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Eastern Kentucky University

Orff Schulwerk and Autism: Unlocking the Gifts of Students with Autism in the Music
Classroom through Orff Schulwerk

Honors Thesis

Submitted

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Orff Schulwerk and Autism: Unlocking the Gifts of Students with Autism in the Music

Classroom through Orff Schulwerk

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Abstract description: The concept of teaching for each student's needs is called differentiated instruction. For students with autism in the general music classroom, differentiated instruction has received limited attention from researchers and practitioners. Although teacher education programs do include a review of special education resources and needs, music teacher education programs do not always include intensive study of accommodation for students with special needs that specifically apply to the music classroom. One strategy music teachers can use for differentiating education for their learners with disabilities is the process of Orff Schulwerk instruction. Orff Schulwerk is an approach, originally and commonly used in the general music classroom, that focuses on organic learning techniques to build confident and dynamic learners. With the rising prevalence of students with autism in the classroom, music educators must be able to properly differentiate their teaching for these students. Music educators can create inclusive classrooms and content by utilizing the Orff Schulwerk approach as often as possible in their curriculum; however, this pedagogical idea is often not practiced.

Keywords and phrases: Orff Schulwerk, autism, music education, differentiation, special education, modifications, music classroom

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The Conceptual History of Autism

Since the initial conception of it until the 1980s, autism was thought to be a rare and specific childhood developmental disorder (Happé and Frith 2020). Up until the 1980s, the definition and diagnosis of autism was very narrow. The definition of autism was so exclusive that it was considered to be an entirely separate diagnosis from infantile autism. Both infantile autism and autism were mostly seen as a social and linguistic disability. In a study in 1979, when discussing infantile autism, Lorna Wing described the social “typology” of autism to be “aloof, passive, and active-but-odd” (Happé and Frith 2020). Along with a lack of social skills, children with first infantile autism, then autism were considered to have severe language delays, and when there was speech, it was often considered to be odd or illustrative. This, of course, only perpetuated the social typology, making language skills, or the lack thereof, a major defining characteristic of autism. In some research studies about autism around 1980, when the Diagnostic and Statistical Manual (DSM)- III (American Psychiatric Association, or APA), was published, “researchers and clinicians were surprised when some children acquired useful and even fluent language and yet remained autistic” (Happé and Frith, 2020). At this point in the study of infantile autism and autism, the diagnostic characteristics of infantile autism and autism centered around limited social skills and peculiar interactions with and reactions to the surrounding environment.

In 2000, when the DSM-IV (APA) was published and adapted, the diagnostic criteria for autism were significantly broadened. In the DSM-IV (APA, 2000), a diagnosis of autism was delineated much clearer than in the DSM-III (APA, 1980), including specific definitions of

social communication, social interaction, and symbolic or imaginative play and how autism affects these three areas of functioning. Asperger's disorder was first recognized as a formal condition in the DSM-IV (APA, 2000) and was considered to have the same diagnostic characteristics of autism, except for the language deficits listed under social communication. Note, Asperger's is considered to be a disorder by the APA but as a syndrome by the World Health Organization, or WHO. In the DSM-IV (APA, 2000), the diagnostic criteria for autism, Asperger's, and Pervasive Development Disorder- Not Otherwise Specified (PDD-NOS) were so intertwined that deciphering between the disorders was nearly impossible. A study by Lord et al. in 2012 made a claim that "the best predictor of what diagnosis an individual received (Asperger's, Autism, PDD-NOS) was not any characteristic of the person, but rather which clinic they attended" (Happé and Frith, 2020). Clearly, the diagnostic guidelines in the DSM-IV were not different enough to draw clear lines between these disorders, so some sort of alteration to the diagnostic process had to be made. In the DSM-5 (APA, 2013), Asperger's and Pervasive Development Disorder- Not Otherwise Specified (PDD-NOS) were listed under the umbrella of autism spectrum disorders (or ASD, referred to as autism in this text). No longer was it essential for someone to have language delays to be diagnosed with autism.

From 2000, when the DSM-IV (APA) was published, studies about autism began to represent solely people with autism of average IQs, who were verbal (Happé and Frith, 2020). This divisive trend can be attributed to studies not being inclusive of varying levels of verbal abilities within the autism community. Studies did not often allow individuals with limited verbal skills to participate as it was a challenge to modify tasks in a study for individuals with limited or no verbal skills. This lack of inclusion, unfortunately, has not much developed since it has begun. Even with the publishing of the DSM-5 in 2013 (APA), studies still neglect to include

individuals with major verbal deficits. The troubling part of this reality is that modern technology is more capable than ever before of providing non-invasive, organic methodologies of data collection that can appeal to and include people of all abilities, especially those who were not previously included, like people with autism who also had intellectual delay.

With the broadening of autism, came the increased prevalence thereof. Early estimates of autism prevalence in 1966 hypothesize that four in every 10,000 people had autism. In 1979, it was said to be 22 in every 10,000 people. More recent estimates gauge the ratio to be around 62 in every 10,000 people (2012), or today around 1:100. Some modern estimates even estimate higher ratios. Part of this is caused by the broadening of the diagnostic principles of autism, which some researchers and practitioners thought of as lowering the bar, some believing too low (Happé and Frith, 2020).

Autism is, at this point, considered to occur in a “fractionated triad,” which included “social, communicative, and rigid/repetitive aspects of autism” and implied that these factors “have separable underpinnings at the genetic, neural [,] and cognitive levels” (Happé and Frith, 2020). Having a view of autism such as this allows for a better, more fluid understanding of how autism may present in individuals. This also helps draw diagnostic lines between autism and co-occurring conditions.

