Exploring Inclusion via Non-Verbal and Verbal means of Musical Communication

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Abstract

This small-scale action research project aimed to explore inclusion via non-verbal and verbal means of musical communication. This study took place in an "ability" grouping school, where 5 children from different cultural backgrounds and various "ability" groups were selected. The research, which took place over a series of five fifty-minute music lessons, also included two children with English as an additional language (EAL). Verbal and non-verbal musical communication was explored and practiced by using two different pedagogical approaches. The verbal approach involved the children to count out loud together as a group to aid musical communication, while the non-verbal approach had the absence of counting and purely relied on the children's listening skills to create musical communication. The students participated in a series of composition lessons using graphic scores as verbal stimuli, while picture books and short GIFS were used as stimuli in the non-verbal approach. After each lesson, the students reflected and assessed their listening skills and current perception of musical abilities via a checklist. The study found a positive correlation between a child's "ability" ranking in core subjects with their musical self-esteem, with the most improvement throughout the lessons being with the children ranked in the lowest attaining "ability" group. This can suggest that there may be a possible relationship between ability grouping in core subjects and the impact it has on Musical self-esteem, however, this would require further study. Although children during music-making were very focused and engaged in tasks, it was found that the verbal approach allowed longer sustained periods of musical communication. This could suggest that this musical pedagogical approach may be better for effective collaboration and inclusion than the non-verbal approach used.

Key Words*:* Musical Communication, Inclusion, Collaboration, "Ability", Musical Self-Esteem, Listening Skills

Introduction

The case inner-city primary school had 83.2% of children with EAL and used an "ability" grouping system for the core subjects. Children were placed into coloured groups for Maths and English, where each colour symbolised a certain level of their current attainment "ability" in those subjects. Although attainment was measured separately for the core subjects, the pupils often tended to be at a similar level of current "ability" for both of them. It was clear through observation of conversations between the pupils that they were very much aware of

how the colours were ranked, and where they sat on the hierarchical scale of core subjects. Upon cross-observation, it was noted that children with special educational needs (SEN) and with EAL were often placed in the lower attaining groups and that in “mixed-ability” settings, children did not work together collaboratively. Understandably, this could be due to a variety of reasons as a result of the nature and complexities of the learning environment. However, one reason could be the observation of conflict being present in communication between the individuals. Collaborative group work has positive effects on pupil academic and social outcomes (Webb & Palincsar, 1996; O'Donnell & King, 1999; Slavin et al., 2003), however, Baines et al. (2007) suggest that within the majority of primary classrooms, children sit in groups but rarely work as groups to solve an aim together. “Collaborative practice is integral to effective inclusion” (Mulholland & O’Connor, 2016, p.1), and while it can be appreciated that there are a variety of definitions for the terminology “inclusion”, this research will focus on Evan’s (2007) definition. Inclusion is looking out for those individuals that might find themselves left out or overlooked and for whatever reason are unable to participate in, be it, social or academic activities associated with the school. Another potential reason for the ineffective collaboration in “mixed-ability” group settings, could have been due to children viewing the “ability” group they are allocated as something internal (Barmby, 2018), where they assume it is something that is located within and connected with being born with a certain ability (Marks, 2016). This could also explain, upon cross-observation, why some children tended to remain in the same groups they were placed from early years to the end of Primary school. The child’s perception of their “ability” can influence and form certain social hierarchy within friendships in the classroom, which could influence the interaction between the children, including in group settings (Barmby, 2018). Ineffective collaboration often involves not planning for interactions between pupils, which is vital as pupils spend greater amounts of time together with their peers than their teachers (Mulholland & O’Connor, 2016). The aim of this project was therefore to use and explore two pedagogical approaches to Musical communication to investigate collaboration via the analysis of the interaction between pupils and its influence on inclusion. It is Music rather than speech that can build self-confidence, fluency, and peer admiration in children (Beat et al. 2011). A potential reason for this could be Hargreaves et al. (2005) explanation of how all human communication is foundationally musical, due to children being innately born with non-verbal forms of communication.

