



THE EXTRAMUSICAL EFFECTS OF MUSIC LESSONS ON PRESCHOOLERS

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The aim of the present study was to investigate the extramusical effects of a music education program in one preschool classroom over a period of six weeks. The class had not previously been exposed to regular music lessons. Readily available teaching resources containing sound recordings were used. Analysis revealed six themes that addressed the extramusical effect of music lessons: 1) involvement in music activities allowed children to release energy; 2) engagement in music-movement activities developed motor skills in children; 3) a variety of music activities promoted opportunities for student socialisation; 4) music activities provided opportunities for children to express themselves; 5) music contributed to sociodramatic play; and 6) music listening activities focused children's listening skills.

Introduction

Although many preschool teachers use music on a day-to-day basis, research also suggests that many do not teach music, because they feel they lack the requisite skills (Hildebrandt, 1998; Gharavi, 1993; Scott-Kassner, 1999). For teachers with a limited skill base in music or lack of confidence in teaching the subject, pre-packaged resources with accompanying sound recordings can provide support in presenting music to children. Resources such as *Upbeat* (Leask, 1986) not only offer suggestions on how to teach music, but also provide recordings of songs and listening material that the inexperienced teacher–musician can use in the classroom. Such materials also stress the extramusical—or extrinsic—value of teaching music to young children, as do Australian primary school curricula documents, with justifications for music education being given on ‘physical, social, intellectual, cultural, and emotional grounds’ (Temmerman, 1991, p. 156).

The aim of the present study was to investigate the extramusical effects of a music education program in one preschool classroom over a period of six weeks. Sally, the preschool teacher, told me when we first met that she did not ‘have a musical bone’ in her body, and that she avoided teaching music because she believed she lacked musical talent, skills, and resources. She was, however, amenable to ‘having a go’ at teaching music because she believed music might be able to help her students with ‘some of their problems’. This belief was based on her observation that ‘soft, slow music’ played after outdoor time ‘calmed a lot of the children down ... and helped them to focus’.

Music has been shown to have positive effects on learning in domains other than the arts (Fiske, 1999), and specifically in reading and maths (Lamont, 1998). These extramusical benefits of music rarely focus on preschool-aged children. The most notable exception is Rauscher and Zupan’s (2000) examination of group keyboard music instruction, which found this particular form of music instruction enhanced preschoolers’ performance in spatial-temporal tasks. Standley’s (1996) meta-analysis of 98 studies of the effectiveness of music as behavioural reinforcement suggested that music can effectively reinforce learning and behaviour changes in children and adults, both in and out of school.

The study closest in nature to the present research project was conducted by Bilhartz, Bruhn and Olson (2000), in which a group of preschoolers received a comprehensive music program including singing, playing instruments, and moving to music. The study indicated that, on a visual test involving recall of bead sequence, colour, and shape (p. 104), preschoolers receiving the music training improved more than a group who did not receive such training. The present study did not seek to examine such specific outcomes, but rather to uncover broader indications of extramusical effects of instruction in singing, moving, and playing musical instruments. Considering that ‘musical meaning is deeply related to function’ for young children (Campbell, 2002, p. 61), the present study sought to look for extramusical effects of music instruction, such as how children were ‘buoyed by it [music], comforted in it, reflective through it, and exuberant as a result of their expressions with it’ (Campbell, p. 61).

Method

The study was conducted over a six-week period, on Thursdays and Fridays. The same children attended both these days of preschool; a different cohort attended the other days of the week. Aware that 'fieldwork with young children depends on the quality of the relationships developed between researcher and participants', I endeavoured not to just 'barge into the lives' of these children (Graue & Walsh, 1995, p. 145), but negotiate a relationship. This entailed entering the setting with what Sumison (2003) describes as 'overt humility', leading to mutual respect that created a situation whereby the children willingly engaged in the research process (p. 19).

Music lessons occurred each day, beginning at approximately 11 o'clock and lasting 25-30 minutes. I entered the preschool one hour prior to the lesson and left one hour after it, thus allowing me to observe children's behaviour before, during and after the music lessons. On the first day I was introduced to the class by Sally, the preschool teacher. She told the children I was here to 'help with music' and that I was happy to 'play and help out with anything' while there.

Three commercially available resources were used in the lessons, each resource containing recordings of musical material to be used with preschool-aged children. The materials were: 1) a Play School *Nursery Rhyme* CD and video (2001); 2) The Shenanigans' CD *There's a Wombat in My Room* (2001); and 3) the preparatory level of the *Upbeat* music program (Leask, 1986) (including tapes and teacher's manual). The first two resources contained songs and chants which required accompanying actions and movement from children. The *Upbeat* resource (Leask, 1986) also contained such material, along with music listening activities and suggestions about how to incorporate playing untuned percussion instruments into lessons.

