Abstract

Music and the arts are powerful tools for reaching children with severe disabilities. Most often music educators and therapists are the professionals responsible for working with students with disabilities through music. Special educators sometimes use music to complement their teaching if they are comfortable modelling for their students. This article describes two special educators in the Chicago, Illinois Public Schools and their process of learning to integrate music into their curriculum as part of a semester-long project. Students in the project came from two schools (one high school and one K-8 elementary school) in low-income neighbourhoods. Two teachers were introduced to the Orff approach by using rhythmic speech and unpitched percussion. The Orff approach naturally uses principles of Universal Design for Learning (UDL). The focus of UDL is providing a flexible means of presentation, expression and engagement (Rose & Meyer 2006) This article will highlight examples of UDL and how, through this process, I learned how to better implement UDL with students who have severe disabilities. Guidance and collaboration with special educators is essential for music educators and therapists to learn how to better sequence tasks for students with severe intellectual disabilities. Students with autism presented challenges with an inability to maintain focus to learn and some students had a lack of speech, which made it impossible for students to sing or to perform rhythmic chants in typical ways.

Keywords: Universal Design for Learning (UDL); Orff-Schulwerk; special educators

Introduction

Music educators and therapists often cite success in reaching students and clients through music. Persons with disabilities can be easily motivated to engage with the world when music and movement are introduced and sustained as a method of teaching and implementing therapies. Joint attention is key in music- and art-related teaching and therapeutic methods. It is an essential skill in developing social connections and learning to read, or in learning just about any skill. Thompson (2011) identifies two types of joint attention. Responding to joint attention involves “following the direction of gaze and gestures of others in order to share a common point of reference” (Thompson 2011: 34). Initiating joint attention “involves the child’s use of gestures and eye contact to direct others’ attention to objects, events, and themselves” (Thompson 2011: 35). Mundy and Newell (2007) further explain that joint attention is the ability to share attention between another person and an object and that it plays an important role in early development. For example, joint attention in children with autism is often a struggle, but children will often look at and engage with instruments that produce interesting and pleasing sounds (McCord & Lee 2012).
The project

I was fortunate to participate in a project funded by the John F. Kennedy Center and VSA (formerly Very Special Arts) during the months of January 2013 to June 2013. The project involved working with Chicago Public Schools’ (CPS) special educators to integrate the arts into their curriculum. An outcome was to develop meaningful assessments in the arts for students with mild to severe disabilities. Illinois State University’s team of arts and special educators worked in two public schools in neighbourhoods that have developed partnerships with Illinois State University. All teachers, schools and parents of students provided signed consent for their names and images to be used in publications and presentations about the project.

One school, a public high school in a diverse neighbourhood, is dedicated to serving only students with severe intellectual disabilities. Many students also have secondary disabilities including physical, vision, hearing and emotional disorders. The school has a strong arts curriculum. All teachers are special educators who are hired because they also have talent in one or more of the arts. The school performs a Broadway-style musical each spring.

The other CPS school, a K-8 elementary school, is located in a high poverty African-American neighbourhood with three self-contained classrooms for students with mild to severe disabilities. Two classrooms consist primarily for students with autism and the other is a self-contained classroom for students with emotional and behavioural disorders. The special educators in this school have no background in the arts and revealed in evaluations at the end of the project that most had participated in the project mostly for the financial incentives offered through the grant. By the end of the project most teachers were eager to continue using the arts as a means to enhance their curriculum and to engage students in learning and life skills.

Special educators and paraprofessionals (support staff) who elected to participate in the project received an honorarium and supplies needed to teach the arts. The teachers and paraprofessionals attended five professional development sessions and agreed to collaborate on lesson plans and the development of assessments that were linked to the National Standards in Arts. We were interested in using principles of Universal Design for Learning (UDL) to create lessons and assessments to determine effective ways to measure skill development and mastery in drama, dance, visual art, photography and music.

Three arts educators (dance, music and theatre) and two special educators from Illinois State University participated in the project. A university art education professor also collaborated occasionally on the art lessons. The university team observed the special educators teaching and interviewed the teachers at the beginning and the end of the project. The university arts educators modelled lessons and strategies for teaching the arts. For example, one professional development session focused on guiding the CPS special education teachers through the steps for teaching a song.

Two of the CPS special educators decided they would like to integrate music more into their curriculum. They wanted guidance with how to include all of their students and help with acquiring instruments and materials appropriate for the abilities of their students. The two teachers are Maria, a special educator at the CPS high school and Rollins, a special educator at the CPS elementary school.

