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Teaching Piano to Students with Disabilities: A Collective Case Study

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TEACHING PIANO TO STUDENTS WITH DISABILITIES:
A COLLECTIVE CASE STUDY

A Thesis Presented

by

ANTHONY TRACIA

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ABSTRACT

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MAY 2016

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The purpose of this collective case study was to explore the ways in which piano teachers most effectively alter their curriculum to accommodate students with disabilities. Three piano teachers were recruited for this study and were interviewed about their education and teaching experiences. The interview questions used in this study were constructed to detail their educational background, specifically considering their background in special education, if any, and to describe specific ways in which they have accommodated students with disabilities. The questions also sought to discover how familiar they were with the resources available for accommodating students with disabilities.

The participants mentioned several important factors in accommodating students with disabilities in piano lessons. Teacher-student collaboration was found to be essential in accommodating those with physical disabilities, while cognitive or behavioral disabilities seemed to have more complex solutions. Student interest and varying lesson pacing was noted to be particularly effective with students who had behavioral issues. According to the participants, physical disabilities were easiest to accommodate, while accommodations for students with behavioral or emotional disabilities required the most planning.

The participants of this study found their preparation for special education from their higher education institutions particularly lacking. They stressed that although they received poor training for accommodating disabilities, there is no substitute for experience. Experience in teaching students with disabilities was shown to be the most helpful tool in making more informed decisions about their accommodations for these students.

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CHAPTER I

INTRODUCTION

Statement of the Problem

With more than six million students being served by the Individuals with Disabilities Education Act (IDEA), there is great value for music educators to study the various challenges faced by these students (Otterman, 2010). The inclusion of students with disabilities in the music classroom is an area of research that contains a breadth of research studies, but still has a scarcity within specific categories of the literature. There is a steadily increasing collection of information available regarding the theoretical implications of the inclusion of students with disabilities in the music classroom. However, there are only a handful of studies documenting specific cases in which teachers have implemented the information they have learned in their teacher training programs regarding inclusion and making accommodations for students with disabilities. Qualitative research within this field exists, albeit in small quantities.

Many researchers have studied the perspectives and attitudes of teachers and students toward students with disabilities. A popular topic within the quantitative research available in this area is how well teachers believe their preparation programs have taught them to accommodate students with disabilities. Based on the results of these studies, current teachers do not seem to believe that they are any more prepared to tackle the accommodations of special needs students than teachers active during the early developments of the IDEA (Atterbury, 1987; Jellison & Taylor, 2007; McCord and Watts, 2010).

Nearly every book and journal article published regarding music education classroom inclusion lists suggestions for teacher competencies, recommendations for accommodating special needs students, as well as the benefits that these students will receive from such treatment. While this information is helpful, there is a shortage of qualitative research that shows the effects of such suggestions. Furthermore, most qualitative research studies written about this topic focus primarily on students with physical disabilities, with few people investigating how people navigate teaching students with developmental disabilities.

Definition of Terms

Navigating the literature of a topic whose vocabulary seems to change with nearly every study that is published can be quite confusing. Certain words have replaced others in an effort to protect the dignity of the students in question, while other terms typically found in this literature have been adopted as curricula have altered, rendering their predecessors obsolete. I will refer to terms based on their most current and appropriate use. The disabilities mentioned in this study will refer to the thirteen listed under the IDEA (1997): autism, deaf-blindness, deafness, emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, or visual impairment.

The literature examining inclusion of special needs students uses both *inclusion* and *mainstreaming* to describe the unification of students with and without disabilities within the same class. Newer research favors the term *inclusion* over *mainstreaming*, since the origin of the latter term implied holding students with disabilities to the same standards as other students while evaluating their progress with the same grading scale and using

unaccommodated learning materials (Damer, 2001). The term *inclusion* does not have the same implications as mainstreaming, but instead suggests that students with disabilities are fully included in regular classrooms while receiving appropriate accommodations and assistance (Bowe, 2005). Both terms insinuate the benefits of exposing students with disabilities and typical students to each other, thus promoting positive social skills and interactions between the two groups.

There has been progress toward the elimination of inappropriate language and labels in music education research. To eliminate confusion, a definition of *typical students* and *students with disabilities* will be provided. Typical students, often referred to as “normal” students in earlier research, are those who do not possess a disability as described in the Individuals with Disability Education Act. This includes students who are English Language Learners (ELL), or who have not yet received the appropriate level of education in a specific academic subject (IDEA, 1997). Students with disabilities have also been referred to as “students with exceptionalities,” “special needs students,” “special needs learners,” and so on.

Recent research suggests teachers use terms that do not imply labels like *disabled* or *handicapped children*. Referring to these students in this way eliminates labels by identifying the student first, followed by their defining characteristics as requiring special needs. Labeling students as disabled perpetuates the negative identity of not having the same opportunities as other students, which is unacceptable in today’s advanced society.

Purpose of Study

Although laws protecting students with disabilities have been in effect since the Education For All Handicapped Children Act of 1975, which will be discussed in the next section of this chapter, there is still evidence that some students with disabilities have negative classroom experiences. Within the past five years, numerous examples have been featured in the media of students who have been photographed being excluded from their class because of wheelchair use. Usually following these occurrences is a school-issued apology, stating that they were embarrassed about the event and will do everything in their power to ensure it does not happen again (11 Alive News, 2012). What is most frustrating about these statements is that with proper teacher preparation, perhaps even with just common sense, these situations could have been easily avoided.

Existing research on the inclusion of students with disabilities in the music classroom is mostly quantitative, measuring teachers' and students' attitudes and perceptions regarding their interactions with students with disabilities (Darrow, 1999; Gregory, 1997; Joseph, 2009; Mather, 2013; Ockelford, 2006; Suárez & DeVito, 2012). There is an absence of qualitative research in this area, especially involving case studies of practicing music teachers. While some studies focused on students with aural and speech impairments have explored the use of pedagogical approaches, such as the Orff approach, to accommodate special needs learners, there are few examples of in-depth analysis of their implementation (Salmon, 2013; Suarez & DeVito, 2012). In the current study, I observed and interviewed piano teachers who have had experience in making accommodations for students with disabilities in their private teaching. I examined the teachers' familiarity with current resources, as well as their opinions regarding how well these resources were accepted by their students with disabilities. The

purpose of this collective case study is to explore the ways in which piano teachers most effectively alter their curricula to accommodate students with disabilities. The following research questions guide this study:

1. How do piano teachers make accommodations for students with disabilities based on their previous experiences and educational background?
2. How have piano teachers altered their approaches for teaching students with disabilities in private lessons?
3. What accommodations have been most effective for setting a positive learning atmosphere for students with disabilities?

Conceptual Framework

To more clearly understand the context of this study, a brief history of the laws that protect students with disabilities will be discussed. The first public law that sought to protect all people with disabilities was the Declaration of the Rights of Disabled Persons, created in 1975 by the United Nations. This law stated that people with disabilities should have access to the same human rights, education, and employment conditions of their able-bodied counterparts. Following this act was the Education for All Handicapped Children Act (EAHCA) of 1975, which mandated all children with disabilities to be enrolled in a public-supported educational program, rather than being sent to a residential facility, which was common prior to the passing of these laws. The Individuals with Disabilities Education Act (IDEA) was passed in 1990, which differed from previous laws by offering transition services from school life to adult life while covering a wider range of conditions.

Inappropriate or politically incorrect language began to be removed from legislation during

this time (Jones, 2014). As laws began to reflect more positive views, the shift in perception towards people with disabilities became more evident.

The influence for this study comes primarily from two sources. The first of which, *You Can't Be In My Choir If You Can't Stand Up*, by Jennifer Haywood (2004) is an article focused on identity within the context of disabilities and gives insight to educators that may have otherwise been overlooked. Haywood pointed out that every teacher has experienced, but may not have actually processed, that the way in which students are talked to directly influences their desire to continue in a specific area. She used the example of her participant having a negative audition experience in which the director exhibited awkward behavior surrounding the participant's disability that the participant then associated with all musical activity. Haywood's study influenced my choice of research questions, in particular, "What accommodations have been most effective for setting a positive atmosphere for learning for students with exceptionalities?" This question will hopefully provide insight as to whether or not piano teachers actively think about setting a positive atmosphere for learning, specifically with students with special needs.

Another influential study that guided this study is Hahn's dissertation, *Inclusion of Students With Disabilities: Preparation and Practices of Music Educators* (2005). The research questions outlined in this study share many similarities with mine, although Hahn chose a more extensive list of questions. I have chosen to incorporate many of her questions into this study as interview questions. Additionally, Gerrity, Horton, and Hourigan (2013) documented growth in students with disabilities in music instruction based on certain environmental factors, showing that growth is possible for these students. The current study

aims to use this information in a more focused manner, documenting how growth occurred for piano teachers' students.

Significance of the Study

Approximately six million students are served by the Individuals with Disabilities Education Act, of which 132,000 qualify as having multiple or severe disabilities (Otterman, 2010). Results from this study are not expected to be generalizable to the entire population of piano students with disabilities; however, it is hoped that results will provide new insight for piano teachers concerning the implementation of appropriate accommodative decisions. My study is one of the few studies to feature information from private music instructors, which is an underdeveloped area of research. For this reason, I have chosen participants who have experience accommodating students with both physical and developmental disabilities. This aspect of the study will hopefully prompt other private music instructors to contribute to the literature on this topic to better understand how these accommodations translate to private practice.

Limitations

The number of participants that I chose for this study are a limitation as there are only three. Moreover, because the geographic location of each teacher featured in this study is within the same state, it is not generalizable to piano teachers nationwide. The same adaptations may not be applicable with other age groups or in other geographic locations with different cultures. However, results may be generalizable to teachers with students that exhibit similar behavioral or physical characteristics. On a larger scale, it is also important to note that every student learns differently and every teacher teaches in a different way.

Another limitation to my study may be the fact that many of the teachers featured in this study did not have access to adequate funding to implement all of the technological solutions frequently discussed in the literature. The teachers mostly had to improvise adaptations in their curricula for the students with disabilities using materials found in their classroom or teaching studio, many of which do not include much technology.

Finally, the subjects in my study may not have fully disclosed their experiences due to biases with certain situations or because they wanted to appear to be an exceptional teacher. There is the chance that they may not have remembered situations as accurately as they have occurred, or are withholding information for various reasons. To prevent them from withholding information, the subjects were assured that aliases would be used to protect their identities and that the files containing their interviews as well as their interview transcripts would be password-protected so that only I would have access to them. Member-checking was also utilized with the interview transcripts to ensure the accuracy and clarity of their responses.

