

1-1-2013

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### Recommended Citation

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# Serving Musicians With Visual Impairment in the College Classroom: Building Bridges Toward Understanding

BY JEFFREY L. GILLESPIE

## INTRODUCTION

**M**usic instructors at the college level are often at a disadvantage when teaching students who have disabilities, because we tend to lack sufficient knowledge and training in how to best serve their needs. Training is likely to come through trial and error in the classroom or through personal experience with family members or friends who have disabilities. With an ever-increasing number of students with disabilities entering our classrooms, it is crucial that we learn as much as possible about the pedagogical issues surrounding such students. I was unprepared several years ago when two students with visual impairment (VI) joined my theory and aural skills classes in the same year.<sup>1</sup> I soon realized just how little I knew about teaching a musician with VI and was immediately motivated to learn more, to be better prepared the next time a visually impaired student entered my classroom. I have spent the last several years gathering information, resources, and advice from a variety of sources. This article represents the highlights, and though it focuses specifically on musicians with VI, broader application may be extended to our teaching of all students. It is particularly important for music theory instructors to be informed, because some of the greatest challenges related to accessibility are likely to occur in the theory classroom.

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<sup>1</sup>To avoid confusion of terminology, for this paper, the term “visual impairment” (abbreviated “VI”) will be used most often, describing all degrees of vision loss, including all persons whose visual limitations require accommodations beyond eyeglasses in order to read. The term “blind” will be used in some instances, primarily when quoted persons or titles of sources use the term. A variety of terms are often used to describe vision loss: partially sighted, legally blind, totally blind, blind, low vision, limited vision, and visual impairment. For definitions of terms, see: “Visual Impairment, Including Blindness: NICHCY Disability Fact Sheet 13,” National Dissemination Center for Children with Disabilities, November 2012, <http://nichcy.org/disability/specific/visualimpairment>.

## METHODOLOGY AND FIELD SOURCES

My methodology for gathering information was through field study and interviews from 2008-2013 with 36 experts: music students and instructors with VI, sighted instructors of students with VI, administrators and staff of several leading schools for musicians with VI, and other authorities. Most interviews were connected with visits to two schools: The Summer Institute for Blind College-Bound Musicians, and The Filomen M. D'Agostino Greenberg Music School of Lighthouse International.

In the summer of 2008, I visited the Summer Institute for Blind College-Bound Musicians, a week-long program housed at the Overbrook School for the Blind in Philadelphia. The goal of the Summer Institute is to prepare musicians who are visually impaired for music study at the college level. The students receive training in the braille music code, technology needed for working with music transcription, and the basics of music theory and aural skills. The Summer Institute has been offered annually since 1996, and its director David Goldstein is also Director of the National Resource Center for Blind Musicians, a division of Neighborhood Studios of Fairfield County in Bridgeport, Connecticut. During my week at the Summer Institute, I not only conducted interviews and observations, but I also served as an assistant in a variety of ways and became a part of the community. There were six students enrolled that summer. Two students were incoming high school seniors, two were recent high school graduates, and two were already in college. There were four blind instructors and one sighted, and I was one of four additional sighted assistants. Our entire group lived in a dormitory on the Overbrook campus, and we socialized, ate meals, and worked together in community during that week. As one of five sighted people living with 10 blind, I was in the minority. My immersion in this remarkable community helped me gain a greater understanding of the challenges, the joys, the pace, and the lifestyle of people with VI.

In March of 2009, I spent a week interviewing and observing at the Filomen M. D'Agostino Greenberg Music School of Lighthouse International, in New York City, under the direction of Dr. Leslie Jones. The Greenberg Music School is a community arts school for all ages, offering private lessons on various instruments, composition, music technology, jazz improvisation, and braille music instruction, plus group classes in dance and movement,

percussion improvisation, and choir. About the Greenberg Music School, Jones states: "Vision loss plays an integral role in the approach and accessibility that is employed in learning and teaching, but vision loss is secondary to music making. Music education standards and the high quality of teaching/performing are never compromised because of the disability."<sup>2</sup> During my stay, I interviewed both instructors and students, and I observed lessons and classes for all ages and levels of expertise.

All 36 interviews were conducted in person with the exception of four e-mail interviews, one video conference, two phone interviews, and several follow-ups by phone or e-mail. Of the 36 interviewed, 25 were instructors and administrators. Of these 25, 11 were sighted and 14 had varying degrees of VI. The instructors taught classes in braille music, technology (related to composition and transcription), music composition, jazz improvisation, percussion, choir, aural skills, and music education for young children; plus private lessons in piano, flute, voice, trumpet, clarinet, and guitar. In addition to interviews, I observed private lessons and classes taught by these instructors. A total of 11 students with VI were interviewed, including three adults, one of whom earned a Ph.D. in music education. The other two adult students were involved in choir as amateurs. At the time of the initial interviews, the remaining students may be described as follows: two college juniors not majoring in music; two college sophomores majoring in music; two recent high school graduates, ready to enter college as piano majors; and two students entering their senior year in high school, with plans to be college music majors. I also conducted follow-up interviews with three of these students several years after the first interview.

Appendices A and B provide the lists of questions for the instructor and student interviews, respectively. Despite the predetermined questions, interviews were conducted with considerable flexibility. For some interviews, questions were omitted or others were added according to the needs of the discussion. In some cases, interviewees shared information not prompted by any questions from the interviewer.<sup>3</sup>

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<sup>2</sup>Leslie Jones, e-mail message to author, March 10, 2010.

<sup>3</sup>Specialized questions were asked of administrators and several others interviewed, and those questions are not reproduced here.

## INFORMATION AND ADVICE FROM EXPERTS

The heart of this project is the wealth of information and advice shared by people who know this subject best – musicians who have lived their lives with visual impairment, who teach musicians with visual impairment, or who have administrative experience leading schools for such musicians. All persons interviewed were eager to offer recommendations to help college music theory teachers provide the best instruction to students with VI. We begin with a discussion of literacy issues, followed by the importance of inclusion, basics of disability law, the need for advance preparation by the instructor, several success stories, and advice on a variety of other pertinent topics.

### LITERACY ISSUES

**The Illiteracy Problem.** To be prepared to teach college students with visual impairment, first we must be knowledgeable of literacy issues that may create challenges at the college level. In addition to the literary braille code, there is a braille music code. (See the Bibliography for relevant sources.) We cannot assume a blind college student will be fluent in either of these codes. According to the National Federation of the Blind (NFB), 90 percent of children who are blind are not being taught to read braille, even though braille is still the only equivalent to print for a blind person. According to the NFB, the three primary reasons for this problem include a shortage of braille teachers, a lack of adequate teacher training, and an attitude from many educators that braille instruction is not necessary.<sup>4</sup> This situation is fueled in part by the increased availability of electronic screen readers, which allow a person to hear a text rather than read it. Although schools for the blind have braille teachers (including teachers of the braille music code), in recent years such schools have begun serving primarily students with multiple handicaps, while capable blind students are mainstreamed into schools where braille teachers are not available. As a result, students who are capable of attending college and perhaps becoming professional musicians are not as likely to have received training in braille music as they would have years ago in

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<sup>4</sup>“Braille Initiative,” National Federation of the Blind (NFB), 2013, <http://nfb.org/braille-initiative>.

a school for the blind.<sup>5</sup> Richard Taesch, prominent music educator, certified braille transcriber, and braille music instructor, explains that while technology has created an increase in the production of braille music scores, and while “braille music has been on a dramatic upswing for at least two decades now,” there still are not enough teachers or courses available to provide training in braille music to those who need it.<sup>6</sup>

Bill McCann, founder of Dancing Dots Braille Music Technology, describes what he calls a scenario that happens all too often:

A young student who reads literary braille wants to join the school band or other ensemble in the fourth or fifth grade. We will call him/her Star. Nobody at Star’s local school, where Star is likely the only blind student, knows that there is even a system for reading music in braille or, if they do know about it, they are far too apprehensive and overworked to consider introducing the system to the young student. Usually, the student is invited to listen to the other members of the flute or trumpet section and, because Star has an excellent ear (usually perfect pitch), combined with a very good memory and motivation to be part of the group, Star excels. Pretty soon, Star is playing solos and receiving lots of positive feedback from parents, teachers and classmates. Sometime during Star’s junior or senior year of high school, a forward-thinking teacher or other professional takes Star aside and says something like: “Star, you should consider studying music in college after graduation. There is a system

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<sup>5</sup> Braille music literacy challenges are discussed in the following sources: Anne Marie De Zeeuw, “Teaching College Music Theory Classes That Include Blind Students,” *College Music Symposium* 17/2 (Fall 1977): 92. Shersten Johnson, “Notational Systems and Conceptualizing Music: A Case Study of Print and Braille Notation,” *Music Theory Online (MTO)* 15/3-4 (August 2009): Section 3, <http://www.mtosmt.org/issues/mto.09.15.3/mto.09.15.3.johnson.html>. David Pacun, “Reflections on and Some Recommendations for Visually Impaired Students,” *Music Theory Online (MTO)* 15/3-4 (August 2009): Section 16, <http://www.mtosmt.org/issues/mto.09.15.3/mto.09.15.3.pacun.html>.