Literature Review

Musical communication in this project will be defined as a “manifestation of communication broadly and generally conceived as a human need for affiliation, to belong, and to connect with others” (Hargreaves et al. 2005, p.5). Synchronous experiences, for example, in musical

communication, maybe the ones that come closest to the concept of the dissolution of self and other boundaries, at least on perceptual grounds (Hargreaves et al. 2005). Music was used as therapy, whereby a mediator translated a room full of individuals that were in the same space and time physically, but not musically, to an inclusive musical community with effective collaboration using percussion instruments. The individuals became more aware of what everyone was playing as a whole as a result of the facilitator mediating each individual to be in musical communication with him or her (Hargreaves et al, 2005). What may be of surprise is that this was an adult based study that was done in a Psychiatric Unit, which some may question the relevance. If it is possible to translate a group full of individuals with severe psychological, social, and or emotional predispositions into musical communication and effective collaboration (Hargreaves et al, 2005), then as a teacher, it would be interesting to investigate effective musical communication on a group of children who also have issues interacting socially and collaboratively. Through observation of two children playing differently tuned wooden single-note pipes, Cohen (1980) suggests that mediation isn't necessary for musical communication. This had an important influence on the lesson plans created in the research project. It was also found that communicative play between the two children not only provides the medium for the articulation of musical ideas but the making of music together, in turn, heightens the experience of connecting with one with another (Cohen, 1980). This supports the idea that we can use individuals' innate musical capabilities (Hargreaves et al. 2005), regardless of a mediator, to support musical communication as there are positive effects of increased musical learning on social behaviour, self-concept, and motivation (Gooding, 2011). This perception to create inclusion was carried forward in the design of the five fifty-minute lesson plans.

Key stage 1 children were more suitable for this project as a result of two to six-year-olds being more influenceable because their analytical mind has not yet been fully developed (Dispenza, 2019). In other words, information tends to go straight into the subconscious mind, which can also relate to Vygotsky's social constructivism theory (Derry, 2013). This theory suggests that all human development is socially situated, and knowledge is developed through human interaction (Derry, 2013). As Barmby (2018) explains "ability" grouping creates social hierarchical tension, supporting the notion to use children in the category of two to six-year-olds so that children's perception of their peers in different groups could potentially be more easily influenced. This, in turn, could play a part, with the right pedagogical approach, in allowing effective collaboration between the children to be easier. The decision for the selection of six to seven-year-olds was based on studies suggesting that changes in musical abilities take place as the individual progresses through various stages of development (Campbell, 1991; Gardner, 1973, 1982, 1983; Serafine, 1983a,

1983b,1988; Zimmerman, 1982, 1986). For example, children are more able to selectively listen, attend to rhythm, and pulse (Paananen, 2006). However, it was also important to recognise Gooding and Stanley's (2011) acknowledgment of each child being an individual and, as such, will develop at his or her own pace. The particular children in this class were chosen as they seemed to have a fixed notion of what counts as musical, which could impact upon their interactions with one another (Barmby, 2018). Furthermore, experiences in that specific classroom found that children often equated musicality with the ability to sing well or play an instrument, which most pupils perceived themselves to have neither skills. Sadly, supported by Kellet (2012), this association often leads to low musical self-esteem in those children who regard themselves as having neither singing nor instrumental skills. As a result, this was taken into consideration when preparing for the lessons in the research project, to measure musical self-esteem.

Methodology

A mixed-method approach via a practitioner action-based research cycle (Adapted from Cremin et al (2008: 10) was used to ensure reflection and improvement in the pedagogical approaches used. Data was collected via a narrative observational approach, whereby everything in the class setting was taken note of rather than observing only certain outcomes (Papatheodorou et al. 2011). This approach can allow rich insight into the qualitative data to provide potential new understanding as well as minimising bias. The student's perception of musical self-esteem was measured quantitatively via a checklist that was completed at the end of each lesson. The checklist measured the student's perception of their listening skills and their current musical ability. This was a way to analyse whether the children understood that being musical comprises a wide variety of skills rather than the narrow definition they had previously understood of, for example, singing. Voice recordings of musical activity were also collected during the lesson, where musical dialogue such as imitation, elaboration, and organisation between children was analysed. It was also used as a form of assessment to help track and record an individual child's progress as well as how long they could musically communicate collectively as a group (Fautley, 2010). During some of the lessons, children created graphic scores which were later analysed via how pupils thought musically in terms of interpreting sounds they made or heard (Bars, 2007). The process of creating the graphic scores in the lessons was also used to provide observations for interaction between the students. However, it was essential that before the notation lessons they explored and had a sense of rhythm, pulse, and pitch so they could interpret this in writing (Bars, 2007).

