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The Development of Lesson Plans to Enable Diversity and Authentic Learning using Music and Body Movement

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Abstract: In this study, the authors aimed to develop lessons in which diversity, collaboration, and authentic learning are ensured through children's cooperative involvement in a special class for students with intellectual disabilities. The authors framed three practices and analyzed children's activities and the teachers' environment setting, including music and body movements. The authors found three key results. First, the ability to recognize the diversity of body movements and expression in different contexts was improved in the practices which caused authentic learning. Second, collaborativeness promotes and nurtures cooperation (sharing roles) when children and teachers work together to achieve collaboration (creation by synergistic effect), finally realizing authentic learning. Third, music and body movements have the power to communicate what words are often unable to—the ability to make others feel that they are wanted and valued. Music and body movements served as the medium and catalyst for deepening authentic dialog.

1. Introduction

In 2017 the Courses of Study were revised, and each school has undertaken “class improvements for realization of proactive, interactive, and authentic learning” (MEXT, 2018). In the report titled “Toward Organization of ‘Japanese School Education in the Reiwa Era,’” the Central Council for Education (Jan. 26, 2021) emphasizes the need for students to recognize and respect others' goodness and potential, and work together. Schools for special needs education have also aimed to improve and enhance children's activities, emphasizing the continuity with elementary and lower secondary schools. The individual approaches to personal learning plans have been provided to the teaching staff at schools for special needs education. However, to realize authentic learning, further research is required to improve classes to foster diversity and collaboration.

In previous research, Takahashi et al. (2019), who focused on the ways of effectively eliciting unique modes of expression from children, explored course-planning in which diversity and collaboration were ensured through children's cooperative involvement. They found that children's expressions deepened through a combination of imitation and exploration, and collaboration emerged through this deepening process. Music and body movements were helpful for children to explore their expressions.

The research question posed in this study, therefore, asks whether teachers' environment settings, including music and body movements, are effective for learning processes designed to enable diversity, collaboration, and authentic learning. It is important to verify that the lesson plans this research examines will lead to "individually optimized study and interactive learning" (MEXT, Jan.26, 2021).

2. Research Objective and Framework

In this study, the authors aimed to develop lessons in which diversity, collaboration, and authentic learning were ensured through children's cooperative involvement in a special class for students with intellectual disabilities. The study was conducted through action research with the authors' collaboration. The authors consisted of three teachers, four researchers, and three observers whose majors were music, dance, and special needs education, and they conducted this study pursuant to a contract with X primary school. Lesson practices were held in the music room of X primary school in Hiroshima, and eight children joined the activities in Practice 1 and 2, and six children joined the activities in Practice 3. Teachers implemented and reflected on the lessons, while the researchers and observers collected research information by taking field notes in the lesson room. Finally, in a group, the researchers, observers, and teachers analyzed and discussed the practices from their own perspectives.

3. Lesson Practices and Results

3.1. Practice 1: "Let's Dance!"

3.1.1. Lesson Goal for Practice 1

The goal of Practice 1 was to facilitate free play and dance with children and teachers.

3.1.2. Observation of Children

There were eight children in the class, and the authors discussed the learning process with a focus on three children who required special attention. Child A is a girl in the third grade with a mild intellectual disability. She prefers playing with adults and sometimes expresses discomfort when interacting in group situations in classes. Child B is a girl in the sixth grade with a mild intellectual disability. She enjoys dancing, but she also appears self-conscious. Child C is a boy in the sixth grade with a mild intellectual disability. Though he is an uncoordinated dancer, he is an expressive singer.

3.1.3. Outline of Planning and Activities

Children freely play and dance while listening to music edited by the teacher. The teacher selected pieces from 15 different types of songs or sounds. He arranged the music to begin cheerfully and to end calmly for each lesson.

3.1.4. Lesson Plan (three school hours in total)

Practice 1 was implemented in November 2019. At the beginning of the class, the teacher outlined the class structure to the children. Then, the children danced and played as they listened to the music. At the end of the lesson, they listened to relaxing music.

CD music: “Nandeyanen” by T. Suzuki, “Ebikanikusu” and “Ninja no Hayatoosoto” by Y. Masuda, “Dekirukana” by T. Shinzawa, “Robot Soldier” by J. Hisaishi, “Sabre Dance” by A. Khachaturian, Japanese old song “Sakura Sakura” and “Soreike Carp” by N. Miyazaki, “Sleep Away” by B. Acri, Okinawan folk song “Tanchame-bushi” and “Eisa,” Russian song “Korobushka,” American song “Yankee Doodle,” sounds of the waves, and sounds from sumo wrestling matches.