The very idea of co-occurring conditions was only first permitted clinically in the most recent DSM, the DSM-5 (APA, 2013). This change opened the door for studying how autism interacted with other physical and psychiatric conditions. A meta-analysis of 83 studies in 2019 by Lai et al. produced estimates of said psychiatric conditions: ADHD-33%, anxiety disorders- 23%, sleep-wake disorders- 13%, depressive disorders- 12%, obsessive compulsive disorder (OCD)- 10%, disruptive/impulse control/conduct disorders- 10%, schizophrenia spectrum disorders- 5%,

and bipolar disorders- 5% (Happé and Frith, 2020). As made evident in these results, mental health in people with autism is of concern. Having information like this provides mental health professionals with essential information in interventions and treatment of the co-morbidities of autism. Though this information exists, autism can complicate the process of treatment of these psychiatric conditions. One common trait of autism is alexithymia or having “difficulty identifying and talking about your own feelings” (Happé and Frith, 2020). Alexithymia puts a tall barrier between people with autism and their mental healthcare providers. Not easily being able to articulate one’s emotions makes any sort of productive mental healthcare much more difficult to achieve. These communication issues permeate beyond mental health. People with autism, in general, struggle to seek help, which hinders multiple facets of their lives.

A diagnostic boom of autism took place in the 2000s. In the period of 2004 to 2008 alone, the Centers for Disease Control (CDC) “reported a 78% increase in autism prevalence rate” (Happé and Frith, 2020). Genetic component could not be the only factors that fed into this steep increase in diagnoses, as this happened too quickly for a genetic component to make such a drastic impact. Evidently, a wide range of factors was causing this change in diagnostic rates. Because of these happenings, researchers started to consider environmental factors (Happé and Frith, 2020) in the causation, or at least exacerbation, of autistic characteristics. Researchers also could not help but wonder if the “actual incidence of autism” had increased (Happé and Frith 2020). These skeptical wonderings were furthered by the trend seen in the correlation between autism diagnoses and intellectual disability diagnoses. As autism diagnoses increased, intellectual disability diagnoses decreased. This led researchers to the conclusion that the broadening diagnostic criteria of autism, especially now including Asperger’s and PDD-NOS, directly impacted the prevalence of autism as it was including more individuals who were

previously diagnosed under now outdated criteria. Even before Asperger's and PDD-NOS were formally grouped in with it, autism had already begun to be considered to be on a spectrum. In the 1980s, diagnostic scales for autism began to become widely accepted. Symptoms that paired with autism such as executive function and sensory sensitivity were also looked at as on a scale. The idea of a spectrum implied that a person could be only partially autistic: a strange, yet eye-opening thought. The spectrum of autism spectrum disorders is "a smooth continuum of quantitative differences in behaviour" (Happé and Frith, 2020).

This broadening of the diagnostic criteria and prevalence of autism, called for an increase in research. In the last thirty years, research interest has grown exponentially. According to Happé and Frith (2020, in 1988, a database search of "autis*" turned out 2,600 results, in 2018, this same search gave over 6,000 results and currently, this search produces over 68,000 results. This provides a vast compendium of information from which current research on autism can improve and advance.

Autism, and the research thereof, is no longer rare; however, it is still considered to be highly underdiagnosed in females. One explanation of this occurrence is referred to as the "female protective effect" (Happé and Frith, 2020). This concept essentially says that females must have more severe autism than their male counterparts to be diagnosed. Comparison studies of male and female siblings, both with autism, have shown to prove this idea. Discrepancies exist "between estimates from passive versus active ascertainment" that suggest "that we have been missing or misdiagnosing large numbers of autistic women and girls" (Happé and Frith, 2020). Note that the authors of this study chose to not use person-first language, which is not the position of the author of this text. Females are typically diagnosed later in their lives than males and are often required to have more dramatic expression of their symptoms than males. Seeing

trends like these might make one question why autism is so overlooked in the female presentation. Societal expectations of females play an underlying role in this. Females tend to feel the need to be ‘ladylike’, which encourages them to internalize their feelings more than males, even if they urge or need to do otherwise (Good and Sanchez, 2010). Though this internalization is typically deep in people’s subconscious, it is present, nonetheless. In conjunction with the social factors, commonly, research is found to have not included females, creating a skew of the perception of autism to occur more often in males. This lack of research also perpetuates underdiagnosis of females by creating a lack of knowledge of exactly how autism presents in females. In all reality, with male-skewed research, we may not know exactly what autism can look like in females, because the research is not plentiful enough to make a clear image.

A fact not often considered is that the majority of the autistic population is in their adulthood. In the 1980s, one would be hard-pressed to find research about adults with autism. Unfortunately, this lack of research was quite difficult to conduct as, “the majority of autistic people also had intellectual disability, and most adults would be in institutions or group homes” (Happé and Frith, 2020). When in places such as these, people were no longer participating members of society, let alone of research. Importantly, the prevalence of autism is the same in adults and in children, but adults go more undiagnosed. Not until the DSM-5 (APA, 2013), was the late diagnoses of autism formally acknowledged. The DSM-5 (APA, 2013) provides new principles that specifically “allow for late recognition of characteristics that have been present since early development but ‘may not become fully manifest until social demands exceed limited capacities’” (Happé and Frith, 2020). Even with these developments in defining autism at different age levels, the awareness of adult autism is minimal, meaning that interventions and

support for adults with autism is also severely lacking. Research needs to be conducted to understand how autism affects ageing. Research in this field can provide much needed understanding of and support for people with autism during throughout the *entirety* of their lives.

Autism is no longer a narrowly defined medical disorder. Today, autism is essentially a behavioral diagnosis that predicts neuro-atypical functioning, that is not necessarily wrong. Today, people within and outside of the autism community aim to heal, not autism itself, but the co-morbidities thereof.

Why should Differentiated Education be used for Students with Autism?

Students of different abilities, including students with autism, are legal entitled to receive free appropriate public education (FAPE) promised to them in the Individuals with Disabilities Education Act (IDEA) most recently amended in 2004. Ultimately, teachers are obliged legally through IDEA and the Americans with Disabilities Act (ADA) and moral through their oath to educate *all* students to the best of their ability. Now that the focus on education both legally and ethically, has shifted towards catering to student needs, the call for differentiation in education is ever-more vital.