<sup>6</sup> Richard Taesch, e-mail message to author, February 18, 2012.

for reading braille music and we think you should learn it so that you can do well in college.” Now what is Star to think? For all these years, everyone has been telling Star how gifted he/she is, and Star has never had any music in braille. Star decides that braille music is not a good investment of time and effort.

Star auditions for admission into a college music program and wows the committee with a strong performance. All agree that Star should be admitted as a music major. Nobody asks Star how he/she will meet the requirements for reading music and for writing music down in class. Star does not know enough to realize that the fact he/she cannot read or write music could make or break his/her chances to obtain a music degree. Class begins. Star’s teachers want Star to read printed music and notate responses. The dedicated teachers who can give Star extra time try to invent ways for Star to read and write music. Star cannot devise an effective coping mechanism and falls even further behind in course work.

At this point, three possible scenarios unfold:

1. Star changes majors.
2. Star withdraws entirely from school.
3. Star rethinks his/her approach and decides to learn some braille music skills and technology skills that will allow her/him to succeed.

Option 1 is disappointing as Star loves music and has talent. But at least, Star is still working toward a degree and a career goal. Option 2 is potentially devastating to Star and really tragic as, again, Star loves music, has talent and motivation. Lack of planning, preparation and understanding has had a devastating effect. Option 3 has worked for a number of people but it is not simple, adds stress and expense, and can sometimes be too little, too late.<sup>7</sup>

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<sup>7</sup>Bill McCann, e-mail message to author, February 25, 2012.

**Braille Music Training Opportunities.** There are two primary challenges to mastering braille music and avoiding a scenario like the one McCann describes: 1) Finding a teacher or a class that offers training, and 2) Starting early enough with this training, so a serious music student will be literate by college. According to Goldstein, the Summer Institute was started in 1996 because musicians who had earned praise in high school were “getting stuck” when faced with sight reading music, and there was no available program in place to help them transition from high school into college.<sup>8</sup> In recent years, other programs have emerged, such as the Braille Beats Fine Arts Program in Lapeer, Michigan. Braille Beats provides a variety of experiences for ages nine through young adults, including classes in braille music, ear training, and performance opportunities. This week-long summer camp added a post-secondary component in 2010 to support college and career-level students. Berklee College of Music, in Boston, offers a course on assistive music technology for blind students, in conjunction with its five-week Summer Performance Program.<sup>9</sup> (See the “Music Camps and Summer Programs” section of the Bibliography.)

While these music camps and training opportunities are clearly making a difference in better preparing musicians with VI for serious music study, they primarily provide an introduction to braille music and do not result in fluency, nor do they serve the needs of all students. Goldstein indicates he still receives phone calls “maybe six or seven times a year” from panicked teachers, students, or parents who need advice because the student is not prepared for studying music in college, or the teacher does not know what to do about the situation.<sup>10</sup>

What we can do as teachers is to advocate for early training and to guide any serious music students we encounter to receive braille music training as early as possible. Sighted instructors can even help with the training. Excellent books by Bettye Krolick and Richard Taesch, listed in the Bibliography, are available in braille and printed formats for one-on-one training, so a sighted instructor may help even a very young student learn the code. According to McCann, schools may contract with his Dancing Dots company for phone training with an individual student at a specified time during the school day. During a session, the teacher and student

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<sup>8</sup>David Goldstein, phone interview with author, February 23, 2010.

<sup>9</sup>David Goldstein, “Music Camps and Summer Programs,” Music Education Network for the Visually Impaired (MENVI) Newsletter 36 (2012), <http://www.menvi.org/newsletters/news36.html>.

<sup>10</sup>David Goldstein, e-mail message to author, February 9, 2012.



read from the same book, performing melodies and rhythms while connected with a Dancing Dots consultant.<sup>11</sup>

McCann is presently developing and testing the Music Touch series, a forthcoming project from Dancing Dots, which utilizes Talking Tactile Tablet hardware to teach braille music along with music fundamentals. The Talking Tactile Tablet connects to a computer and allows a user to touch symbols and regions of a raised drawing and receive audio feedback.<sup>12</sup> The first entry of the Music Touch series presents lessons and exercises from Taesch's *An Introduction to Music for the Blind Student* in a multimedia format.<sup>13</sup> Students are introduced to topics such as scales and chords while learning how these constructs are represented in braille music. When a braille symbol is touched, audio provides information on its musical meaning. For example, when a dotted half note is located, there is an audio explanation of how dotted half notes are built in braille music. Interactive activities allow students to answer a variety of questions about music and the braille music system. Some questions require written responses via a special braille keyboard that is included, and the student is given audio feedback on whether the response is correct or incorrect. The program also reports the student's score for an activity by listing the number of correct answers and the number of attempts. Other activities include reading a brailled scale while audio provides the solfege and sounding pitches of that scale. After listening to the audio representation of the pitches, the student then reads the melody and sings with solfege or scale degree numbers, while the audio provides an accompaniment. By listening first and then singing along, both literacy and aural recognition skills are developed. The program also includes a tactile simulation of a piano keyboard, built from full braille cells that are arranged to create the black and white keys. With this tactile keyboard, the student is then instructed to play up and down various scales. Hand position and fingering for playing scales are not addressed, since the Talking Tactile Tablet can only accept one press at a time. Though this is no substitute for playing a real piano, this keyboard feature reinforces other concepts being introduced. The Music Touch series should

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<sup>11</sup> Bill McCann, e-mail message to author, February 25, 2012.

<sup>12</sup> For more information on the Talking Tactile Tablet and other tactile devices, see the website of Touch Graphics, Inc., [www.touchgraphics.com](http://www.touchgraphics.com).

<sup>13</sup> Richard Taesch, *An Introduction to Music for the Blind Student* (Valley Forge, PA: Dancing Dots, 2000).

have great potential for instruction in braille music and basic music fundamentals.<sup>14</sup>

Other agencies and individuals offer training in braille music as well, and they may be located through online searching or by consulting contacts listed in the Bibliography. The key is to find a means in which training can occur, and to start as early as possible, for it will take considerable time to become a fluent reader.

**Braille Music Literacy – Is it Necessary?** Braille music fluency may not be a necessity in some music professions, as explained by Chi Gook Kim, who teaches the assistive music technology class for visually impaired students at the Berklee College of Music. Though he is an advocate for braille music literacy, Kim states that professionals who compose or work in audio production can achieve success without knowing braille music. Jazz or pop musicians who rely on improvisation and interpretation skills may be able to function well through listening alone, without knowledge of braille music. This is especially the case with rhythm section players (piano/bass/guitar/drums) in smaller ensembles that play jazz standards. Kim emphasizes, however, that braille music literacy is helpful for jazz/pop instrumentalists who play specifically notated parts in larger ensembles, such as woodwind or brass players in a big band. Kim revealed that he began learning braille music in first grade and used it with early piano study, but in college, the only time he used braille music was during ear training classes. He still believes that braille music helps musicians to understand music concepts better, particularly concepts related to rhythm.<sup>15</sup>

According to Taesch, a musician who does not read music has limited means for personal interpretation. He states, "To learn solely by using the finished product (pre-recorded music) as a model, denies students access to their own unique interpretive process. There must be a vehicle separate from the finished product. The medium itself must be flexible and capable of varied application." Taesch goes so far to claim that learning "by listening only is merely a form of plagiarism."<sup>16</sup> In Taesch's view, the listener is essentially stealing another performer's interpretation of the printed score,

<sup>14</sup>Bill McCann, video conference with author, February 18, 2013.

<sup>15</sup>Chi Gook Kim, e-mail message to author, November 29, 2012.

<sup>16</sup>Richard Taesch, "The Literacy Movement – What Does Braille Music Have To Do With It?" 1993, [http://www.blindmusicstudent.org/Articles/taesch\\_literacy.htm](http://www.blindmusicstudent.org/Articles/taesch_literacy.htm).

leaving little or no room for original interpretation. Taesch does not mention that in jazz and rock, for example, performing another musician's interpretation or improvisation is accepted practice.

Jake<sup>17</sup>, a Summer Institute student I interviewed, arrived at the Institute having memorized an entire Mozart Flute Concerto movement from repeated hearings of a single recorded performance. Though Jake had been studying braille music for three years, he was not a fluent reader and had no access to the printed Mozart score. Not only had Jake learned another performer's interpretation of the music, but he also had learned numerous errors. Some of these errors were the result of mishearing on Jake's part, and others were ornamentation and rhythm errors in the recorded performance. With the braille score finally in hand during the Summer Institute, Jake was able to make practical use of his braille music skills to correct the errors he had learned and to begin to make his own interpretive performance decisions apart from the recording.