3.1.5. Learning Process

The learning process had two features. First, the children formed bonds to each other through participation in a new experience; new perspectives were shared between the children and teachers. Second, the children increased their expressive capacities through imitation and experimentation.

3.1.6. Results

The children were generally able to imitate others’ expressions through their creative dancing (Fig. 1). Child A laid down on the floor (as if pretending to sleep) when she was listening to the relaxing music. Other children pretended to snore. Child B extended her arms outward, mimicking the motions of a zombie in a playful manner. Her classmates encouraged her as she danced, and this appeared to give her some much-needed confidence. Child C tended to imitate others’ expressions, but he gradually began to create his own dances as he continued listening to the music.

3.1.7. Reflection by the Teachers

Practice 1 provided the initial step in this study; it was meant to familiarize the children with basic group activities. They were able to dance and play freely with their friends listening to different kinds of music, which led them to express spontaneous body movements. Teachers observed children’s expressions and provided meaningful feedback. In general, teachers made lesson plans based on what the students liked in the Practice 1 class, indicating the importance of teachers’ observation and feedback in relation to directing children’s activities.



Fig. 1. Dancing

3.2. Practice 2: “Let’s Express Musical Mood” (1)

3.2.1. Lesson Goal for Practice 2

The goal of Practice 2 was to encourage the children to capture “musical moods” by playing musical instruments and making body movements freely.

3.2.2. Observation of the Children

There were eight children in the class, and the authors discussed the learning process with a focus on three children who required special attention. Child D is a boy in the fourth grade with a mild intellectual disability. He appears to merely clap in time with the beat when he cannot recognize any clues for body movements in the music and tends to throw tantrums if his immediate needs are not met. He also appears to have low spatial awareness. Child E is a girl in the fifth grade with Down syndrome. She is expressive when she dances and sings, and she appears to prefer singing and dancing to familiar music with close friends. Child F is a boy in the fifth grade with a mild intellectual disability. He expresses that some sounds are “comfortable,” while others are

“uncomfortable.” Therefore, he may be sensitive to noise. He is sometimes nonresponsive to others in class and has difficulty socializing.

3.2.3. Outline of Planning and Activities

Practice 2 was comprised of three units. First, the children were encouraged to select and play the musical instruments freely. Second, some students performed in a way which they felt appropriate for expressing their emotions, while others listened to the sounds in the classroom. Third, children were told to move their bodies to the music. The teacher divided the room into halves, and allowed the students to choose whether to play instruments or listen to the music. In the front of the room, the children were encouraged to move actively during “Performance” time, whereas they were encouraged to focus on reflection during “Sound-check” and “Comment-time” in the back of the room.

3.2.4. Lesson Plan (eight school hours in total)

The practice was implemented from early November to late December in 2019.

UNIT 1 (1 hour): Let’s play our favorite instruments
<p>Lesson goal: The children begin selecting and testing musical instruments.</p> <p>Outline of activities: The children select their favorite instruments from 12 different types and play freely according to how they feel.</p> <p>Instruments: Claves, guiro, cabasa, triangle, maracas, jam block, castanets, cowbell, sound block (C, E), handbell (C, E).</p>
UNIT 2 (2 hours): Let’s listen to our music
<p>Lesson goal: The children play the musical instruments to express the “mood” of the music (e.g. sad, happy) and listen to the sounds in the classroom.</p> <p>Outline of activities: The children play their favorite instruments to piano music which is performed by the teacher. The teacher records the sounds performed and they listen to the music recorded. We called this process, “Sound-check”.</p> <p>Piano pieces: “Stroll” by J. Hisaishi, “Chasing Butterflies” by G. Streabbog, “Rain” by F. Beyer, “The Hunt” by N. Paganini, “Good Night” by C. Czerny, “Sabishii Aruki” and “Yureru 2” by Y. Ishimaru.</p>
UNIT 3 (5 hours): Let’s create body movements to our music
<p>Lesson goal: The children create movements expressing the “mood” of the music, which they played with instruments.</p> <p>Outline of activities: As in UNIT 2, the children play their favorite instruments, the teacher records the sound, and they do “Sound-check”. After their activities, the children express how they feel about the music one by one. We call this process, “Comment-time”. Then, they create body movements to the recorded music. We call this process, “Performance”.</p>

3.2.5. Learning Process

In Practice 2, the learning process was gradually expanded. The teacher took enough time for the children to select and play the musical instruments (Fig. 2).



