. This time all fit indices supported the measurement model fit, providing evidence that 14 indicator variables adequately represented the four theorized latent constructs. The standardized parameter estimates within the respecified measurement model (Figure 4.14) indicate that the latent constructs are unique factors with minimal shared variance, evidenced by low covariance values. The predictive power of the latent factors on the indicator variables were statistically significant at $p < .01$ (Keith, 2006). The good fit of the CFA suggested that estimation of the predictive latent model was possible.

A structural regression model informed by the measurement model was tested to answer the third research question. The structural model showed moderate and strong predictive power among the latent variables (Figure 4.15). In addition, the effect of
Schools’ Values and Practices on School-Based Parental Involvement was found to be mediated by Parents’ Motivational Beliefs. The standardized parameter estimates within the respecified structural model are compelling, as this is the first attempt at understanding the interaction of different factors, in the context of music education, on the school-based parental involvement of students with special education needs.

**Demographic Variables**

A Factorial ANOVA was conducted to determine if school-based parental involvement differed significantly by the students’ SES, sex, disability category, and school grade. The present study found that there were no significant differences between five levels of socio-economic status. There are mixed findings up to date in this area. For instance, Hirano (2016) found that age, disability type, and SES impacted significantly parents’ motivation for involvement. Harvegreaves (1986) also found an association between high SES, musical training, and musical activity in the home. In contrast, Marcon (1999) found no significant differences in parental involvement for families with varying income levels. Participants in this study were 708 randomly selected parents of preschool children, the vast majority of which were African-American and from a disadvantaged population. These mixed results suggest that not always higher SES levels may be associated with higher levels of parent involvement. Therefore, this relationship should be further examined in future studies. Specifically, the interaction between music education, special education, and SES should be addressed to clarify these understandings.

The ANOVA was also carried out to determine if significant differences existed between the students’ disability categories on school-based parental involvement. The
analysis revealed a statistically significant difference $F(10, 90) = 4.55, p < .001, \eta^2 = .55$. Post hoc comparisons revealed that parents of students with intellectual disabilities, autism spectrum disorders, emotional disturbances, other health impairments, and multiple disabilities had significantly higher involvement that parents of students with specific learning disabilities. This finding aligns with the results of a study that found that two common child characteristics associated with the degree of parental involvement were the disability, and therefore, children’s performance at school (Horby & Rayleen, 2011). It seems that when children struggle with their school work, due to learning difficulties or disabilities, parents are usually more inclined to be active in school activities (Eccles & Harold, 1993).

The analysis indicated that school-based parental involvement did not vary depending on the grade level of the participants’ children, $F(7, 90) = 1.91, p = .08, \eta^2 = .23$. Although the difference between grades was non-significant, the descriptive analysis suggested that the level of parental involvement decreased during grades fourth, fifth, and sixth and incremented during middle school years. In addition, it was found that parents of students in middle school were the most engaged group of participants. This finding is interesting because generally research suggests that as a child ages, parental involvement decreases. Specifically, different studies have found that the recurrence of parental involvement decreases when a child begins middle school (Epstein, 1995; Epstein & Connors, 1994; Jackson, Andrews, Holland, & Pardini, 2004; Jackson & Davis, 2000; Rutherford, 1995; Zill & Nord, 1994;). Similarly, Deslandes and Cloutier (2002) found, in a study of 872 14-year-old children in the United States, that although over three quarters of adolescents were willing to show their parents what they
learned or did well on at school, they did not want to invite their parents to visit their classes or to assist on a class trip. It should be noted that all of the latter are studies that did not include students with special education needs. Hence, it makes sense to suggest that the increased parental involvement during middle school can be a result of the challenges that transitioning to a new school bring.

Finally, the ANOVA aimed to compare the influence of the participants’ child sex in their school-based parental involvement. In this case a non-statistically significant difference was found in the scores for females and males. This finding is consistent with other studies that have examined the relationship between student sex and parental involvement (Stevenson & Baker, 1987; Shumow & Miller, 2001).
CHAPTER FIVE
SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

Studies in the field of music education have revealed that parents’ involvement in their children’s schooling and the type of interaction they have with music teachers are important to meeting the educational needs of their children. Researchers in this domain have also supported the idea that parental support contributes to children’s musical achievement and aptitude. However, the examination of what variables influence parents of students with special education needs’ decision of becoming involved had not been studied in the context of music learning. As a result, this study sought to derive a clearer understanding of how the interactions between Parents’ Motivational Beliefs, Home Musical Background, and Schools’ Values and Practices influenced the School-Based Parental Involvement of students with special education needs in elementary and middle schools. The approach to aid in this understanding was to test a theoretically proposed statistical model of these factors.