In speaking about differentiation in education, the difference between two concepts needs to be made clear: accommodation and modification. A formal denotation of each is as follows: “an accommodation does not change the nature of the final skill that the student develops” and is used “so that he or she can perform the same tasks as the other students,” (Darrow, 2007) while a modification is created “when the student is not able to complete the same assignment or participate in the same way as the rest of the class due to the nature of his or her disabilities. A modification changes the standard of participation or the extent of what an assignment or test measures” (Darrow, 2007). Accommodations are changes made to the physical set-up of the

classroom and presentation of materials that makes it possible for students with disabilities to participate in classroom activities; however, modifications are changes made to content to make classroom activities more accessible to students with disabilities. An accommodation may look more like passing out large print materials to a student with a visual impairment. A modification may be a student with a learning disability having a simpler reading assignment than his typically developing peers. A succinct way to understand the difference between accommodation and modification is by saying, “an accommodation changes *how* a student learns the material. A modification changes *what* a student is taught or expected to learn” (The Understood Team). Accommodations are often what makes up a student’s Individual Education Plan (IEP)/504 plan. That being said, differentiation in education not only considers accommodations, but also emphasizes the need for modifications based on student needs.

Many studies serve to prove the validity and necessity of differentiation. That research provides concrete reasons to show that education without any sort of differentiation is ineffective for major student populations. One of the leading pieces of research in this field is a meta-analysis by Caine, Caine, McClintic, and Klimek (2009) titled “12 Brain/Mind Learning Principles in Action: The Fieldbook for Making Connections, Teaching, and the Human Brain” (Fogarty and Pete, 2011, p.12). In their textbook *Supporting Differentiated Instruction: A Professional Learning Communities Approach*, Fogarty and Pete summarize the Caine, et. Al study into twelve points outlining the brain and how it learns. These twelve points encompass the entire concept of learning. Of these twelve points, the following directly impact students with autism: “1. Learning is enhanced by challenges and inhibited by threat. [...] 3. Learning involves both focused attention and peripheral perception. 4. The brain has a spatial memory system and a set of systems for rote learning. [...] 6. Learning engages the entire physiology. [...] 8. Learning

is embedded in natural and social settings.” (2011, p.12). Point nine, “Each brain is unique” is the crux of why differentiation should be promoted in education.

A diagnostic attribute of people with autism is being uncomfortable in social situations. This differs per the individual, but generally, the social aspect of school can be very daunting to students with autism. Odom’s study on “Peer-Based Interventions for Children and Youth With Autism Spectrum Disorder: History and Effects” (2019) states that children with autism have “limited interest in and skill at social engagement with peers (and adults)” as part of their disorder. With this being a commonality between many students with autism, the concept of learning being “embedded in natural and social settings” (Fogarty and Pete, 2011, p.12) can be an be problematic in trying to learn effectively for students with autism. Learning based on social situations may not come very natural to students with autism and may even impact the first point mentioned above that reads “learning is enhanced by challenge and inhibited by threat” (Fogarty and Pete, 2011, p.12). Mandatory social interactions may prove to be more of a threat than a challenge to students with autism and therefore hinder their ability to learn. In the case of a social setting in the classroom, the teacher may have to differentiate the lesson to ensure that a student with autism is still gaining the academic content without having to navigate stressful social situations. For instance, on the first day of classes it is not uncommon to do some sort of ice-breaker activity. Many of these activities involve some sort of forced social interaction and maybe even forced physical interaction. Both of these ideas may present a threat to a student with autism in the classroom. If the teacher has done her research on her students, she is hopefully aware that a student with autism is in her class and may accommodate by doing an activity that avoids intense social and physical interaction, but rather is a more sensory and socially aware activity so that student with autism can better participate. If the teacher is not able

accommodate in such a manner, the teacher can choose to differentiate by providing the student with autism a different way of participating in the activity, like writing down what he may like to share about himself and then showing that piece of paper to his peers either on his own or with instructor assistance. The hope would be that a student who has autism that profoundly impacts his classroom function would have an instructional assistant with him to help provide him with the proper accommodations and modifications to participate in classroom activities, which is legally required as part of IDEA (Part B, sec. 612, article a, subsection 15 (b), item iii). Sensory issues are another feature of autism that could impact classroom participation. Namely, hyperacusis, sensitivity to noise, and tactile hyperesthesia, sensitivity to touch (briefly mentioned in the previous scenario) (Higuchi, et. Al, 2017), may create boundaries for students with autism. Point six of the Fogarty and Pete text (2011, p.12) states that, “learning engages the entire physiology.” That can be problematic for students with autism who have hyperacusis and/or tactile hyperesthesia. Any classroom activity that can cause an auditory or tactile sensory overload for students with autism will require some sort of differentiated technique. Otherwise, the student with autism would feel threatened, which is a condition under which one cannot successfully learn, as reinforced by point one of the Fogarty and Pete text.

Point three asserts that learning can only take place if the student focuses their attention on the tasks at hand and has peripheral perception of the content and context thereof (Fogarty and Pete, 2011, p.12). Both of these concepts can be hard for students with autism to possess and comprehend. The study “Spatiotemporal characteristics of gaze of children with autism spectrum disorders while looking at classroom scenes,” explores exactly how well young students (around age 8) with autism are able to focus on a classroom lesson (Higuchi, et. Al, 2017). The study involves 26 children with autism and 27 typically developing students watching two different,

short (about 30 second) classroom lessons. The authors aimed to track how well students with autism gazed at the regions of interest (ROI), defined as the teacher's face and fingers and lesson objects. The walls of the classroom were blank. The study found that total gaze time aligned nearly perfectly between the students with autism and their typically developing peers. Results suggested that students with autism focused their gaze on areas outside of the ROI and thus had a more difficult time understanding the content than their typically developing peers (Higuchi, et. Al, 2017). How can teachers expect students with autism to learn in the same manner, at the same level as their peers when studies, such as this one, are plentiful? The answer, simply, is that they do not. Teachers are always working to differentiate their education in order to teach to the abilities of all of their students.

