Teaching Music to the Visually Impaired: An Approach to Universal Design for Improved, More Equitable Teaching Practice

Peter Leo

Mellon Public Humanities Scholars Program

Mentor Dr. Victor Bobetsky

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Music is something to which all are entitled; the quality of an individual's musical education should not suffer as a result of a disability. In today's educational environment, especially in the public schools, music teachers are often severely unprepared to educate students who are visually impaired. In many cases, they have not been taught the best methodology for these situations, do not have the resources to implement the methodology, or simply lack an understanding of what these students may need. As a result, students with a visual impairment may have significant musical potential that goes unrealized. This can be addressed through the codification of a series of best practices that teachers may employ to facilitate the learning of music for students with a visual impairment which is based in Universal Design for Learning (UDL), a learning theory centered on planning instruction in a way that is prepared for a diverse demographic of learners. It suggests that an educator should prepare a lesson so that it can be applied to learners of various backgrounds with little modification, often doing so through the use of differentiation that is made possible by new technologies. By making a series of changes and additions to their teaching and planning, music teachers will not only make music education much more equitable and accessible, but will improve the quality of music education that all students in the class receive. So, even teachers who do not have students who are visually impaired will see a benefit for their current classes, in addition to becoming prepared if a student with visual impairment enters their class in the future.

There are three components that are important to the education of individuals with disabilities: advocacy, accommodation, and accessibility. These may often happen in succession: emphasis on advocacy leads to accommodation, which in turn leads to accessibility. However, it is crucial that this progression not stop at the accommodation phase, as the most successful combination of these elements is when the greatest emphasis is placed on accessibility (Edyburn,

2010). The student benefits most from material that is readily accessible to them, whereas focusing on accommodation denotes exceptions to the lesson for certain students, which inherently signifies an inequality between students who have a disability and those who do not. Although this is not always practically possible, particularly in the early stage of a given program's development when resources are scarce and advocacy is necessary to grow the department and obtain resources for students who need them, the emphasis on accessibility should remain the ultimate goal in order to establish a high level of education (Edyburn, 2010). This is where UDL can play an important role. UDL challenges our historical views of disability, instead viewing it simply as a different type of learning, not a significant disadvantage (Hall et al., 2015). With this in mind, UDL aims to design curriculum that is varied and differentiated in its instructional approach so that the material is accessible to any type of learner at a given time.

At the core of the UDL philosophy is the acceptance of the basic fact that all students learn differently. Regardless of the presence of any condition typically labeled as a disability, students come from different cultural, familial, and educational backgrounds, so a certain degree of flexibility is necessary when planning a lesson in order to connect with various individuals within a diverse student body (Hall et al., 2015). The UDL framework focuses on creating lesson plans that make the course material accessible to all types of learners, even if many of these types of learners may not be present in a particular class. For example, a music educator may plan a lesson on musical form in which the objective is for students to differentiate between different sections in the music. To teach this concept, a teacher may demonstrate the form in three ways: listening to the form in the piece itself, discussing what they heard with a partner, and moving their hand over a raised listening map with different textures that match the different musical textures in each section. By doing so, the teacher provides a variety of ways in to the

concept. Tactile learning would be particularly helpful for a student with a visual impairment who might not be able to use visual aids to help follow the form. According to UDL, however, the teacher should provide these options even if students with visual impairment are not present in the class, as these options may also help tactile learners or students who have difficulty conceptualizing the abstract concept of form. This results in a lesson for all that is not one-size-fits-all because variety and options for different learner types are built into the lesson itself.

UDL has the potential to be an important pedagogical philosophy as it shifts the responsibility to learn from the student and emphasizes instead the design of lesson. Instead of requiring all students to conform to a rigid lesson plan, fluidity is built into the lesson to meet the needs of various learners. The accountability for educational reform is then placed on the contents and design of the lesson, not on the students. So as to embrace a wide variety of types of learners, it is only logical that UDL educators should seek to provide students with variety in the classroom. Hartmann (2015) asserts that students will be successful when given many ways to be engaged, to be resourceful, and to demonstrate their learning. The UDL framework supports this idea. According to the official UDL guidelines, teachers should seek to provide multiple means of engagement, representation, and action (CAST, 2018). Teachers should include these principles in every unit, and include them whenever possible in their lessons (Hall et al., 2015) . For multiple means of engagement, music educators should seek to provide numerous opportunities for student input on repertoire, draw from their cultural background when discussing elements of music, and promote high expectations of students with disabilities. For multiple means of representation, the teacher may provide tablets to customize the display of documents or music, or have large-print and foreign language printed options when tablets are not available, or allow for tactile and aural tools in addition to visual. For means of action, a

teacher may consider providing a choice of two or three different assignments for a summative assessment, so that the student can display their knowledge without being unnecessarily hindered by the format of the assignment.