The review of literature revealed the existence of several theories of parent involvement that supported the development of a multi-componential model specific to the context of music and special education (Eccles, & Harold, 1993; Hoover-Dempsey, & Sandler, 1995, 1997, 2005; Epstein, 1987, 1996, 2001; Grolnick, & Slowiacek, 1994; Creech, & Hallam, 2003; Zdzinski, 2013). Although each theory was unique, it was found that factors influencing parental involvement across different fields related to five main groups: (a) Music Background; (b) Parents; (c) Schools; (d) Students; and (e) Teachers. While several studies had investigated the influence of each of these factors on
Home and School-Based Parental Involvement, none had attempted to study the interaction of all of these areas simultaneously, which would arguably present a more comprehensive and representative understanding of real-life relationships.

As an avenue for addressing different theories and findings, structural equation modeling provided an appropriate method for bringing together and investigating the interactions of these factors concurrently. Due to this study being the first to combine these elements from a music education perspective and to examine these elements in the context of special education, the scope and specific methods of investigation had to be limited in order to make such a study plausible. The observed variables chosen to indicate the underlying latent factors of the study were based on literature, logic, experience, and theory. Schools’ Values and Practices was indicated by School Climate, School Leadership, Music Teachers’ Invitations, Music Teachers’ Attitudes toward Parental Involvement, and Music Teachers’ Level of Comfort with Inclusion (Dauber & Epstein, 1993, Hoover-Dempsey, Bassler, & Brassie, 1987; Hoover-Dempsey et al. 2005; Mapp, 2013; Redding, Langdon, Meyer, & Sheley, 2004). Home Musical Background, was originally indicated by the variables of Perceptions of Music Education Benefits, Family Musical Background, Family Musical Participation, and Perceptions of Musical Competency (Brand, 1986; Howe & Sloboda, 1991; Margiotta, 2011; Zdzinski, 2013). Parents’ Motivational Beliefs initially included the measured variables of Role Construction, Academic Efficacy, and Perceived Time and Energy (Blatz, 2004; Hoover-Dempsey & Sandler, 1997; Hoover-Dempsey et al., 2005; McPherson & Davidson, 2002; Walker et al., 2005). Lastly, School-Based Parental Involvement was measured by items related to: (a) Dimensions of Music Program Support; (b) Communication with Music
Teachers; and (c) Participation in Decision-Making Processes (Zdzinski, 2013; Epstein, 2001).

The participants of the study were caregivers of elementary and middle school students from public schools in the United States’ East coast (N = 205). The inclusion criteria that was determined at the beginning of the study was the following: (a) parents of students formally enrolled in a music course (general music or instrumental ensemble) with at least one semester of coursework; and (b) parents of students that at the time of survey administration were on an IEP, 504 plan, or enrolled in a school specialized in students with disabilities. Participants were recruited through music teachers and administrators. During the data collection period music teachers sent their students’ caregivers, that meet the inclusion criteria, an electronic link through the Qualtrics survey tool. Once the data collection process was completed in all schools the same process was repeated with several non-profit organizations. The total proposed timeline of data collection was five months and the survey instrument was comprised of 100-items. Data analysis employed IBM SPSS Statistics 24.0 software for descriptive, correlational, reliability, and exploratory factor analyses. IBM SPSS Amos was used for confirmatory factor analysis and structural equation modeling.

The first research question sought to determine the relationships between the latent factors of Schools’ Values and Practices, Parents’ Motivational Beliefs, Home Musical Background, and School-Based Parental Involvement. Preliminary statistical analyses generally revealed that all indicators showed normal distributions, except for Music Education Benefits. As a consequence, Bootstrapping was used to help correct for the non-normal distribution of this variable. Correlational analyses supported the
relevance of most indicators to each other and acceptable levels of reliability. However, analysis also revealed non-statistically significant relationships between Family Musical Participation and Music Education Benefits, between Family Musical Background and Music Education Benefits, and between Family Musical Background and Child’s Musical Competence. Consequently, an exploratory factor analysis with Varimax rotation was used with the purpose of identifying new groups of inter-related variables. The factor analysis resulted in six factors: Music Education Benefits, Musical Competence, Musical Participation, Musical Background, Musical Interest, and Instrument Ownership. All had acceptable levels of reliability except for Instrument Ownership that was thus removed from the model. New correlational analyses revealed the possibility of dividing all the factors into two latent variables. Family Musical Participation and Family Musical Background were re-conceptualized as Parents’ Musical Involvement, while Music Education Benefits, Child’s Musical Competence, and Child’s Musical Interest were classified as Parents’ Impressions about Music.

The second research question sought to determine if the observed variables adequately represented the latent constructs of Schools’ Values and Practices, Parents’ Impressions about Music, Parents’ Musical Involvement, Parents’ Motivational Beliefs, and School-Based Parental Involvement. A confirmatory factor analysis using maximum likelihood estimation was used in order to assess the fit of the measurement model and covariance between the latent variables. However, this initial analysis resulted in a non-positive definite matrix, preventing further model testing at this point. Specifically, the output indicated that the problem involved the latent variable of Parents’ Musical
Involvement. Due to the instability of this latent, as a result of representing it with only
two indicators, Parents’ Musical Involvement was removed from the model.