Maria

Maria is a high school special educator in a self-contained classroom of students with severe intellectual disabilities at the CPS high school. Students range in age from 16-21. Her classroom includes a few students with multiple disabilities. Two students are in wheelchairs with limited physical abilities, another has profound hearing loss and obsessive-compulsive disorder. She has four full-time paraprofessionals and a class of ten students when all are present. Paraprofessionals are support staff trained to work with specific populations of students with disabilities.

Maria, 39 years old, is an accomplished musician who was originally a music education major in college. She plays flute and piano. She switched to special education in college when she became frustrated in her music theory classes. Maria often remarks that she believes music is the most successful tool she has as a teacher for actively engaging her students. She is eager for ideas of how to use music in age-appropriate ways to engage with her teenage students.

She complains that there is a lack of commercially available resources for teaching music to her population of high school students and related that resources that are obtainable for students with intellectual disabilities tend to be songs that are primarily new lyrics to familiar songs like Twinkle, Twinkle Little Star, a song she feels is too “baby” for older students. She would like to find more age-appropriate music for her students that is relevant to African-American and Latino teenagers. She would like to use instruments more in her classroom because singing is difficult for

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1 http://artsedge.kennedy-center.org/educators/standards.aspx
about half of her students who have limited or no speech. About half of the students in Maria’s classroom are Central American or Mexican immigrants. Maria is from Central America, speaks Spanish and is very comfortable singing songs in Spanish. She likes songs with guitar accompaniment and she has considered teaching guitar to her students. She also realises that using the guitar would be challenging for her students but is not sure what instruments would be best suited for her population of students.

Rollins

Rollins is an African-American special educator with over thirty-five years’ experience teaching students with autism in self-contained classrooms. Her school is over one hundred years old and is showing signs of wear. Plaster is falling from the ceiling, windows do not open, lighting is dim and her room is crowded with worn furniture and “well-loved” books. This is her last year of teaching; she plans to retire but her assistant principal has asked her to return in the autumn to help transition the new special educator who will take her job.

Despite the challenges of teaching children who are homeless and live in poverty, Rollins is an engaging teacher who is able to make the best of a bad situation and is highly effective. She is a powerful advocate for her students. She provides clothing and food for many of her students and most of her classroom resources are her own. She is very religious and opens each class each morning by singing Gospel music. One of her paraprofessionals accompanies her on an electric keyboard. She also occasionally plays recordings for her students to help create a positive mood for learning. She has no background or training in music other than singing in her church choir.

She was initially sceptical of our interest in collaborating with her on arts integration, and she constantly reminded us of her position as the senior teacher at her school and her respect in the community. She has taught two generations of families in her community. She has taught two generations of families in her community and attended the same school in the 1950s.

All of the university team members are white, yet almost all the faculty from the two schools were either Latino or African-American. It was important to me to not only collaborate on teaching the arts to students with disabilities, but to also be aware of developing lessons and assessments that were culturally responsive and connected with the children by using music that is familiar and comfortable. The other arts educators on the team taught the other arts. Music lessons had to be accessible to children with a variety of disabilities using principles of UDL. Orff-Schulwerk is a natural approach for inexperienced teachers to use rhythmic chants, un-pitched percussion and movement to meet Individual Education Plan (IEP) goals. The IEP is a legal document developed by a team that holistically tests and evaluates the student in regards to health, educational functioning, family, and social functioning.

Universal Design for Learning (UDL)

Universal design began as a tactic for designing buildings in order to make them more accessible for all people. For example, instead of adding wheelchair ramps after the building is constructed, entrances are designed to be on the same level as the sidewalk. In education, UDL is focused on lesson planning and implementation and assessment of the lesson. Lessons are created to be accessible to all students without needing to add special adaptations or activities after the lesson is constructed. Instead, the lesson might include experiences in fast and slow tempo that include multiple learning modes. In addition, the Center for Applied Special Technology (CAST) recommends that good UDL lessons include multiple means of representation, action and expression and engagement.

When the lesson content is presented in different ways (i.e. kinaesthetic/tactile, aural and visual) students with disabilities are able to access their strongest learning mode. An example would be a student with hearing loss who is engaged through visual or kinaesthetic modes of learning. If steady beat is the objective of a lesson, the student can experience steady beat by playing a hand drum while watching the teacher who sets the tempo and later move with the hand drum and experience the steady beat both by playing the hand drum and moving at the same time. Students need to be able to demonstrate understanding in different ways in order for a lesson to be accessible to all learners. Students with some types of physical disabilities may not be able to show fast and slow tempo through movement but they might be able to tell the teacher when the music changes from fast to slow. Engaging students in learning requires teachers to personally know the interests of their students in order to motivate students to fully participate.

Integrating Orff-Schulwerk in special education

Maria and Rollins had varying experience with music. Maria (a high school teacher) read music but Rollins (an elementary teacher) did not. Their students had differing abilities and experiences with music. Rollins’ students participated in music each morning but otherwise did not have other musical experiences in school. Maria wanted to use music
but had not been regularly including music in her curriculum.