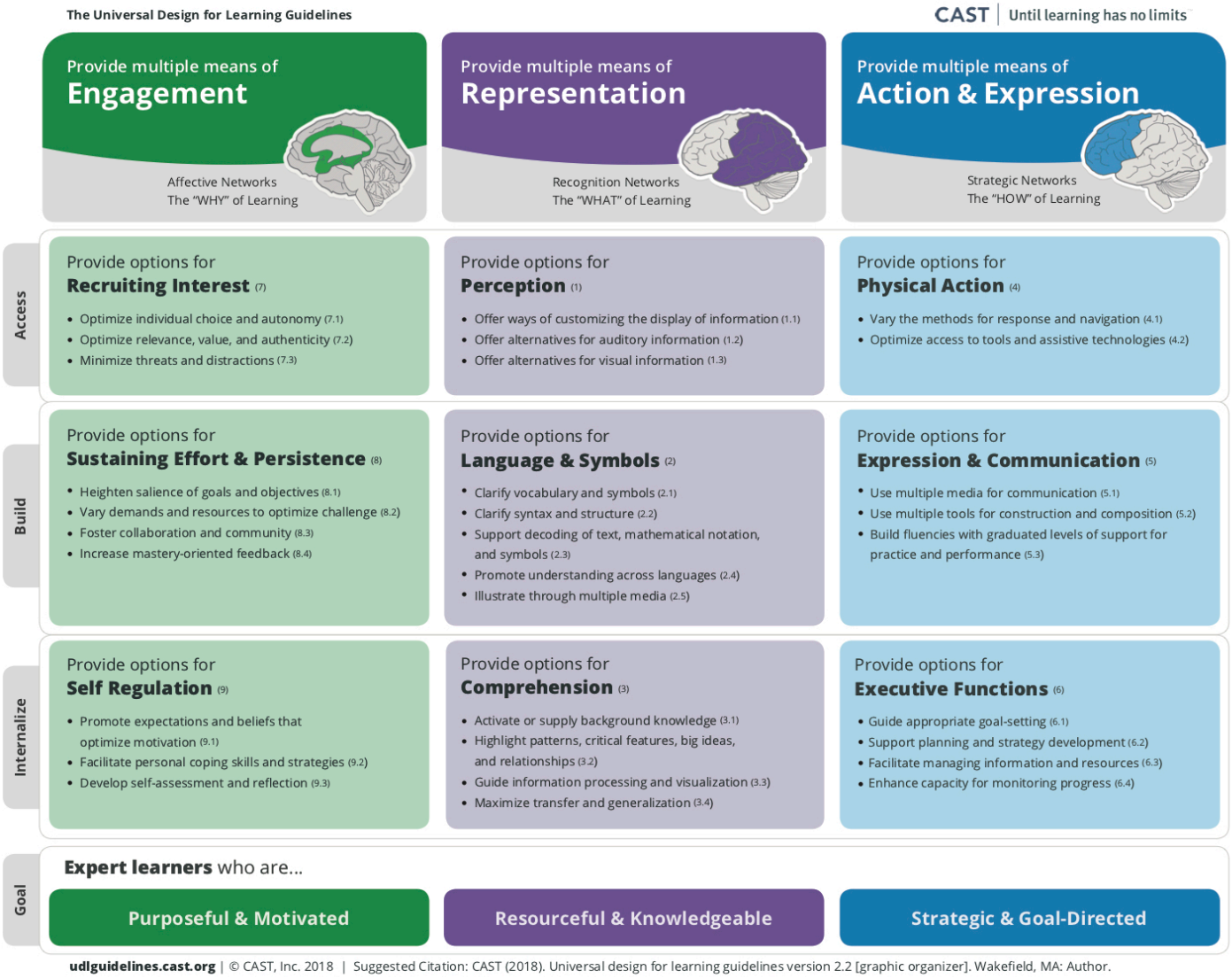

Figure 1: UDL Guidelines (Cast, 2018)