A new confirmatory factor analysis revealed poor model fit across all fit indices.
Therefore, an exploratory factor analysis was run to analyze the underlying nature of
Parents’ Motivational Beliefs and School-Based Parental Involvement. The interpretation
of the data resulted in a new factor related to “Parents’ Role Construction”, but with an
emphasis in the music class. The analysis also revealed a new factor associated with
“Participation in Decision-Making Processes” but specific to decisions that directly
impacted the participants’ children. After respecifying the model accordingly and
analyzing the data, all fit indices improved, but some still indicated that model fit was
poor. This resulted in the elimination of two indicators, “Efficacy” and “Communication
with Music Teacher” after they yielded non-significant loadings. Examination of the
modifications indices suggested that a linkage between the error terms of “School
Climate” and “School Leadership” could produce a large drop in the chi-square. A final
analysis revealed that all fit indices supported good model fit. In addition, all observed
variables that were kept in the model revealed significant path coefficients and strong
correlations to the latent factors. Low standardized covariance values between the latent
variables indicated that they were unique within the model.

The third research question sought to determine the predictive influence of the
variables and latent factors of Schools’ Values and Practices, Parents’ Motivational
Beliefs, and Parents’ Impressions about Music on School-Based Parental Involvement.
Structural equational modeling was applied to the respecified structural equation model,
which tested the direct effects of Schools’ Values and Practices on Parents’ Motivational
Beliefs, Parents’ Motivational Beliefs on School-Based Parental Involvement, and Parents’ Impressions about Music on School-Based Parental Involvement. The indirect effect of Schools’ Values and Practices on School-Based Parental Involvement was also examined. Schools’ Values and Practices had a large positive effect on Parents’ Motivational Beliefs and a medium-sized indirect effect on School-based Parental Involvement. Parents’ Motivational Beliefs had a moderate positive effect on School-Based Parental Involvement. Lastly, Parents’ Impressions about Music yielded a medium positive effect of School-Based Parental Involvement. Because it was dropped from consideration during testing of the measurement model, the influence of Parents’ Musical Involvement was not realized.

The fourth research questions sought to determine if school-based parental involvement differed significantly by the students’ SES, sex, disability category, and school grade. The data analysis revealed that parents of students with intellectual disabilities, autism spectrum disorders, emotional disturbances, other health impairments, and multiple disabilities had significantly higher levels of involvement that parents of students with specific learning disabilities. SES, sex, and school grade yielded non-significant results.

Conclusions

Several conclusions can be reached based on the results of the data analysis. In first place, the findings suggest that parents of students with special education needs are influenced by multiple, complex factors when making decisions about their involvement practices regarding their children’s music education. The good fit of the measurement model supports the perception that there are three main motivators of school-based parent
involvement in this particular context: (a) Schools’ Values and Practices; (b) Parents’ Motivational Beliefs; and (c) Parents’ Impressions about Music.

Schools’ Values and Practices have a large positive influence on Parents’ Motivational Beliefs. Therefore, school context can be seen as an important facilitator of parent involvement for elementary and middle school students receiving special education services. Likewise, this construct has a role in shaping parents’ notions of what to do in regard to their child’s music education and how much time and energy they can expend to fulfill their expectations. Apparently, parents indeed used such information as indicators of what their role should be in their child’s schooling. Parents’ Motivational Beliefs have a moderate influence on School-Based Parental Involvement. Accordingly, this study suggests that parents’ practices are influenced by their beliefs and that these assumptions can directly impact the type of formal involvements they have. Parents’ perception of the time and energy they can expend to become involved also take part in their decisions. Although the efficacy variable formed part of the original model in this study it did not contributed to the latent factor of Parents’ Motivational Beliefs.

The present study also proposes that School-Based Parental Involvement can also be predicted by Parents’ Impressions about Music. This latent includes ideas that parents hold about the impact of music education, as well as the interest and competence they perceive their children have. It can be argued that parents that value music instruction provide more support towards their children’s music endeavors. The perceptions that parents hold about a child’s musical competence and interest also relate to the type of
involvement that they have. Possibly, positive impressions serve as a catalyst for parents to become attracted to devoting time and resources to help their children learn music.

There are notable patterns of involvement and motivators of parent involvement associated with demographic characteristics. In this study, the participants’ levels of parental involvement increased during middle school years. This difference may be a result of the changing environment that middle school provides. Interestingly, many other studies have found the opposite. Consideration of whether to be actively involved in schools can depend on a number of factors associated to special education. In this case, the severity of the disability had a significant impact in the amount of parental involvement. The findings of this study suggest a variety of avenues for implementing a comprehensive approach to parental involvement in the field of music education. Hopefully, this investigation will serve as a springboard to action for those who consider and reflect upon the findings herein.