Organization of Remaining Chapters

The remaining chapters will delve more deeply into each specific topic mentioned in the outline of this chapter. Chapter two presents a literature review, in which I examine extant journal articles, dissertations, and book chapters that relate to the current study. Chapter three details the methodology of my study. Chapter four includes the results of my data, and chapter five includes the analysis and implications of the data collected.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter explores research in the area of teaching students with exceptionalities. A major thread that runs through all this research is that teacher mentalities and preconceptions must always be challenged to provide for a better education for these students. According to Kunc, “[w]hen inclusive education is fully embraced, we abandon the idea that children have to become normal in order to contribute to the world . . . We begin to look beyond typical ways of becoming valued members of the community, and in doing so, begin to realize the achievable goal of providing all children with an authentic sense of belonging” (1992, p. 38).

Attitudinal Studies

Earlier research studies within the context of special needs accommodations were not yet focused on musical aspects, but instead on the attitudes that teachers and students held towards students requiring these accommodations. Much of this research was quantitative in nature, revealing teachers’ attitudes of how well they believed they were prepared to teach students with disabilities and how accessible resources were for them during this time. Some researchers focused on the positive aspects of mainstreaming these students, drawing ties to promoting social skills between various groups of students (Darrow, 1999; Gregory, 1997; Joseph, 2009; Mather, 2013; Ockelford, 2006; Suárez & DeVito, 2012). Others believed students with disabilities learned best in classrooms specialized for them, as they do often not receive the necessary amount of support in the inclusive classroom (Frisque, Niebur, &

Humphreys, 1994; Stainback & Stainback, 1996; White, 1982). With the passing of the IDEA in 1997, research studies began to expand their foci to include more qualitative data within these attitudinal studies to provide a better background for the information presented (Colwell, 1998; Colwell, Thompson, & Berke, 2001; Kaiser & Johnson, 2000; Smith & Wilson, 1999). It is also during this time that more specific research studies began to surface. Instead of focusing on the issue of mainstreaming special needs students, researchers began investigating a variety of topics.

These attitudinal studies revealed many common findings. One of which is that while many teachers had negative views on the availability of resources, they had positive attitudes towards the inclusion of students with disabilities (Cassidy & Colwell, 2011; Darrow, 1999; Johnson & Darrow, 2003). With the exception of one study in which a band director admitted limiting participation of students with physical disabilities in band, the overall attitude of teachers was positive (Nabb & Balcetis, 2010).

While teachers generally viewed the availability of resources negatively, research focused on students revealed ways in which teachers could promote tolerance and positive views of students with disabilities. It has been reported that students who have had more exposure to students with disabilities developed a more positive attitude towards them (Bell, 2008; Forrest & Maclay, 1997; Gregory, 1997; Lapka, 2005). Johnson & Darrow (2003) reported that the most negatively perceived disabilities were epilepsy and blindness. Furthermore, it suggested that less visible disabilities such as heart conditions, were more positively viewed than visible or multiple disabilities. Abramo & Pierce (2013) found that

blind students were subject to negative perceptions by their peers when teachers did not have adequate knowledge necessary to make accommodations for them.

Similarly to how research has shown positive attitudes to be resultant of exposure to students with disabilities, there is an area of research devoted to the simulation of disabilities for able-bodied students, teacher candidates, and music therapists. The results of these studies have paralleled many others, with students experiencing more positive attitudes after experiencing the simulation (Behler, 1993; Colwell, 2003, 2012; Grayson & Marini, 1996). These studies also included implications that practicum experiences should include children with disabilities, as there are not many courses designed for specifically working with children with disabilities (Cassidy & Colwell, 2011).

Physical Disabilities

Educators are fortunate to have a variety of resources at their disposal to help them make accommodations for students with physical disabilities, though it remains unclear how many teachers are aware of their availability. Elliot (1982) detailed how specific muscle groups and joints are utilized while playing various musical instruments, stressing that every musical instrument uses a complex and precise system of muscles in its playing technique. The Exceptionalities Special Research Interest Group (SRIG) is an exceptionally helpful resource for music teachers. Their website provides educators with information regarding how to acquire adaptive musical instruments, a list of musical apps, and many references for journal articles, books, and dissertations on any disability (Exceptionalities SRIG, 2015).

While there are resources available for students with physical disabilities, there appears to be a scarcity of information available as to their proven effectiveness. One study

mentioned a girl who used a wheelchair and wanted to participate in a lesson that required movement, so she chose an instrument to play while the other students moved around the room. The teacher doubted her ability to play the cymbals until she took the cymbals herself and showed the teacher a way of playing them by holding one between her knees (Hairston, 2014). This demonstrated that teachers should find out from the students themselves what they can actually do before assigning limits to their ability.

Regarding visual and hearing impairments, Hahn (2010) reported that deaf-blindness and hearing impairments were among disabilities for which the most accommodations were made. One study described a way in which a teacher utilized the Orff method to teach rhythmic to a class with a hearing-impaired student (Salmon, 2013). The study found that it was helpful to use an instrument with a deep bass resonance to keep a steady beat, as hearing is possible with the entire body through use of all the senses. Another salient point of this study was that hearing-impaired students often have an underdeveloped sense of balance due to having fewer opportunities with movement-based activities (Salmon, 2013). This is similar to dance teacher Naomi Benari's approach, "Inner Rhythm," in which she develops a sense of rhythm in students with hearing impairments in a series of body-conscious movement exercises (Benari, 1995).

For students facing issues of visual impairment, studies revealed a different set of findings. One finding was that 65 percent of blind students participating in a study by Welch (1988) had perfect pitch. Another study by Abramo & Pierce (2013) revealed that students felt that they did not receive proper adaptation at public schools, but were accommodated appropriately at schools for the blind. The teacher at the center of their case study focused

more on the auditory learning of music rather than Braille notation to promote social skills between the students and to reinforce the students' knowledge of the music. It was also noted that auditory clues were necessary in performance, such as playing a different rhythm at the end of a verse to signify a new one starting.

Cognitive and Emotional Disabilities

Research focusing on mental disabilities is developing even more slowly than research on physical disabilities. Much of the research is not from the viewpoint of the students, but rather from the teachers who work with them. Many of these studies suggest that while emotional and cognitive disabilities are often the most difficult to integrate, they are among the most common (Gfeller, Darrow, & Hedden, 1990; Frisque, Niebur, & Humphreys, 1994).

In recent years, research in music education and therapy has seen a rise in frequency regarding students with autism, emotional, or behavioral disorders. A study by Jensen (2000) revealed that behavior in students with autism improved when exposed to soft drumbeats, somehow grounding the students and controlling their behavioral issues. Much of the research in this area tends to focus on using music as a means of cross-curricular support, such as using rhythmic exercises to enhance speech in students with these disabilities (Cohen, 1988; Lim, 2011; Salmon, 2013). Charles (2010) claimed that students with autism and developmental disabilities are most often kinesthetic learners and that lessons should include audio, visual, and kinesthetic steps to strengthen these areas. Lim (2011) suggested the music therapist/educator should compose songs in a major key using an upbeat tempo with repetitive melodic motives and a symmetrical form to best reinforce language skills.

For students challenged with Down or Williams syndromes, there seems to be an even shorter supply of research within music education. However, there are some articles on this topic that provide great insight into teaching students with these disabilities. Bell (2014) describes his experiences teaching private guitar lessons to a student with Down syndrome. A major challenge described in this study was low muscle tone, *hypotonia*, which affects most people with Down syndrome (Bruni, 2006). A study of students with Williams Syndrome showed that the subjects, who were compared with an equal number of students without the disorder, displayed equal musical competency as their comparison group (Levitin & Bellugi, 1998). In a study featuring Brazilian preschool-age children with Down Syndrome, it was found that musical imitation and repetition had a strong influence on their desire and aptitude of learning (Brandão et. al., 2010).

Identity

To better understand how this study will benefit students with disabilities, it is important to understand what types of issues these students face daily. One example is identity, both in terms of musical and personal identity. The identities of students with disabilities can be rooted in what makes them unique to everyone else, often creating the basis of a negative self-image.

Haywood (2006) chronicled the experiences of a student affected by immobility and how this influenced her identity. The student detailed two major life events in which she was positively and negatively influenced by the attitudes of other teachers. Further supporting the ideas of music in identities, the student was quoted as saying that music has given her identity regardless of her disability.

A by-product of negative experiences faced by some students with disabilities is a phenomenon called learned helplessness, which occurs when students with disabilities constantly strive to achieve the same goals as their able-bodied peers, and after continually being discouraged, learn to try to avoid failure (Stainbeck & Stainbeck, 1996). McCord (2004), for example, explained how the use of composition through technology could positively influence creativity among students with disabilities. The study referred to the subject of the study as displaying key characteristics of learned helplessness, but through the use of tutorials via online software programs, she was able to complete assignments and created work that instilled a sense of pride in her that was otherwise missing in her everyday life.

Accommodations

One of the research questions chosen to guide the current study asks how well teachers feel they were prepared to make accommodations for students with disabilities. Much research in this field reveals a generally negative perception of teacher preparation for this population (Atterbury, 1987; Hahn, 2010; Heller, 1994; Jellison & Taylor, 2007; McCord & Watts, 2010). Heller (1994) reported that only 26.9% of instructors surveyed received preparation in special education, while 64.4% claimed their preparation was less than adequate. Two decades later, Hahn (2010) revealed that 59.2% of survey participants were enrolled in an undergraduate class that was focused on or included discussions of students with disabilities.

Music teachers can better accommodate their students with disabilities by designing or adapting lessons using the multilevel instruction, universal design, and planning pyramid

methods. Darrow (2003) suggested some approaches for composing lesson material in a more efficient and multidimensional way. The planning pyramid is one example of this, in which the planning of a curriculum includes conveying material that all, most, and some students will understand. This idea is supported by Jellison (2012, p. 69), who stated that universal design “views students with disabilities not as a separate group of learners, but as learners on a continuum that includes all learners in the classroom.” The multilevel instruction involves planning an activity in a variety of presentations (Darrow, 2003).

The evaluation of students with special needs is another challenge regarding accommodations (Bradley & Calvin, 1998; Bursuck, Munk, & Olson, 1999; Christiansen & Vogel, 1998; Darrow, 1999). Darrow (2003) stated two very important challenges faced by teachers, listing that instruction should meet the needs of all students and should be evaluated based on students’ varying ability levels. One concern that educators have with this idea is that students may feel that it is unjust to students without disabilities to be held to what appears to be a higher standard (Darrow, 2003; Hahn 2010).

Collaborative Strategies

Research studies exploring collaboration mostly focused on collaboration between teachers or between teachers and students (Bell, 2008; Darrow, 2003; Fulk & King, 2001; Hunt, et. al., 2003; McCord, 2004; Waldron & Van Zandt Allen, 1999). These studies found that music educators should constantly be collaborating with special education specialists to ensure full understanding of the students they are teaching (Joseph, 2009; McCord, 2004; Lapka, 2005). Special educators are often the teachers who deal the most with these students’ individualized education plans (IEP), and while opinions vary on whether or not this is a fair

practice for other cooperating teachers, it can only help to plan lessons with the help of a special education specialist (Hahn, 2010; Lapka, 2005).