Not only will this benefit students with visual impairment, but it will also benefit other students in the class who may not have a visual impairment. In an interview conducted with a professor of music at CUNY Hunter College, he discussed a semester of his teaching in which he had two separate sections of the same course. In one section he planned his syllabus differently and adapted his methods after meeting with an individual who was visually impaired and was enrolled in the class. He incorporated more tactile learning tools and was actively conscious of his verbal description throughout a lecture. In the other, he made no changes to his methods and planning, as the entire class was sighted. At the end of the semester, he found that after adapting his methodology and being mindful of his word choice for the first section of the class, the students in that section achieved higher marks throughout the semester on material and exams than did the students in his second section, where he made no changes to his established teaching method for the class. This experience demonstrates the benefit that the educational variation of the UDL philosophy can bring to each student in a diverse class of musicians and how its implementation will raise the overall quality of the musical education they receive. All students stand to gain from the successful implementation of Universal Design.

For a teacher contemplating the implementation of UDL, there are a few misconceptions to be aware of and avoid. A commonly held notion is that UDL is “just like good teaching”, or “what you have always done.” Similarly, some claim that many educators have already been unknowingly using UDL in their own naturally developed teaching style (Edyburn, 2010). This view undermines the importance of the curriculum and planning reforms that UDL aims to bring about, and preserves a flawed mindset. To accept the idea that UDL is merely labeling something which many educators have always been doing is to ignore the importance of proactively

incorporating diversity into a lesson, and demonstrates a fundamental lack of understanding of the significant changes UDL brings in contrast to the current educational model (Edyburn, 2010).

With this in mind, educators may find success through some changes to their personal teaching styles. The goal is not to accommodate students with visual impairment, but to restructure the way in which curriculum is approached so that it is accessible to all learners, including those who are visually impaired. I will now introduce and discuss a series of practices I compiled that teachers can incorporate into their teaching and lesson planning to make music accessible to students with visual impairment. These practices include reading aloud and describing visuals; using tactile aids; becoming familiar with braille music; incorporating music by rote; utilizing groupwork; and integrating technology.

It should be noted that these suggestions of best practices are supported by fieldwork I conducted at the Filomen M. D'Agostino Greenberg Music School (FMDG School), an accomplished music school for people with vision loss based on the Upper East Side of New York City. This fieldwork includes the observing and leading of a variety of music classes containing students from the elementary to the high school level. Classes focused mainly on basic music theory and music history, with some private music lessons, choir rehearsals, and dance classes being observed as well. These classes were all conducted virtually via Zoom beginning in September 2020 until March 2021. Fieldwork also included discussions and meetings with staff at the FMDG School, as well as an interview with Jason, a graduated student of the FMDG School and a studying pianist. All names mentioned from the fieldwork research are pseudonyms.

By incorporating these best practices, many of which are highly used at the FMDG school, teachers will not only improve the level of musical education their visually impaired students receive, but will raise the overall quality of music education in any given class.

Describing Visuals and Reading Aloud

In observation of classes at the FMDG School, experienced teachers throughout the school utilize highly detailed descriptions of visuals. Many use videos available on the internet in their teaching, a common tool in many music classrooms. As the video played, they would describe anything that could not be discerned from the audio alone in great detail. In a class examining Tchaikovsky's *Nutcracker*, the teacher played a video of its performance. Students listened to the music while a dance instructor explained in great detail what the people on stage were doing. This provides students with the visual context, which they could then connect with the music they heard. The details were not always relevant to the music, but were necessary to understand the whole atmosphere of the performance. Regarding the lead ballerina, a young student even asked, "Is she pretty?", to which the teacher replied, "yes, very pretty".

Others emphasize the importance of thinking critically about one's own word choice that may unknowingly alienate a student who is visually impaired. For example, teachers should be particularly conscious of the words they choose to ensure that the topic is discussed in great detail. No visual cues should be taken for granted. This is particularly true when considering use of the white board. Teachers should articulate verbally anything they write on the board. For example, in a lesson on rhythms, a teacher may elicit the definition of the vocabulary word "meter" from the students. The teacher may then say, "Let me write our new vocab word, meter, and its definition on the board: M-E-T-E-R." The teacher should then speak the definition