During the first two weeks Sally and I team-planned and team-taught the music lessons using these commercially available resources. I would model a new song, chant or music activity to the class, with Sally joining in with the children. When these songs, chants and activities were revisited in subsequent lessons Sally led the teaching and I either joined in with the children or observed. During the first two weeks music lessons were teacher-directed and consisted of whole class activities. From the third week Sally suggested children be allowed more opportunities for musical play, so we set up some music learning centres, consisting of a variety of musical

instruments and CDs containing songs the children had learned. As Sally had used learning centres before (namely for visual arts activities), she established these centres with minimal input from me. From the third week on, 15 minutes were spent with children exploring music in these centres, followed by 15 minutes of whole class music activities. Sally and I continued to team-teach the whole class activities when new material was introduced. She preferred leading activities involving movement and musical instruments. When new songs were introduced she asked me to sing them to the children as she lacked confidence in her singing, even with the support of a sound recording.

Data collection consisted of notes made of my observations, tape recordings of student interaction, and interviews with Sally. Thematic analysis of this data occurred in order to draw meaning from the multiple sources. Verification of data occurred whereby Sally viewed transcripts of our interviews and of students' interactions. She also provided feedback on the thematic analysis.

Results and discussion

Analysis revealed six themes that addressed the extramusical effect of music lessons: 1) involvement in music activities allowed children to release energy; 2) engagement in music-movement activities developed motor skills in children; 3) a variety of music activities promoted opportunities for student socialisation; 4) music activities provided opportunities for children to express themselves; 5) music contributed to sociodramatic play; and 6) music listening activities focused children's listening skills.

Involvement in music activities allowed children to release energy

The most obvious effect of music activities was that children were able to release energy, and subsequently focus on other activities such as listening to a story or participating in art activities. The first four music lessons were predominantly focused on movement-based songs, with songs such as 'The Hokey Pokey' and 'Jumping Land' where children were singing and performing actions such as jumping, hopping, walking, running, and moving arms and legs to the music. A number of songs also required children to chase each other (such as 'Bananas in Pyjamas').

Boys in particular seemed to enjoy moving to the music, as witnessed in their requesting to 'do a song again' and often continuing with actions once a song

had ended. Such energetic responses to music may perhaps be attributed to the surge of testosterone in preschool boys (Biddulph, 1997). In later lessons, when untuned percussion instruments were introduced, boys particularly enjoyed striking these instruments. As Miller (1989) found, the boys in this study used drums more frequently than did girls. Boys tended to bang harder on the instruments, and often moved around the room as they drummed. At the conclusion of instrument time, a number of boys would lie down, pretending to be asleep.

The first two lessons concluded with high-energy activities involving movement. In the following non-music activities children were still visibly excited, with some still performing song actions. In subsequent music lessons Sally modified the structure, concluding with what she described as 'quieter' activities, such as singing slower songs while seated, or with listening activities. Following this, children did not, as Sally said, 'squirm around ... and were so much more focused on what we did next'.

Engagement in music-movement activities developed motor skills in children

The frequent use of songs with actions and movement helped to develop motor skills in children. Sally observed an improvement from the first to the second week, particularly in students who had 'really struggled' with jumping, hopping and skipping. This was confirmed by the physical education teacher, who came to the preschool once every two weeks. By week six he too noted that children who had previously struggled with motor movement were 'much more confident'. Children specifically improved in performing a given motor skill to the beat while singing and moving from one motor movement to another (e.g. in 'Jumping Land' moving from jumping to hopping).

A variety of music activities promoted opportunities for student socialisation

When students engaged in whole class singing and movement activities socialisation was apparent in the way children talked to each other before, during and after songs. Immediately prior to singing a song children would tell each other if they liked the song and why. During a song they would often show support for individual children involved in a chase by calling out their name, or in songs such as 'Who has the Ball?' they would sing or speak the name of individual children (in this case the child in possession of the ball). Following the performance of a song, children would communicate their opinion of it with comments such as 'that was fun, let's do it again', or 'we can play it later by ourselves'.

The latter comment led to the structure of music lessons changing in the third week. Sally saw children performing songs in small groups outside the music lessons. On observing this, she said that 'perhaps music lessons should involve more play ... so children can explore what we do as a group'. At this point we went about designing music learning centres where children could engage in music activities such as singing alone or in small groups, and playing musical instruments. Three centres were set up around the room immediately prior to music lessons: one with a CD player and CDs of songs learned in previous lessons; a second with a variety of untuned and 'found' musical instruments (such as an ice cream container with ruler) where children could freely explore the instruments; and a third containing musical instruments, along with simple charts with symbols that indicated when and how instruments should be played. From the third week, 15 minutes of each music lesson was devoted to children exploring music in these centres.

