

“Yes, I Can Learn!” Blending Music Instruction into Music Therapy

Kana Kamitsubo⁺ (USA)

Abstract

This article introduces my innovative approach to blending music therapy and music instruction. My method is unique, original and focuses on improving both vital life skills and musical skills. It has been found effective especially with those children with learning difficulties including autism spectrum disorder and attention deficit. Key to success in this method is motivating the participant through music to develop and grow. Based on the premise that all children can learn when given the proper tools, this method is adapted to provide elements of success and competency. Respecting that each individual is unique, this approach recognizes individual pathology and strives to reach the musician within each child. The case study illustrates a boy with autism who began music therapy exhibiting severe attention difficulties and disruptive behaviors. Within two years, he made significant progress in his life skills and learning to play musical instruments.

Keywords: *Autism Spectrum Disorder, Music Therapy, Music Education, Special Education, Attention deficit, Assessment*

⁺ Kana Kamitsubo, Music Therapist, MT-BC, Kana's Therapeutic Music, New York, USA.
email: kanastherapeuticmusic@gmail.com, website: <http://kanapiano.musicteachershelper.com/>

Introduction

As a clinical music therapist who often works with children with autism, I have encountered situations where parents strongly hope that their children learn music and instruments in music therapy sessions. Though music therapy and music education are distinct fields, by working with special needs children who exhibit exceptional musical skills, I came to recognize the benefits of incorporating music instruction into my music therapy practice. I began to think about ways to integrate music learning while still addressing non-musical goals, and decided to begin integrating music instruction into the music therapy sessions.

Shortly after I started to implement my new approach to music therapy, those children with autism showed great interest in learning music and demonstrated remarkable therapeutic outcomes. Not only have they been able to learn music successfully, but they also improved non-musical skills such as decreasing inappropriate behaviors, increasing attention spans, and improving motivation in learning. These therapeutic outcomes confirmed my theory and led me to start developing and establishing my own approach to music therapy infused with music learning.

1. Goals

This approach is unique and effective because it blends music therapy and music instruction and enables children with autism to successfully learn music and improve their vital life skills. The goal is to enhance that child's growth, as a person and as a musician, improving vital life skills and musical skills at the same time. Through my work with children with autism, I have become convinced that growth as a person and growth as a musician are mutually reinforcing processes. For example, when a child improves his fine-motor skills, his musical skill also improves. When the child learns to play a song on the piano or gains a new musical skill, his self-esteem grows and he becomes more motivated to learn.

2. Method

Process

This approach emphasizes both music therapy and music instruction, but the relative weight of its focus depends on continually balancing the abilities, progress, and needs of each child. All the children in my practice take an individual weekly session for 30-45 minutes. When a child is referred, the first step is always to start with music therapy. During this period, the goal is to improve the child's pre-academic and other skills that are necessary for learning. Also, accessing the child's innate musical ability and enhancing their fine-motor skills will facilitate their further improvement, because these skills will be essential for effective music lessons. When the child seems to be ready, session content gradually transitions to music instruction and the more focus is placed on improving musical skills.

Assessment

Assessment is fundamental to designing and providing interventions and instruction that will meet each individual's needs. From the initial session, continuous assessment evaluates each child's non-musical skills, musical skills, including preferences and interests, and their preferred sensory system for learning.

Non-musical skills: Gaining understanding about each child is very important. Especially when the child is in the pre-instruction period, assessing the areas that need to be improved is indispensable to help prepare them for music instruction later. The following areas are particularly important.

- **Participation level:** The most important thing is that the child participates in the activities presented in the session. Some children are totally willing to participate and are excited about all the musical activities. Some may have preferences among the activities (e.g. they may participate well in singing but not playing instruments etc). Children are often resistive and do not want to participate in any activities. This frequently happens in the initial stage. So, it is important to assess and keep track of each child's participation level to observe if it increases over time, and to understand what kind of activities the child participates in the most and the least.
- **Emotional needs and communication skills:** Following the assessment on participation level, it is essential to assess the child's emotional state, including how he communicates with you as a therapist. Does the child seem to be comfortable working with you? If not, does he seem to be scared, anxious, shy, too excited, confused, or angry? Observing how the child communicates with you can give you clues about his emotional state. For example, a child's impulsively asking for different instruments and expressing random things without really answering or following you may indicate that he is too excited or confused. Sometimes, children (or actually, we all) use these behaviors to avoid facing anxiety or out of fear of communicating with others. For another example, if the child completely avoids eye contact and turns his body away from you, this may indicate that he is anxious about being too close to you and he may need more physical space. It cannot be stressed enough that it is fundamental for success that the child feels secure and comfortable working with the therapist. Without accomplishing this, it is difficult to proceed to music instruction.
- **Cognitive skill:** Once the child's emotional needs are met, you as a therapist will be able to assess his cognitive skills better. It is important to assess both the child's attention span and what activity he best attends to. Another important cognitive skill to assess is whether the child is able to understand your directions, but the therapist must be aware of his/her manner of giving directions. It is always helpful to use one or two-step sentences with simple and clear word choices and give one direction at a time. If the child fully understands the directions, try to see if he can understand more complicated directions. If the child does not seem to understand the directions, try to see if he can understand through visual cues (such as modeling or using picture cards) and hand-over-hand instruction.
- **Fine-motor skills:** Children with ASD often have difficulties with fine-motor skills. Since having good fine-motor skills is essential to for progress in instru-