Point four emphasizes that the brain has an entire set of systems specifically for rote learning (Fogarty and Pete, 2011, p.12). Teaching by rote requires imitation, which may a difficult concept to navigate for students with autism. Some students with autism do not take to imitating others, especially adults, well. This happens because students with autism do not typically possess "the ability to observe and reproduce the behaviors of a model," (Scott, 2016) or simply put, cannot imitate well. Because imitation requires multiple skill sets that can be at different levels for each individual, a simple, sweeping intervention may not be the most effective option. The best way for teachers to differentiate their rote teaching for students with autism is to be observant and patient. Some intervention techniques may have already been proven to work for a certain student, while some students may require some trial and error to find ways of differentiation that work for them. A teacher may attempt to rote teach is by providing additional materials to students with autism as they learn rote material. For instance, if the students are learning how to identify and reproduce sounds that letters make, doing something as simple as

writing the letters out on a piece of paper, on the board, for the student with autism to track along with as the lesson goes on, may provide an environment more conducive to that student's learning.

The Higuchi, et. al study provides a plausible summary about students with autism and their possible maladaptation to school: "Children with ASD, even those with average or high intelligence, often refuse to go to school because of emotional distress [or threats] caused by their increased sensitivity to stimuli, delayed learning, and lack of understanding of their characteristics by others" (2017). Sometimes differentiation just takes understanding. If classroom content includes people who are differently abled, students with disabilities will feel more welcomed and comfortable in the classroom. Visibility is key in differentiating education. Doing this mainstreams people of different cultures, lifestyles, abilities, etc., broadening a young student's idea of 'normal.' In an environment where students of all types are visible, differentiation does not seem so outward and foreign, making the students in of need differentiation feel more comfortable asking for and receiving help. Even if an educator is able to accommodate and modify the classroom and curriculum to fit a student's needs, the student may continue to struggle because he does not feel welcome in the classroom.

How to go about Differentiating for Students with Autism in the Music Classroom

The information on differentiation above has fairly obvious implications in the core-content classroom, but what does differentiation look like in music education? The music classroom presents novel challenges to differentiation in education. To education researchers and music educators alike, differentiation in music education seems to be an immaterial concept. How do music teachers practically accommodate and modify their classroom and content contained therein to cater to *all* students' needs? Differentiation in music education boils down to the

consideration of a few ideas: variety in instructional methods, teacher-student communication, “meaningful engagement” (Grant and Lerer, 2011), assessment and reflection, and creative problem solving.

The first checkpoint before digging into differentiating for a certain student’s need is to make sure that classroom content is delivered with multiple types of learning in mind. Quality education is varied education. Teaching using one method will only reach the students who can comprehend in that particular fashion, potentially leaving out major portions of the student population. Teachers can ensure they are teaching using a variety of methods by consulting Howard Gardner’s multiple intelligences theory. The intelligences outlined by Gardner can act as a checklist for teachers to use as a litmus test to see how well they are accessing a variety of student learning methodologies. The intelligences with which students with autism best identify are visual-spatial, naturalistic, and intrapersonal. Contrarily, students with autism may struggle with verbal-linguistic, bodily-kinesthetic, and interpersonal, as pronounced in the description of autism delineated above. Knowing that music education can rely heavily on the musical-rhythmic, bodily-kinesthetic, interpersonal, and naturalistic abilities, music teachers should focus on the shifting the aims of their pedagogy towards the abilities of students with autism. The first step in this is removing the emphasis on the intelligences inherent to music that negate the needs of students of autism, namely bodily-kinesthetic and interpersonal intelligences. This means that music teachers will need to modify their lessons when they include interpersonal interactions. This can be accomplished by offering an intrapersonal option for an interpersonal activity. Students with autism may struggle with interacting with their peers and can learn the content and participate in the activity without having forced, often anxiety-inducing, social encounters with their peers. Music, at all levels, is often bodily-kinesthetic. Sometimes autism can impact a

person's fine motor skills, making this sort of learning more difficult. With this being the case, differentiation in music for the bodily-kinesthetic intelligence is a more case-by-case basis. Not only do music educators need to navigate around these intelligences that are not strong-suits of students with autism, but also, they need to focus on the intelligences that are strong in students with autism. Music teachers should aim to include visual-spatial, naturalistic, and intrapersonal intelligences more in their curriculum, all of which can be accentuated in the Orff Schulwerk approach.

One of the most important factors in student success is the teacher-student relationship. Teacher is listed first as it is there responsibly to initiate and maintain this relationship. If teachers cannot foster a positive relationship with a student, that student is likely to lack the drive to do well in that class. Teacher-student collaboration is a major factor in the success of any student but is integral to differentiated instruction. Each student is different. Each student will have individual needs to be met. The intent of differentiation is to teach to a student's needs. How can a teacher do that if she does not know what those needs are? For students with autism this is especially important. Autism, being a spectrum disorder, manifests differently from individual to individual. With the wide diagnostic criteria of autism, students will require differentiation according to their individual diagnosis and behaviors. Some students may struggle more with the verbal communication aspects, while some may not have verbal limitations but are highly sensitive to their surroundings. The best way to go about understanding the behaviors of a student with autism is communication. Communicate with the student through a method that is most comfortable for him. Communicate with all of his stakeholders. Use the information gathered to create an initial plan on how to differentiate for this student. This information can come in an array of forms. Simply observing the student's initial interactions with his

classmates, or lack thereof can be very telling of the student's behavioral patterns. Consulting the students legal and educational documents gives the teacher a frame of the student's past behaviors, allowing her to predict what the student with autism may need to be successful. Observation in first few days of class will give the teacher a solid idea of the behaviors of the student, allowing her to make an individualized differentiation plan for her student with autism. For music, much of our content is group-oriented. Having this information will allow the teacher to make vital choices on how to approach the general structure of a music class well before it would inhibit the student with autism's education.