verbatim as they write it on the board. This helps not only students with visual impairment, but also any students who may benefit from hearing the definition out loud. Rush (2015) suggests that in a class containing visually impaired learners, the teacher should form a habit of always reading instructions, information, and anything written on the board aloud to allow for accommodation to happen on the spot. This can be taken a step further. The teacher should make it standard practice in every class to speak what is on the board aloud. In a class where there are no students with visual impairment present, other types of learners will benefit from the reading of instructions out loud, such as students with visual processing disorders, students with trouble focusing on longer readings, or any student who simply learns more effectively aurally. Thus, material becomes accessible, and less accommodation is needed since reading aloud would then become standard practice in all classes. Furthermore, research has shown that reading a test aloud boosts the test scores of students in grades 4 and 5 (Crawford and Tindal, 2004). This same benefit can be obtained by a teacher reading directions to assignments and notes on the board out loud. This is also true for English Language Learners (ELLs) who benefit from being able to match sounds of a new language to the words and letters they are reading on the page (Celic, 2009). This can even serve as a tool for student engagement, as the teacher can have other students in the class read the directions to an assignment or a particular set of notes out loud. With this model in place, teachers would have to make few, if any, changes to their lessons when students with visual impairment do enroll in the class.

Use of Tactile Learning Aids

McDowell (2010) suggests a number of excellent adaptations a music teacher should be prepared to make when encountering different types of learners. For example, in a class which

contains visually impaired students, she suggests using tactile learning tools, such as sandpaper notes or listening maps with raised patterns. This is an excellent suggestion, but can be taken a step further as is suggested by the UDL ideology. These tactile tools should be used every time a teacher teaches a particular lesson, even if there are no visually impaired students in a given class. A study of the relationship between learner type and school performance identified a positive correlation between female students' Grade Point Averages and their self-identification as tactile/kinesthetic learners (Snyder, 1999). So, even if there are no visually impaired students in the classroom, having a tool such as a tactile listening map with raised patterns that follow the music can help many different students grasp concepts of musical contour and form. Then, little to no adaptation for students with visual impairment is necessary for that activity. Ample time should also be given for students to explore new items, such as their instruments in early instrumental lessons. Getting comfortable with the feel of holding an instrument and its different parts is often one of the challenges of beginning on a new instrument. Teachers would benefit from considering these tactile learning tools in as many contexts as possible.

Become Familiar with Braille Music

Just as UDL has benefited from the development of modern learning technology, there are a plethora of technologies with which a music teacher must become familiar to be prepared to work with a student with a visual impairment. The most important resource is not a newly developed technology at all. The idea of using a system based on touch to help people who are visually impaired read music was first conceived as early as 1500, and was standardized in the 1920's based on the system created by Louis Braille (Kersten, 1997). Many sighted musicians or educators brush off braille music, criticizing its impractical and time-consuming nature (Taesch).

braille music uses a system of six-dot cells that protrude from the paper. Different combinations of dots notate different pitches and rhythms, among other musical elements. Braille musical notation is imperative for students with visual impairment as it allows them to interact with notated music in the same way that a sighted musician would. Through braille music, it is now possible for those with a visual impairment to analyze scores, notate theory assignments, and read music for performance purposes. It is implausible to expect students to memorize all the music they ever learn. Furthermore, to learn solely by ear gives no opportunity for individual interpretation. It is impossible to learn by ear and not hear the interpretation of another individual. To avoid this plagiarism of ideas, musicians must read braille music, which only provides information on the music itself, leaving room for interpretation (Taesch). This system of notation provides visually impaired musicians with a tool that many sighted musicians may take for granted as "standard practice".

In his interview, Jason shared the profound impact that braille, both literary braille and braille music, has had on his education and on his life. Earlier on in his schooling, in middle school, Jason had to switch schools because the teacher of students with visual impairment (TVI) was not actually fluent in braille. She often sent home notes to be translated by Jason's mother, a translation which was often less than satisfactory because his mother was not trained as the TVI should have been. Fortunately, Jason was able to transfer to a school for students with visual impairments. It was during his time here that he began playing music, and was introduced to braille music. As someone who was born blind and had been studying literary braille for 10 years, learning Braille music came naturally to him. Both rely on different patterns within a six-dot cell. Since he learned braille music, Jason has said that all of the piano music he has learned has been through the use of braille music. He described learning braille music as a "life-changing

experience." Thus, it is clear the impact that a teacher can have on a student, either positively or negatively, based on their knowledge of braille. A music teacher will find great success in connecting with and teaching a student with visual impairment if they make the effort to become familiar with braille music. Even if full fluency is not reached, the knowledge the teacher acquires can be combined with programs such as Lime and any additional resources that the school provides to ensure that the student in question has equitable access to resources and educational material.