**Recommendations for Future Research**

This study was a modest beginning to understanding what motivates parents to get involved in their children’s music education. The findings offer suggestions for increasing the breadth and depth of knowledge surrounding parental involvement in elementary and middle schools. First, like any novel study, this study should be replicated. Replications of the initial model with a larger sample size are recommended to confirm the measurement and structural models. While exploratory and confirmatory factor analyses were employed to select and confirm the different factors, this resulted in a number of items being removed. Therefore, further improvements to this model are recommended. The removal of the indicators related to Home Musical Background
should be closely examined. The items associated with these variables are reliable measures whose validity is well-supported. By combining them with other variables, their inclusion may still be possible.

At the proposal stage of the dissertation, the model also included a latent that was exclusively related to music teachers. This was strongly supported through the literature and therefore, should be considered in future expanded versions of the present model. This latent was combined with Schools’ Values and Practices due to the feasibility and practicality concerns at the recommendation of the dissertation committee. The inclusion of these factors, as well as reconsideration of the Home Musical Background latent, would offer more opportunities to examine competing models and model fit at the structural stage. The correlation that was included in this study between the errors of school climate and school leadership warrants attention. As it was stated previously, this association might be related to other unknown source. Therefore, future studies should hypothesize the existence of another latent.

Gathering data from music teachers would facilitate comparisons between teachers’ and parents’ perceptions of school parental involvement initiatives. It would also allow comparisons of teachers’ and parents’ beliefs about their respective roles and responsibilities in establishing family-school partnerships. To further understand the variation between perceptions, qualitative and mixed methods research may also be necessary and valuable in order to better understand the nuances and intricacies of parent involvement unable to be captured by surveys. Lastly, future research should investigate the perspectives of demographic groups that were not taken into consideration this study. For example, participants were not asked to provide information related to their race.
Since we cannot assume that the perceptions of parents with different demographic characteristics are equal, it would be helpful for future research to target the perceptions of individuals from varying racial/ethnic backgrounds.

**Limitations**

There are a number of limitations to this current study. The first one is the use of survey data collection methods. Simply, different populations may attach different meanings to the items under study. Second, the present study obtained data entirely through self-report measures. Self-reports are sometimes prone to distortions (Lanyon & Goodstein, 1997), as well as bias from social desirability in which “some people tend to respond to items more as a result of their social acceptability than their true feelings” (Podsakoff, MacKenzie, Lee, and Podsakoff, 2003, p. 882). It is possible that caregivers may have responded a certain way in an effort to appear more involved in educational activities. Likewise, it is possible that parents who choose to complete surveys about parent involvement are somewhat more involved in their child’s schooling than parents who choose not to participate, thereby introducing the probability of bias in the sample.

Third, some participants for this study were recruited from non-profit organizations that provide support to parents of children with special education needs. Therefore, this sample is limited to parents who accessed those services and not representative of all families. It is unclear how a more diverse sample of parents, not connected to parent training would respond. In addition, this survey was computer/internet based and may have prevented people without access to electronics and Internet service from taking the survey. This likely posed barriers to participation for
some potential participants. Future research may use both electronic and paper copies of the survey in order to capture a broader audience.

Although similar in many respects, the schools, music programs, and organizations used to recruit participants differed in potentially important ways. Therefore, any generalization of these results can be applied to these contexts, but may not be appropriate in others. Lastly, the data in this study were based on parents’ perceptions and they were not corroborated by other sources. Examining how parents’ perceptions of study variables compared to teachers’ reports related to the same variables would have provided a fuller view of school functioning in these domains, but was beyond the scope of this study.

**Implications for Practice**

The findings of the study have implications for what schools may do to ensure parents are actively engaged in students’ education. It is imperative that music educators are informed as to how important invitations for involvement are and that these need to be increased. The finding that teacher invitations can impact Parents’ Motivational Beliefs and School-Based Involvement suggests that parents are responsive to teacher invitations to be involved. This finding also underscores the importance of personal teacher-parent communication in building relationships that eventually manifest in increased parent involvement. Schools should also establish a continual line of communication with parents to relay important information pertinent to students’ learning. It is also necessary to address role construction. One way schools can address parental role construction is to be clear about school expectations for involvement. For
example, a short newsletter article or teacher conversation with a parent might reinforce the importance of the role parents play in their child’s life.