One of the most effective collaborative methods for students with disabilities is assigning all students in a class to small groups (Hunt, et. al., 2003; Johnson & Darrow, 2003; Waldron and Van Zandt Allen, 1999). This allows students to interact with each other and places the collaborative emphasis on the students, rather than on teachers. A majority of the studies in this area state that student attitudes were most positive when they had extended direct contact with students with disabilities (Bell, 2008; Forrest & Maclay, 1997; Gregory, 1997; Jellison & Taylor, 2007; Lapka, 2005). The simple act of inclusion is often not good enough to change perceptions of non-disabled students. Furthermore, large group instruction was not shown to be as effective to encourage positive views as small group instruction (Johnson & Darrow, 2003). Waldron and Van Zandt Allen (1999) suggested a list of tips to better guide choosing small groups. A summary of this list includes the ideas that: (a) it is best to include one student with special needs per group, (b) instruction of collaborative strategies is necessary before group work begins, (c) groups should be maintained for many weeks to promote friendships, and (d) all students should be provided with their role within the group to avoid power conflicts. Research has indicated that small groups are most effective in fostering social interactions between disabled and typical peers when they are implemented as early as possible in the academic year (Jellison et al., 1984). Fulk & King (2001) suggested one-on-one tutoring between students, especially with students with disabilities being the tutor. They stated that the students with disabilities would benefit from

learning how to assist others as well as to receive assistance during partner and group activities in all subject areas.

Conclusion

The studies mentioned in this chapter provide a basis for the current study, revealing the challenges present in making accommodations for students with disabilities in piano lessons. Attitudes of teachers were consistently negative towards the availability of resources for students with disabilities, while teachers maintained positive attitudes toward the inclusion of students with disabilities in their classrooms to promote acceptance of these students by their typical peers (Blair, 2009; Cassidy & Colwell, 2011; Darrow, 1999; Forrest & Maclay, 1997; Gregory, 1997; Lapka, 2005; Johnson & Darrow, 2003). Resources for students with physical disabilities are available, although their effectiveness has yet to be shown in research. Research has suggested that while emotional and cognitive disabilities are often the most difficult to integrate, they are among the most common (Gfeller, Darrow, & Hedden, 1990; Frisque, Niebur, & Humphreys, 1994). Among collaborative techniques, proven effectiveness has been documented with small group instruction and student-teacher collaboration (Blair, 2009; Darrow, 2003; Fulk & King, 2001; Hunt, et. al., 2003; McCord, 2004; Waldron & Van Zandt Allen, 1999).

CHAPTER III

METHODOLOGY

Participants

Given the behavioral nature of the topic, the most appropriate category of research to which this study belongs is a collective case study. Phillips (2008) describes a case study as an extended study of a single event, activity, or process. A collective case study is the inclusion of multiple cases into one study. The activity being studied in this case is the instruction of students with disabilities in private piano lessons. Case studies allow for a higher level of detail within a more focused set of participants, so in the case of the current study, more specific suggestions from the participants will be listed.

A qualitative study often focuses on a purposefully chosen participant or location to better help the researcher analyze the topic (Creswell, 2003). Three participants were selected for this study with this idea in mind. Convenience sampling, in which samples are chosen based on accessibility, was utilized for choosing these participants (Phillips, 2008). This allowed for the ability to plan around their schedules to ensure comfortable meeting times. All three piano instructors were active teachers in the state of Massachusetts. All participants had completed at least a four-year degree program at an accredited music college or university department. All of the participants had taught for a minimum of five years, with Gerald and Laura having taught for upwards of 25 years. They all had extensive experience teaching students with disabilities.

Description of Participants

To provide the reader with a more accurate idea of the teachers surveyed, a description of each participant is provided. Their answers to the each interview question were sometimes drastically different, but in many cases the information they provided showed many common threads.

The first participant, Mark¹, is a vibrant young teacher in Western Massachusetts. He is in his mid 20s and has just finished his second double masters degree in collaborative piano and musicology. Mark has lived in many parts of the country, such as the Pacific Northwest, the Midwest, New York City, and now rural Western Massachusetts. He is primarily a specialist in early education, so the majority of his students are between the ages of two and nine. This is reflected in his calm and approachable personality, which are important traits to have when working with very young beginners. He is often seen in business-casual dress bouncing between his duties teaching class piano and piano pedagogy, as well as giving private piano lessons to college students.

The second participant, Laura, is a classic example of someone who is inspired by more than just high-stakes competitions so prevalent in the world of Western classical music. Following her degree programs, she studied improvisation extensively and can be seen performing contemporary improvisation in venues such as Carnegie Hall. Like Mark, she has lived in various states across the country from Michigan to Arizona and upstate New York. Now in her early 40s, she has settled in Eastern Massachusetts. She identifies as having a bohemian spirit, which is paralleled in her casual style and calm aura. Laura is docile, soft-spoken, and amiable, making her an ideal candidate for facilitating music therapy, with which

¹ All participants were assigned pseudonyms to protect their identity.

she has much experience. She has had extensive training in yoga instruction and has presented numerous clinics of yoga for musicians, as well as sound healing and music therapy. As a pianist, she performed extensively in her teenage years and attended conservatories of music. She incorporates many forms of relaxation techniques in her piano lessons, such as sound meditation and yoga.

The third and final participant is Gerald. Gerald, like Laura, has an extensive performing background, having performed in such venues as Carnegie Hall in New York City, among numerous others during his touring and competing years during the 1980's. Due to a family emergency, he settled down in the Boston suburbs and has been maintaining a successful piano studio for the past 25 years. He is now in his late 50s, and has experience teaching virtually every kind of student, from rich to poor, of all ages and cultural backgrounds. Gerald has a very hard schedule to accommodate, but the information he has to offer is invaluable. Having completed his schooling before the EAHCA was passed, his views lend an interesting perspective on what this study examines.

Procedure

Interest in the study was gauged with an initial invitation email to the three participants chosen. When confirmation was received from all of the participants, meetings were arranged for the subjects to read and sign IRB-approved consent forms. Anonymity was achieved through assigning aliases to the teachers who were interviewed. Research participants were instructed to use alternate names for students during interviews, and in most cases the participants did not mention any names at all.

The interviews, conducted over a period of one month, were semi-structured to allow for slight digressions by the interviewer or participants. Each participant completed one thirty-minute interview unless he or she expressed an urgency to continue in order to provide necessary information pertaining to the study. Only one participant, Gerald, presented many scheduling issues, which resulted in a phone interview that was finished in two stages of approximately 20 minutes each.

Interviews were recorded with a high quality audio recording device. Notes were also taken throughout the process, particularly regarding body language indicating comfort levels and specific visualizations the participants wished to convey. For instance, facial expressions were an important aspect of many stories told by the participants. This, of course, excludes the phone interview, although I was able to identify auditory clues such as hesitation between question and answer. Participants were also informed that they could email me any additional information that they may have forgotten during the interview.

Before the interviews occurred, the list of interview questions was composed and sent to a number of my colleagues who reviewed the questions for clarity. Recommendations for alternate wordings of certain questions were given and taken into consideration. Sample interviews were done with other colleagues who suggested ways of asking the questions in a manner which allowed for a more open-ended answer. Once the interviews were recorded, they were then transcribed and visual cues were noted in brackets. Triangulation was achieved through peer review and member-checking, in which each participant was emailed a copy of the transcript to review for accuracy (Phillips, 2008). All of these measures were taken to ensure this study's credibility and trustworthiness. Gerald was the only participant

who had a significant addition to his interview, while Mark made quite a few changes to the transcript I provided. The changes that both participants made were mainly to make their thoughts more easily understandable. Laura did not make many changes to her interview transcript. The interviews were informal to keep the participants as relaxed as possible in the hopes of a more accurate recalling of information. They were set in various locations, but mostly in school settings.

After all the data were collected, codes were identified in the transcription of each interview using the process of descriptive coding. Descriptive coding is the process of identifying codes using nouns which describe the topic of a particular datum (Saldana, 2011). Codes were then placed into broader categories, which were organized into themes. This data would also be considered *interpretive* research, as described by Phillips as, “understanding a situation from the perspective of the participant” (2008, p. 85). All data were kept on my personal computer in a password-protected file to protect the participants’ privacy.

CHAPTER IV

FINDINGS

Introduction

The recorded interviews contributed a wealth of information to this study, in which many familiar points can be drawn to the literature discussed in chapter two. Some of these common threads include accommodation, physical and cognitive disabilities, learning through experience, self-study, pacing of lessons, implications of theoretical and practical techniques, student interest, collaboration, among numerous others. The data is grouped into the following major themes: *teacher experience and education*, *knowledge of disabilities*, *teacher suggestions*, and *collaboration and accommodation*. Each of these themes is discussed in further detail in each theme's respective section. The implications regarding these findings in relation to future music education research and practice will be discussed in chapter five.

Teaching Experience and Education

The theme *teaching experience and education* contained the highest amount of codes and categories. This likely stems from the fact that much of the work in accommodating students with disabilities is directly influenced by the teacher's personal experiences and education. The curriculum that each teacher develops is based on these factors, and the ways in which the teachers implement their ideas are indicative of their personal teaching styles. The main categories that comprise this section are: *educational background*, *teaching experiences*, and *self-study*.

Educational background. Educational background dealt mostly with the participants' answers to questions regarding their schooling. Perhaps unsurprising to the nature of this study was that all of the participants had completed a degree program in piano performance. Mark was the only person to have completed a master's degree in special education. Gerald was the only participant who did not have access to piano pedagogy courses, since he went to school during the early stages of piano pedagogy program establishment. All of the participants had attended workshops of some sort, while only Mark had experience with classes specifically focused towards students with disabilities and early childhood. All of the teachers mentioned that they had extensive experience teaching a wide range of students in terms of age and ability levels. Two of the participants, Gerald and Laura, had attended school before IDEA was established, one of which, Gerald, attended undergrad while the EAHCA was being passed. Regardless, Gerald and Laura contributed similar information to Mark, who completed an entire degree in special education, having gained most of their knowledge through experience rather than formal study.

Teaching experiences. Every participant began teaching while still in their teens, with Mark and Gerald beginning their teaching the earliest, at age 15. Each participant had been teaching extensively by the time he or she was an undergraduate at around 19 years old, although Mark was the only participant who had experience working with students with disabilities before graduating college due to his specialized masters degree in special education. Their experiences teaching students with specific disabilities varied. Each teacher mentioned that learning through experience was the most important factor in his/her education. Gerald expressed this sentiment as follows, "You always continue to learn as a

teacher. However, life experience is my greatest resource” (February 10, 2016). These experiences are organized in the following subsections of *physical disabilities* and *cognitive disabilities*.