Karen Gearreald, a braille music instructor at the Summer Institute, states, "The more serious students are about music, the more they need braille music to add to their arsenal. If a student argues, 'Well, I have a good ear'... We aren't taking your ear away, but adding to your arsenal, by teaching you braille music. Some students will be better braille music readers than others. You still should study it to the max."<sup>18</sup>

**Literacy Across Braille and Print Systems.** In order to teach a student who uses the braille music system, it is not necessary for sighted instructors to be able to read braille music, but it is crucial to have a basic understanding of the significant differences between braille music and printed music. For example, in braille music there are no staves or clefs. Instead, a single six-dot braille cell indicates the pitch class and rhythmic value, and a separate cell indicates the octave designation number for that pitch. It is important for instructors to know these details so that in the classroom, language may be used that the blind student understands. Also, braille music is a linear system in which all aspects of the printed score are represented in cells that are read one at a time from left to right. While pitch and rhythm are included together in one cell,

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<sup>17</sup>For this document, a first name pseudonym is used for any person who has not granted permission to use the real name.

<sup>18</sup>Karen Gearreald, in-person interview with author, July 12, 2008.

separate cells provide information on meter, dynamics, tempo, articulation, fingering, text, harmonic structures, and numerous other details. Instructors must understand that while both fingers and eyes may read fluently, the manner in which they read is quite different. Articles by de Zeeuw and Johnson<sup>19</sup> provide excellent details on notational differences as well as pedagogical issues to consider when working with students who use braille music. Johnson includes an insightful discussion of a brailled Bach fugue score and the peculiarities of alignment that are typical for music with multiple lines.<sup>20</sup> De Zeeuw discusses the overall “picture” of a musical line that a printed score provides a sighted reader, a picture that a braille music reader cannot obtain by reading a linear braille score.<sup>21</sup>

A blind student should have at least some understanding of the symbols and layout of printed music. Kim explains that this knowledge is helpful when communicating with sighted musicians and when arranging or composing music with notation software.<sup>22</sup> McCann stresses that after completing studies at the college level, a blind musician may have the opportunity to teach a sighted student and will need to be able to communicate to that student using the language of printed music.<sup>23</sup> Stephanie Pieck, a prominent blind pianist, composer, and teacher based in Schenectady, New York, explains that blindness is a “low-incidence disability – there aren’t a lot of cases of it in the general population. So, if blind musicians expect to function in mainstream musical society, they will have to deal with sighted musicians.” Pieck reveals that 98 percent of her students are sighted, and of these, 90 percent arrive with no music background. She states that if she is not capable of explaining to sighted students what they need to be looking for on the printed page, or if she is unable to understand a symbol that a student is describing to her, then she “can’t teach them, or the quality of my teaching suffers.”<sup>24</sup> To teach blind musicians about print music symbols, some teachers utilize tactile materials, such as boards with

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<sup>19</sup> See the Bibliography and earlier citation.

<sup>20</sup> Johnson, “Notational Systems,” sections 18-19.

<sup>21</sup> De Zeeuw, “Teaching College Music Theory Classes,” 91.

<sup>22</sup> Chi Gook Kim, e-mail message to author, November 29, 2012.

<sup>23</sup> Bill McCann, video conference with author, February 18, 2013.

<sup>24</sup> Stephanie Pieck, e-mail message to author, June 15, 2013.

raised lines and figures, so that they may gain an understanding of printed notation by feeling the symbols. David Pacun has creatively used such tactile materials as Velcro to illustrate notation symbols, masking tape for conceptualizing phrasing and harmonic progression, and Lego blocks to diagram rhythmic concepts.<sup>25</sup> McCann has plans to expand the goals of his Music Touch series for the Talking Tactile Tablet, discussed earlier, to include tactile images of the printed music score. He even includes a few printed music symbols, such as a treble clef, in the first level of the series.<sup>26</sup> The best resource Pieck has found that provides access to raised-line drawings of printed notation is Eric Taylor's *AB Guide to Music Theory, Part I and Part II*, available in braille with workbooks and supplements through the Royal National Institute of Blind People (RNIB).<sup>27</sup> According to Pieck, the supplements are particularly useful because they contain clearly labeled, raised drawings that show placement of basic symbols such as stems and flags on notes, the arrangement of sharps and flats in key signatures, as well as complex figures such as Baroque ornamentation. Pieck also recommends the books themselves because they provide detailed explanations of printed music symbols. The Taylor sources are especially recommended for college students or music teachers (private or classroom instructors, choral or band directors) who need resources to help clarify particulars of printed scores.<sup>28</sup>

## INCLUSION

As teachers we strive for full participation and engagement from all students in the classroom. If a task involves visual analysis of a score, we expect each student to be studying with score in hand. When sight singing in aural skills class or rehearsing in an ensemble, we expect all students to participate fully. It is very easy for blind students to be excluded from any number of classroom

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<sup>25</sup> Pacun, "Reflections," sections 10-11.

<sup>26</sup> Bill McCann, video conference with author, February 18, 2013.

<sup>27</sup> Eric Taylor, *The AB Guide to Music Theory: Part I and Part II* (London: Associated Board of the Royal Schools of Music, 1989-91). Braille versions with additional diagram supplements available through the Royal National Institute of Blind People (RNIB), <http://www.rnib.org.uk/Pages/Home.aspx>.

<sup>28</sup> Stephanie Pieck, e-mail message to author, June 15, 2013.

activities for a variety of reasons, most likely because we don't know how to fully include them. By educating ourselves on how to better facilitate inclusion, we are more likely to provide as rich an educational experience for the blind student as for other students.

Sabrina, a Summer Institute student, shared with me that she felt excluded from a sight reading activity during high school chorus, because she did not know the braille music code. She managed to learn the choir's performance repertoire by listening to recordings, reading the brailled text, and relying on the director's verbal explanations of pitches and rhythms.<sup>29</sup> This methodology did not work for the sight reading task, because spontaneous reading was required, and Sabrina could not read. If a well-informed music teacher had encouraged her to learn the braille music code a few years earlier, she could have been included in this sight reading activity with braille music in hand.

After completing several years of college, Sabrina shared some valuable information for sighted instructors regarding in-class score reading. It is not enough simply to provide a student who is literate in braille music with a braille score at the time it is needed in class. Sabrina described a music history class in which an accommodating teacher provided her with braille music scores. She had difficulty during class because the teacher expected her to relate large sections of music with other sections and expected her to mark the scores. The teacher seemed to think that because Sabrina could read braille music and had the scores in hand, she could keep up like the other students.<sup>30</sup>

Not only do we need to provide braille music scores to a student who is literate in braille music, but we have to be sure our class lectures and the tasks we assign students to complete during class are designed to allow the student to participate productively. If extensive score study is planned for a class session, it is important to provide the student with the score and the questions in advance, or perhaps provide that student with only the necessary portions of the braille score to minimize the need to search for passages within a larger score. Pacun strongly recommends simplifying scores as much as possible for the blind student in theory classes and on exams.<sup>31</sup> He also suggests beginning with species counterpoint

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<sup>29</sup> Sabrina, in-person interview with author, July 15, 2008.

<sup>30</sup> Sabrina, phone interview with author, December 17, 2011.

<sup>31</sup> In a later section subtitled "Equity," fairness and maintaining high

as a way to merge the complexities of braille music reading with beginning theory concepts. He mentions that notation software programs allow for modification of score complexity, so that a simplified version of a score passage may then be transcribed into braille for a student to easily manage. Pacun also recommends “teaching techniques that will enable the student to learn and digest musical scores quickly. Here, theory proves directly relevant: motivic and harmonic principles and concepts provide precise methods for students to ‘chunk’ scores into constituent parts. Hence, theory becomes a means to learn music, not simply analyze it.”<sup>32</sup> Though these recommendations are specific to teaching blind students, such pedagogical strategies can benefit every student in the theory classroom.

The Summer Institute’s “Touch and Sing” class, which models a college aural skills class, illustrates how to successfully accommodate and communicate with visually impaired students. In the Touch and Sing class, students put to practical use the braille music reading skills they have been learning during the week, as they sight sing melodies transcribed into the braille music code. Students also practice completing melodic dictation exercises by brailleing the melody they hear, using a simple brailleing device students already use for note taking. Since instructor Melissa Wagner and all the students were blind, this was not an example of inclusion. However, the necessary steps required for successful inclusion were in evidence. All the students were supplied with braille music in advance, they had the necessary equipment to type braille responses, and they had an instructor who knew what the students needed and how to communicate with them. In a typical aural skills classroom, a quick pace is desired to accomplish a variety of tasks. Instructors are likely to utilize the board or document camera to quickly project melodies for sight singing or a basic grid for a dictation exercise. With these visual aids, we can clearly disseminate information and also save time from excessive speaking. Also, students are able to get out of their seats and do board work, stand to sing, or arrange themselves into small groups. The same is true for written theory courses. In the Touch and Sing class, there was no chalkboard or screen with visual information, and Wagner had to verbalize all instructions to prepare students

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standards will be addressed as they relate to accommodations and skills assessment for visually impaired students.