mental playing, improving fine-motor skills is important from the pre-instruction period on.

Musical skills: Finding the child's characteristic musical preferences and areas of strength is crucial for successful music instruction. Attention is paid to any possible responses that may indicate a child's musical strengths, such as: What element of music does the child relate to the most – rhythm, harmony, or melody? What kind of musical activities does the child show interest in – playing an instrument, singing, or listening? How is his auditory skill – is he able to imitate the rhythmic phrase played on the drum – does he sing on pitch? It is important here to emphasize that this does not mean to compare the child with other children; rather it means looking to find the strengths of each individual.

Assessment of preferred sensory system for learning: In my experience of working with children, I have learned that each child has preferences in how he relates to new ideas; some learn better through visual cues, while others learn better through auditory cues or kinesthetic cues, meaning learning by experience or hands-on learning. In my observation, this is also true for children with special needs, and knowing their preferences is indispensable when tailoring instruction. Here are some of the features that may indicate which sensory system a child prefers.

- A child who relates to auditory information better tends to like singing and remembers musical phrases well (sung or played). He may notice subtle differences of the sound (dynamics, register).
- A child who relates to visual information better often notices the shapes and colors of instruments and music education materials. The child is able to follow better when you model and use picture cards.
- A child who relates to kinesthetic information better tends to like to move or dance to the music and often shows higher fine-motor skills than average. The child understands better through hand-over-hand instruction.

Tailored Learning Steps and Multi-sensory Approach

It is vital to provide appropriate instruction by giving the right amount of challenge based on careful assessment of the child's progress and emotional needs. The emphasis is placed on customizing the contents of the session, including providing a step-by-step approach and a multi-sensory approach. Because of the unique abilities and difficulties of children with special needs, the instructional steps provided in traditional music lessons are not easy for them to follow. Even with step-by-step instruction, often each step may be still too challenging. Then it is important to break each step up into smaller steps. Each step must be designed to enable the child to succeed. Along with those steps, providing a multi-sensory approach is important. Each concept is taught through different sensory information. Start from the child's preferred sensory system, and gradually add other sensory information to reinforce the same concept. For example, Mark, one of the clients, learned the concept of solfege through singing (auditory), then color-coding

(visual), and bell-playing (auditory, visual, kinesthetic). Then he transferred his knowledge and skills onto the paper-piano (visual, kinesthetic) and finally, to real piano playing (visual, auditory, kinesthetic).

4. Evaluation Method

Session video analysis, written reports and parent feedback are used to evaluate the efficacy of interventions and instruction. Each session is video taped for subsequent analysis of the child's responses and signs of the child's responses and progress. These are documented and appropriate contents are shared with the parents. The parents also provide their feedback either in writing or orally.

5. Techniques

In my approach I use several effective techniques, such as: solfege singing, color-bell playing, and some music games using music education materials such as *DoReMi cards*, *Paper Piano*, and *Magic Notes* (Yurko 1992).

Solfege singing is the fundamental technique of the approach. Many children with ASD have responded well to solfege singing, and this is especially effective for those with good auditory skill. Children learn solfege and sing both ascending and descending directions though a simple song I composed, "Are You Ready." Once the child has fully learned this song, then I introduce singing nursery rhymes in solfege, usually starting with "Mary Had a Little Lamb." Children learn solfege through their familiar songs and more challenging pieces are introduced gradually.

Another important intervention is the color-bell playing. The first step is to enable the children to play each bell with intention. Then children are encouraged to play the bells as they sing solfege and develop spatial awareness of the distance between notes, that is, between lower and higher pitches. In addition, they naturally learn the color-coding of the solfege syllables, a visual cue consistent with most music education materials.

To deepen their understanding of solfege, simple music games are introduced to help children transition newly learned knowledge and skills toward real piano playing, and to develop finger abilities. These simple games include using *Do Re Mi cards*; a "paper piano," a section of piano keyboard drawn to scale; and magic notes, colorful buttons to place on the keys. After children master all these activities, they are able to play songs both on the piano and bells.