Physical disabilities. All three participants taught students with physical disabilities at one point, though each one had drastically different experiences. Laura was the only participant who had taught students with hearing and vision impairments, stating that she had to accommodate both types of disabilities simultaneously in group classes. The methods she and the other participants used to accommodate these students will be discussed in further detail in the *accommodations* section. Gerald was the only participant who mentioned working with specific hand and arm injuries such as carpal tunnel syndrome and tendonitis. He also had a student with an atrophied left hand, to which he stated the following:

. . . they weren't even what would be considered a size comparable to the right hand of the same individual. Initially, I wasn't certain how I was going to approach it completely, but as time went on I knew exactly what to do in order to help that individual become a pianist in spite of only having seven fingers, two of which could not be used as freely as the right hand. (February 10, 2016)

Laura and Gerald both mentioned teaching students with arthritis, who were accommodated in a therapeutic manner. Mark spoke to his experience teaching stroke victims who had trouble controlling certain body parts, as well as students who had paralyzed body parts. Some general conclusions about teaching the students with physical limitations was that they were more clearly visible than mental or cognitive disabilities, so the solutions seemed more obvious, although the accommodations sometimes required more effort from the teacher.

Cognitive disabilities. Each participant had been faced with a number of students with mental, cognitive, or emotional disabilities. Among these disabilities were: dyslexia, neurological disabilities (i.e., cognitive delays), autism (most often Asperger's Syndrome or other high-functioning cases), other emotional-behavioral disorders (EBD), obsessive compulsive disorder (OCD), attention deficit disorder (ADD), and hyperactivity. Only two participants mentioned specific cases of dyslexia, while all three participants mentioned students with diagnosed cases of ADD and autism. These two disabilities seemed to be a common thread throughout the interviews. Gerald had a lot to offer on this subject, stating the following:

. . . for anyone that has ADD in varying degrees, has to have the knowledge presented to them in a format which keeps them engaged and interested . . . certainly trying to minimize how long the student sits might help, especially when getting them after a day of school. I might suggest that the student stands up every five or six minutes and just move around a little bit around the piano . . . after a couple of minutes of the same thing, you've lost them, so you need to be able to engage them in many ways which in the initial stages may be very difficult. I've even had students play standing up. I have often wished that I had an electronic keyboard that I could put on a stand that players sometimes use on stage, because it would help students that had ADD or were just hyperactive. (February 10, 2016)

More examples of accommodations for students with cognitive disabilities will be provided in the *accommodations* section, but a major trend in this area was the ability to present the same information in a variety of ways. For example, having visual, aural, and tactile components to various concepts in case a student does not understand the concept being taught.

Some other significant findings that arose from these themes included participants mentioning students who wouldn't normally be considered as having a special need, such as

elderly students and students for whom English was their second language, the latter being a disability recognized by the IDEA, although a more appropriate label would be a disadvantage rather than a disability. Gerald, who attended his undergraduate institution during the early stages of the EAHCA, added that he had not had many interactions with students with disabilities in his early teaching years, he said, “Rather than embracing limitation, a shift has taken place overall in our society to encourage the disabled, and others, to expand well beyond their limitations” (February 10, 2016).

Self-Study. The idea of self-study was a recurring theme among the three participants. They all mentioned the idea of having a reading-informed approach to teaching, taking ideas from books and finding ways to mold them to fit their particular challenges in teaching. Gerald mentioned that he learned through trial-and-error, in which ideas from book articles worked most efficiently for his students. Among specific books mentioned were: *The Art of Subversive Teaching* (Laura), *The Inner Game of Music* by Green and Gallwey, *With Your Own Two Hands*, by Seymour Bernstein, *Principles in Pianoforte Playing*, by Tobias Matthay (Gerald), among numerous others involving piano technique. Mark did not have any specific books that he mentioned contributing to his knowledge of this topic, although he read many as part of his special education specialization.

Laura discussed in her interview a significant shift in perspective of how piano lessons should take place after reading *The Art of Subversive Teaching*, mainly focusing on how to subconsciously encourage a student to learn a concept. She said that alternative approaches are possible with almost every concept at any level, and she found them particularly helpful with students with disabilities, going as far as to say, “being trained in

that outside-of-the-box thinking was probably the most interesting aspect and it's helped me the most in my teaching" (January 29, 2016). This included utilizing positive reinforcement and using student interest as a starting point for the student to gain a genuine interest in the end result of piano lessons. Gerald's findings are mostly discussed in the section on *practical suggestions*, but a general trend that he observed was that he did not feel that he was reading anything new. All of the information resonated with him and seemed very basic, but upon further inspection of these topics he was able to gain a fresh perspective on how to teach such basic concepts.

Knowledge of Disabilities

Much of the information regarding knowledge of disabilities is applicable to the *teacher education* section, but the participants noticed certain trends that should be mentioned in their own section. One research question in particular raised quite varied responses in the three participants, "*Based on your experiences teaching what would you say was lacking in your special education development?*" Laura chose to focus on the fact that her pedagogy programs did not prepare her to work with students with disabilities, and since she was not required to take many psychology courses, she was completely unaware of the characteristics of certain disabilities. This is where her self-study materialized and she was able to learn more about those disabilities. She said that a list of common characteristics and practice strategies for these students would have been most helpful. Similar to this was the fact that all of the participants hinted that a teacher should be able to identify certain problematic conditions that a student may bring to lessons and know how to accommodate

them. This mainly includes an overall knowledge of the most common disabilities piano teachers are likely to experience in their teaching.

The participants all mentioned typical behaviors associated with specific disabilities, some of which might seem more obvious than others. Perhaps a good starting point would be to mention what a typical piano student would be, according to method books and manuals. Mark said that this was illustrated in teacher's guides, which "always have examples of piano students who are so bright and intelligent, who are typically white and come from affluent families in nice suburbs" (January 22, 2016). Laura mentioned having different levels of expectations for different students, which ties into this idea, stating that she would not have the same standards for collegiate-level students than she would for students who require a lot of accommodation. Regression was an important point mentioned by Mark, which suggests that students with primarily mental disabilities will sometimes regress as often as they progress. This may not be due to the teacher's methods, but instead it may be a typical behavior associated with behavioral disabilities, of which a teacher would need to be aware.

Gerald shared a story regarding clinical diagnoses of disabilities. He had a conversation with a retired psychiatric nurse who told him to be sure he included the phrase *clinical diagnosis* when talking about students who had a formal medical diagnosis of their disability. She added that there are many cases of professionals being sued for misdiagnosis, which is when people attach a label to someone who they assume has a disability.

Immediately following this information, he added an anecdote of a student that he once taught who had a serious reading disability, but her case was undiagnosed. Like many of his other students, her mother enrolled her in piano lessons along with her sister and he was left

to accommodate her disability, recalling that she would reverse staves and read notes backwards. Upon learning that she was having trouble in school and wasn't receiving extra help, he asked her mother if she had a similar experience with processing letters and numbers in order, to which she angrily stormed out of his home, refused to pay for the month of lessons, and never returned.

This story shows a side that seems to be quite rarely discussed in literature. Upon relating this anecdote to others for further opinions, I was made aware of a population of parents who are in denial about their children who may have diagnosable disabilities. This adds another level of complexity to the realm of individual piano lessons of which novice teachers should be fully aware. Reflecting on the data, all three participants mentioned the words “diagnosed” or “undiagnosed” but only two participants gave the disclaimer of not being medical experts so they were not able to fully understand the disability. Gerald even went on to say that he felt he gave better accommodations when he didn't know the diagnosis of his student, since his mind was able to think of many possible solutions for the student rather than focusing in on one disability's typical solutions.

Teacher Suggestions

As the participants answered questions related to their personal educational background, they began to be more aware of what they wished they had gotten from their collegiate programs. The interview questions were structured in a sequence that would help refresh them on their background information before answering questions related to their current practices. This section is divided by the categories that arose in this theme, which were: *practical suggestions*, *theoretical suggestions*, *student interest*, and *critiques*. This

section proves to be more of a practical guide to what the participants had wished they had been told during their collegiate music programs, or merely what knowledge they felt was important for budding piano teachers to read about. The participants offered a lot of theoretical advice that is organized in previous sections of this chapter.

Practical suggestions. When asked about how they paced lessons for students with disabilities, all three teachers agreed that lessons of students with disabilities could adopt either a slower or faster than normal pacing, but that this was not exclusive to these types of lessons. They all mentioned that all piano lessons contain, to some degree, a variation of pacing to accommodate all kinds of learners. Even typical students need varied pacing depending on multiple factors such as attention span, hyperactivity, musical aptitude, whether or not they have studied another instrument, among numerous others. Mark stated that some students require much more repetition on certain concepts to internalize them, while some students need to work at a faster pace to avoid boredom and be able to stay on task.

Piano technique was a topic that Gerald spoke about at length regarding practical suggestions and the frustrations that he felt plagued him during his time of conservatory study. He felt that having a better understanding of the fundamentals of piano technique and music theory would better help the teacher to making accommodations for students with disabilities. He gave the example that while he was studying the uses of the piano pedal, he found himself questioning whether or not he had been teaching it as efficiently as he could have been.

It wasn't so much things that were new to me [studying about piano pedaling in books], but they were explained in a way that gave me new insight into how to avoid the pedal altogether for students who were incapable of using it, either due to

cognitive issues or because they temporarily did not have use of their leg. (February 10, 2016)

There were a variety of practical techniques that the participants discussed when prompted with the question, “What are the most important resources that you remember learning about in [special education] classes?” Laura and Gerald, having received no formal instruction in special education, spoke to what had worked best for them in their practice through experience. All three participants stated that successful piano teachers draw from an arsenal of tools, which can serve multi-faceted functions. They talked about which techniques to use with specific disabilities, such as meeting students on their level to establish trust and shared interest between the teacher and student. Mark recalled a story in which he used a psychological technique called Floortime, developed by Stanley Greenspan, M.D. and Serena Wieder, PhD, in which the teacher or practitioner enters the child's world in an attempt to bridge the social gap, to be able to communicate with students with emotional behavioral disorders (EBD) (Autism Speaks, 2016). He particularly recalled one time in which he was able to gain the trust of a student who was low-functioning and nonverbal on the autism spectrum. He gave the example that he would repeat her words, which sometimes seemed unintelligible, until she realized that he was listening to what she had to say, and from there would let him guide the lesson instead of vehemently resisting, as she had done in the early stages.

Gerald believed that experimentation of techniques was essential in his search for successful teaching tools regarding students with disabilities. He stated that his methods did not include drastically changing repertoire for these students, but that instead he would teach

much of the same repertoire that he taught typical students but in various ways, changing his approach to meet their particular learning style and interest.