<sup>32</sup>Pacun, “Reflections,” section 22.

for melodic dictation exercises, such as indicating key, meter, and number of measures. This required a slower pace than I was accustomed to in an aural skills class. Also, the students had to remain seated at their desks for all activities. Wagner did have an advantage over a sighted instructor, because she was teaching students who were blind like herself. Also, as a braille reader, she could easily circulate and read each student's dictation work. To immediately check work, a sighted instructor would simply have to ask the student to verbally describe what was brailled.

In order for us to successfully include one visually impaired student in a class of sighted students, perhaps we should imagine our class was comprised of all visually impaired students, like the Touch and Sing class. In this way, we would have no choice but to communicate effectively with the blind student in our class. In reality, we will be teaching both visual and non-visual learners. We cannot ignore the needs of either type, but we are more likely to forget about the VI student without continually reminding ourselves. We should provide information on the board for visual learners, but we need to verbalize for those who benefit from hearing. Lesson plans, lecture notes, handouts, additional information provided visually during class – all this information must be provided to the VI student before or after class in electronic format so the student can read through a screen reader. An assigned note taker can be helpful, particularly if there is new information presented in class that is not communicated electronically to the student. We should also be sensitive to the mobility limitations of the student when we ask the class to engage in activities that require relocating, such as board work or small group activities, because that student may easily become disconnected from the rest of the class. Since the degree of individual attention we can provide during class is limited, we should also arrange to meet with the student for one or two private sessions per week.

## DISABILITY LAW

Along with discussion of inclusion and accommodation, our responsibilities to the law should be stressed. Section 504 of the Rehabilitation Act of 1973 states that “no qualified individuals with a disability in the United States shall be excluded from, denied the benefits of, or be subjected to discrimination under” any program or activity that receives Federal funding.<sup>33</sup> Section 504 also states that

<sup>33</sup> “A Guide to Disability Rights Laws,” U.S. Department of Justice,



“a recipient (such as a postsecondary school) shall take such steps as are necessary to ensure that no handicapped student is denied the benefits of, excluded from participation in, or otherwise subjected to discrimination under the education program or activity operated by the recipient because of the absence of educational auxiliary aids for students with impaired sensory, manual, or speaking skills.” Title III of the Americans with Disabilities Act of 1990 (ADA) states that “a public entity shall furnish appropriate auxiliary aids and services where necessary to afford an individual with a disability an equal opportunity to participate in, and enjoy the benefits of, a service, program, or activity conducted by a public entity.”<sup>34</sup> As instructors we are obligated to examine all in-class activities, homework assignments, projects, exams, and course materials for accessibility, including textbooks, online resources, music notation software, ear training software, and supplemental software that accompanies textbooks. If there is a barrier to access, then some means for removing that barrier must be developed so that effective communication can take place.

We must make every effort to determine alternative methodologies to meet course objectives, and we cannot simply waive a course component because of its inaccessibility to the visually impaired student. However, a modification is not required if it would “fundamentally alter the goods, services, or operations of the public accommodation,” according to Title II of the ADA.<sup>35</sup> For example, a postsecondary school is not required to modify degree requirements to accommodate a disabled student if such modifications would compromise crucial components of that degree. Within the music theory curriculum, however, reasonable modifications should be attainable for visually impaired students without compromising course content.

The recent rise in online courses, hybrid courses, and online resources that supplement traditionally-designed courses has led to a dramatic increase in inaccessibility for people with visual

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July 2009, [www.ada.gov/cguide.htm](http://www.ada.gov/cguide.htm).

<sup>34</sup> “Auxiliary Aids and Services for Postsecondary Students with Disabilities,” Office for Civil Rights (OCR), U.S. Department of Education, revised September 1998, last modified November 16, 2011, <http://www2.ed.gov/about/offices/list/ocr/docs/auxaids.html>.

<sup>35</sup> “Title III Highlights,” Disability Rights Section, Civil Rights Division, U.S. Department of Justice, accessed July 15, 2013, <http://www.ada.gov/t3highlight.htm>.

impairment.<sup>36</sup> Since online resources are often a component of music theory courses, we need to be aware of this growing problem, because we are obligated by law to provide access for all students or a comparable alternative for the disabled student. It would be wise to think about accessibility at the beginning stages of course design or when software options are being considered, so that roadblocks can be prevented instead of corrected later. There are resources and organizations available to help with designing accessible online material, such as AccessIT (the National Center on Accessible Information Technology in Education) and WebAIM (Web Accessibility in Mind).<sup>37</sup>

It is the responsibility of the university's office of disability services to educate faculty members on the purpose of accommodations and our legal obligations. Complaints of unfair treatment or questions about accommodations may arise from a disabled student or a nondisabled peer, and instructors must be prepared to explain the decisions we make to accommodate the disabled student. To prepare ourselves for questions, we must educate ourselves on the basics of disability law and we must have a good working relationship with our school's office of disability services. It should be noted, however, that not every university provides exemplary disability services. When Janna Saslaw sought help teaching a new transfer student who was blind, she discovered that her university's Academic Resource Center did not have experience with music-related accommodations for blind students, nor did the largest local university in her area. Saslaw concluded, "The disability services offices of many universities are not well-equipped to advise music teachers on how to conduct the practical aspects of their classes with visually impaired students."<sup>38</sup>

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<sup>36</sup> Marc Parry, "Colleges Lock Out Blind Students Online," *The Chronicle of Higher Education*, December 12, 2010, <http://chronicle.com/article/Blind-Students-Demand-Access/125695/>.

<sup>37</sup> See these websites: National Center on Accessible Information Technology in Education (AccessIT), 2013, <http://www.washington.edu/accessit/webpslegal.html>. WebAIM: Web Accessibility in Mind, 2013, <http://webaim.org>.

<sup>38</sup> Janna Saslaw, "'Teaching Blind': Methods for Teaching Music Theory to Visually Impaired Students," *Music Theory Online (MTO)* 15/3-4 (August 2009): Section 5, <http://www.mtosmt.org/issues/mto.09.15.3/mto.09.15.3.saslaw.html>.

## ADVANCE PREPARATION

Taesch advises students to “contact the campus at least one semester in advance of your enrollment, to touch base with the disabilities resource office, provide them with your documentation, and begin discussions about the accommodations you will require in order to be successful.”<sup>39</sup> Truthfully, at least a year of preparation time is needed for a school to be ready for a blind music student. As previously discussed, assessment of literacy skills must take place well in advance of the student’s admission into a college music program, in case remediation is needed. In addition, considerable time is needed for print materials and technological resources to be prepared to accommodate the student’s needs. We should also remember to include the student in the planning process. Michele Atterson, Director of Student Disability Services of Butler University, encourages us to “bring the student into the conversation. Ask the student, ‘Is this manageable for you? Do you have ideas to make this work?’”<sup>40</sup> This open communication with the student should continue beyond the initial planning stages, because further adjustments will likely be necessary as the student progresses.

**Preparation for Braille Readers.** Gearreald provides valuable information about the process of locating and preparing braille scores. She teaches braille music transcription for certification and teaches the braille music code to people who are both blind and sighted. Gearreald says teachers must let the student know what printed materials are needed as far in advance as possible, if that student requires braille. She recommends keeping the student involved in the music searching process, so that the student can learn to find materials independently of the teacher. According to Gearreald, the best resource for locating and accessing music scores and books is the National Library Service for the Blind and Physically Handicapped (NLS), through the Library of Congress.<sup>41</sup> Another

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<sup>39</sup>Richard Taesch, “A Blind Music Student’s College Survival Guide” (rev. 2008): 11. Free download available at: [www.menvi.org/links.html](http://www.menvi.org/links.html).

<sup>40</sup>Michele Atterson, phone interview with author, April 26, 2013.

<sup>41</sup>The NLS music collection contains more than 30,000 audio, braille, and large print music scores and texts, including many in electronic format. See “NLS Factsheets: Music Services for Blind and Physically Handicapped Individuals,” National Library Service for the Blind and Physically Handicapped (NLS), Library of Congress, June 2010, <http://>

excellent source is the Louis Database of Accessible Materials for People who are Blind or Visually Impaired (the “Louis Database”), maintained by the American Printing House for the Blind.<sup>42</sup>

If music is not already transcribed into braille, a certified transcriber may be contacted to request transcription of a score or portion of a score. There are fewer than 40 certified braille music transcribers presently working in the United States<sup>43</sup>, and the expense of transcription is approximately \$5-\$6 a braille page.<sup>44</sup> According to Goldstein, “sources and procedures for funding transcribers vary from state to state, school to school, and student to student. In theory, the school should foot the bill, but not all can, or they find that the services are much more expensive than anticipated and a limit is reached toward the middle of the school year.” Goldstein explains that some state rehabilitation agencies, which help with college funding if they believe the student’s major shows potential for a successful career, will include transcription funding into the student’s financial package. Unfortunately, many students end up paying for transcription services themselves.<sup>45</sup> It is important for theory instructors to be aware of the potential burden placed on the institution and particularly the student, when determining what brailled repertoire we require the student to have. Requesting just a few bars of music will save time, energy, and money, if an entire composition is not needed.