This study also has implications for how music teachers should interact with parents. Parents’ Motivational Beliefs were predicted in part by parents’ positive perceptions of Schools’ Values and Practices. This suggests that teachers should communicate respectfully and courteously with parents, and in a way that relays the school’s appreciation for their involvement. A positive school climate underscores the need for principals to share with teachers the importance of parent involvement to student achievement, and to hold teachers accountable for helping create a welcoming school climate. The findings of this study revealed the need for additional support in the area of special education. It was noted that, in this particular case, parents were influenced by the perceptions they had regarding their child’s music teacher level of comfort with inclusion. Music Education programs should require all candidates to participate in significant course work and practicum experience related to teaching in inclusive environments, rather than have just one course or one practicum experience. Preparation in this area has been found to increase educators’ self-confidence, enabling them to reach to parents and to work effectively with them.

It is clear that most parents involved in this study would welcome further information concerning the musical strengths and interests of their children. Unfortunately, direct communication with parents typically does not occur unless there is a problem between the music teacher and the child. Communication, on a regular basis, concerning children's music progress could potentially increase parental involvement. One way that teachers might be able to increase parents’ involvement is by providing
information associated to how music instruction benefits students with disabilities. If parents know how musical activities will benefit their child, it appears they will be more enthusiastic about the music program. Therefore, I suggest music teachers organize parents’ meetings or short music courses for parents, specifically designed to share this type of information.

To increase parents’ support to music programs, it is clear that music teachers need to develop strategies for communicating the importance of their activities to the parents and, in some cases, even to the students. This increased awareness could positively impact the music program. Finally, I suggest schools consider using the scales used in this study as a tool to get to know their families better. The range of involvement activities and perceptions in these scales might serve as a framework for the development of progressive strategies to better facilitate the parent involvement of students with special education needs.

The model in this study supports the use of a multi-componential framework to further understand how parental involvement manifests in the music education of students with special education needs. The magnitude of the predictors provides important information for both research and practical use. This study indicated that there are different factors that can predict what we know as school-based parental involvement. Although the proposed model does not encompass all potential influencing variables, it provides a unique, interactional structure from which to understand parents’ involvement decision and its implication to the music class.
References


Individuals with Disabilities Education Improvement Act (IDEA) of 2004, Pub. L. No. 108-446.


Appendix A

Participation Request Letter for Caregivers

Greetings,

My name is Vimari Colón-León. I am a music teacher, and also a PhD student at the University of Miami. I am working on my dissertation at UM, and I am asking you to participate in my research project. The study is titled “A Model of Parental Involvement in the Music Education of Students with Special Education Needs.” The purpose of this research is to examine how different factors influence the decision of parents of students with special education needs to become involved in their child’s music education. I am sure you would agree that parent/teacher/school relationships are critical in schools, and I am hopeful the results of this survey will help me further understand them.

Your school’s administration, music teacher, and district have agreed to allow me to conduct this study, and I thank you in advance for your help. If you wish to participate you can have access to the survey through the following link:

As a participant, you will have the opportunity to complete the survey confidentially at your earliest convenience. If you have questions about your rights as a research subject you may contact Human Subjects Research Office at the University of Miami, at (305) 243-3195.

Sincerely,

Vimari Colón-León
University of Miami
v.colonleon@miami.edu
Appendix B
Participation Request Letter for Music Teachers

Dear music teacher,

My name is Vimari Colón-León. I am a PhD student at the University of Miami in the Music Education Department. I am conducting research on the topic of parent involvement in the music education of students with special education needs as part of my dissertation requirements. You were referred by Dr.…. who accepted to help me in this initial process and thought you could be a good candidate for supporting this study.

The purpose of this study is to examine how different factors influence the decision of parents of students with special education needs to become involved in their child’s music education. Participants will be caregivers of students with special education needs that participate in a music class. I am humbly requesting your help in sending an online survey to those that meet the inclusion criteria. If you accept to do this, you will receive an electronic link in August.

Specifically, participants will be caregivers of early elementary (1st and 2nd grade), late elementary (4th and 5th grade), and middle school (6th, 7th, and 8th grade) students (ages 6-15). Only caregivers of students currently receiving special education services under the Individuals with Disabilities Education Improvement Act (2004) will be included. In addition, participants selected will be based on the following criteria: (a) caregivers of students formally enrolled in a music course (general music or instrumental ensemble) who have had at least one semester of coursework; (b) caregivers of students that at the time of survey administration are on an IEP or 504 plan.
I hope you will agree to support this study by encouraging your students’ caregivers to participate. For now, I would appreciate if you could provide the following information:

(1) If you volunteer to send your students’ caregivers (that meet the inclusion criteria) an email with an electronic link. This will be done in the month of August.

(2) Approximately how many of your students’ caregivers meet the inclusion criteria.