All three participants recalled breakthrough success stories with their students that were on the autism spectrum, and all of these stories involved adapting to the student's individualized interests, allowing the student to guide their repertoire choices. For example, Gerald discovered that his student loved antiques of the WWII-era, so he had him transcribe songs that he heard on his antique 1930s radio. Laura provided a particularly interesting example, in which her teenage student refused to practice, but was forced into piano lessons:

What ended up happening was her lessons turned into me coming in accompanying her on these pieces which she poured her whole heart into. These three or four songs from *Wicked*. When it came for the recital, she just belted out of these things and everybody in the audience was in tears. This is from a girl who doesn't verbally express herself, you know, and the piano lesson started taking the direction of a vocal lesson and me accompanying her. (January 29, 2016)

Communication was another topic that arose particularly in Mark and Laura's interviews. They both felt that it was essential to promote communication skills in lessons of students with disabilities. Improvisation seemed to be an important vehicle for this idea. Laura stated that students with EBD felt more comfortable improvising as a means of becoming accustomed to her as a teacher, and was the starting point of their work together. Music and movement ties into this idea, as Gerald and Laura both had their students physically move around the room in their lessons to avoid brain fatigue. They were certain that this was a key component to keeping students with hyperactivity or attention deficit issues engaged.

Theoretical suggestions. Complimenting the practical suggestions were numerous theoretical suggestions that the participants felt were necessary for promoting a healthy learning environment. Many of these ideas came either from books that the participants read on their own or from pedagogy classes that they had taken and adapted to their own teaching. They all mentioned, in different ways, what a theoretically ideal teacher looks like in practice. For example, Mark listed having an arsenal of pedagogical techniques as the most important trait for a teacher to have at his or her disposal. Gerald believed that a teacher with a full understanding of the mechanics of the instrument would be an ideal teacher who would be able to accommodate for any student with this knowledge. All the participants agreed that the teacher should have a general knowledge of each disability and what their typical trends and associated traits are. Laura stated during her interview that she wished she were given a list of characteristics for every common disability so she knew what to look for and how to plan around what she found.

It is critical to remember that while each participant mentioned theoretical advice they found helpful, they emphasized that the most important part of their education was experience. Mark stated that even though he had a degree in special education, it was mostly theoretical and he still needed to learn many things from direct experiences, “. . . the problem with a lot of education programs is that they don't always focus on what's at hand, but since I teach pedagogy I realize that these things need to be gained through experience” (January 22, 2016). Another point he raised was that of awareness, and Gerald echoed his sentiments. They mentioned that in order to best suit students with disabilities, teachers needed to have a clear head and an awareness of the situation. Small details such as the physical properties of

the classroom can affect students' ability to focus or, contrarily, encourage them to be more engaged in the activity. In addition to this, all the participants felt that a strong background in psychology was a key factor in their ability to make such accommodations. Each participant mentioned either self-study in psychology or having formal training in it, although not all the participants felt that what they learned was applicable, stating that experience trumped studying theory in all cases.

Student interest. The idea of student interest was prominent in the interviews. All the participants felt that the students needed to have their interests somehow accommodated into lessons for more efficient interactions. This allowed them to stay on task more efficiently and with a higher productivity rate. Mark and Laura stated that the goal of their lessons was for the students to be social and communicate their ideas.

. . . what ended up happening was that just through a dialogue with her, getting to know her as a person...and that's the most important thing with all my students, getting to know them as a person and then deciding how to go in with repertoire through all of these directions. (January 29, 2016)

This quote by Laura stresses that she felt that it was important for her to get to know her students and their needs before prescribing certain repertoire or other teaching methods. More specific stories and information in this regard will be discussed in the *collaboration* section.

Critiques. All of the participants had a critique regarding either the program they completed or the methods currently available for piano instruction. Mark said that he did not feel that the method books provided enough flexibility for students with disabilities, but recommended that teachers supplement whichever method they chose with similar material

from other methods, adapting pacing as necessary. He went as far as saying that he would like to see a piano method published specifically for students with various disabilities.

Laura's criticism was focused on her piano pedagogy program in graduate school, stating that they may have only had one unit on adapting for students with disabilities, but nothing more was mentioned about it from professors or other courses. Gerald stated that he did not believe any one method could be used for teaching students with disabilities since it is such a highly nebulous area. He believed that one must pull from many different sources, and Laura gave a similar answer. Furthermore, Gerald seemed increasingly frustrated with the literature on teaching students with disabilities, stating that many of the books that he has read were not helpful and included examples that did not seem realistic.

Accommodations

An important theme that arose from this data is collaboration and accommodation. Accommodations will be discussed in more detail since it is a highly integral part of this study, but it has direct links to collaboration. Many of the participants stressed that they wanted their ideas about collaboration to be emphasized, and in many cases all three had similar ideas. This section also warrants a disclaimer, in that not all of the suggestions mentioned in this section will act as a universal fix. All of the participants stressed that accommodating students with disabilities is such a multidimensional experience that it should be treated on an individual basis. The findings from this section merely discuss the similarities with what has worked with specific students in the following categories:

collaboration, physical limitations, mental limitations, therapy, and student environment.

Collaboration. Mark and Laura both mentioned collaboration as a highly useful tactic in accommodating students with disabilities. Mark, as a special education specialist who worked extensively in group settings, specifically felt it helpful to collaborate with other specialists, which in his case included speech and occupational therapists. Both Mark and Laura also mentioned collaboration with students as an integral part of their work in accommodating their needs. For instance, Mark collaborated with a low-functioning student with autism by creating a song with her about Tinkerbell, one of her favorite Disney characters. His description of the process is as follows:

So then, we wrote a song about Tinkerbell, which was very student-led, then I took that song and repeated her several times to understand the song that she had written and transcribed it on the piano. Eventually, what we did was I had her identifying certain notes, and we would sing and dance. So this was a student-led activity that took into account her interests to serve the greater goal of the lesson which was to teach this child music. (January 22, 2016).

Laura, while mentioning her story about blind and deaf students in her group classes, said that she was able to get a better idea of how to accommodate these students and what their individual needs were by simply asking what worked best for them. She added that in most cases, students with disabilities know exactly what they need, so it would only make sense to ask them specifically what the teacher could do to make the best out of their experience learning music. In addition to Mark's collaboration with specialists, Laura found it helpful to talk to colleagues and brainstorm ideas for how to better teach certain concepts to students who may have been having difficulties. Laura also stressed the importance of collaborating with parents in this regard, as they have already done all the research regarding their child's individual needs.

Physical limitations. According to the participants, physical limitations required significantly different accommodations than cognitive ones, while an underlying therapeutic focus remained the same. Laura mentioned specific techniques that focused on listening that were used with her elderly student who had arthritic hands, “. . . I’d have her listen to a lot of music as part of the practice, because she loved classical music and because of her physical limitations she couldn’t practice a lot and it ended up being wonderful” (January 29, 2016). She and Gerald mentioned that some students needed repertoire to be shortened as a result of their limited attention spans or physical discomfort. In Laura’s case, the woman with arthritis was content with learning just a few pages of each piece that she wanted to play to be able to get through more repertoire in a shorter amount of time with maximum comfort in her hands. As for her group classes, Laura said that upon asking the student who was deaf in one ear where she preferred to sit, she would have specific indications of what parts of the piano she could not hear from certain spots of the room, so a spatial accommodation had to be made. Similarly, the blind student in the same class needed to be placed close to the front of the room for close access for Laura to guide her hands as to what she was talking about.

Mark chose not to talk much about physical disabilities, while Gerald only spoke to the student with the atrophied hand. In this case, he has had to make accommodations mostly focused towards recomposing left hand passages to better suit the student’s fingers, none of which were fully developed. Gerald mentioned that this student also experienced fatigue more quickly than others students he has taught, which may be due to the structure of his hand causing extra stress and tension even while performing daily tasks. He would typically write out left hand passages with fewer notes, or group chords into small intervals, but

otherwise he said the fingers moved similarly to the other fingers on the fully developed hand.

Mental limitations. A common topic of discussion from the participants was how to accommodate for hyperactive students, or students with short attention spans who may or may not be affected by ADD. The solutions included alternating playing while standing and sitting and having students get up and walk around the room to release energy. Laura mentioned a helpful tactic, “. . . with this hyper student, I might play some music and have them get involved with their body. Then, subversively, I might ask them to come to the piano and improvise this little dance we were doing, what notes comes out?” (January 29, 2016). All of the participants spoke to the importance of ear training with students who could not focus long during the early stages of learning music notation, alternating between teaching the notes on the staff with teaching solfège and rhythm syllables. Similarly, all of the participants mentioned rote learning as an important vehicle for students who lacked focus, were combative towards learning notation, or just needed a more direct approach. This seemed to work best with students who were on the autism spectrum or had reading disabilities such as dyslexia, since reading music was either too distracting for them or they had a hard time processing what they were reading.

Therapy. An idea that arose in the data that belongs both in mental and physical limitation categories is that of therapy. Laura, as a certified sound healing instructor who holds workshops on yoga for musicians, chose to focus the most on this topic. Therapy is a major goal with her students, and she is always analyzing ways to combat the disability to provide therapeutic methods of practice to make it more beneficial for her students. She

claimed that the student with arthritis benefitted from small portions of practice, although if she practiced too long the arthritis would flare up again. Laura was also concerned with providing the student with cognitive therapy, since the same student was 85 at the time and would have benefitted from neurological stimulation, which could preserve the longevity of her brain function. Laura mentioned extensively her methods in this regard:

You know when you get older and you need to work with Alzheimer's and brain regeneration . . . and playing piano is a bilateral activity since you're using two hands. I would give her lots of exercises that would help her brain at her age, like crossing hands over and playing scales in contrary motion. I would put my attention on how I would help someone at this age and the physical accommodation of the arthritis. (January 29, 2016).

Mark clarified in his interview that he was aiming for therapeutic goals for the student who was low-functioning. To him, piano lessons were mainly for providing this student with a reason to feel proud of her accomplishments, no matter how small, since she could not get that form of recognition in many other places

Student environment. The participants felt that a key component of student's success in piano lessons is directly linked to the environment, both in the studio and at home, which influences their motivation to learn or practice. This environment can manifest in physical ways as well as establishing a positive interpersonal relationship with the student. Mark spoke extensively on the idea of making it known to students that a teacher shares their interest during his mentioning of Floortime. All three participants mentioned that the rapport they built with their students showed a direct correlation to the amount of material that they were able to cover with them. Most of the participants felt that without establishing trust and

shared interest in accomplishing a common goal, many of their students would not have continued lessons.

One of the purposes of these interviews was for the participants to discuss which disabilities they felt were hardest or easiest to accommodate. There was a general consensus that EBD were the hardest disorders to accommodate efficiently, since they manifested in invisible ways most of the time. Physical disabilities were ranked among the most obvious to accommodate, although there was not an agreement of whether or not these accommodations were particularly easier. A compelling addition to this idea is Gerald's statement that most of his students with disabilities were undiagnosed.