Theory instructors should also be aware that not every published theory textbook is available in braille, and those that are available may not all be recent editions. If a request is made to transcribe a textbook into braille, it may take a year before that book is ready for the student. Thus, we need to know what is already available and

[www.loc.gov/nls/reference/factsheets/music.html](http://www.loc.gov/nls/reference/factsheets/music.html).

<sup>42</sup> The Louis Database contains information on nearly 200,000 titles in accessible formats including braille music and textbooks, large print, sound recording, and electronic files. “Louis Database of Accessible Materials for People who are Blind or Visually Impaired,” American Printing House for the Blind, 2012, <http://louis.aph.org/catalog/CategoryInfo.aspx?cid=152>.

<sup>43</sup> The current list of braille music transcribers is available through the National Library Service for the Blind and Physically Handicapped (NLS) at this link: <http://www.loc.gov/nls/music/circular4.html>.

<sup>44</sup> Karen Gearreald, in-person interview with author, July 12, 2008.

<sup>45</sup> David Goldstein, e-mail message to author, July 26, 2013.

how quickly materials can be obtained. In addition, we should be flexible enough to allow the student to use an older edition of the desired textbook if it is already available in braille, or even consider allowing the student to use a different textbook already brailled. Instructors should also find out what anthologies and scores are currently available in braille before making decisions about class repertoire.

For braille music readers, software is available for transcribing braille into printed music and vice versa. Dancing Dots offers the widely used GOODFEEL software suite that facilitates this process with quick turnaround time. The software is most useful for short score examples and homework exercises involving music notation. A sighted instructor first scans the score using the SharpEye scanning program or enters the notation manually using a notation software program. If SharpEye is used, a sighted musician must check for notation errors that are likely to occur through the scanning process. After editing, the GOODFEEL software creates the braille transcription, which can be embossed or e-mailed to the student. The GOODFEEL suite also provides the means for students to compose, edit, and print music composition assignments in a readable format for a sighted instructor. Notation software accessible to visually impaired musicians are Lime and Sibelius, although Sibelius is more problematic and less user-friendly. It is important to have a sighted musician on staff, trained in the use of this software, to manage all transcription work. We also must know where to find experienced consultants who can help our students and schools obtain these essential resources.<sup>46</sup>

**Preparation for Low Vision Readers.** Assessing a student's needs can be particularly difficult for a partially-sighted student. Nathan, a piano instructor and recent college graduate, reported that in his undergraduate music classes, teachers incorrectly assumed because he had some vision and could "get around" on his own, he did not need extra assistance. Nathan did not communicate his needs to his instructors and instead relied on his classmates to keep him oriented.<sup>47</sup> We cannot assume that a partially-sighted student can

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<sup>46</sup> Up-to-date details on available software and consultants may be found at these websites: National Resource Center for Blind Musicians, January 23, 2013, <http://www.blindmusicstudent.org/>. Dancing Dots, 2005, <http://www.dancingdots.com/main/index.htm>.

<sup>47</sup> Nathan, in-person interview with author, March 2009.

grasp everything discussed in class, even if the student does not have mobility challenges.

For a student with enough vision to be able to read printed music, there may be challenges with fluency of reading, depending on the degree of vision loss. If a score has to be significantly magnified, the student likely will be able to view only a small portion of it at one time. The student will need more time than sighted students to read the score and understand larger structural components of the music. Simply finding a specified location in a score will take extra time, and the student may become disoriented or lost in the searching process. The instructor should number every measure of a score, rather than just the first measure of each line, before a student with low vision is expected to read it.

For a student who reads from enlarged music scores, one challenge may involve maneuvering large sheets of paper as the music progresses, either in listening or in performance. Recent technology has been designed to help musicians with low vision overcome this challenge of reading multiple pages of enlarged music when performing from a score. The Lime Lighter device allows the performer to advance the music that is displayed on an electronic screen by pressing a foot pedal, while both hands are free to play an instrument.<sup>48</sup> Though this information is not directly applicable to the music theory classroom, the Lime Lighter could find its way into the theory classroom in the future. Plus, we may have opportunity to share this information with students, ensemble directors, and even disability service offices.

## SUCCESS STORIES

With sufficient planning and resources, successful accommodation and inclusion are possible for a student with visual impairment. The following illustrations provide good models for what can be achieved.

I observed a rehearsal of an exemplary choral ensemble comprised of adults with visual impairment at the Filomen M. D'Agostino Greenberg Music School of Lighthouse International, as the group prepared for an upcoming concert at the Metropolitan Museum of Art. The singers used a variety of tools for learning the music prior to rehearsal and for reading the music during rehearsal. Of the nine singers using braille, seven were reading braille music

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<sup>48</sup>For details on the Lime Lighter, contact [www.dancingdots.com](http://www.dancingdots.com).

and text, and two were reading just braille text. Other singers read from large print copies of the scores. Most singers, if not all, had recordings to study at home in between rehearsals.<sup>49</sup> Through this combination of aural and score study, singers were able to learn the music extremely well. Though every singer was visually impaired, they each had differing needs for accommodation, and those needs were supplied effectively. Whether an entire class or ensemble is filled with students in the same category of disability, or a class has just one student with a disability, the key for success is knowing and providing what each student needs.

Recently at a large state institution, a student with visual impairment successfully completed the two-year music theory sequence required for music majors. I spoke with two of her theory instructors and one graduate assistant about their experiences with Molly. She was already a braille music reader, and because of her excellent aural skills, she received exemption from aural skills classes. Accommodations were needed for Molly's written theory courses, but there was some initial difficulty in receiving support for these needs from the music school. Gradually an excellent support system was provided through additional student aides and technology that allowed for braille transcription of music scores. A computer station was set up in the library specifically for Molly's use.

Throughout the theory sequence, assistance was provided by student aides in the classroom and during exams, technology aides (also students), and additional meetings with the primary instructor outside of class. A technology assistant was necessary each semester to transcribe printed music into braille and vice versa, using software described earlier, and to prepare braille text when needed. Since the technology assistant was a braille music reader, there was no need for the theory instructor to be literate in braille music. In-class student assistants were also employed most semesters to take class notes and assist during exams.

In the first year of Molly's theory sequence, the greatest challenge was getting brailled materials to her in advance of class, since there was more planning and preparation involved. In addition, the instructor had to adjust his teaching style by playing more musical examples on the piano and being more explicit verbally when indicating the location of passages being discussed. With more than 100 students in the class, it was sometimes a challenge to maintain these inclusive measures for Molly without slowing the pace. The

<sup>49</sup> Leslie Jones, e-mail message to author, March 12, 2010.

instructor met individually with Molly on a regular basis to provide additional guidance. In some cases, adaptations were needed with score annotations, because of software transcription limitations. For example, pivot chords could not be effectively labeled using braille. In these private sessions with Molly, the instructor would have her verbally indicate where pivot chords were located in the score.

With an increase in score study for the second year of music theory, more support was needed for Molly. A graduate work-study student knowledgeable in the braille music code worked 20 hours per week specifically managing score transcriptions for Molly, which often included proofreading for errors in transcription. A second aide (working 10 to 16 hours per week most semesters) helped prepare text materials, provided in-class guidance, and also met with Molly twice a week for one-on-one instruction. Though text materials were given to the aide at the start of each of the three to five units of the semester, sometimes there was a slight lag until everything was prepared. If an assigned text could not be transcribed into braille immediately, the second aide would transfer the text into a Word document and integrate prose descriptions of score examples or diagrams to give to the student. Thus, along with audio recordings for study, Molly was provided with a combination of braille music, brailled prose descriptions of score examples and diagrams, and brailled text.

Exams and assignments were modified for Molly in the second year because of the time-consuming demands involved with braille score study, while still maintaining objectives and assessment similar to the other students. Sighted students were required to complete separate written and listening exams, with both known and unknown scores. Molly was given a single exam heavily focused on listening, with all scores prepared in advance. The only unknown exam items were a few listening examples with general questions. Approximately 90 percent of the exam was prepared material. Exams were administered in a separate room with an aide present, and there was no time limit for completing the exam. Instructors modified homework assignments to allow Molly to respond in ways that were better for her, using her strengths in aural skills, composing, and piano. Molly was successful in her music theory courses, not only because of her own efforts, but because an effective team was working creatively to design an individualized plan for her success. When something was not working effectively, they tried other methods until something proved successful. They



also had funding and staffing to provide additional support for Molly, which may not always be available at every institution.