Once the teacher establishes the initial idea of how to make sure the student functions in the classroom, the next step is making an exact differentiation plan for classroom content. Classroom engagement should be meaningful. Every task asked of students, but especially students with autism, should be purposeful. Nothing in the classroom should be considered 'busy work.' Students learn best through interactive, experiential education (Grant and Lerer, 2011). Students with autism, however, should not be expected to navigate content the same way as their neurotypical peers. They also should not simply be passed from year-to-year without any accountability assigned or individual attention given to them. A teacher ensuring that all classroom happenings are meaningful can make all the difference in how a student feels and performs in their class (Grant and Lerer, 2011). Creating meaningful engagement in the classroom requires of the teacher detailed planning, sound structure, and consistent procedures. Students with autism thrive in consistency. Knowing exactly what class will be like structural and procedurally can help clearly portray what class will look like daily. Having solid classroom structure and procedure takes careful planning on the teacher's behalf. The teacher must be able to visualize exactly what she wants the students to do when entering and exiting the classroom,

what they should be doing in transitions between activities, etc. This sort of structure is very beneficial in the classroom and can multitask as differentiation for students with autism. In music, having sound classroom procedures and structure is perhaps more imperative than general education classrooms. The equipment in most music classrooms equates to thousands of dollars and can be dangerous if not handled properly. Students may misuse classroom materials unless explicit instruction tells them to refrain from doing so (even then that may not always help). Introducing new equipment can be daunting for student, not only because of the mass of sound typically accompanied with the distribution of instruments, but also because they are having to navigate a new, unknown, and therefore stressful, experience. This reinforces the thought that all classroom engagement should be meaningful, from the student's first step into the room on the first day of class, until their very last day, and everything in between, the teacher should have procedures and structure for her students.

An effective teacher is a reflective teacher. Ultimately, the teacher is the vehicle through which students learn. When students fail, teachers should look critically at themselves and make adjustments accordingly. These adjustments should not be exclusive to summative assessments at the end of a unit. Teachers should have some sort of formative assessment for each objective in the class. Formative assessment is not always formal assessment. Formative assessment can be, and often is, observing student participation, especially in music. Simply watching to see if a student is striking the right keys on a glockenspiel or listening to see if the students can sing the solfège syllables correctly is formative assessment. Asking the students for a thumbs up if they understand and a thumbs down if they do not can be formative assessment. In reference to performance objectives, music teachers should be considerate in how they go about assessing their students. Making a student with autism perform in front of the entire class may be very

damaging for the student psychologically and can prevent them from learning well. Teachers can consider listening to the student with autism perform while the rest of the class is warming up, or perhaps meeting before or after school/class to hear their performance. Music teachers, in assessing a student with autism, must contemplate how the assessment format will impact the student's emotional wellbeing and if that form of assessment will flatter the skills they have developed in the class. Once the teacher is able to collect information on the student's class performance, she should make any necessary changes to her approach. If the student is doing well, she should continue to use similar methods throughout the duration of the class. If the student is not performing well, she must make new choices in her differentiation plan. The key to using assessment properly is look at the teacher first. The teacher can change her own actions and her techniques, but a student cannot help how he learns.

If a music teacher follows the guidelines of this section so far, she should have plentiful data on the effectiveness of her teaching for her student with autism. With this information, the teacher will need to be able to creatively problem solve any issues that have arisen. For an example, if the teacher sees through her formative assessment that the student does well in BoomWhacker activities but is not as successful with similar activities on the xylophone. She would need to creatively problem solve to decipher the root of the discrepancy and how to solve it. In this case, the teacher may hypothesize that the student with autism comprehends the musical concepts in both lessons but has difficulty with coordinating his movements while playing the xylophone, because, as defined in his diagnosis, he may lack bodily-kinesthetic coordination. When she comes to the conclusion, she must then devise a solution. A creative solution to this could be modifying the assignment for the student so that the student can accomplish the objective, without being asked to accomplish a task of which he may not yet be

capable. This sort of process is a reflective one, that is student-centered, and puts the duty of effective education in the hands of the teacher. If teachers are able to take the steps listed above, they should be able to properly differentiate their education according to the needs of any student.

Differentiation is a complex and delicate process to navigate. Differentiation in the music classroom is made even more complex by the lack of guidance on how to cater to student needs in the unique setting of music. The blanket ideas listed above hopefully provide a more specific guide on how to go about making sure the music classroom is inclusive of all students.

The Origins and Implications of Orff Schulwerk

Orff Schulwerk gets its name sake for German composer Carl Orff (1895-1982). Contrary to what it seems, Carl Orff, himself, did not create the modern adaptation of Orff Schulwerk. He described an “idea,” upon which Orff Schulwerk was created. This “idea,” which Carl Orff also called a “wildflower,” focuses on discovering all forms of the performing arts through organic creativity that “flourishes best in a natural setting without much cultivation,” hence the reference to wildflowers (Shamrock, 1997). The terms “Schulwerk” or “Orff” when used in a pedagogical sense were cultivated later.

The very early foundations of Orff pedagogy and instrumentation were seen in Carl Orff and Dorothee Gunther’s Güntherschule in Munich in the 1920s. The beginning ideals of what would become Orff Schulwerk began here. Güntherschule was a fine arts institution. The studies at the Güntherschule included all performing arts, which were collectively referred to as music. The crux of education at the Güntherschule was teaching students by developing on previously held knowledge. They aimed to create well-verse, multi-talented students. All students, regardless of

their initial discipline, were fluent in dance; instrumental music, where the early style of Orff instruments came about; and vocal music. Their studies were quite intensive, taking up most hours of the day. This group of students was well received in their community, going on to tour Europe. In 1936, Orff and Gunther took their students to the Olympic Games in Berlin, where they performed proudly on-field. The delight of their musical skills was a welcome break to the war atmosphere of Europe, specifically Germany, at the time. These organic, multi-faceted, enjoyable ideals were upon what the foundations of Orff Schulwerk pedagogy were based. Unfortunately, the Güntherschule was bombed multiple times in the wake of World War II and was finally destroyed in 1945 (Shamrock, 1997).