I later found out that these were clinically diagnosed cases, although at the time of teaching these students I was mostly unaware that the disability had been diagnosed. I had certainly been made aware of it in my teaching within a couple of lessons. (February 10, 2016)

Laura felt that ADD was an easier disability to accommodate since it requires mostly providing a lot of similar material and redirecting the student when necessary. She believed the girl that loved *Wicked* was the hardest accommodation she has had to make, but she found the payoff extraordinary.

Conclusion

The participants each stressed different aspects of their personal teaching philosophy while expressing their answers to the interview questions. Some chose to focus on the social implications of music lessons, while others were mostly concerned with producing pianists who were just as capable as the rest of their students. The most important factor to keep in mind amidst all the data and suggestions described in this chapter is that accommodations for

disabilities are just as multidimensional as they would be for typical students. Gerald particularly focused on this aspect, with this quote summarizing much of the information found in this chapter:

As artists and educators, why not aim to adapt our teaching to each and every individual, regardless of the reason “why” we are adapting our material for them? I used the same techniques to teach cognitively impaired students as I used for non-disabled students. Different concentrations, order of presentation, and teaching tempo were also factors. Both disabled and non-disabled students benefited from knowledge I gained from teaching both kinds of students. (February 10, 2016)

CHAPTER V

DISCUSSION

Introduction

The education of people with disabilities has only been protected for 40 years, as outlined in the Declaration on the Rights of Disabled Persons of 1975, which stated that people with disabilities are entitled to the same education as those without disabilities (Smith-Davis, 2002). As stated in the previous chapter, Gerald, a participant in the current study, believed that the recent influx of students with disabilities taking piano lessons is due in part to the current realization that all people deserve the same opportunities. The current study explored the ways in which piano studio teachers most effectively alter their curriculum to accommodate students with disabilities. The previous chapter provided examples of ways in which students can receive different methods of accommodations, the significance and implications of which will be discussed in this chapter at length.

Although not all of the studies cited in chapter two are directly applicable to private piano instruction, there are connections that can be made between group and private instruction. The idea of maintaining a fully inclusive music classroom did not apply to all of the participants, since only two had extensive experience incorporating students with and without disabilities in small group settings, such as group piano classes or Pre-K music classes. However, inclusion is still relevant to private settings in the sense that all students are fully included in the same piano studio while receiving appropriate accommodations and assistance. There is also a level of exposure of students with disabilities to typical students, although minimal, that can be addressed. Recalling the study by Bowe (2005), which stated

that typical students felt more comfortable around students with disabilities as their exposure to them increased, typical students may change their possibly negative perceptions of students with disabilities if they see them exiting and entering their piano studio or participating in studio recitals or events.

As a preface to the information presented in this chapter, there is an importance to stating the background information that the participants shared in their interviews. All of the participants believed that experience was among the most important contributing elements of a developing teacher. They are all direct examples in this case, having taught since the age of at least 19. Length of teaching experience is a crucial point of this study because it shows that all of the participants are established teachers who have been exposed to many different instructional methods and have undergone personal journeys of growth and development. While the participants in the current study have varying backgrounds, each participant surprisingly contributed similar information. This is significant in the fact that their experiences have guided them to similar solutions for their students, indicative of patterns which may work efficiently for students with similar disabilities. The rest of this chapter will discuss how the findings of this research relate to teacher preparation programs, teacher attitudes, identities of students with disabilities, physical and cognitive disabilities, and accommodations. Implications and suggestions for further research will also be addressed.

Teacher Preparation Programs

The data in chapter four exhibited a clear connection to the nature of teacher preparation programs mentioned in much of the literature on this topic. The results of my study paralleled findings by Heller (1994), which stated that only 26.9% of instructors

surveyed received preparation in special education, while 64.4% claimed their preparation was less than adequate. Only one of the participants of this study received preparation in special education, while two felt their preparation was less than adequate. Unlike Heller's study, the participants of this study were mainly performance majors who would not have been required to take classes in special education. However, the findings from Laura and Gerald supported what Mark disclosed learning about in his special education classes. This suggests that there should be a stress on experience earlier in the performance degree track since most will teach as their primary source of income.

A common thread throughout each interview was that each participant included self-study as an important educational factor. Although somewhat obvious, this is indicative that less experienced teachers should not assume that education ends after college. Instead, the utilization of self-study by all three participants suggests a constant search for knowledge and improvement of teaching, and finding answers to questions that may arise in practice. A quote by Laura succinctly summarizes this idea:

I've done a lot of [studying] psychology myself, not necessarily university classes but I've taken a lot of workshops on psychology and transpersonal psychology and I've bumped into those types of things but most of my experience has just been through being thrown in the field and figuring it out. (January 29, 2016)

Regarding Gerald's story about the student whose mother was offended at the possibility of her daughter's undiagnosed disability, there is a lack of awareness of this sensitivity that seems to not be mentioned in degree programs. None of the other participants mentioned similar stories, but Gerald claimed that this idea is not uncommon. Perhaps parents should be more highly educated concerning the characteristics associated with certain

disabilities to prevent them from denying their child's disability, although this is another area that varies considerably among individuals. While this instance shows evidence of dismissive attitudes, perhaps some parents are misled by the stigma attached to disability. Perhaps, when the stigma is erased, students in similar situations can get the help they deserve to succeed.

Teacher Attitudes

Ideal traits for teachers of students with disabilities were a major point of focus for the participants of this study. Attitudinal studies found that licensed teachers held generally positive attitudes towards the inclusion of students with disabilities in their classrooms, while possessing negative opinions about the resources that are available (Cassidy & Colwell, 2011; Darrow, 1999; Johnson & Darrow, 2003). Similarly, all of the participants of the current study seemed eager to teach students with disabilities, yet were disappointed with the availability of resources in special education as they connect to piano instruction. In contrast to negative opinions which were common not so long ago, this shows a progressiveness that teachers are willing to be more inclusive of all students and less judgmental to students who learn differently (Nabb & Balcetis, 2010). Perhaps this is due to advances in research surrounding the areas of the various disabilities mentioned in this study, but the results of this study as well as the previously mentioned attitudinal studies suggest a positive paradigm shift within music education (Cassidy & Colwell, 2011; Darrow, 1999; Johnson & Darrow, 2003).

A topic that elicited diverse responses was the availability of resources. Although rarely discussed, research has suggested that resources are viewed negatively (Jellison & Taylor, 2007). Mark wanted to see a method book specifically geared towards disabilities, while Gerald disagreed, stating that a method should not be prescriptive towards all students

but that the teacher should be responsible for changing the method of instruction for these students. This is important to consider as it illustrates how each teacher maintains his or her own specific approach. Teaching students of all abilities is a multidimensional process that possessing a wide variety of resources is more important than finding one that works decently for most students. Therefore, it is up to the teacher to decide which method he or she believes will work best for a student.

Identity of Students with Disabilities

The idea of learned helplessness, as defined by Stainbeck & Stainbeck (1996), was briefly introduced in the interviews. Gerald and Laura both included stories of students who they received as transfers due to teachers being unable to properly mentor them. In Laura's case, the student who loved *Wicked* displayed key characteristics of learned helplessness, including the safety mechanism of not participating to avoid failure and continuous discouragement. She felt it was crucial for teachers to consider the student's individual goals for piano lessons. As Laura stated, the goal for this student was not to be a virtuoso pianist, but instead to avoid a traumatic experience with music which could not be undone, as many students experience (January 29, 2016).

Students' personal identities were a major factor in their piano lessons. As documented with Mark's experience of helping his student compose and arrange *The Tinkerbell Song*, and Gerald's experience in composing innovative lessons, we can see ways in which teachers can incorporate the students' individual identities in music to maintain their interest in this lifelong endeavor. This has highly influential implications for the direction of piano lessons of students with emotional disabilities, who may get easily discouraged. As

supported through Mark's example of using Floortime as a tactic to inspire emotionally disabled students, as well as Laura's anecdote with her student who loved singing songs from *Wicked*, incorporating a student's identity in piano lessons seems to be effective in reaping great benefits and development. Gerald was certain to emphasize that students with whom he used these techniques ultimately learned quickly and played very well. Personal identity was a major finding from Gerrity, Hourigan, and Horton's (2013) study on music learning facilitation with students with disabilities, in which it was shown that personal interest was crucial to take into consideration when teaching this population of students.

Physical Disabilities

As a group, the participants had extensive experience teaching students with physical disabilities, including strokes, atrophied hands, vision and hearing impairments, and paralyzed limbs. This section provided some contrast to what was found in extant research, specifically surrounding Hahn's (2010) report that hearing impairments were among the disabilities which obtained the most accommodations. Laura was the only participant who included an anecdote about a student who was hearing impaired, which may indicate that hearing-impaired students are a less-represented population in piano studios. She did not speak at length about this in her interview, which is indicative that it was not as important to her as other examples of accommodations that she provided.

One of the areas of the data that aligned with research in this area is relative to Gerald's choice to speak in detail of the mechanics of the instrument and its relation to the physiology of the body. Specifically, he spoke at length about the particular muscles that are responsible for achieving a colorful palette of tones from the piano. He felt this was

significant because the information that was available regarding piano instruction with students with disabilities did not go into detail regarding the inner workings of the piano action. As he believed lessons with students with disabilities require the same level of accommodation as typical students, he felt this was an especially relevant topic to discuss. Elliot (1982) detailed how each instrument uses a unique set of muscles to play each note or produce certain sounds. This is vitally important in all aspects of teaching piano and it is one that some teachers choose to ignore. Especially in collegiate settings, it is common for teachers to use outlandish imagery in an attempt to allow students to access specific tone colors from the instrument. For example, an extremely common misunderstanding that teachers have while teaching tone is to tell a student to “sing” with their fingers, often accompanied with the terms “playing deep into the keys” (February 10, 2016). This association is valid, but, without a knowledge of exactly how the muscles in the hand are activated to produce such a sound, imagery in this sense can be detrimental to students and lead to a host of injuries. Certain books mentioned by Gerald focus on this idea, yet it is rare for teachers to harbor a thorough understanding of the mechanics of the instrument (February 10, 2016). Perhaps this is due to a large number of piano professors being exceptionally prodigious and may not be fully aware of which methods produce certain tones from the instrument while preventing strain.

The therapeutic nature of working with students with physical disabilities was also mentioned in the interviews. An important thread that ran through each interview was the idea of incorporating methods that mitigate physical discomfort while promoting cognitive and physiological improvement. This is another way in which individual studio instruction

differs from many other forms of teaching since it involves direct, individual interactions with students and promotes a wide array of thinking processes. The therapeutic benefits of piano lessons were a salient focus of this study because students with particular disabilities may be looking to piano lessons as a form of therapy. All of the participants mentioned students with EBD as target subjects for these types of therapies during piano lessons, with Laura's example of mitigating the pains of arthritis as being another key example.