(3) School name and location

Once I know how many teachers are available to support this study I will request local permission. Thank you so very much for your time! If you have any questions or would like to participate in the research, I can be reached at 787-612-4448 or v.colonleon@miami.edu

Sincerely,

Vimari Colón-León
University of Miami
(787) 612-4448
v.colonleon@miami.edu
Appendix C

Participation Request Letter for Non-Profit Organizations

Greetings,

My name is Vimari Colón-León. I am a PhD student at the University of Miami in the Music Education Department and I am conducting research on the topic of parent involvement in the music education of students with special education needs as part of my dissertation requirements. The purpose of this study is to examine what influences the development of effective relationships between schools, music teachers, and parents. Participants will be parents of students with special education needs in elementary or middle schools.

I’m contacting you to humbly request if my survey link could be shared with parents in your organization. I already have IRB approval from the University of Miami and could send more official documentation if it is needed. Thank you so very much for your time! If you have questions I can be reached at 787-612-4448 or v.colonleon@miami.edu. Your help or support will be highly appreciated.

Sincerely,

Vimari Colón-León
University of Miami
v.colonleon@miami.edu
Appendix D

California School Climate, Health, and Learning Survey (2016)

**Observable Variable:** School Climate

5 Strongly agree

4 Agree

3 Uncertain

2 Disagree

1 Strongly disagree

**Scale Items**

How strongly do you agree or disagree with the following statements?

1. My child’s school is a positive welcoming place. *(QID7_1)*

2. School personnel treat me with respect. *(QID7_2)*

3. School personnel take parent concerns seriously. *(QID7_3)*

4. School personnel show sensitivity to the needs of students with disabilities and their families. *(QID7_4)*

This school…

5. …has a supportive learning environment for my child. *(QID7_5)*

6. …motivates students to learn. *(QID7_6)*
Appendix E

Measure of School, Family, and Community Partnerships (Salinas, Epstein, Sanders, Davis & Douglas, 2009)

Observable Variable: School Leadership

5 Extensively

4 Frequently

3 Occasionally

2 Rarely

1 Not occurring

Scale Items

This school:

1. Conducts workshops or provide information for parents on different topics related to children’s development or success. (QID10_1)

2. Conducts formal meetings with parents. (QID10_2)

3. Encourages families and the community to be involved with the school. (QID10_3)

4. Provides ongoing information to parents on how to assist students with skills that they need to improve. (QID10_4)

5. Has an active PTA, PTO, or other parent organization. (QID10_5)

6. Asks families for information about children’s goals, strengths, and talents. (QID10_6)
Appendix F

Parental Perceptions of Specific Teacher Invitations to Involvement Scale

(Hoover-Dempsey & Sandler, 2005)

**Observable Variable:** MT Invitations

5 A great deal
4 A moderate amount
3 Occasionally
2 Rarely
1 Never

**Scale Items**

Please indicate HOW OFTEN the following happened during the past semester.

1. My child’s music teacher asked me to talk with my child about the school day. *(QID11_1)*

2. My child’s music teacher asked me to attend a special event at school. *(QID11_2)*

3. My child’s music teacher asked me to help out at the school. *(QID11_3)*

4. My child’s music teacher contacted me (e.g., sent a note, phoned, e-mailed). *(QID11_4)*

Parent Survey of Family and Community Involvement (Sheldon & Epstein, 2007)

5 Very well
4 Well
3 Acceptable
2 Poorly
1 Never
Scale Items

How well did your child’s music teacher do the following during the past semester?

5. Told me how my child was doing in his/her class. *(QID12_1)*

6. Told me what skills my child needed to learn or improve in music class. *(QID12_2)*
Appendix G

Survey of Kindergarten Teacher’s Attitudes Toward Parental Involvement (Gu, 2006)

**Observable Variable:** MT Attitudes toward PI

5 Strongly agree
4 Agree
3 Uncertain
2 Disagree
1 Strongly disagree

**Scale Items**

Please indicate what you perceive are YOUR CHILD’S MUSIC TEACHER ATTITUDES, regarding parental involvement. I perceive that my child’s music teacher believes…

1. …that parental involvement is critical for music education. (QID13_1)
2. …that educators and parents have complementary expertise about the education of children. (QID13_2)
3. …that interacting with parents at school is important to get full knowledge of a child’s background and development. (QID13_3)
4. …that parents should be encouraged to more actively volunteer at school. (QID13_4)
5. …that parents’ volunteering provides a good opportunity for improving healthy-teacher relationships. (QID13_5)
6. …that he/she feels disappointed when parents do not get involved in their child’s music education. (QID13_6)
Appendix H

Survey of Teacher’s Attitudes Toward Inclusive Classrooms (Cochran, 1998)

Observable Variable: MT Invitations

5 Absolutely yes
4 Mostly yes
3 Uncertain
2 Mostly not
1 Absolutely not

Scale Items

Please indicate what you perceive is YOUR CHILD’S MUSIC TEACHER level of comfort with inclusion. I perceive that my child’s music teacher…