Much of the modern popularity of Orff Schulwerk can be attributed to Gunild Keetman. As a colleague of Carl Orff, Keetman could see the genius in the pedagogy he and Gunther used at the Güntherschule and began to work with groups of young students using their ideas (Goodkin, 2001). Growing exponentially in international adaptation over the next few decades, in 1963, the Orff Institut in Salzburg, Austria was established as and remains the international Orff Schulwerk training center.

Today, vast resources have developed on the Orff Schulwerk approach. Teachers can find many lesson plans and trainings readily available at their fingertips. Since its very first roots in 1920s Germany, Orff Schulwerk has become a staple in international music classrooms, with the largest followings in America and Canada. Orff Schulwerk is popular for many reasons. The draw of Orff Schulwerk is that it focuses on organic learning. Orff has a very active approach that aims to infuse music education into children's natural behaviors: singing, saying, dancing, and playing. By incorporating music into these everyday activities, the cultural and social

barriers of formal music education are broken down, leaving the natural development of musical skills to shine.

Orff is made to be learning in a culturally and socially natural setting, focusing on nurturing skills people already possess and developing them musically (Shamrock, 1997). The social aspect of this may be daunting for students with autism, but if approached correctly, can nurture their social abilities, as opposed to threatening them. The Orff Schulwerk consists for four guiding components- exploration, imitation, improvisation, literacy. This scaffolded approach is meant to feed into one another, blending between concepts and creating a fluid, organic, and at the end-of-the-day, impactful and effective way to develop individuals until they feel comfortable in their own knowledge and skills (Shamrock, 1997), whether that be in music or beyond.

Orff Schulwerk, as discussed above, is by no means a new approach used in the music classroom. Orff (along with other popular approaches to teaching general music, such as Kodály and Dalcroze) has been commonly used in music education for many years now. Plentiful evidence exists to prove that Orff Schulwerk is an effective method of teaching music. The sheer permeation of Orff-style set-ups and curriculum being commonplace in the modern music classroom is proof enough that it works. Orff, however, is not a concept that is exclusive to music education. Orff Schulwerk is a technique that can apply in any form of education. Orff is “not the exclusive property of the arts--math teachers must also awaken their students' perception of the beauty of numbers” (Goodkin, 2001). If the processes of Orff and the focus on learning through the innate abilities of people, are utilized correctly, they can apply and be effective in any educational setting.

How Orff can be a Differentiation Technique in the Music Classroom

In the most recent amendment to the Individuals with Disabilities Education Act (IDEA) in 2004, an addition was made to the requirement of free and appropriate public education (FAPE): not only, were individuals with disabilities entitled to a FAPE, but they also have the right to be placed in their least restrictive environment (LRE). Practically, this means that a student with disabilities should be placed in the general education classroom as much as possible, even if that means being in a contained, special-education classroom for some subjects and general-education classrooms for others. Ideally, all students would participate in general education classrooms all day long; however, this may not be practical in all situations. If the concepts of Orff Schulwerk were used throughout the school, students with disabilities may be able to participate in the general education classroom more often. A key shift that is currently being made in education is focusing on the innate *abilities* of students as opposed to the disabilities of students, much like the very foundations of Orff Schulwerk.

In self-advocacy movements, people with autism have been urging people to consider people with autism as people who think uniquely. Autism, to much of the community that identifies with it, is not a disability, but a gift. Having this frame-of-mind as an educator makes the idea of differentiating education a much less daunting task. Orff Schulwerk is designed in a manner that compliments the abilities of students, as opposed to targeting ‘fixing disabilities.’

Orff Schulwerk is a process. This process does not have exact, calculated steps to withdraw a certain image of success. Orff Schulwerk is a toolbox filled with different ways to facilitate experiential learning. Orff Schulwerk is learning through discovery. Think about what children do every day. Orff uses some of these activities to teach children music. Children already sing, speak, dance, and play. Orff takes those actions and puts them into use as educational tools,

aiming to develop skills in exploration, imitation, improvisation, literacy, etc. in music. Orff Schulwerk works to develop students' (musical) abilities to think critically, collaborate socially, express emotionally, and appreciate joyfully through imitation, experimentation, and expression.

Imitation, as addressed in the sections above, may be a skill that is not very strong for students with autism as an attribute of the disorder. With imitation being something with which students with autism struggle, teachers must approach teaching using imitation with caution. Imitation can be an impactful way to help generally develop students with autism. Imitation that caters to students with autism, however, does not look the same as imitation used for their neurotypical (NT) peers. Imitation for students with autism should be progressive, starting with a natural way of imitation of which the student is capable and then working towards more complicated forms of imitation.

If the objective is for the student with autism to participate in a call and response game of short melodic passages using do, mi, sol, la, and Do, while clapping the rhythm, starting off with this may work for NT students. For students with autism, however, this involves a larger set of skills than they may be able to handle all at once. This objective involves using aural skills, then immediately processing that information into oral and bodily skills exactly as heard only moments before. In order to ensure that students with autism can accomplish this task, the lesson should condone time between each function. The teacher should always have active listening in mind. This is not a concept that should just be used for large-scale listenings, but in everyday activities. The teacher should sing the melody multiple times, with ample processing time for the students to begin to digest the melody. NT and gifted/talented (GT) students may begin to get bored with this, but the teacher can urge them to check their mental answer with each repetition. This allows students with autism to develop their aural skills and begin to process the task at

hand. After at least four or five repetitions with ample time in between, the teacher can then ask the students to clap the rhythm of the melody after she sings it. Here, she sings the call (the melody) and the students respond with the rhythm. This takes the already-developed aural skill and adds on the bodily aspect of clapping the rhythm. After four or five repetitions of replying with clapping, the teacher would repeat this process, but the students would respond with only singing the melody. After four or five repetitions of just the melody, then the teacher can ask the students to respond with singing the melody and clapping the rhythm. Task analysis is essential to using imitation with students with autism. A G/T, or even a NT student may be able to accomplish the initial objective on the first try or two but using this task analysis ensures that every student can accomplish the objective through appropriate means of experience and critical thinking, two important landmarks of Orff Schulwerk.