Cognitive and Emotional Disabilities

Among the most common mental disabilities experienced by the participants, emotional behavioral disorders (EBD) and Attention Deficit Disorder (ADD) hailed at the top of the list. This is paralleled in research, showing that emotional disabilities are the most common in schools (Gfeller, Darrow, & Hedden, 1990; Frisque, Niebur, & Humphreys, 1994). This suggests that teachers should be more aware of these disabilities. As stated before, the possession of a wide array of tools is most important for teachers to maintain, and many tools can be integrated in a piano lesson with different types of disabilities.

Among common neurological disabilities mentioned, autism is at the forefront. As research progresses in autism studies, more solutions will be uncovered and the disorder will become more manageable for those affected by it. Some studies have broached the issue of incorporating cross-curricular support in music curricula as a means for accommodating students with autism (Cohen, 1988; Lim, 2011; Salmon, 2013). For example, a teacher could use rhythmic exercises to enhance speech in students with certain levels of autism (Cohen, 1988; Lim, 2011; Salmon, 2013). Gerald's student with autism was a prime example of this, being highly interested in World War II-era history and culture. Gerald used this knowledge

to his advantage to promote student engagement in his lessons, thus proving to be an efficient tool in maintaining the student's interest. It is more difficult, and some may argue not very useful, to integrate cross-curricular resources in piano lessons, but in the case of Laura's student whose lessons turned into more of a voice lesson, musical ideas were translated into another method of presentation. In this case, using the voice rather than the keys of the piano allowed the student to express herself musically.

Additionally relevant to this idea was what Charles (2010) stated about students with EBD being primarily kinesthetic learners, but that lessons should include audio, visual, and kinesthetic material to strengthen these areas of cognition. Gerald did exactly what was suggested here by teaching the student primarily by rote, while also strengthening his note reading skills with easier pieces that he could learn quickly. Laura suggested making the material tactile for the student, to further support the idea of kinesthetic learning. Mark's suggestion of teaching largely away from the keyboard is also in line with these suggestions. All of these factors greatly affect the ways in which teachers design curriculum, and has direct links to the student's end musical goal, especially if they are considering long-term piano lessons.

Mark's story about *The Tinkerbell Song* alludes to Lim's (2011) study, which suggested that the music therapist/educator should compose songs in a major key using an upbeat tempo with repetitive melodic motives and a symmetrical form to best reinforce language skills. Having discussed Floortime, an efficient technique for particularly nonverbal students, Lim's suggestions provide teachers with a foundation on which they should base their compositional accommodations. Repetition, symmetry, and upbeat tempo in a major key

seem to be the most effective musical attributes in this regard. The language skills being reinforced reveal that music is not always the primary goal of a piano lesson; the goal may simply be to give the student enough confidence to have fun doing something, which can subconsciously strengthen student cognition in other areas.

All of the information stated in this section is crucial to teachers because it highlights what many may forget or choose not to incorporate since it often requires extra work. Studio teachers may find it overwhelming while facing the task of accommodating students with disabilities, but one must always remember the student's end goal, whatever it may be. For those with EBD, perhaps the most important skills to focus on would be social or speech skills, which the teacher would focus a curriculum of activities which would strengthen these areas. By using the examples provided by the participants in chapter four, there is a wealth of knowledge that can be applied to making piano lessons for these students quite exceptional.

Accommodations

A central finding in the data, which was supported by Darrow (2003), is the implementation of a multilevel instruction, which involves planning an activity in a variety of formats including, but not limited to, visual and aural components, listening, or performance-based activities. The idea that a concept should be presented in a variety of forms is not necessarily novel information. It is, however, a key component to designing lessons in which students will be able to most efficiently learn in a positive environment. Gerrity, Horton, and Hourigan (2013) list attributes of a positive learning environment as including an atmosphere free of distractions, clear directions and expectations, and a behavior plan. This will

hopefully avoid situations like those chronicled by Haywood (2006), where students are traumatized by negative experiences and maintain a negative connection to music as a result.

Laura touched on the idea of holding students to varying levels of standards. She limited the amount of repertoire that she assigned to her elderly student, and maintained different standards since she could not practice as much as college music majors. However, some studies found that some students felt it unfair to hold students without disabilities to a higher standard than those with disabilities (Darrow, 2003; Hahn, 2010). While this is partially irrelevant due to the ungraded and individualistic nature of piano lessons, it is an example of the ways in which private instrumental lessons are a great platform for students with disabilities to grow in a setting that does not pressure them to perform to any particular standard other than what the teacher sets. This allows for a greater level of creativity on the part of the teacher since the only other people involved in the student's success are the parents. This supports what Laura said about parents being her most prized resource, since it allowed her a higher understanding of the student's ability level, therefore being able to plan more appropriate activities or repertoire for that student.

Collaboration was a recurring topic in the literature guiding this study, as well as the data that resulted from it. All of the participants proved collaboration to be a successful strategy, with research describing collaborative efforts to be mainly between teachers or between teachers and students (Bell, 2008; Darrow, 2003; Fulk & King, 2001; Hunt, et. al., 2003; McCord, 2004; Waldron & Van Zandt Allen, 1999). This is important because it allows students to have their voices heard in a way that they might not typically be accustomed to experiencing. It has the potential of supplying them with a higher sense of self-worth and

hopefully, with repeated attempts, fostering a more beneficial learning environment that the teacher can better utilize to make their education the most efficient it can be.

Perhaps the most important finding in the area of accommodation and collaboration is that most of the accommodations that were described by the participants seemed somewhat predictable. For example, moving students with hearing impairments to areas where they can hear better seems like common knowledge, however a inexperienced teacher may not think it appropriate to ask the student for advice. If a student, as in Laura's case, cannot practice long hours due to physical discomfort such as arthritis, a teacher would assign them a lesser amount of repertoire than a student who is in healthy physical condition. The significance of noting this is that the teacher must consider the needs of the student before making accommodations. Some students will want to practice past their physical limitations because they are particularly motivated, but it is the teacher's duty to guide them on a path that will prevent injury while promoting interest in music and success in playing the piano.

Implications

Based on these findings, there are implications for music educators and studio teachers. Although not all of the studies cited were directly applicable to all examples mentioned in the current study since they included many instances exclusive to a general music classroom, the ideas can be translated into an individualized setting. The private lesson is an ideal opportunity for students with disabilities to work with an instructor to accommodate all of their needs in a way that rewards them with invaluable musical and social benefits. There is a general trend in today's society for piano lessons to be focused towards the advancement of one's own independent goals.

The information presented throughout this study has led to the idea that there are limitless factors that piano teachers must consider when making curricular decisions for their students. The most important factor in all of this research may arguably be the multidimensional aspect of individualized education. Gerald emphasized this idea repeatedly, and there is a certain truth that resonates from this concept. It seems impossible to imagine any type of student as needing any greater or lesser amount of accommodations, since individualizing curricula for students on an individual basis is at the core of what piano teachers do. Students with disabilities may present certain challenges, which may require more advanced planning than others, but these challenges are to the both the student's and teacher's benefit.

The practical suggestions detailed in the data held important considerations. Gerald's statement reveals that pacing of lessons with students with disabilities is as equally varied as typical-student lesson pacing. An important consideration that arose from this idea is that teachers must treat students with disabilities in a way that parallels lessons with typical students, while providing one extra step that accommodates their specific disabilities. Prospective teachers must be conscious of all the ways in which they are expected to accommodate students in their practice.

An awareness of each disability's general characteristics will allow piano teachers to assess which accommodations may be more appropriate for the disability in question. Although none of the participants mentioned experiences with students who were exceptionally gifted, the same concept could be applied for identifying prodigious talent and being able to make the necessary curricular changes. A deeper understanding of the

challenges students face with a particular special need will allow the teacher to design a curriculum that fosters the highest amount of growth possible in each student, regardless of the struggles he or she may face.

Suggestions For Further Research

Since there were a number of limiting factors associated with this study, some suggestions for further research would include a more detailed, systematic methodology that tracks the progress of the participants over a longer period of time. Another possibility for further research in this area would be a thorough investigation of students with one particular disability or larger area of similar disabilities. For example, examining the effectiveness of a composition-based curriculum with students with EBD to discover exactly how effective it would be over a longer period of time. A detailed investigation of the development of specific musical concepts in students with disabilities would provide practical suggestions for music teachers. In any case, any subsequent research done in the area of teaching piano to students with disabilities would benefit teachers of all musical disciplines, and even those in other academic concentrations. All students deserve a specialized education, and studies like these could bring us even closer to making that idea a reality.

REFERENCES

- 11 Alive News. (2012). *Disabled student sidelined during choir performance*. Retrieved from <http://archive.11alive.com/news/article/235549/11/Disabled-student-sidelined-during-choir-performance>
- Autism Speaks. (2016). Floortime. Retrieved from <https://www.autismspeaks.org/what-autism/treatment/floortime>
- Abramo, J. M., & Pierce, A. E. (2013). An ethnographic case study of music learning at a school for the blind. *Bulletin of the Council for Research in Music Education*, 195, 9-24.
- Atterbury, B. W. (1987). The perplexing issues of mainstreaming. *Bulletin of the Council for Research in Music Education*, 94, 17-27.
- Behler, G. T., Jr. (1993). Disability simulations as a teaching tool: Some ethical issues and implications. *Journal of Postsecondary Education and Disability*, 10(2), 3-8.
- Bell, A. P. (2008). The heart of the matter: Composing music with an adolescent with special needs. *International Journal of Education & the Arts*, 9(9), 2-36.
- Bell, A. P. (2014). Guitars have disabilities: Exploring guitar adaptations for an adolescent with Down syndrome. *British Journal of Music Education*, 31(3), 343-357.
- Benari, N. (1995). *Inner rhythm: Dance training for the deaf*. Oxford: Harwood Academic Publishers.
- Boston Conservatory. (2015). *Autism spectrum programs at the Boston Conservatory*. Retrieved from <http://www.bostonconservatory.edu/extension-programs/autism>
- Bowe, F. G. (2005). *Making inclusion work*. Prentice Hall: Upper Saddle River, N.J.
- Bradley, D. F., & Calvin, M. B. (1998). Grading modified assignments: Equity or compromise? *Teaching Exceptional Children*, 31(2), 24-29.
- Brandão, A., Trevisan, D. G., Brandão, L., Moreira, B., Nascimento, G., Vasconcelos, C. N., Clua, E., & Mourão, P.T., (2010). Semiotic inspection of a game for children with Down syndrome. In *2010 Brazilian Symposium on Games and Digital Entertainment*.
- Bruni, M. (2006). *Fine Motor Skills in Children with Down syndrome*. Bethesda, MD: Woodbine House.
- Bursuck, W. D., Munk, D. D., & Olson, M. M. (1999). The fairness of report card grading adaptations. *Remedial and Special Education*, 20, 84-92.