Fig. 2. Playing the instruments



Fig. 3. Comment-time

Then, the children showed their

instruments to classmates and introduced how to make interesting sounds. In Unit 3, the teacher introduced three types of stages called “Sound-check,” “Comment-time” and “Performance.” The children focused on the music in “Sound-check” and self-reflected. After that, they presented how they felt in “Comment-time” (Fig. 3.). Some children, who had difficulty in speech, used word cards on the board to explain their feelings. Subsequently, they created body movements to their own music during the “Performance” stage. As well, the teacher divided the room into halves depending on the activity: static or dynamic, to adjust the environment in space.

3.2.6. Results

The children generally broadened their range of body movements as the practice progressed. As previously noted, Child D would only clap in time with the beat if the music did not elicit any movement. However, during the session, he started to play with others and performed more imaginatively. Child E enjoyed her body movements with unfamiliar classmates, and she often tried to make small sounds with her instrument (sticks) to express her feelings. Child F improved his expressions according to the tempo of the music and expressed visible joy. Furthermore, we observed that he seemed to pay more attention to his friends and the environment. In addition, some children changed their instrument’s volumes while others were taking a rest break, which indicated special care and awareness of their surroundings.

The children were able to proceed to the next activity independently because, depending on the activity, the music room was divided into halves. In particular, Child D abided by such rules as he listened to the teacher and cooperated with his fellow classmates.

3.2.7. Reflection by the Teachers

The above practice encouraged varieties of expressions when playing instruments. The music made children feel comfortable and promoted a great willingness to participate. “The Sound-check” stage was effective in helping them to process their free play and dancing. “Comment-time” helped them to reflect and cool down; it was also useful for encouraging them to share how they felt. Step by step, they enhanced their sensitivity to sound, rhythm, and strength during the “Performance.” Additionally, as shown in 2.5., the environment was divided by function, which helped the children understand what task to focus on next.

There was minimal tone differentiation in this unit, as most instruments were percussive. To cultivate expressive performance, it would be desirable to widen the variety of sound, adjusting the environment setting of the class.

3.3. Practice 3: “Let’s Express Musical Mood (2): Music Room Making”

3.3.1. Lesson Goals for Practice 3

The goals of Practice 3 were (1) to encourage children to model the imaginative and creative expressions of their friends and teachers, and (2) to encourage children to interact with their environment (the music room).

3.3.2. Observation of the Children

There were six children in the class, and the authors discussed the learning process with a focus on three children who required special attention. Child G is a boy in the first grade with a mild

intellectual disability. He often models his behavior on teachers or friends when performing activities. He is apt to perform alone in the corner of the classroom. Child H is a girl in the third grade with Down syndrome. She enjoys learning and likes singing and dancing, but she has difficulties in group involvement, especially in waiting for her turn. Child E is a girl in the sixth grade with Down syndrome. She is good at dancing when she is in the right mood to do so. Child E communicates her feeling slowly; much of her communication is nonverbal.

3.3.3. Outline of Planning and Activities

Practice 3 consisted of three units: “Let’s feel with our bodies,” “Let’s express with our bodies,” and “Let’s make a music room.” These were cycled so that the children could experience the same activity several times. In Practice 2, children could not distinguish the instrument’s sound (there were fewer tones, and most instruments were percussive). In Practice 3, the teacher prepared more instruments, newspapers, props (ribbons, scarfs, and hoops), picture cards, and mirrors as teaching materials for making a music room.

3.3.4. Lesson Plan (15 school hours in total)

The lesson plan consisted of Unit 1 (two school hours), Unit 2 (seven school hours), and Unit 3 (six school hours). The practice was implemented from late June to early November in 2020.