When Molly's sophomore theory instructor was asked if he would do things differently the next time, he revealed that he would not be so flexible with due dates on assignments. He found that Molly started taking advantage of this flexibility. For the final semester of theory, the instructor stated that he tried during the first half of the semester to keep things the same for Molly as for other students regarding score study and assignments, but it proved too cumbersome and time consuming for her to read so many brailled scores. Eventually, assignments were modified to allow for working and demonstrating at the piano, as well as composing pieces to show mastery of topics such as set theory. The instructor reported that the next time a blind student is in his theory class, he would make such modifications earlier in the semester, instead of focusing on keeping assignments the same as for other students. The instructor also noted that there was no resistance from administration, other teachers, or students after adapting assignments.<sup>50</sup>

Though all our institutions may not have the full resources afforded to Molly and her teachers, a successful model such as this one can provide us with an ideal for which to strive. It is clear that even with a wealth of resources, Molly's teachers encountered unanticipated problems with assignment and exam format. When this happened, they treated Molly as an individual and made modifications regarding delivery of information (both questions and answers), so that she could thrive despite her visual limitations. The key for all of us is to work as a team to create an individualized plan for teaching and assessment that is most appropriate for the student with a disability. Then we must continue to be flexible and modify that plan when needed.

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<sup>50</sup> All information regarding this student was received through in-person interviews with one theory instructor and a student aide on June 4, 2008; a phone interview with an additional theory instructor on March 12, 2010; and additional e-mail correspondence from that additional instructor on February 4, 2013. For reasons of confidentiality, the name of the institution and the names of the aide and two instructors are not revealed.

## EQUITY

Many people interviewed have stressed the importance of insisting on the same high standards for students with visual impairment that we set for other students. Dave Simpson, instructor of computer applications at the Summer Institute, states we need to “be as firm with the blind student as with others.”<sup>51</sup> Pieck states, “High expectations should be there for every student, including those with disabilities.”<sup>52</sup> Pieck remarks, “If a blind kid has a little more than average musical aptitude, people will often fall all over themselves saying how wonderful and amazing the kid is for doing things that are barely considered passable for sighted kids in the same situation.”<sup>53</sup> She states, “College teachers need to be honest when assessing their students, and their blind students in particular. Just because someone sings beautifully or plays really fast and is blind does not make them a natural music major! It also does not make them more talented or gifted than somebody else.” According to Pieck, such students “have become accustomed to being at the top. People have told them they’re wonderful and then they get to college...where they will be just another person with a music degree. Helping students come to terms with their actual capabilities and developing with them realistic expectations for their futures is important.”<sup>54</sup> These are strong statements coming from Pieck, who is herself a blind musician.

McCann recommends that before a student with any disability is admitted into a college music program, the student’s literacy skills and study techniques be discussed and evaluated. He suggests asking the student how certain tasks might be accomplished. “It seems to me that it is not unfair or discriminatory to ask a prospective student how he/she plans to satisfy the requirements of a certain field of study. For example, ‘Our music students are given a book of melodies and asked to sing them in class. How will you accomplish that task?’ Or, ‘In some classes, teachers will play or sing music and require the students to write it down in notation.

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<sup>51</sup> Dave Simpson, in-person interview with author, July 13, 2008.

<sup>52</sup> Stephanie Pieck, e-mail message to author, July 24, 2011.

<sup>53</sup> Stephanie Pieck, e-mail message to author, April 6, 2012.

<sup>54</sup> Stephanie Pieck, e-mail message to author, July 24, 2011.

How will you do that?"<sup>55</sup> Unfortunately, what likely happens is a student is accepted into a program without any such discussion.

Preliminary evaluation of the student's skills should result in an honest and individualized plan for the student's success. McCann mentions several possible routes for VI students, including expanding a typical four-year program into five years or delaying admission into the music program of the university until a student's literacy and technical skills are sufficient.<sup>56</sup> The crucial step in this process is the thorough assessment of the student's literacy and technical skills, along with musical talent, and the honest communication with the student about what is required to be successful in a college music program. In order to thoroughly assess the student's skills, we have to be knowledgeable about the skills that need assessing when working with a student who is visually impaired. We also must hold the student accountable for learning the required skills, even if it means delaying admission or delaying certain coursework until such skills have been mastered. There may be some students who are resistant to learning to read music, if they have managed well thus far without that skill. Great care should be taken in how these requirements are communicated, because the student could claim prejudice if requirements are mistaken for unfair treatment.

Equity is also important in determining accommodations for VI students, because we do not want such students to have an unfair advantage over sighted students. If we allow a braille music reader unlimited time to complete an exam because of the extra time it takes to read a braille score, is this fair to the sighted student who is extremely slow at reading bass clef, who receives no extended test time? If we have a blind student who is not a braille music reader, is it fair to allow that student to rely solely on listening skills and bypass learning to read, when we require literacy of the sighted students? A blind student is unable to remediate blindness, but we can still require literacy. However, when the disability presents a barrier to communication, prevents access, or hinders full participation, we are obligated by law to provide reasonable accommodations that will remove these roadblocks. We must be careful, though, not to provide additional advantages that are unrelated to the student's disability. As we instructors wrestle with

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<sup>55</sup> Bill McCann, e-mail message to author, February 25, 2012.

<sup>56</sup> Bill McCann, e-mail message to author, March 14, 2012.

these complicated issues, we must rely on our institution's office of disability services for guidance.

### EQUIPPING WITH SKILLS

After assessing the skills of an incoming college music student and committing to individualized instruction, we must also commit to helping the student develop as many skills as possible to the highest level of ability. Those interviewed emphasized this numerous times. Simpson states, "Any musician, blind or sighted, should have as many tricks in the music bag as possible for learning and performing, including the ability to read and write music, a great ear, and, ideally, skill in improvisation. To some degree, the musician who lacks skill in reading music may be able to compensate with strength in another, but only to limited degree. Blind organists, for example, might choose to learn the ephemeral music—the hymns and anthem accompaniments that change every week—by ear, thereby conserving the great deal of time and energy needed for memorizing major recital pieces. This is the path I chose, because I wanted my concert repertoire to draw upon absolute accuracy and scholarship in my interpretation, and a score is the closest thing we have to a letter from the composer. Furthermore, to argue that one need not learn to read and write music if he/she can play by ear, is like arguing that it isn't necessary to learn to read or write if one can speak a language."<sup>57</sup>

Jones emphasizes, "The total package is important—behavior and all—for preparing a student for a music career." She explains that a blind musician sometimes has developed physical mannerisms that can be a distraction for audience members watching a performance. According to Jones, it is the responsibility of the applied teacher and the ensemble director, along with the disability services office, to work with the student on any physical mannerisms that may be problematic in performance.<sup>58</sup> Goldstein explains, "Blind students think people will judge them by what they hear, but [job] interviewers will also judge by what they see as well." The teacher should make sure the student understands what is visually acceptable and what is not, according to Goldstein.<sup>59</sup> Though these

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<sup>57</sup> Dave Simpson, e-mail message to author, April 14, 2012.

<sup>58</sup> Leslie Jones, in-person interview with author, March 2009.

<sup>59</sup> David Goldstein, phone interview with author, February 23, 2010.

remarks are not directed to the music theory instructor, we should not excuse ourselves from responsibility. Whenever we include presentations in our music theory classes, we may be assessing “stage presence” (delivery) in addition to content and organization. If so, we should consider devoting some class time for discussing effective presentations or at least spend time with the blind student outside of class, helping with delivery.

### EMPOWERING INDEPENDENCE

According to Wagner, instructor of the “Touch and Sing” class at the Summer Institute, “a student can have all the accommodations in the world and also have a good teacher, and still not do well. The student’s success is largely influenced by the initiative and independence of the student. Unfortunately in high school, teachers do not teach students with visual impairment to be independent, so they often are not prepared for college.” With a degree in music therapy under her belt, Wagner recounted several obstacles she had to overcome as an undergraduate. She had to convince one of her music professors that she really did know how to read braille music. Over time, that teacher began providing her with braille music scores, but Wagner had to be persistent to get what she needed. Also, the quality of service Wagner received from the disability services office was less than desired. “The guy in charge of disability services was also the girls cross country coach. I had to talk directly to professors instead of the office of disability services. Also, the disability office itself was hard to find for a blind person or for anybody. I learned to do things myself because the office would not help me.”<sup>60</sup> If Wagner had not persevered, she might not have succeeded in completing her degree.