- Cassidy, J. W., & Colwell, C. M. (2011). University students' perceptions of an inclusive music production. *Journal of Music Teacher Education, 21*(2), 28–40.
- Charles, T. M. (2010). *Impact of incorporating music and movement into the teaching strategies of students with special needs* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 1485194)
- Christiansen, J., & Vogel, J. R. (1998). A decision model for grading students with disabilities. *Teaching Exceptional Children, 31*(2), 30-35.
- Cohen, N. S. (1988). The use of superimposed rhythm to decrease the rate of speech in a brain-damaged adolescent. *Journal of Music Therapy, 25*(2), 85-93.
- Colwell, C. M. (1998). Effect of information on elementary band students' attitudes toward individuals with special needs. *Journal of Music Therapy, 35*, 19–33.
- Colwell, C. M. (2003). Integrating disability simulations into a course for student music therapists. *Music Therapy Perspectives, 21*(1), 14-20.
- Colwell, C. M. (2012). Simulating disabilities as a tool for altering individual perceptions of working with children with special needs. *International Journal of Music Education, 31*(1), 68-77.
- Colwell, C. M., Thompson, L. K., & Berke, M. (2001). Disability simulations and information: Techniques for modifying the attitudes of elementary school music students. *Journal of Music Therapy, 38*, 321–341.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed method approaches*. Thousand Oaks, California: Sage Publications.
- Damer, L. K. (2001). Inclusion and the law. *Music Educators Journal, 87*, 19-22.
- Darrow, A. A. (1999). Music educators' perceptions regarding the inclusion of students with severe disabilities in music classrooms. *Journal of Music Therapy, 36*, 254–273.
- Darrow, A. A. (2003). Dealing with diversity: The inclusion of students with disabilities in music. *Research Studies in Music Education, 21*(1), 45-57.
- Elliot, B. (1982). *Guide to the Selection of Musical Instruments with Respect to Physical Ability and Disability*. St. Louis, MO: Magnamusic-Baton.
- Exceptionalities Special Research Interest Group. (2015). *Resources for all*. Retrieved from <https://sites.google.com/site/exceptionalitiessrig/home/resources>.
- Forrest, R., & Maclay, D. (1997). In step with inclusion. *Teaching Music, 5*, 56-58.

- Fredstrom, T. C. (1999). *Musically Gifted Students and Promoted Vigor: A Grounded Theory Guiding Instructional Practices for Teachers of Musically Gifted Students in School Music* (Doctoral Dissertation). The University of Nebraska, Lincoln.
- Frisque, J., Niebur, L., & Humphreys, J. T. (1994). Music mainstreaming: Practices in Arizona. *Journal of Research in Music Education*, 42, 94-104.
- Fulk, B. M., & King, K. (2001). Classwide peer tutoring at work. *Teaching Exceptional Children*, 34(2), 49-53.
- Gerrity, K. W., Hourigan, R. M., & Horton, P. W. (2013). Conditions that facilitate music learning among students with special needs: A mixed-methods inquiry. *Journal of Research in Music Education*, 61(2), 144-159.
- Gfeller, K., Darrow, A., & Hedden, S. K. (1990). Perceived effectiveness of mainstreaming in Iowa and Kansas schools. *Journal of Research in Music Education*, 38, 90-101.
- Grayson, E., & Marini, I. (1996). Simulated disability exercises and their impact on attitudes toward persons with disabilities. *International Journal of Rehabilitation Research*, 19, 123-131.
- Gregory, D. (1997). Before and after the Americans with Disabilities Act: An analysis of attitude and knowledge of undergraduate music majors. *Journal of Music Therapy*, 34, 119-128.
- Hahn, K. R. (2010). *Inclusion of students with disabilities: Preparation and practices of music educators* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3420149)
- Hairston, M. (2014). Working with disabled students. *School Band and Orchestra Magazine*. Retrieved from <http://sbomagazine.com/performance/4664-working-with-disabled-students.html>
- Hargreaves, D. J., & Marshall, N. A. (2003). Developing identities in music education. *Music Education Research*, 5(3), 263-274.
- Haywood, J. (2006). You can't be in my choir if you can't stand up: One journey toward inclusion. *Music Education Research*, 8(3), 407-416.
- Heller, L. (1994). Undergraduate music teacher preparation for mainstreaming. A survey of music education teacher training institutions in the Great Lakes region of the United States (Doctoral dissertation) Retrieved from Dissertation Abstracts International, 36-03A-858.

- Hourigan, R. M. (2014). Qualitative research examining students with exceptionalities in music education. In C. M. Conway (Ed.), *The Oxford handbook of qualitative research in American music education* (pp. 524-537). New York: Oxford University Press.
- Hunt, P., Soto, G., Maier J., & Doering, K. (2003). Collaborative teaming to support students at risk and students with severe disabilities in general education classrooms. *Exceptional Children, 69*, 515-332.
- Individuals With Disabilities Education Act. (1997). Public Law 105-17 (20 U.S.C. §1400 et seq.)
- Jellison, J. A. (2012). Inclusive music classrooms and programs. In G. McPherson & G. Welch (Eds.), *The Oxford handbook of music education* (pp. 65-80). New York: Oxford University Press.
- Jellison, J. A., Brooks, B. H., & Huck, A. M. (1984). Structuring small groups and music reinforcement to facilitate positive interactions and acceptance of severely handicapped students in the music classroom. *Journal of Research in Music Education, 32*, 243-264.
- Jellison, J. A., & Taylor, D. M. (2007). Attitudes toward inclusion and students with disabilities: A review of three decades of music research. *Bulletin of the Council for Research in Music Education, 172*, 9-23.
- Jensen, E. (2000). *Music with the brain in mind*. Thousand Oaks, CA: Corwin Press.
- Johnson, C. M., & Darrow, A. (2003). Attitudes of junior high school music students from Italy and the USA toward individuals with a disability. *Bulletin of the Council for Research in Music Education, 155*, 33-43.
- Jones, S. K. (2014). Teaching students with disabilities, a review of music education research as it relates to the individuals with disabilities education act. *Update: Applications of Research in Music Education*.
- Joseph, C. K. (2009). *Integrating music education, music therapy, and special education in a music classroom* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3475951)
- Kaiser, K. A., & Johnson, K. E. (2000). The effect of interactive experience on music majors' perceptions of music for deaf students. *Journal of Music Therapy, 37*, 222-234.

- Kunc, N. (1992). The need to belong: Recovering Maslow's hierarchy of needs. In R. Villa, J. Thousand, W. Stainback, & S. Stainback (Eds.), *Restructuring for caring and effective education: An administrative guide to creating heterogenous schools* (pp. 25-39). Baltimore, MD: Paul H. Brookes Publishing Co..
- Lapka, C. (2005). *A case study of the integration of students with disabilities in a secondary music ensemble* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3182301)
- Levitin, D. J., & Bellugi, U. (1998). Musical abilities in individuals with Williams syndrome. *Music Perception: An Interdisciplinary Journal*, 15(4), 357-389.
- Lim, H. A. (2010). Effect of "developmental speech and language training through music" on speech production in children with autism spectrum disorders. *Journal of music therapy*, 47(1), 2-26.
- Mather, M. (2013). Music as a specific learning support resource for children with special educational needs and disability in mainstream primary education: Practice and attitudes. In M. Stakelum (Ed.), *Developing the musician: Contemporary perspectives on teaching and learning* (pp. 171-189). Ashgate.
- MacDonald, R. A. R., Hargreaves, D. J., & Miell, D. E. (Eds.). (2002). *Musical Identities*. Oxford: Oxford University Press.
- McCord, K. A. (2004). Moving beyond "that's all I can do:" Encouraging musical creativity in children with learning disabilities. *Bulletin of the Council for Research in Music Education*, 159, 23-32.
- McCord, K. A., & Watts, E. H. (2010). Music educators' involvement in the individual education program process and their knowledge of assistive technology. *Update: Applications of Research in Music Education*, 28(2), 79-85.
- Nabb, D., & Balcetis, E. (2010). Access to music education: Nebraska band directors' experiences and attitudes regarding students with physical disabilities. *Journal of Research in Music Education*, 57, 308-319.
- Ockelford, A. (2006). Using a music-theoretical approach to explore the impact of disability on musical development: A case study. In N. Lerner & J. N. Straus (Eds.), *Sounding off: Theorizing disability in music* (pp. 137-153). New York: Taylor & Francis Group, LLC.
- Otterman, S. (2010). A struggle to educate the severely disabled. *The New York Times*. Retrieved from <http://www.nytimes.com/2010/06/20/education/20donovan.html>

- Phillips, K. H. (2008) Principles of qualitative research. *Exploring research in music education and music therapy* (pp. 83-102). New York: Oxford University Press.
- Saldana, J. (2011). *Fundamentals of Qualitative Research*. Cary, GB: Oxford University Press, USA.
- Salmon, S. (2013). Listening, feeling, playing: Music and movement for children with hearing loss. *The Orff Echo*, 45(3), 29-34.
- Salvador, K. (2010). Who isn't a special learner? A survey of how music teacher education programs prepare future educators to work with exceptional populations. *Journal of Music Teacher Education*, 19(2), 1-12.
- Smith, D. S., & Wilson, B. L. (1999). Effects of field experience on graduate music educators' attitude toward teaching students with disabilities. *Contributions to Music Education*, 26(1), 33-49.
- Smith-Davis, J. (2002) Click on the world! Council for exceptional children: world initiatives for inclusive education. *Teaching Exceptional Children*, 35(1), 77.
- Stainback, S. B. E., & Stainback, W. C. (1996). Concerns about inclusion. In S. B. E. Stainback & W. C. Stainback (Eds.), *Inclusion: A guide for educators* (pp. 383-386). Baltimore, MD: Brookes Publishers.
- Stuart, M., & Gilbert, J. (1977). Mainstreaming: Needs assessment through a videotape visual scale. *Journal of Research in Music Education*, 25, 283-289.
- Suárez, E. R., & DeVito, D. (2012). Music education preparation for teaching students with disabilities. *The Orff Echo*, 44(3), 26-29.
- Waldron, K. A., & Van Zandt Allen, L. (1999). Successful strategies for inclusion at the middle level. *Middle School Journal*, 30(4), 18-28.
- Welch, G. F. (1988). Observations on the incidence of absolute pitch (AP) ability in the early blind. *Psychology of Music*, 16, 77-80.
- West, C. (2015). Philosophy in curriculum and assessment. In Colleen Conway (Ed.), *Musicianship-focused curriculum and assessment* (pp. 23-52). Chicago: GIA Publications, Inc.
- White, L. D. (1982). A study of attitudes of selected public school music educators toward the integration of handicapped students in music classes. *Contributions to Music Education*, 9(5), 36-47. (Original work published 1981).