UNIT 1 (2 hours): Let’s feel with our bodies
Lesson goal: The children freely perform the “musical mood.”
Outline of activities: The children perform with the piano music performed by the teacher or CD.
UNIT 2 (7 hours): Let’s express with our bodies
Lesson goal: The children perform with instruments, newspapers, props, and mirrors expressing the mood of the piano music or CD.
Outline of activities: The children express themselves freely to each of the musical selections using their respective object. The teacher takes a video so that the children can look at their performances. During “Comment-time,” the children express and share their impressions and feelings about their performances.
Instruments: Surf drum, claves, cabasa, maracas, castanets, vibraslap, cajon, guitar, bell.
Piano pieces: “Sekai ni Hitotsudake no Hana” by N. Makihara, “Donna Iro ga Suki?” by O. Sakata, “My Grandfather’s Clock” by H. Work, and seven other pieces used in Practice 2.
CD music: “Piccoroni,” “Froschgesang,” “Under the Spreading Chestnut Tree,” and “Mambo. No.5” by P. Prado; “We Will Rock You” by B. May, “Canon” by J. Pichelbel, “Buruburuba,” “Yottsu Tataite Pon,” “Nobitetijinde,” and “Chocho ga Hirahira Tobuyo” by Tanakanata, “Hashiru Norimono,” “Kaiteitanken,” and “Utyutanken” by Gymnastics Association of Chugoku and Shikoku region Elementary school.
UNIT 3 (6 hours): Let’s make a music room
Lesson goal: The children set instruments, newspapers, props, and/or mirrors in the room and enjoy making a “music room.”
Outline of activities: The children put the picture cards on the music room map (a poster where children can arrange instruments in a visual space that corresponds with the actual classroom) (Fig. 4.) and place the items in the room. They express their feelings about the placement of instruments. They pick up their instruments again, and play freely. During “Change-time,” the

room and music room are cleared, and the children arrange instruments and props again. Then they present how they feel during “Comment-time.”

3.3.5. Learning Process

The goal of Practice 3 is that the children create the environment together as one team. This is critical for promoting cooperation among individuals. “Change-time” gave children an opportunity to reflect, and this also allowed children to feel validated. During “Comment-time” children who struggled to verbally express their feelings used picture cards that indicated various feelings. We believe that these cards helped children better express the nuances of their individual and group choices during the practice.

3.3.6. Results

In Unit 3, the children improved their body movements. Units 1 and 2 also had a positive impact on the children. For example, Child G clearly enjoyed expressing himself with the ribbon, for example, waving it about expressively. The teacher praised him, whereupon other children began to imitate him. Child H and Child E played the instruments with a prop, performed with other props, and even posed with other instruments and props. Children also liked expressing themselves in front of the mirrors. Perhaps “making a music room” was one of the favorite activities. For example, Child G was able to accurately convey his specifications for the music room (he wanted ribbons to put on the map), and the teachers saw that he was visibly satisfied when the other children agreed with his opinion. More and more the children expressed positive emotions and feelings during “Comment-time.” Child H sometimes showed interest in the words of others. Child E explained that she placed one of the instruments at a convenient place for her friends, should they want to use it, which shows a positive level of interaction with her friends (Fig. 5.).

3.3.7. Reflection by the Teachers

“Making a music room” encouraged the children to perform with creativity and originality, and it also enhanced their ability to collaborate. This provided an opportunity for authentic learning. Putting the picture cards on the map allowed children to express themselves more clearly; perhaps such clarity would be lacking without the help of visual aids. Additionally, these teaching materials prompted children to express sensitive, thoughtful movements. The teacher selected different varieties of music to cue children at important intervals. Rest periods between activities proved to be useful. Overall, the design activities were effective.



Fig. 4. Music Room Map



Fig. 5. Making a Music Room

4. Discussion

4.1. Function of Music in These Practices

The function of music had different characteristics in the three case studies. For example, in Practice 1, music functioned as a prompt to produce types of play or expressive acts, such as “Zombie Mimicking,” while Practices 2 and 3, involved the children’s self-expressions using instruments and their bodies. While the function of music in Practice 1 was important in ensuring diversity of expression, its function in Practices 2 and 3 was important for acquiring a deeper learning of musical content. These two functions were not clearly distinguishable and were rather ambiguous for the children. However, both approaches might be effective in developing lesson plans.

One of the most important factors in promoting such functions was the selection of music. The teachers carefully observed children’s responses and selected the music repertoire for each activity. In Practice 3, the teacher not only selected appropriate music for the children, but also emphasized various elements (dynamics, rhythm, etc.) that were related to the children’s movements and musical feelings. This flexible adjustment was also important for lesson development. Moreover, when using recorded music for these activities, the teacher left the piano and joined in the expressive activities with the children. In these cases, the teachers’ reactions to the music helped create a sense of community between the children and the teachers. It also increased enjoyment and enriched the children’s expressiveness.

Furthermore, in the activity “making a music room” in Practice 3, the teachers encouraged the children to explore an appropriate environment where they could deepen their expression with an open mind. This activity might be significant for children to establish an enjoyment of music which may continue throughout their lives.

4.2. Functions of Body Movement in These Practices

Matters relating to the functions of body representation can be organized into three points.