Frazee (1987: 14) describes the Orff approach beginning with statement “[t]he rhythm inherent in the child’s native language is an important resource for Orff teachers”. Even though some students in the two special education classrooms were non-verbal, transferring rhythmic speech to un-pitched instruments connected the students who were non-verbal to the verbal world by experiencing speech and then playing the spoken rhythms on instruments. Ostinati to accompany speech provides further opportunities for multiple means of engagement in music for students who need a part that repeats and is easy to remember. I decided to help the two special educators to use rhythmic speech, ostinati and un-pitched instruments in chants that were age and culturally appropriate for their students.

Many of Maria’s students were working on life skills to prepare them for being able to function in the world outside of the classroom. Knowing how to identify coins that are used to pay for bus transportation, food and recreation is an essential skill that Maria teaches. It was difficult to find music that supported basic learning skills that Maria’s high school students needed to know. Songs and chants tended to be too simple because they were designed for young children. In addition, Maria’s students were African-American and Mexican immigrants and responded best to syncopated music that related to hip-hop culture. We wanted to engage the students in culturally and age-appropriate music. One verse of a chant I composed in collaboration with Maria as part of a lesson is included below:

A
It’s a penny UM, it’s got ONE, UM!
It’s a penny UM, it’s got ONE, UM!

B
Penny, UM nickel, UM dime, UM quarter, oh yeah
Penny, UM nickel, UM dime, UM quarter, oh yeah

C
Brown, middle, little, BIG!
Brown, middle, little, BIG!

D
One, five, ten, and twenty-five
One, five, ten, and twenty-five

E
And the money buys my stuff, yeah!
And the money buys my stuff, yeah!

Hand drums were purchased in four different sizes and I drew the front of four coins on each drum (penny, nickel, dime, quarter). Each student had a drum and played on the “ugh” that followed the name of their coin. The chant was age appropriate because the words and rhythms were in a familiar hip-hop syncopated groove. With five different sections Maria could focus on what the coins looked like visually, how many cents each one gets, and the name of the coin.

The lesson was not successful until Maria helped me to understand how to sequence it so the students could perform it with few musical errors. Maria wanted her students to demonstrate the ability to recognise coin values through this lesson. I expected students to learn a simple chant like this one in a single lesson. Maria’s students needed ten fifty-minute lessons to be able to learn and perform the chant. Maria modelled a lesson for me (lesson four) with the additional steps she used to prepare the students for identifying the coin drums.

Photograph 1: Playing the ‘dime’ hand drum

Maria helped me to see how she would present the information by using multiple means of representation. For example, before she introduced the drums she provided each student with plastic coins and as she chanted the different coins so that the students would find the correct coin. She also took care in how students were assigned to different sizes of hand drums. Students with weak muscle control used smaller drums. A larger male student with coordination challenges played a large drum that made it easier for him to hit a bigger surface. Her student with profound hearing loss played a large gathering drum with a mallet. He could hear the deep sound and feel the vibration as he held his hand on the frame of the drum.

The students had multiple ways to musically express what they knew about coins through speech and un-pitched instruments. In addition, they met their IEP goals of learning to identify coins and the amounts the coins were worth. Maria translated the chant to Spanish and the students who were native
Spanish speakers heard the chant spoken in their most familiar language. Spanish speakers were motivated to learn because she used their language and they played their drum after they heard the word for their coin in Spanish.

African-American children in Rollins’ class were familiar with hearing and singing Gospel music. I wanted to create a chant that used a call and response structure and included a hip-hop improvised section. Rollins was interested in combining music and drama. Sandi (the university theatre education professor) and I decided to create a little musical based on the storybook, *Where the Wild Things Are*. The students used puppets to create the story and each time the wild things (monsters) appeared in the story the students chanted “*monsters with bad teeth, where the wild things are!*” This was an ostinato that I developed to work with the Eddie Harris Gospel jazz composition, *Listen Here!* The paraprofessional who plays the morning Gospel music on electric keyboard accompanied the students when *Where the Wild Things Are* was performed in Eddie Harris style. Students improvised rhythmic speech over the ostinato that described their imaginary monsters.

Students were presented with multiple ways to experience their imaginary wild things through the rhythmic chant with improvisation or, they could elect to use a puppet to show how monsters dance and behave using growls or animal noises. Flexibility with sounds enabled students without speech to still have puppets who vocalised. Rollins was working on vocabulary with her students and using describing words for feelings was a goal in most of the students’ IEPs. Rollins’ students could choose to participate through the ostinato, the improvised speech or by movement (puppets). There were multiple opportunities for action and expression. Students with autism who often have difficulty making eye contact and relating to people chose to use puppets as their preferred way to engage. Others liked the repeated ostinato, and a few improvised syncopated descriptions of monsters. Rollins’ students were engaged through multiple ways of experiencing monsters in the context of a story and a chant.