Teachers should be informed and ready to be proactive, so we can guide the student to be independent and to know the resources available. We cannot assume the student already knows all the resources or where to find them, nor can we assume that someone else (the disability services office or some other teacher) will know. Whitney, a college student working toward a music education degree at the time of my interview, states, “Teachers need to make sure students get accommodations they need. Students need to speak up and tell teachers what they need. When you get into the real

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<sup>60</sup>Melissa Wagner, in-person interview with author, July 11, 2008.

world, you will not have any help from anybody else.”<sup>61</sup> Whitney is charging teachers with the responsibility of helping transition the student from college into professional life. Pieck echoes this charge to college instructors by stating, “Advocacy skills are not always taught, so once again, this falls to college teachers. Academic advisers can help here, but often, it will be the student’s primary instrument instructor who will develop the closest relationship with them.”<sup>62</sup> In a follow-up phone interview with Whitney several years after my initial interview, she explains, “You have to prove yourself more as a blind student. Do not let anyone tell you that you cannot achieve something because of your disability. Advocate for yourself.”<sup>63</sup>

Simpson states, “The blind student has to be more resourceful than his peers, on average. When classmates arrive on campus, they simply get the list of books for a given course and go buy them at the university bookstore, whereas the blind student must contact the professors three to six months in advance of a course, get a list of required materials (often the professor has not even decided what to use at that time), and go off on his/her own to locate them, or find a volunteer transcriber to produce them. Occasionally, the blind student encounters a professor who is not willing to change the way he/she has taught a course for the past 20 years, and who expects the student to come up with all of the answers.”<sup>64</sup> Such disregard for disability law among faculty is disappointing, but it does happen. As instructors, we must be willing to help students as needed, but more importantly, to steer them toward resources that will allow them to become independent self-advocates.

## MENTORING AND TEAM BUILDING

It is crucial for an assembled network of college mentors and teachers to be informed and ready to be there for the student, because the student may need this support. McCann offers this advice: “Join with other professionals...to formulate and execute a plan for any student with a disability to give that student the best chance of success in your school’s music courses. Team members

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<sup>61</sup> Whitney, in-person interview with author, July 11, 2008.

<sup>62</sup> Stephanie Pieck, e-mail message to author, July 24, 2011.

<sup>63</sup> Whitney, phone interview with author, December 14, 2011.

<sup>64</sup> Dave Simpson, e-mail message to author, April 14, 2012.

might include someone from the disability services office or Dean of Students office, the student's rehabilitation counselor from a state rehabilitation agency, a technology consultant, a traditional braille music transcriber, or former teachers of the student. Consult with the student throughout the process."<sup>65</sup> Because of the music reading and transcription skills needed in music theory and aural skills classes, it is crucial for a music theory instructor to be a part of such a team. In fact, we should be ready to gather a team together if no one else has stepped forward to do it. If our professional demands are already too great for us to take on the added responsibility of gathering a team, perhaps we can facilitate smaller connections between advocates. We cannot work in isolation. As stressed earlier, this team gathering should begin as soon as we know a student is planning to attend our school as a music student. If we wait until after the student arrives, we may be too late.

Goldstein, Director of the Summer Institute, is not a musician himself but is a champion for young musicians with visual impairment. He says one problem his students with visual impairment may have is social. According to Goldstein, most students are alone – schools may not give them roommates because they need space for their equipment. Unless the students are in the band or choir, or taking part in a production of some sort, they may end up leading very solitary and often depressing college lives.<sup>66</sup> More important, peers may not realize that a student's lack of eye contact or the appearance of not being outgoing is the result of that student not being able to see that there are other friends close by. In a testimonial letter addressed to sponsors of the Summer Institute, the mother of a student writes about the isolation her daughter faced because of her blindness: "It is extremely hard to make friends when you can't catch someone's eye and smile at them or give a nod of recognition when someone you've met before walks into a room, or when you can't see who is sitting at a cafeteria table, so you eat alone."<sup>67</sup>

Goldstein stresses the importance of maintaining a good relationship between student and teacher. He states, "Rather than the teacher try and make every classroom activity work, it is more important to have a good relationship with the student, so that the

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<sup>65</sup> Bill McCann, e-mail message to author, February 25, 2012.

<sup>66</sup> David Goldstein, phone interview with author, February 23, 2010.

<sup>67</sup> Valerie Crockett, letter to David Goldstein, February 17, 2006.

student can come to the teacher if something is not working.”<sup>68</sup> This will likely require a closer relationship than is typical, perhaps even a mentoring relationship, between the teacher and a student with visual impairment.

Josiah, a sighted instructor who had only been teaching students with VI for about six months at the time of our interview, stresses that teachers need to be prepared for struggles that may be extremely personal for the student. Of all the interviews I conducted, Josiah was the only person to stress the need for sensitivity with a student who is gradually losing sight, because that student’s feelings of grief and loss may impact the ability to study and enjoy music.<sup>69</sup>

### KNOWING THE RESOURCES

It can be challenging to find the resources and people to help serve the needs of musicians with visual impairment as well as provide their teachers with the appropriate training. Virtually all printed resources that offer advice to teachers consist of online documents, with a few exceptions. Three sources are highly recommended for teachers who are preparing to teach a student with visual impairment. First, the National Resource Center for Blind Musicians should be contacted for their wealth of helpful resources (<http://www.blindmusicstudent.org/>). Second, McCann’s Dancing Dots company not only provides information on technology available to musicians with VI, but it facilitates technology training and provides additional printed resources for teachers. It is also crucial to join the Music Education Network for the Visually Impaired (MENVI), a network of parents, educators, and students who exchange ideas and provide guidance and support for musicians with VI. MENVI membership is free and provides a variety of networking opportunities through an e-mail LISTSERV, a membership list with contact information, and a list of specialists in areas such as braille music, large print, band music, and technology.<sup>70</sup> Refer to the Bibliography for additional resources, including books on braille music and sources for braille music scores.

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<sup>68</sup> David Goldstein, phone interview with author, February 23, 2010.

<sup>69</sup> Josiah, in-person interview with author, March 2009.

<sup>70</sup> See the MENVI website, [www.menvi.org](http://www.menvi.org), for membership and additional contact information.



## BEYOND COLLEGE

Despite the many challenges facing a music student with visual impairment, it is possible to forge a path to a successful career in music. Success depends on the collective effort of the student and a team of support, including mentors and teachers, available to assist the student along this journey. It is not difficult to find evidence of such success. In this article, we have heard from several remarkable professionals who happen to have visual impairment, including Karen Gearreald, David Goldstein, Chi Gook Kim, Bill McCann, Stephanie Pieck, Dave Simpson, and Melissa Wagner. Of the 85 graduates of the Summer Institute between 1996 and 2011, 12 are earning money in the music field as performers, therapists, teachers, studio musicians, or in radio; six are in non-music professions, 22 are presently in college as undergraduates, three are in graduate school, and seven are still in high school.<sup>71</sup> These statistics are impressive when compared with national employment statistics for blind and visually impaired people of working age.<sup>72</sup>

The road to success may be winding and long for a musician with visual impairment, although this is not necessarily because of the disability. Employment opportunities that are financially sustaining are limited for musicians who are blind or sighted, and we must encourage students to be flexible as opportunities arise and interests shift. Whitney, a Summer Institute participant discussed earlier, revealed in a follow-up interview that she had changed her major from music education to music therapy. A very independent self-advocate, Whitney expressed apprehension for the future as she was preparing for an internship application in music therapy. The internship would require relocating to another state, arranging for support services to accommodate her needs, and proving to a new group of people that she is capable of being successful in this field, despite having a visual impairment. Even with her independent and self-assured personality, she honestly admitted that she will always need extra help from outside sources, and she wondered if people would see her abilities rather than her disability.<sup>73</sup> The

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<sup>71</sup>David Goldstein, e-mail message to author, February 2, 2012.

<sup>72</sup>Statistics are available through various sources, including the American Foundation for the Blind (<http://www.afb.org/>), although they may not be recent.

<sup>73</sup>Whitney, phone interview with author, December 14, 2011.

negative attitude of other people can certainly be a stumbling block. Gloria, another college student and Summer Institute participant, states, "The attitudes of people are what is hard. Older adults make it hard to find a place to fit professionally." Reflecting on her experiences as a young adult, she explains, "I was treated as a kid rather than an adult. I was talked down to."<sup>74</sup> Such negative experiences would most certainly have a detrimental effect on a person's level of motivation, optimism, and general self esteem, unless there are teachers and mentors to offer encouragement.

It is not enough for college instructors simply to teach students and guide them to successful completion of a music degree. Beginning in the freshman year, students – both sighted and blind – need advice and assistance on how to be successful as a professional musician. This transitioning into life beyond college should include helping the student build a network of professional contacts for the purpose of learning about the challenges of job searching, interviewing, and succeeding in the profession. However, sighted instructors should not assume to know about the job market for a blind musician. David Goldstein explains, "Blind students often do not know what jobs there are. They may not be exposed to everything, to know what is involved with transportation to a gig, for example. Also, it may not be realistic to have all one's goals centered on being in an opera company on a regular basis, for example, but several performers have had outstanding major performing roles, give concerts, and have a steady income from teaching." Goldstein, with his dry sense of humor, states, "It is harder for blind musicians to wait tables between jobs."<sup>75</sup> Our best method of preparing the student is to connect that student (and ourselves) with other professional musicians who are blind, because they have first-hand experience and can offer the best advice.