Incorporation of Learning by Rote

Although braille music is an essential tool for allowing visually impaired musicians to advance in their musical careers (Smaligo, 1998), the benefits of teaching by rote should not be discarded. Even with braille music or large print music, visually impaired students may have to rely more on their ear throughout their musical career (Rush, 2015). So, teaching by rote can be a valuable tool in helping visually impaired students interact with the music and its interpretation. Numerous instructors of voice and piano at the FMDG Music School utilize learning by rote in conjunction with braille music notation. Elementary and middle school level choral students are often taught their parts by rote, before they are combined with the other voice parts in the full chorus. Learning this way not only promotes aural growth and ear training, but it also allows for increased student engagement. Learning by ear can be much quicker than learning through braille music, so it allows visually impaired musicians to play through music sooner, something which is critical in developing student engagement and enjoyment of music. Again, while the benefits of braille must not be forgotten or abandoned, it can be beneficial to incorporate some learning by rote into the classroom. Furthermore, since the ideal is to combine braille music with

aural skills, both sighted and visually impaired musicians are on equal standings in that they "hear" in combination: through the eyes (or touch) and the ears (Taesch).

While teaching by rote is also a well-documented teaching technique in general music, it is often overlooked, particularly in subjects such as instrumental music. Atterbury (1995) recommends learning songs by rote as one of the major ways in which students should interact with music in a general music setting. Cooper (2005) suggests integrating some rote learning in the instrumental ensemble, particularly through echoing of teacher singing and demonstration in warm-ups. Grey (2020) echoes this idea by discussing the growing popularity of the "rote-before-note" ideology in instrumental music which emphasizes rote learning to build stronger aural skills and less reliance on notation. This emphasis on listening that comes with learning by rote will also help with an ensemble's tuning, balance, and blend.

Utilization of Groupwork

Pairing up students is an effective instructional tool and it can be particularly beneficial to partner a visually impaired student with a sighted partner. It has been shown that one of the most effective methods for learning is the process of students teaching their peers (Gartner, 1971). A study in groupwork also showed that groups which are structured, with each member knowing their role, create successful group learning environments wherein students feel a responsibility for the learning of their group members (Gillies, 2004). So, in configuring a group with a higher achieving student or a section leader with a visually impaired student, both will prosper. The section leader can be challenged by discussing concepts in a new, thoughtful way, while the visually impaired student will benefit from the additional descriptive language.

This can be particularly effective in elementary music classes, where movement and dance may be prevalent, as a sighted partner can assist their visually impaired partner with the movements (McDowell, 2010). This is common in dance classes at the FMDG School. Although no in-person dance classes took place during fieldwork observation, the dance instructor maintained that much of the in-person dance learning would be done with a sighted partner. Administrators and staff at the school also noted an increased level of body awareness and motor control in students with a visual impairment after they had taken some dance classes.

It is not difficult to understand the application of this concept in a class with no visually impaired students, as groupwork is already a key component to many classes and lessons. However, groupwork will benefit students further if the teacher adopts the practice of deliberately assigning certain students to structured groups.

Integrating Technology

UDL was developed and introduced in the late 1990's and into the mid 2000's (Hall et al. 2015), so, before this, developing a method that is heavily dependent on individualization of educational material would have been difficult without modern technology. Thus, the differentiation and flexibility required to successful employ UDL in the classroom is now often made possible due to this rapidly advancing technology. UDL strives to achieve "equitable use of instructional material" to ensure that all different learners within a given class have access to the same information and resources (King-Sears, 2009). Technology markedly assists in this. Tools such as computers and tablets allow teachers to easily modify materials to be larger, in different fonts, or translated. Textbooks are relatively unmodifiable; they exist in the form in which they were purchased and cannot be changed or individualized without significant effort.

With modern technology, however, material that would have been unusable to certain students is now available in seconds. That is not to say that it is impossible to implement UDL without newer technologies, as many cheaper alternatives, such as tactile listening maps, can be utilized. Since UDL aims to make learning accessible to all students, socioeconomic status cannot be a barrier. However, with the prices of tablets and laptops becoming increasingly affordable, utilizing technology in the classroom is ever more plausible (Edyburn, 2010). There is still a major benefit in the purchase of just one laptop to be kept in the classroom for use with notation software and other music-making programs.