Assessing students with disabilities in music

The *US National Standards in Music* have been cumbersome for teachers to implement who work with students with some disabilities. For example, the first standard states that all students (K-12) will perform on instruments alone and with others. Maria and the teachers who participated in this project helped to develop a prompting hierarchy rubric that allowed for student participation at varied levels including support from an aid (see Figure 1).

<table>
<thead>
<tr>
<th>Rubric #1 Data Collection</th>
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</thead>
<tbody>
<tr>
<td><strong>Directions:</strong> Use the prompting hierarchy key below to score the student work product. Begin with the least amount of support to assist student with task/skill.</td>
</tr>
<tr>
<td><strong>Independent</strong> (no support needed)</td>
</tr>
<tr>
<td><strong>Natural Cue</strong> (follow peers, transition to next class when bell rings)</td>
</tr>
<tr>
<td><strong>Gesture</strong> (number of cues needed: 1-2, 3-5, 6+)</td>
</tr>
<tr>
<td><strong>Verbal</strong> (number of cues needed: 1-2, 3-5, 6+)</td>
</tr>
<tr>
<td><strong>Visual/Picture</strong> (sequence steps of task for reference)</td>
</tr>
<tr>
<td><strong>Model</strong> (teacher, paraprofessional, student/peer)</td>
</tr>
<tr>
<td><strong>Partial Physical</strong> (hold instrument when student plays)</td>
</tr>
<tr>
<td><strong>Full Physical</strong> (hand-over-hand)</td>
</tr>
</tbody>
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<tr>
<th>Task / Skill (refer to prompting hierarchy key)</th>
<th>Support (refer to prompting hierarchy key)</th>
<th>Was the student able to demonstrate the skill when support was provided?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Additional comments:**

Student is having a good/bad day, student works well with certain peers and/or staff, student affected by environmental factors, student showed growth/regression on specific skill, student has some health concerns.

Figure 1: Rubric developed by arts and special educators
The rubric is designed to encourage the student to complete a task with the least amount of prompting possible and still be successful. Using the prompting hierarchy helped when assessing students performing on instruments. Many students needed multiple lessons to progress through the levels of prompting to be successfully independent when playing the hand drums with the money chant. Many students also needed multiple lessons to progress through the hierarchy to learn to identify different coins. This was a different academic standard that Maria wanted to assess as part of her curriculum.

Conclusions

UDL complements Orff-Schulwerk in the way that children are included and engaged. Flexibility occurs on multiple levels. In typical pieces taught in inclusive classrooms using Orff instruments, there are often parts that are challenging and parts that are more accessible to students with disabilities. For example, contrabass bar parts are often more rhythmically simple and the bars themselves are easier to play because of their size. Because of the many ways that students can participate in an Orff-based lesson, there is flexibility with the mode that students use to express themselves. If a student without speech chooses to demonstrate ‘so’mi’ on an instrument instead of singing, the teacher can still assess that the student understands the concept of ‘so-mi’. Likewise, through movement, high and low pitches can be shown through Curwen hand signs or moving eyebrows high and low for a student with limited movement.

The Orff approach does not require use of specific Orff instruments. Rhythmic speech and un-pitched instruments worked best for special educators wanting to integrate music into their curriculum. Both teachers found rhythmic chants easy for them to teach and easy for students with a range of disabilities to learn. Rhythmic chants with repeated sections are very accessible to students with intellectual disabilities and autism. Use of repetition is a strategy that both teachers used to introduce and solidify new learning. The university arts and special educators in collaboration with the CPS special educators developed assessments that were used by the teachers. These assessments helped me to understand how to sequence a lesson and deliver it in a way that ensured musical success for students with severe disabilities.

The Orff approach was used in this project as a new tool that classroom special educators learned to use in teaching and motivating their students to learn aspects of their curriculum. Music was a powerful way to engage students in learning and becoming more socially aware of their peers. Using instruments, rhythm and movement encouraged students to focus on aspects of the curriculum that the two special educators often spend much longer to teach. Maria spends years teaching her students to recognise and use money, and Rollins works daily to engage her students with autism in reading and listening to her instructions. Where the Wild Things Are is a favourite book for Rollins’ students. Through the grant, multiple copies of the book were given to the students in Rollins’ class. The students selected the book and read it again and again on their own, sometimes even sitting together to read. Maria uses rhythm and instruments to teach many concepts in her curriculum. Both teachers intend to participate in an Orff course in the future and to integrate music and instruments more into their everyday teaching.

References


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