1. …is confident in his/her ability to teach children with special needs. (QID14_1)
2. …becomes easily frustrated when teaching students with special needs. (QID14_2)
3. …becomes anxious when he/she learns that a student with special needs will be in his/her classroom. (QID14_3)
4. …can adequately handle students with mild to moderate behavioral problems. (QID14_4)
5. …don’t mind making special physical arrangement in the room to meet the needs of students with special needs. (QID14_5)
6. …has been adequately trained to meet the needs of children with disabilities. (QID14_6)
Appendix I

Subscales of the Parental Involvement and Home Environment in Music Survey

(Zdzinski, 2013)

**Observable Variables:** Family Musical Background and Family Musical Participation

**Family Musical Background Items**

Please answer Yes (2) or No (1) to the following questions:

1. Do you play or used to play a musical instrument? *(QID21_1)*

2. Did you ever take private music lessons? *(QID21_2)*

3. Do other members of your family play a musical instrument or sing? *(QID21_3)*

4. Were you ever a member of a school band, orchestra, or choir? *(QID21_4)*

5. Is/was there a piano in your home? *(QID21_5)*

6. Is/was there a guitar in your home? *(QID21_6)*

**Family Musical Participation Items**

5 Very often

4 Often

3 Sometimes

2 Rarely

1 Never

Select HOW OFTEN you do each of the following activities:

1. Assist your child with his/her music practice or music class work. *(QID20_1)*

2. Listen to members of the family perform music at home. *(QID20_2)*

3. Play a musical instrument with your child. *(QID20_3)*
4. Take music lessons. (QID20_4)

5. Sing/play in a musical group. (QID20_5)

  5 Strongly agree
  4 Agree
  3 Uncertain
  2 Disagree
  1 Strongly disagree

To what extent do the following statement reflect how you feel?

6. I believe that I can help my child do better in his/her music class. (QID22_1)
Appendix J

Parents’ Perceptions of Benefits of Music to Their Children Scale (Choi, So, Tse, & Young, 2005)

Observable Variable: Music Education Benefits

5 Strongly agree
4 Agree
3 Uncertain
2 Disagree
1 Strongly disagree

Scale Items

How strongly do you agree with the following statements?

1. Music education is important for children. (QID41_1)
2. Learning music improves children’s memory and recall of facts. (QID41_2)
3. Music education adds more fun to a child’s daily life. (QID41_3)
4. Music education has a positive effect on students’ overall academic performance. (QID41_4)
5. Music education increases a child’s motor agility. (QID41_5)
6. Through music children become more creative. (QID41_6)
Appendix K

Iowa Parent Assessment of Child Inventory (Clark, Crase, Pease, 1980)

**Observable Variable:** Child’s Musical Competence

5 Very Good
4 Good
3 About Average
2 Poor
1 Very Poor

**Scale Items**

How do you rate your child on the following items?

1. Shows talent for music. *(QID23_1)*
2. Sings in tune. *(QID23_2)*
3. Keeps time to rhythm. *(QID23_3)*

How often does the following happen? My child…

1. Makes up verses to songs. *(QID24_1)*
2. Listens to his/her favorite songs over and over. *(QID24_2)*
3. Enjoys music (e.g., participates/moves/sings when music is present). *(QID24_3)*
Appendix L

Role Activity Beliefs Subscale (Hoover-Dempsey, 2005)

Observable Variable: Role Construction

6 Strongly agree
5 Agree
4 Agree just a little
3 Disagree just a little
2 Disagree
1 Strongly disagree

Scale Items

I believe it is my responsibility to…

1. …volunteer at school. (QID26_1)
2. …to communicate with my child’s music teacher regularly. (QID26_2)
3. …support decisions made by the music teacher. (QID26_3)
4. …make the school better. (QID26_4)

Items added to the scale by Hirano (2016)

5. …attend school meetings (e.g., IEP, transition, parent-teacher). (QID26_5)
6. …make sure my child is receiving the support at school necessary to help him/her achieve their goals for the future. (QID26_6)
Appendix M

Parent Efficacy for Helping the Child Succeed in School Subscale (Hoover-Dempsey et. al., 1992)

**Observable Variable:** Academic Efficacy

6 Strongly agree
5 Agree
4 Agree just a little
3 Disagree just a little
2 Disagree
1 Strongly disagree

Please indicate how much you AGREE or DISAGREE with each of the following statements. Think about the last school year as you consider each statement.