For example, some visually impaired or low-vision music students require large-font printing of their music. Educators in schools with access to tablets for students, can use this as the medium for reading music. On a tablet, the size of music is easily adapted by the musician to suit their needs, so no class time need be lost to ensuring each student has readable music. Even in schools where tablets are not readily accessible, new computer software makes it possible for teachers to adapt and print music for their students in advance. This would not have been possible 20 years ago. So, a music teacher may plan to teach a lesson in which they introduce a new piece of music to a choir class that contains a mix of students with different ethnic backgrounds and three visually impaired students. Options for perception can be provided using technology. All students receive the same music, but some may receive large font or braille music, and English language learners may receive translated lyrics as well. Options for expression and communication can also be met using technology, as teachers can give options for assessments to be completed through programs such as Soundtrap (“Soundtrap - Make Music Online”), where students can virtually contribute to and collaborate on musical projects with their peers.

Rush (2015) discusses a number of technologies that have the potential to alter a student's musical development and career for the better. Teachers should familiarize themselves with this technology and make full use of it when there is a visually impaired student in their class. These include:

Name	**Use**
GOODFEEL	GOODFEEL is a software from Dancing Dots that translates scores from music XML files from programs such as Sibelius or Finale into braille music notation. This used to be a time-consuming process that could only be done by a professional. However, with GOODFEEL, a teacher can upload a scan of a score, it will be written as an XML file, then translated from sighted notation to braille notation. Some purchases may include a portable braille embosser to print the newly translated score (*Dancing Dots - Accessibility and Music Products and Services*)
Lime	Lime is a program also from Dancing Dots that can work in conjunction with GOODFEEL. It is a music notation software much like Finale or Sibelius which allows individuals to prepare scores to be translated into braille. This can be a valuable tool for teachers who need to create a version of an assignment in braille music (*Dancing Dots - Accessibility and Music Products and Services*).
LimeAloud	LimeAloud is a set of scripts that are used with JAWS screen reader to access the Lime software. At any given point in the music, the program will speak a given note. For example, it might say "beat 3, E5, half note" (*Dancing Dots - Accessibility and Music Products and Services*).
Braille Reader	Braille readers are electronic braille displays. They have lines of braille cells that are refreshable. The reader displays the braille for a certain line of text or music, then refreshes after the reader finishes and is ready to move on to the next line.
Lime Lighter	Lime Lighter is a customizable display from Dancing Dots for individuals with low vision. The text size can be increased as necessary and colors can be inverted for better visibility. A pedal board for turning pages is also included (*Dancing Dots - Accessibility and Music Products and Services*).
Braille Notetaker	Braille notetakers provide many of the same tools as a traditional laptop or tablet. They contain a braille-specific keyboard, the Perkins brailler keyboard, as well as a refreshable braille display. Many also have USB ports, internet connectivity and storage (Rush, 2015).

Figure 2: Technologies for Making Music Accessible

Although these technologies are a powerful tool when used successfully in the classroom, keep in mind that their presence alone does not mean equitable education has been achieved and

that no further steps need to be taken. Phillip, a very technologically savvy teacher at the FMDG School explained to me that he is prepared for students with all different types of visual impairment thanks to the complex remote learning workspace he had set up in his home. However, he emphasized, “The best thing is to provide very good instruction”. This is the most important factor that a teacher can keep in mind. Amidst all of the ideologies, technologies and student difficulties a teacher considers every day, they must never lose sight of the goal of providing a quality, equitable education for all students in the class.

It is important to note once again that the goal of incorporating principles of UDL along with these best practices is not to create a one-size-fits-all curriculum that applies to any class. These suggestions should instead be used to provide variety in the options presented to a student in approaching a particular topic. The teacher can then emphasize or deemphasize certain options, make changes to assessment, and otherwise differentiate based on their knowledge of the students in the class.

Here are some examples of how these practices can be applied in lesson plans[1]. These lesson plans are designed to show how the best practices of reading aloud and describing visuals; using tactile aids; becoming familiar with braille music; incorporating music by rote; utilizing groupwork; and integrating technology can be applied to daily lessons.

RONDO FORM LESSON Mr. Leo

Course: 8th grade general music/music theory Date: March 1st, 2021

Materials to bring to class:
Students will only need whatever writing/notating tool they use (when possible, writing tools such as Perkins braillers could be stored in the classroom for ease of access.)