## CONCLUSION

In "A Blind Music Student's College Survival Guide," Taesch provides several "Tips for the Sighted Professor," including these comforting statements: "You do not need special skills to teach a blind student. As long as he or she is in possession of the music that you are requiring, and has been properly trained and informed,

<sup>74</sup>Gloria, in-person interview with author, July 14, 2008.

<sup>75</sup>David Goldstein, phone interview with author, February 23, 2010.

it is the same as with any student.”<sup>76</sup> With sufficient training and information, we should be as confident about teaching a student with visual impairment as teaching any student. Furthermore, most of the advice shared in this article on teaching students with visual impairment may be applied more broadly to teaching all students.

**Literacy.** We must promote high standards of music literacy for all students aspiring to a career in the music field. It is not uncommon for a sighted college freshman to have poor music literacy skills, such as a weakness in one or more clefs, or very slow reading ability in general. A student who is not a fluent music reader as an incoming freshman must receive honest assessment and be required to gain fluency as soon as possible. Without a high degree of music literacy, accessibility to music scores both in and out of the classroom will be hindered and the student’s progress in any coursework involving score reading and analysis may be affected.

**Accessibility.** We as teachers are charged with providing the tools necessary to facilitate the best learning environment for each student. Such tools may include visual aids in the classroom, supplementary resources for study, tutoring options, sufficient office hours, and a variety of other creative means for connecting students with the subject we are teaching.

**Inclusion.** As teachers, we must strive continually to include and engage every student. We should work for inclusion by involving all students in class discussion, by thoroughly assessing each student’s comprehension of the information we share, and by providing a supportive and encouraging classroom environment.

**Expectations and Honesty.** We must be honest with each student we teach. Our standards and expectations must never be compromised because of the individual needs or circumstances of a student. If a student is not reaching the standards necessary for future success, or if the student has significant gaps or shortcomings in knowledge or skills, we must guide the student toward remediation or toward a different career path. If we do not communicate our concerns honestly, we are doing a disservice to the student.

**Individualized Instruction.** We must teach to the individual student, because no two students have the same strengths and weaknesses, the same learning style, the same background and life

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<sup>76</sup> Taesch, “A Blind Music Student’s College Survival Guide,” 13.

experience, or the same personality. We must be flexible enough to adapt our teaching style to suit the needs of the individual student, whether or not the student has a diagnosed disability. It is crucial that we strive to know students well enough to discover their unique qualities and help them learn to utilize both their strengths and their weaknesses to achieve success.

**Equipping With Skills.** As Leslie Jones stated previously, “The total package is important – behavior and all – for preparing a student for a music career.”<sup>77</sup> Musicians need as many highly-developed skills as possible to be a well-rounded artist. The more skilled a musician is, the more chances for success as a musician in today’s job market.

**Mentoring and Team Building.** It is not just the student with visual impairment who needs mentoring or the help of a team. All students benefit from having faculty mentors, and some students may need a team to provide extra assistance during times of crisis, either academic or personal. We should be alert for signs of struggle and be ready to address needs appropriately. If we fail to pay attention to a student’s needs during a pivotal point in the college experience, that student may fall through the cracks from lack of sufficient support.

**Empowering Independence.** Mentoring involves preparation for life beyond college, and teachers should be motivated to help all students develop skills for independence as professional musicians, including musicianship skills, organizational skills, research skills, and even interpersonal skills. For example, in the music theory or aural skills classroom, our teaching should include modeling the development of strategies for studying a notated music score or for studying music aurally, without the assistance of a theory teacher or a piano. In aural skills classes, we should model how a musician can construct vocal drills to tackle complex passages within a given melodic line. In training students to design their own pedagogical drills, we are teaching them to be independent thinkers and problem solvers.

**Retention.** Many of the areas addressed thus far have an impact on student retention. The better attention we give each student throughout the college experience, the better we are able to help each student press on to succeed in college and beyond. As different as students with visual impairment may seem from other students

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<sup>77</sup> Leslie Jones, in-person interview with author, March 2009.

we teach, in reality the students are all the same. They all have goals they hope to achieve, they all strive for success, and they look to teachers and administrators for instruction and guidance.

### FINAL THOUGHTS

I was recently asked how this project has affected my teaching of students with visual impairment. At first, I was unable to answer the question, because I had not taught any students with visual impairment in the last several years. Upon further reflection, I realized this project has had a profound effect on my teaching of all students, in every class and at every level. Through this project, I was motivated to reassess my own teaching and to make significant changes. I still find myself striving for higher standards and expectations of students and requiring a stronger work ethic both for myself and my students, because I witnessed such great illustrations of hard work and perseverance within this community of blind musicians. As a teacher with an already well-established reputation for being very patient, I now find myself working for even greater patience. I take more time to notice and validate the small victories achieved by students. I am more motivated than ever to truly know my students, and I try to take more time during the workday to develop deeper relationships with them. In essence, I care more about each student. I have come to understand that the goals of quality teaching are the same for every student, whether or not there is a diagnosed disability. The barriers and challenges that we may think are restricting us from effective teaching gradually disappear when we simply focus on the needs of the individual student.

### AUTHOR'S NOTE

The author wishes to thank all those who shared their time and insight through interviews and observations. The remarkable spirit and enthusiasm exhibited by everyone has been inspiring, and their willingness to share advice from their own personal experiences is greatly appreciated. I especially thank Karen Gearreald, David Goldstein, Leslie Jones, Chi Gook Kim, Bill McCann, Stephanie Pieck, Dave Simpson, Richard Taesch, and Melissa Wagner, who graciously granted permission to use their names in this article. I have been profoundly affected both as a teacher and as a person by this community of musicians and artists.

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## APPENDIX A

### Questions for Instructors

- 1) Background/Training – Early interest in music, education (music and otherwise) in high school and beyond, professional experience (music and otherwise)?
- 2) For Summer Institute Staff: Motivation for being involved in the Summer Institute?
- 3) In college (or even high school), did you have a music teacher or teachers (in general) who were most effective regarding their approach in teaching a blind student? If so, please describe.
- 4) Did you have a teacher or teachers who were not effective, and if so, why?
- 5) Describe your approach in “getting what you needed” in school and beyond. Describe accommodations provided by teachers, employers, etc. Were you a strong self-advocate? Independent? Help from parents or mentors? (In other words, “how did you do it?”)
- 6) Did your college provide accommodations? Describe.
- 7) What other factors contributed to your achieving success in college and beyond, that haven’t already been mentioned?

This question is for those who had music theory (or other music courses) in college:

- 8) As a student in college music theory classes (and music classes in general),
  - a. What were the greatest challenges you faced, and how did you overcome them?
  - b. Were adjustments or adaptations made in the curriculum for you?
  - c. Technology used?
  - d. How included were you in the classroom?
  - e. Did instructors provide help outside of class?
- 9) What do college instructors need to know from your perspective, to effectively teach a student who is blind (in music theory classes, music classes, and general classes)?

- 10) How can we better assist students in transitioning from high school to college, or from college to profession?
- 11) How can we achieve a balance between the desire to be helpful and accommodating, and wanting to treat all students equally?
- 12) How essential is it for a blind college music student to know braille music? Do you think it should be required?

## APPENDIX B

### Questions for Students

- 1) Describe your early interest in music.
- 2) Other music experiences up through high school (band, choir, lessons)?
- 3) Where are you now in your education (what level)?
- 4) Previous music theory training/exposure? If so, describe.
- 5) Any college music experiences so far (for those who have already started college or participated in camps/workshops)?
- 6) How do you learn music that you play/sing? By ear? Read music? How do you learn music from school?
- 7) Do you have perfect pitch?
- 8) How much sight do you have?
- 9) As a student with visual impairment, what have music instructors (high school or college) done to help facilitate learning? Provide braille music scores? Help outside the classroom? Other accommodations?
- 10) What technology have you used in music classes or at home with music? What's been most helpful?
- 11) Has everything worked well for you in high school (and/or college)? Any challenges (especially with music classes)? Has anything not worked well or been problematic to learning?
- 12) Did you ever have a teacher (high school or college) who was not helpful to learning? If so, how?
- 13) Have you had any important music mentors?
- 14) If so, who are they and why do you consider them mentors?
- 15) What advice would you give a college professor on how you would like to be treated, as a student with a visual impairment?
- 16) For those in college: Describe the transitioning

process from high school to college. What was easy? Difficult? What assistance did you receive to help with transitioning/ orientation? Was it sufficient? Were there surprises at college that you weren't prepared for?

- 17) Describe your college journey so far.
- 18) How familiar are you with braille music? If you know it, how did you learn it and when?
- 19) Do you feel it is necessary to learn braille music? Explain. How has it been useful to you if you already know it?
- 20) For Summer Institute students: Why are you at the Summer Institute this week?
- 21) What are your goals for college and profession?
- 22) What are your interests outside of music?