Experimentation is a powerful learning tool. Discovery learning, a major concept in Orff Schulwerk, is dependent upon experimentation. Students with autism, per their diagnosis, are highly intrapersonal. They function well individually and introspectively. Experimentation is a wonderful way for students with autism to prove to themselves and show to the teacher, their innate musical skill. Teachers know that students with autism are very much capable of accomplishing classroom objectives. Much of the struggle in trying to meet classroom objectives for students with autism, is the self-esteem and educational self-efficacy (Hillier, 2011). Students with autism may not have always had access to education experiences aiming to enhance their abilities all the time, leaving them with adverse views of school in general. Experimentation allows students with autism to explore their own ability. This is also a way for the teacher to formatively assess how well the student can apply the musical concepts learned throughout the class.

A sample objective for an experimentation lesson is the students will play each instrument set up around the room, pick which one is their favorite to play, and explain why. The classroom set-up for this lesson will have various Orff instruments throughout the room, through which the students will rotate playing. Ideally, the ratio is one student per instrument. If that is not the case, the student(s) with autism must be able to play the instruments on their own, without social any social pressure, otherwise social issues will compound determining whether the student with autism is able to effectively learn the material. As the student makes their way around the room, the teacher should observe the student from a distance to see if they are experimenting on every instrument. At the end of the lesson, the teacher should provide a written exit slip that asks the students what their favorite instrument was to play and why. The teacher can hold an optional class discussion about student responses to appeal to students whose abilities are stronger verbally, than literally. Assessment through observation and written materials allows for students with autism to experiment intrapersonally and reflect on their experience without having to verbalize to the class their experience.

Expression presents in students with autism differently than it may for NT students. As previously stated, students with autism are intrapersonal. Outward expression is often a daunting and anxiety-inducing task to students with autism. That in mind, teachers must ask intelligently of students with autism to express themselves. This may look like playing with a small group of peers, instead by themselves, or using nonverbal tactics to gauge their feelings on classroom topics. Each student with autism will have certain behaviors that impact their classroom experience that are not universal to every student with autism. Teacher-student collaboration must inform how the student feels he can best express himself.

Expression can be integrated well into an objective like, the students will explore low and soft sounds on an Orff instrument. This lesson has a variety of ways to show expression that can complement many learning styles. The lesson could start simply, with the teacher asking the students play as a soft and as loud (and carefully) as possible, taking pauses between each instruction. Because being sensitive to sound can be a behavior of students with autism, when the students are asked to play very loud, it may be helpful to provide the student with autism some inconspicuous ear plugs that they may use at the leisure, giving an even more important reason to leave time between tasks. From this point, a teacher can choose to take the lesson into many different activities. One way she could choose to go, is by incorporating body movement. One group of students does movements, while the others play, switching off so that all student can participate in both manners. The moving students either move quiet like mice or loud like elephants. The students playing the Orff instruments would change their dynamics based on movement of the other group of students. This accentuates musical-rhythmic and bodily-kinesthetic intelligences, allowing students with autism to develop both of these skills and express themselves in a controlled, setting, free of extreme social, academic, and musical challenges. The goal is to encourage development of students with autism, not present them a threat.

These are examples designed for pre-Kindergarten to eighth-grade general music classes. Some music education theorists would say that “ensemble type of musical learning and performance cannot be considered Orff pedagogy in any complete sense” or that the “development of highly skilled musical performer is beyond the scope of the Schulwerk” (Shamrock, 1997). The humble opinion of this author is that these thoughts are a narrow understanding of the broad implications that Orff Schulwerk can have. While standard ensembles

do not use explicit Orff techniques, they can certainly adapt to do so and consequently make the ensemble rehearsal accessible to more students. The following ideas can work in both band and choral ensemble settings. The following examples will lean towards the band setting, as this is the area in which the author is most versed.

In band rehearsals, students with autism may have a trying time participating. Sensory-wise, students with autism will need some sort of accommodation to handle the sheer amount of sound in a band room. This can come in many forms. The student may require some sort of technology that dulls the sounds around them, while including them in the material. Ear plugs exist that filter out sound enough to handle playing in a band setting without eliminating all sound, allowing the student too still hear instruction from the teacher, and also begin to develop ensemble skills. The seating of the band room may also be a tool a band director can use to be sure that students with autism are able to learn in the classroom. If the student is in a seat that allows them to easily access the teacher and/or the exit to the hallway, the student may feel more secure in the classroom. This would allow the teacher to have a quick way to talk to the student and also allow the student to make an inconspicuous exit if they become overwhelmed in the classroom. This may require shaking up the traditional set-up of band seating arrangements but creating a classroom inclusive of all forms of learning is more important than abiding by outdated, unspoken rules. In making these accommodations, the band director must be cautious and make sure that the student with autism does not feel ostracized. Any changes made to the classroom should be explained broadly, maybe saying something about developing ensemble skills and hearing other parts of the ensemble better. Socially, the last thing a student with autism wants to feel is different from everyone else.