**Scale Items**

1. I know how to help my child do well in school. *(QID27_1)*
2. I know if I’m getting through to my child. *(QID27_2)*
3. I know how to help my child make good grades in music class. *(QID27_3)*
4. I feel successful about my efforts to help my child learn. *(QID27_4)*
5. I know how to help my child learn. *(QID27_5)*
6. I make a significant difference in my child’s school performance. *(QID27_6)*
Appendix N

Time and Energy Subscale (Hoover-Dempsey & Sandler, 2005)

**Observable Variable:** Time and Energy

6 Strongly Agree

5 Agree

4 Agree just a little

3 Disagree just a little

2 Disagree

1 Strongly disagree

**Subscale Items**

Please indicate how much you AGREE or DISAGREE with each of the following statements. Think about the last school year as you consider each statement. I have enough time and energy to…

1. …communicate effectively with my child about the school day. *(QID28_1)*

2. …help out at my child’s school. *(QID28_2)*

3. …communicate effectively with my child’s music teacher. *(QID28_3)*

4. …attend special events at school. *(QID28_4)*

Items added by Hirano (2016)

5. …attend meetings at the school. *(QID28_5)*

6. …make sure my child is receiving the services and supports he/she needs to be successful at music class. *(QID28_6)*
Appendix O

Items from the Connecticut Special Education Parent Survey (CSEPS, 2014)

Observable Variable: Attitudes toward Special Ed. Services

5 Strongly agree
4 Agree
3 Uncertain
2 Disagree
1 Strongly Disagree

Satisfaction with my child’s program (items)

Indicate how much you AGREE or DISAGREE with each of the following statements.

1. I am satisfied with my child’s overall special education program. (QID29_1)
2. I am satisfied with the progress my child is making because of the services he/she is receiving. (QID29_2)
3. The special education services identified in my child’s IEP or 504 have been provided. (QID29_3)
4. Staff is appropriately trained and able to provide my child’s specific program and services. (QID29_4)
5. The music teacher makes accommodations and modifications as indicated on my child’s IEP or 504. (QID29_5)
6. The music and special education teachers work together to assure that my child’s IEP or 504 is being implemented. (QID29_6)
Appendix P

Parental Academic Support Scale (Thompson & Mazer, 2012)

**Observable Variable:** Communication with Music Teacher

5 A great deal
4 A moderate amount
3 Occasionally
2 Rarely
1 Never

**Scale Items**

During the past semester, I communicated with my child’s music teacher about…

1. …my child’s grades, performance, or progress. *(A_1)*
2. …how my child can improve his/her grade or performance. *(A_2)*
3. …a major physical health issue that my child is experiencing or other issues related to his/her disability. *(A_3)*

During the past semester, I…

4. …talked over the telephone or email with my child’s music teacher. *(QI32_1)*
5. …talked informally with my child’s music teacher during drop-off or pick-up time. *(QI32_2)*
Appendix Q

Parental Involvement and Home Environment in Music Survey (Zdzinski, 2013)

**Observable Variable:** Music Program Support

5 Always
4 Often
3 Sometimes
2 Rarely
1 Never

**Music Program Support Subscale Items**

Circle HOW OFTEN you or other members of the family do each of the following activities:

1. Attend school concerts. *(QI33_1)*
2. Participate in fundraising activities for the music program. *(QI33_2)*
3. Take your child to concerts. *(QI33_3)*
4. Provide transportation to music activities. *(QI33_4)*
5. Provide other support services to the music program. *(QI33_5)*
6. Attend special meetings from the music program. *(QI33_6)*
Appendix R

Participation in Decision-Making Processes (Items developed by the researcher)

Observable Variable: Participation in Decision-making Processes

5 Very often
4 Often
3 Sometimes
2 Rarely
1 Never

Scale Items

How OFTEN do you…

1. … attend IEP meetings held for your child? (Q134_1)
2. …are involved in making decisions about my child’s special education services. (Q134_2)
3. …participate in an active PTA, PTO, or other parent group. (Q134_3)
4. …participate in meetings related to school issues, improvement, or policies so that I can learn about what is going on in the school and how can I help. (Q134_4)
5. …request meetings with your child’s music teacher to discuss accommodations, modifications, or your child’s progress. (Q134_5)
6. …participate in parent-teacher conferences? (Q134_6)
Appendix S

Demographic Items

1. Please indicate the category that corresponds to your yearly household income: (QID36)
   - $0-$50,000
   - $50,000-$100,000
   - $100,000-$150,000
   - $150,000-$200,000
   - Over $200,000

2. What is your relationship to the child? (QID37)
   - Biological parent
   - Step-parent
   - Adopted parent
   - Biological grandparent
   - Other

3. What is your child’s grade level? (QID38)
   - 1st grade
   - 2nd grade
   - 3rd grade
   - 4th grade
   - 5th grade
   - 6th grade
   - 7th grade
   - 8th grade

4. What is your child’s sex? (QID39)
   - Female
   - Male
5. What is your child’s special education diagnosis? (QID40)

- Learning Disability
- Speech or Language Impairment
- Intellectual Disability
- Emotional Disturbance
- Autism Spectrum Disorder (ASD)
- Multiple Disabilities
- Developmental Delay
- Hearing Impairment
- Visual Impairment
- Traumatic Brain Injury
- Deaf and Blindness
- Other Health Impairment