When children achieve this level, the emphasis and focus are shifted to improving piano-playing skills. Because many children with autism often have low fine-motor skills, they tend to have a hard time playing the piano using all the fingers alternating. So, the focus needs to be placed on improving their precise fine-motor skills.

6. Case Study

Mark, a 3 years-and-11-months-old boy, was referred to Kana's Therapeutic Music in May of 2010. Mark's mother had a desire to let Mark learn music and piano, but

had been discouraged after several unsuccessful lessons with his former piano teachers who lack an understanding of and experience with special needs children. One of my colleagues made a referral to my practice. Mark is Chinese and had been diagnosed with autism, ADHD, and language delay. Mark demonstrated impulsive and disruptive behaviors and thus was a very challenging client; people around him doubted his ability to learn.

[Session 1-7]

In an initial session with Mark, he seemed totally out of control, exhibiting impulsive and disruptive behaviors such as running around the room and being rough with the instruments. His attention span was poor and got distracted easily. He had difficulty understanding verbal interventions, and was echolalic. It was impossible for him to listen to my directions and follow them. He had poor fine-motor skills and it seemed difficult for him to grab a mallet or strum the guitar properly. However, he was very responsive to music and that made me hopeful about his potential for learning in music.

Although his mother had a strong desire to let him learn music, I decided to start with music therapy activities to prepare Mark for getting ready to learn music. Therefore, the goals and objectives in the initial stage were to increase his pre-academic skills: increase his attention span and ability to follow directions, and decrease impulsive and disruptive behaviors. To let him get used to the structure of the session, I intentionally kept the same order of activities. I used picture cards, each with a picture of an instrument of the activity, so he could anticipate what would come next. These simple techniques helped him reduce his anxiety and focus better. Also, in order to help him maintain focus, I provided 5-6 activities in a session with various instruments with different sounds and tone-qualities. In addition, I composed several songs for Mark to learn and improve social and pre-academic skills: "Hello Song," "Listen, To the Bells," "Copy Me" etc. Through his success at learning these music activities, Mark improved his pre-academic, communication, social, and cognitive skills. Over the first seven sessions, Mark's attention span and participation level increased greatly. He learned music therapy songs and activities and was able to participate in those activities entirely, which had been impossible for him when he began. His mastery of the activities gave him confidence in his ability to learn.

[Session 8-15]

Observing Mark's progress, I gradually started to introduce music instruction. Since it was observed that Mark's preferred sensory system for learning is through auditory, I used the song "Are You Ready" to teach solfege. I also worked to improve his skill at playing the color bells. Because his fine-motor skills were poor, it was difficult for him to play the bells one at a time. He would impulsively hit all the bells. So, I composed a song that encouraged him to play each bell one by one. In another intervention, I introduced *Do Re Mi cards*, on which each syllable is color-coded and the colors match to those of the color bells. I showed him each card and spelled it out by speech-like singing, "D, O, Do" "R, E, Re" He copied the phrases with the melody I sang. With repetition, he gradually was able to say it on his own.

[Session 16- 42]

It was noticeable that Mark's progress was rapidly increasing. Mark took more initiative during the activities and became more independent. Also, his cognitive skills seemed to be growing more and more. I introduced games using DO RE MI cards, which encouraged him to put those cards in ascending and descending order (pictures shown below). This was a challenging game for him but he learned it with repetition. As he mastered this game, I made the game even more challenging with variations. Mark was able to learn those games and amazed his mother. His cognitive skills had improved and he was able to follow more complicated directions.



[Figure 1. Mark with Do-Re-Mi cards.

In another intervention, I taught him to one of his favorite songs with solfege syllables, to develop his understanding of music and make associations between his familiar songs and his newly learned knowledge of solfege. With repetition and practice at home, he was able to sing "Mary Had A Little Lamb," entirely with solfege. It took him about a month to master this song. One may see this as a tiny step, but for him, it was a huge accomplishment. Also, Mark made progress on bell playing; he was able to play properly without being impulsive and started to learn how to play "Mary Had A Little Lamb" on the bells. At this time, he had no problem with sitting on the chair and focusing on the tasks. The boy who was impulsive and disruptive was not there anymore. Instead was a boy who found joy in learning.

Mark's motivation in learning had grown so much and I decided to introduce many other learning materials to improve his performance skills on the bells and piano. Work on learning to read musical notation increased his musical understanding.



Figure 2. Learning to play the piano on a paper piano. Pointing to Do-Re-Mi cards as he sings solfege.