Instruction wise, ensembles should be structured in a way that students learn parts in a progressive, according to Orff Schulwerk. From when a piece is first handed out, the band director should provide everyone with an individual part. If the students share stands, students with autism having their own stands may be helpful to them feeling comfortable to express themselves in their playing. The band director should then play a quality reference recording of the piece, indicating rehearsal marks as the piece goes on when applicable. The gives students with autism, as well as all students in the ensemble, a chance to create an individual aural image of the piece and how their part fits into that. If the piece is not very long, the first time through, the students should be encouraged to just listen to the piece as a whole. Then on the second, and possibly, third listening they should follow along in their own part. This helps create a clearer image of what the piece should sound like in its fruition. Then the band director can run through the piece (under tempo) asking the students to count/ clap their rhythms, then again saying their notes to the rhythm, then again saying their notes and fingering/tapping along, and then in chunks playing their part. This may seem to be a painstakingly long way to go about the initial reading of a piece, but it helps dilute the challenge of sight-reading making it more accessible for students with autism. This will also set-up the band for success in the rehearsal process, allowing the band work on musical concepts beyond the notes and rhythms of the piece. This is the experiential learning that makes Orff Schulwerk so effective.

These same processes should be used throughout the rehearsal process. When teaching musical concepts, the band director should demonstrate (either vocally or instrumentally) the sounds for which they are looking. Translating sounds to words and back to sounds requires challenging processing for students with autism that can be streamlined if the mode of education is consistent. Orff Schulwerk, while very popular in the elementary music classroom, can very

easily apply to secondary (and post-secondary for that matter) music education. While it may look very different, using different instruments and relying more on notation, the process of learning is still the same. When used consciously and methodically, these processes can very well differentiate music education to best fit the needs of students with autism. Students with autism can participate to the fullest extent in the ensemble, it just requires proper differentiation from the teacher. Many of the specifics discussed throughout this text apply across all age levels.

Survey

Pending Eastern Kentucky University Institutional Review Board approval, I am releasing a survey evaluating the current state of using Orff Schulwerk as a differentiation technique for students with autism in the state of Kentucky. The survey will be released to the Kentucky Orff Schulwerk Association (KOSA) membership listserv, with approval from their current president Dr. Martina Vasil. This voluntary, anonymous survey first asks three questions to ensure that all participants are/were a music teacher, how long they have taught music, and whether they have/had students with autism in their music class. The remaining questions probe to see teachers use Orff Schulwerk as a differentiation technique for students with autism. I expect to see around 50 responses. Of the responses, I anticipate seeing results reflecting that most teachers use Orff Schulwerk with students with autism present in the classroom, but do not use it as a differentiation technique for those students. I foresee these results, because, while these teachers are well-versed in Orff, they may not realize how well the Schulwerk approach connects with the concepts involved with teaching for the needs of students with autism. This is likely compounded by the lack of specificity in practical ways to differentiate in teacher education, especially in music education programs.

Conclusion

In Orff Schulwerk, the teacher should strive to be a facilitator of learning, rather than a lecturer or educational dictator, of sorts. Music is meant to be collaborative and enjoyable but does require careful planning and flexibility. Orff Schulwerk provides an outline for the main objectives of the class and a process by which the students can achieve this, but it is not a step-by-step manual. That would defeat the purpose of the foundations of Orff. The learning process is supposed to feel simple and natural to the student. Music should feel attainable and organic, not just a fanciful idea of the most professional orchestra. A clichéd yet ever-true phrase heard in the music education field is “music for all.” These three words are a concise way of saying that music education and the experience thereof should be accessible to all people, regardless of age, gender, race, ability, etc. We are lucky enough to live in a world with enough education research that almost any boundary between a person and a quality music education is surmountable. Orff Schulwerk and the processes thereof are excellent ways to go about overcoming these barriers. Education is well-reflected by a quote from John W. Gardner, reading, “all too often we are giving young people cut flowers when we should be teaching them to grow their own plants.” Education should be based upon giving students the tools to learn and discover on their own, through effective and inclusive instruction, the main goals of Orff Schulwerk. This is not to say that music educators are not currently making strides in differentiation for students with autism. The seemingly constant developments in autism research call for teachers to make constant changes in how they modify their curriculum. The processes of Orff Schulwerk have withstood the test of time so far because they do not work to pick apart the brain of each individual with

autism, but instead aim to provide a method of education that works to develop student's innate abilities.

People who are not invested music education may ask "so what" or "why put so much effort into researching this topic?" To that I say, inclusivity. As cliqued as it is, "No Child Left Behind," at its core, is a very important concept for educators. As teachers, we should strive to ensure that all students are learning, and achieving their potential, at all times. While this idea is stressed quite often in general education classes, it is can get lost in the music classroom. Music teachers must work to include all students in their teaching, even though it can be quite difficult in this subject area. If teachers use the processes of Orff as a differentiation technique for students for autism, they will have the tools necessary to make sure students with autism are learning according to their strong suits. Assessment is such an important tool in education. Summative and formative assessments provide raw data on how well their students are grasping the material taught. Using the data and reflecting on one's own teaching will give the feedback necessary to continue to effectively differentiate their instruction.

Beyond the scope of education, the more understanding people have of others' perspectives, the kinder, better people can be. Having a better understanding of how autism works and how it manifests itself in a person, can help create a world suited to better include people with autism. This idea is being seen more and more in the news with theme parks and public spaces becoming more autism-friendly. Visibility is important, not only for advocacy, but also so that people with autism do not feel like they are only their disorder, which is why advocacy for inclusivity and use of person-first language exists.

An autism diagnosis is essentially just a statement that a person's brain interprets the world slightly differently than their neurotypical peers. Even referring to it as a disability has become

controversial in the autism community. Many people refer to themselves as being differently abled for having autism. Autism should not be the reason a student does not receive the education they deserve. Too much research and too many resources exist to prevent any student from feeling left behind simply because they are not considered neurotypical. Orff Schulwerk is one is many ways to be inclusive of all in the music classroom. Let *all* appreciate the enjoyment and creation of music.

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