When working in these music centres children demonstrated what Morin (2000) describes as 'cooperative music play', whereby they interacted and communicated with each other to learn about music (p. 25). This involved children discussing what they would do, how they would do it (e.g. 'We'll sing, you can jump, [and] you two can hop later'), and how they would extend ideas presented by the teacher. Often a child would suggest a new idea, such as 'Let's play [the] drum with two sticks, not [just] one like Sally showed us', demonstrate this to other children, then teach other children this new skill.

Music activities provided opportunities for children to express themselves

Gardner (1993) views music as one of seven primary forms of intelligence, with musical intelligence being seen in children who like to sing throughout the day, experiment with and play musical instruments, and who are acute listeners. Throughout the six weeks Sally identified two children in her class who 'came out of their shells' through exposure to music—children who used music to express themselves both in music lessons and throughout the day. At the conclusion of the six weeks, Sally said music had given the two children 'a voice ... and a distinct personality'.

Natasha was a quiet girl, described by Sally as 'well-behaved ... but you could forget she was there, she hardly spoke'. From the first music lesson Natasha displayed a level of enjoyment that Sally had not seen

previously. She sang throughout the music lesson and was one of only three children who could rock to the beat when learning a new song. In the second music lesson Natasha was the first to volunteer to sing a song learned the previous day to the class. 'She never volunteered to do anything before this', Sally commented. Similar behaviour was displayed in subsequent lessons, and Natasha was often observed singing to herself as she performed other activities throughout the day.

Jason was described by Sally as 'unable to sit still for 10 seconds ... his attention strays all the time'. This changed in music lessons, where he was continually attentive, particularly when performing actions to songs. Like Natasha, he was able to keep the beat to newly-learned songs. By the third week Jason was seen by his male peers as a music expert. This began when he came to class and sang the first two verses of 'Waltzing Matilda', which his mother had taught him. Jason also was an expert in playing musical instruments. If a boy was unsure how to play an instrument he would go to Jason rather than Sally for advice.

Music contributed to sociodramatic play

Sally viewed sociodramatic play—children playing together and enacting roles of people in their world—as one of the most important parts of preschool learning. Many opportunities were given for such play throughout the day. From the first week of music lessons music was integrated into sociodramatic play. This came in the form of children using songs and playing musical instruments as part of this play. When playing 'mummies and babies' children would rock their baby dolls and sing lullabies such as 'Rock a bye Baby' learned in music lessons. Children would also 'act out' songs learned in class. For example, when singing 'Who's that Knocking at the Window?' one child would be the mother tapping at the window, another the father knocking at the door, and other children would take on newly-created roles such as a grandmother or the pet dog who would also tap at the window or knock at the door. Finally, as children explored musical instruments, these too were incorporated into sociodramatic play, such as the cowbell being used as an ambulance siren when a group was playing a variation of 'doctors and nurses'.

Music listening activities focused children's listening skills

Finally, listening to music where the focus was on elements such as timbre (speaking or singing) and

tempo (fast and slow) had an effect on student listening outside of music lessons. Children were able to compare sounds heard in other parts of the day, such as one child observing: 'that bird is singing high' (the previous day the music lesson had focused on high and low sounds), and children hearing—but not seeing—a car speed by the preschool and commenting: 'that car was going really fast'. Sally felt that children listened much more attentively to stories immediately after music lessons when there had been a period of sitting down and listening for something specific (e.g. when the music changes from fast to slow). When the six weeks concluded, the music resources Sally was most excited about obtaining were additional music listening activities, 'so we can focus on overall listening skills'.

Conclusion

This short-term study clearly indicates that a number of extramusical effects emerged as a result of preschoolers' exposure to music lessons. The teacher, Sally, indicated at the conclusion of the six weeks that she would continue teaching music to her children. Although she still did not feel overly confident in teaching music, she saw that simply joining in and being enthusiastic could help engage children in music-making. She pointed to the benefits of the resources in this study: 'You don't need to be a singer or play piano or guitar ... it's all on CD or tape so you just join in with the children'. Sally's enthusiasm suggests that preschool educators who are not confident in teaching music should be exposed to such resources.

Many writers have lamented the tendency towards large-group, teacher-directed music lessons in early childhood settings (e.g. Morin, 2000; Scott-Kassner, 1999; Wright, 2003) that stifle individual children's creativity in music-making. This study suggests that sound recordings need not be restricted to large group settings, but may also be incorporated as part of music centres which promote music play and the development of individual creativity.

The extramusical effects of music lessons during the six weeks were many and varied. Sally indicated that these effects alone were enough to convince her of the importance of music in the preschool. Such a response points to the need for such extramusical effects to be stressed as motivation for preschool teachers to provide music learning opportunities in their classrooms.

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