[Session 43 to 51]

Mark seemed to flourish in this learning environment, and accomplished many things. He learned not only singing, but also playing several songs both on the piano and bells such as "Twinkle, Twinkle Little Star," "Row, Row, Row Your Boat," "Brahms' Lullaby," "Ode to Joy", "Somewhere Over the Rainbow," and so on. In the sessions, he could not stop playing and singing. He was enjoying playing and looked proud of himself.

Mark's mother informed me that he performed five pieces from memory on the bells in front of his peers and teachers at his birthday party in school. No one expected him to play, but he spontaneously decided to perform. All the teachers were so shocked and speechless because what they saw and heard was beyond their imagination. They said to his mother that it was like a miracle happened.

[Session 51 to 77]

By the 51st session, Mark had made wonderful progress, both musically and personally: his understanding of music and piano playing had improved, and his attention span and demonstration of appropriate behavior had increased. Because of this success, it was important to take the next steps to improve Mark's piano-playing skills. Instead of using only his index fingers, I wanted him to use all of his fingers. In the past, he had resisted because it was challenging.

After many trials and much frustration on his part, I realized that I needed to be more creative in my approach. I encouraged Mark to add the other hand and play both hands together, still using just his index fingers. I demonstrated two indexes placed on C's an octave apart while singing "Do" and "Do", and so on. Immediately, this caught Mark's attention and he was keen to practice it on his own. Gradually, Mark became more open to using his other fingers. I composed songs to encourage him to alternate using his index and middle fingers and to use all five fingers. However, he *still* resisted using all five fingers. Although a bit dismayed, I realized that if I did not believe in him, he might never succeed. I did not give up.

On December 23, 2011, the night before Mark's 64th session, his mother sent me a text message saying Mark had played the piano using all five fingers! He not only played the five-note scale, but also "Mary Had A Little Lamb," using all five fingers alternating (personal communication, December 2011). The pace of Mark's progress seemed phenomenal. One month later in session #71, Mark played a five-note scale with both hands together in a parallel motion. Later, he even played the famous melody from "Ode To Joy" in the same manner. In response to his rapid progress, I prepared more challenging songs that required Mark to use both hands collaboratively and to change hand positions while playing, which he mastered within a month. By 77th session, he mastered to play more complicated songs to play with both hands, such as the melody of "Minuet in G" by Bach.

Summary:

Over one year and 10 months, 77 sessions, Mark made great progress in many areas including cognitive, pre-academic, communication, fine-motor, psychosocial and music skills. What is particularly important is that his self-esteem improved so much. Now Mark knows that he can apply himself to tasks successfully. He now sees what he can do rather than what he cannot do – which changed the perspectives of others around him as well. His relationship with his parents, especially his mother, changed greatly. She used to be worried about his condition and she saw him as just a difficult child. But now, Mark is doing something she can be proud of and she knows that he can learn and develop which makes her feel more hopeful. Her being hopeful affects Mark's progress as well.

Feedback from Mark's mother:

Mark's mother wrote me a letter describing her experience and her feedback to my approach and interventions (personal communication, October 2011).

Ms. Kana,

When I first brought Mark to you, I did not know how far he could go. At that time, he was extremely impulsive, could not engage himself in any activities for more than 2 minutes, he could not play one key at a time with finger.

But Ms. Kana, you made the miracle happen—when I watched the video you sent of him playing “Twinkle, Twinkle Little Star” on the bells, my heart was beating fast and at the end of the excerpt, it was jumping out of my chest. Now, he not only could play “Twinkle, Twinkle Little Star”, but also could play more complicated songs such as “Lullaby” and “Ode To Joy” on the piano and bells.

*Another miracle is that Mark learned to play music games such as Do Re Mi cards. I just could not believe that he one day could put **seven** cards in order and backwards. Also, with the games to teach him rhythms, he learned many complicated rhythms; recognizing their shapes and remembering the names. I've also noticed that those skills were transferred to outside of the music sessions. He is now able to follow directions better, wait for his turn patiently, and communicate better with me.*

I think your approach (which is the combination of repetition and adding new elements gradually) provides clear structure, which helps him a lot. Also, the detailed session report you sent me help me understand the therapeutic purpose of the music activities and notice the subtle positive changes in his behavior. I feel lucky that I have found you as his music teacher/therapist.

Sincerely,

L (Mark's mother)

Conclusion

My approach, combining music therapy and music education has proven effective for children with ASD. The approach emphasizes the therapists' creativity and flexibility in creating instructional activities. It is vital for the therapist to first look

into each child's musical strengths and preferred sensory system for learning and expand them gradually.

Providing steps through which a child can succeed with a right amount of challenge is important to keep motivating the child and give a sense of mastery. Furthermore, providing a multi-sensory approach can give a child easier access to new ideas or unfamiliar skill-sets. It can activate other sensory systems that a child may not have originally preferred.

References

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