Teacher will bring:
Listening example: Bizet, Overture to Carmen (or any example to suit the musical genre and form desired)
Tactile learning tools: bubble wrap, feather, scotch tape (or other easily distributed material that suits the feeling of a particular section)

Prep
A station or a tray will have to be set up for each student with each of the tactile tools in a sequence matching that of the form.
The bubble wrap correlates to the A section, the scotch tape (sticky side down) to the B section, and the feather to the C section.

ON BOARD:

Aim: How can we tell the difference between different sections in the form of a piece of music?

Vocabulary:
Form, sections (A, B, C), rondo

Objectives: Students will be able to:

1. Define Rondo form as a repetitive form using alternating sections – ABACA, ABACABA
2. Differentiate between sections in a rondo form
3. Differentiate between rondo and other forms, such as binary or ternary

Do Now: Turn and talk with your neighbor. Discuss: what are some of the characteristics in music that we can listen for

Procedures:
1. Once students have entered the room and class has begun, the teacher reads the aim and the Do Now out loud
2. Students are given 5-10 minutes in their turn and talk groups to discuss. Teacher will give a 2-minute warning to wrap up conversation
3. The class discusses as group what was brought up in the turn and talks.
4. The teacher then reads the three vocab terms written on the board, and defines them. Students should likely be familiar with the term form prior to this lesson. Teacher also reviews the use of letters to label sections.
5. The teacher plays the Overture to Carmen, giving the direction for students to raise their hand when they think there is a change in section, keeping in mind the elements they discussed.
6. The teacher watches the students as they do this, and will go back through the recording once more and speak out loud when the sections change, so the students can hear it.
7. Students then bring their tray of tactile tools to their desk. As the teacher plays the listening again, the students move their hand over the different items, switching to the next item when the teacher says to do so.
8. After this activity, the teacher elicits from the students how the bumpy bubble wrap represents the march quality of the A section, the smooth back of the tape represents the smoothness of the B section, and the feather represents the light, soaring quality of the C section. A connection is drawn between the feeling of the music and the physical feeling of the objects
9. Students are given a few minutes at the end of the period to complete the exit ticket/conference.

Assessment:

1. Informal: in-class assessment of if students raise their hands at the appropriate time when sections switch. If not, the teacher reinforces the elements discussed at the beginning of class. If so, the class moves on to the tactile tools
2. Exit Ticket: before leaving, students will answer three questions: What are the sections in rondo form? How do you tell the difference between the sections? What did you find helpful from today's class?
    a. Students can answer in any medium they feel is best suited. Sighted students should be encouraged to write their answers
    b. Visually impaired students may be encouraged to come to the teacher's desk and answer orally, or may write them using a Braille Notetaker

Figure 3: General Music Application

INTRO TO CONCERT G LESSON Mr. Leo

Course: 4th grade band Date: March 1st, 2021

Materials to bring to class:
Instruments
Writing Utensil (when possible, writing tools such as Perkins braillers could be stored in the classroom for ease of access.)

Teacher will bring:
Music/Music reading technology

Prep
Prepare the music for the needs of different students. Have enlarged music or Lime Lighter music reader available for low vision students, or braille music available for blind students. Similarly, music for any ELL's can have accompanying information on musical concepts (i.e. fingerings, clefs, etc.) translated.

ON BOARD:

Aim: How do we play the note La in concert Bb? What is this note on our own instrument?

Vocabulary:
Scale
Concert Pitch

Objectives: Students will be able to:

1. Identify concert G, as transposed on their instrument
2. Play concert G on their instrument
3. Play concert G in scale exercises or basic melodies

Do Now: Quietly put your instrument together and finger through the notes we have already learned: Bb-F "mini-scale".