4.2.1. Internal Appearance and Propagation/Imitation by Body Movement

In Practice 1, a child who “likes to dance” became the leader and encouraged the expression of other children. Enjoying dancing was not influenced by the child’s heteronomous motivation (or extrinsic motivation), rather the teacher perceived that there was an intrinsic motivation for the child’s actions. In addition, it can be considered that the children had confidence in their body movements or feelings, promoting how they positively perceived themselves.

Furthermore, the way body movement influenced and was imitated by other children can be regarded as the beginning and deepening of communication between children. It can be said that the body movement of a child became a “language” and was a tool that encouraged and motivated other children and changed the child’s inner world. Kim (2001, p.2) describes the body movement as “the process by which each senses the universe behind her existence and crystallizes it on the stage.” Classes that reveal children’s inner world and facilitate mutual influence can be regarded as a “process of sublimation” of a child’s inner world through collaboration.

4.2.2. Body Movement That is Created and Changes While Influencing Each Other

In Practice 1, a process was seen in which children who led physical movements naturally took

turns without intentional instructions or cues. It can be said that each child's actions encouraged the body movements of other children, and that they also promoted changes in their own body movements. Relationships changed while they were interacting with each other, and the movements that were dynamically developed in the lesson were examples for the children and teachers to realize that they had an influence on one another.

Practice 1 highlights the teachers' efforts to positively accept and encourage the body movements and changes of the children, while the teachers enjoyed dancing with them. In Practice 2, the children and teachers encountered the process of "enjoying and feeling change" which reflected the process of creating, experiencing, and performing their own music using body movements. The teachers emphasized the child's desire to express their feelings and their joy in doing so, rather than being preoccupied with the outcome. They were aware of the subtle changes that occurred in class.

4.2.3. Sharing of Body Movement and Sharing of Activity Spaces

Practice 3 shows that it is fun to work together in class, and it is an important time for children. It is thought that there was a process of learning (expressing) about each other and becoming aware of one's expressions and thoughts. Yagi (2001, p.73) states that "One expression will give rise to the following expression as follows: sharing a place, then feeling others, and then feeling oneself being worked on by others, and subsequently to working on others based on what they feel (expressing what they feel)." In the class, it is likely that this process occurred as the teachers created a place for the children to deepen their relationship, enabling them to concentrate on what they felt and what was happening.

4.3. Function of Body Movement as an Intermediary

It is thought that body movement can be used as a medium for children to deepen their learning, while interacting with other children, by utilizing what they have learned. The authors organize the discussion into four points.

- Free and improvised body movement that expressed the children's feelings, the process, and the activities created a learning environment, and promoted modeled and free body movements.
- The teacher's involvement and body movements acted as an important aspect of the environment setting. Teachers' consideration and wording, which recognized children's movements and did not force direction, promoted diversity and deepening of expression.
- By planning activities with a high degree of freedom for children and teachers, which did not distinguish between play and expression, the diversity of children's expressions (learning) was promoted and the lesson was expressed through body movement, as desired.
- By setting the time and place to reflect on the activities, the children were able to create new ideas for activities, ensuring that the activities were well coordinated.

5. Conclusions

In this study, using music and the body as mediators of activities, the authors set up ways for children to deepen their learning experience in a safe space and recognize diversity (activities that

are unique to them that make use of their individuality) and collaboration (moving and imitating together). The authors aimed to plan a lesson which would result in children's authentic learning in activities. To realize their authentic learning is to utilize and explore what has been learned and to discover and solve problems. It is thought that this type of learning will be enhanced by deepening learning experiences with others. In the practices, the teachers were able to clarify the children's learning processes and were able to utilize, explore, and deepen their learning (activities) together, using music and the body as mediators of the activities.

The diversity and collaborativeness pursued in this study can be summarized as follows. Diversity is the appearance of children and teachers facing each other and recognizing different body movements and expressions in different contexts. Collaborativeness means that the experience of working together and the experience of pursuing a common goal together promotes and nurtures cooperation (sharing roles) when children and teachers work together to achieve collaboration (creation by synergistic effect). It promotes developing and deepening of learning.

Music and body movements have the power to communicate what words are often unable to – the ability to make others feel that they are wanted and valued. If we reconsider the process of deepening learning (expression) together with the concept of dialog, it is thought that music and body movements are the medium of dialog and the catalyst for deepening dialog.

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Apportionment of Writing

This study was conducted by all members. Sections 1 and 2 were written by Gondo. Section 3 was written by Takahashi, Yokoyama, Nakamura, and Nagayama. Section 4 was written by Terauchi, Moriyasu, and Nagayama (4.1.), and by Chikurinji (4.2. and 4.3.). Section 5 was written by Chikurinji.