Procedures:

1. Once students have entered the room, settled down, and class has begun, the teacher reads the aim and the Do Now out loud
2. Students are given 5-10 minutes to put their instrument together and review the first five notes of concert Bb. Teacher will give a 2-minute warning to wrap up conversation
3. The class plays the Bb-F "mini-scale" as a group ascending then descending.
4. The teacher then reads the two vocab terms written on the board, and reviews them.
5. The teacher then moves on to discuss the new note. She/he discusses how it is next in the Bb scale, and demonstrates. Then, the teacher will go over fingerings for this note for each instrument.
6. Each instrument group takes turns going up the Bb scale in quarter notes, this time extending up to concert G. The teacher emphasizes that other groups should be respectfully focusing on learning their new fingerings when not playing.
7. If this is adequately performed, the teacher will then move on to playing written scale exercises, or simple melodies of the teacher's choosing or from the class's method book. Students are given a few minutes to look over the exercise. Students who need different reading tools will use those to read the exercise. The teacher will articulate what he is listening for from students (note accuracy, rhythmic accuracy, correct fingering of the new note, etc.).
8. The teacher will perform the melody once through on her/his instrument or voice.
9. The band performs the melodies they just looked over as a group, stopping where necessary to fix issues that arise. The piece(s) should eventually be played through to the best of the group's ability.
10. Teacher will assess student performance based on note accuracy, rhythmic accuracy, and tone, provide feedback on the performance, and assist students in packing up their instruments.

Assessment:

1. Informal assessment of student performance during the scales and the exercises based on pre-discussed criteria. Based on their performance during this task, the teacher will decide to spend more time on this new note, or to move forward to new concepts.

Figure 4: Elementary School Band Application

HARMONIC ANALYSIS OF A MELODY LESSON Mr. Leo

Course: 12th grade advanced music theory Date: March 1st, 2021

Materials to bring to class:
Students will only need whatever writing/notating tool they use (when possible, writing tools such as Perkins braillers could be stored in the classroom for ease of access.)

Teacher will bring:
Handout: Transcription of My Funny Valentine (or any tune of melodic interest)
Keyboards (if available)

Prep
Prepare the music for the needs of different students. Have enlarged music or Lime Lighter music reader available for low vision students, or braille music available for blind students. Similarly, music for any ELL's can have accompanying information to the score translated. This music should have been handed out before this class to give students enough time to become comfortable playing the melody (if keyboards/class piano are available).
Teacher should create groups based on ability in which students will analyze the music and create chord progressions.

ON BOARD:

Aim: How can we choose chords to accompany a melody at any given moment in the melody?

Vocabulary:
Harmony, chord extensions, ii-V-I

Objectives: Students will be able to:

1. Harmonize a melody using appropriate chord choices based on melodic content and harmonic progression
2. Justify their artistic and harmonic selections

Do Now: Get in your analysis groups. Discuss: what can we look at in the melody to inform our chord choices?

Procedures:

1. Once students have entered the room and class has begun, the teacher reads the aim and the Do Now out loud
2. Students are given 5-10 minutes in their groups to discuss. Teacher will give a 2-minute warning to wrap up conversation.
3. The class discusses as group what was brought up in the groups.
4. The teacher then reads the three vocab terms written on the board, then spells them aloud and elicits definitions from the students. The teacher writes these definitions on the board, speaking them as he/she does so. He/she discusses how chords chosen should fit the note in the melody, as well as the overall chord progression. Note that chord extensions, (such as the 9^{th}) are often used in the melody with a 7^{th} chord harmony below. So, the root, 3^{rd}, 5^{th} or 7^{th} does not have to be in the melody to choose a particular chord.
5. The teacher then plays a recording of the tune, encouraging students to follow along. The teacher then demonstrates the tune on piano (or her/his own instrument) and may demonstrate a sample harmonization.
6. The class decides on the first chord of the harmonization as a group. Then, students break out into their groups and work on creating a chord progression for the rest of the tune (or simply the A section, depending on time). Students are encouraged to use a keyboard as a reference.
7. Class spends the last 5 minutes discussing what was successful and what was difficult. Each group will hand in one progression for the group, notated either on paper or electronically.

Assessment:

1. Informal: in-class assessment of student discussions based on teacher observations during discussions and on what students report back during class discussion.
2. Assessment of chord progressions based on each chord's relationship to the melody as well as its place and functionality in the overall progression. This will guide instruction in the coming days.

Figure 5: Advanced Music Theory Application

This philosophy may be challenging to implement in the first year; however, the long-term payoff is great as it will need little to no modification from year to year once the framework is in place. The benefits from adoption of these best practices to embrace the UDL ideology will permeate through the classroom. All students benefit from a teacher mindset which accepts that all students are different learners and from a destigmatized view of disability in our schools. A teacher who succeeds in making music accessible will surely also find success in increasing the standard of in-class musical discussions, student engagement, and inclusivity and togetherness within the department.

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Notes

1. The lesson plan template used for these lessons was compiled by Dr. Victor Bobetsky.