Strauss's (1987) "coding from the data" method was used to examine the data as it was collected during the project, which was analysed using the constant comparative method

(Glaser and Strauss, 1967) to create links to exploring inclusion via non-verbal and verbal means of musical communication. The children and parents were informed about the project and that the research would be published on the internet, however, all information and school-related evidence was anonymised. It was vital that the project prevented any emotional and physical harm to the pupils by the acknowledgment of all risk factors. Furthermore, all children were reminded that they may withdraw from the research at any time they liked and were also debriefed at the end of the project.

Implementation of Methodology

These lessons implemented some of the year 2 standards of the National Curriculum for Music (DoE, 2013). For example, playing tuned and untuned instruments, listening with concentration, and be able to experiment with, create, select, and combine sounds using inter-related dimensions of Music (DoE, 2013). These aspects were used to create the following aims:

- ✓ Enable children to musically communicate to explore inclusion
- ✓ To improve musical self-esteem in children via enhancing the importance of listening skills
- ✓ Introducing them to the concept of composition
- ✓ Introducing them to the concept of graphic scores

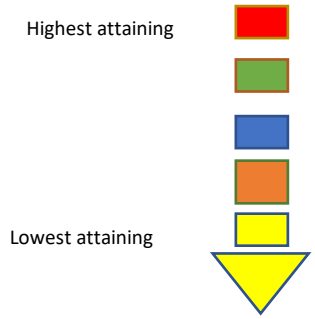
After the children were introduced to the project, their listening skills and rhythm were explored by carrying out group activities that involved the creation and manipulation of rhythm via clapping. The importance of listening skills in music was emphasised and highlighted during the creation of musical communication throughout the project. This pedagogy was implemented to build this perception in the student's and enhance their active use of their listening skills, in order to boost their musical self-esteem (Hargreaves et al, 2005). In the verbal approach, the pupil's interpretation of what they had practiced was explored using a notation format to assess their understanding of rhythm, pitch, and amplitude. The pupil's notations were then analysed as part of the reflections on the lessons, and the insights used to adapt the pedagogy when introducing graphic scores. Through modelling with labels and interpreting a graphic score as a class through clapping, they learnt how to play and interpret pre-written scores with percussion instruments. Their understanding of graphic scores was followed by exploring the creation of such musical notations as a group. Each individual was given a certain role in the making of the score to further develop effective collaboration, for example, each pupil drew out their own rhythm. The non-verbal approaches involved using a stimulus to get the children as a group to compose a short piece using percussion instruments. Where a picture book was used as

one form of stimulus, the children were collectively made to think about the feelings associated with a certain scene of the book selected. This was facilitated by using mood cards to match the appropriate moods of that particular scene in the novel to be more inclusive to children with EAL. This was then used to discuss what tempo, pitch, and amplitudes they thought were appropriate using their percussion instruments to explore these sounds. A metronome was then kept on in the background to help the pupils compose and musically communicate with one another with no mediation. At the end of the project, the children were debriefed and given positive feedback on the progress they had made as a group and as individuals.

Data Analysis and Findings

Quantitative analysis

The data from the checklist taken at the beginning of the project shows a positive correlation between the core "ability" ranking of the child and their Musical self-esteem. In other words, the higher the attainment level the child was grouped in for core subjects, the higher they ranked themselves in both their perception and peer review of their listening and musical skills (see figure 1). This same trend seemed to occur throughout the project too.



"Ability" Group Colour for Core Subjects	**Musical self-esteem score /40**
Red	39
Green	35
Blue	20
Orange	9
Yellow	6

Figure 1: A table to show differences in Musical self-esteem scores at the beginning of the project.

Kellet (2012) explained that the association of, for example, playing an instrument or singing often leads to low musical self-esteem in those children who regarded themselves as having neither skills. This argument can be supported by this project, as a positive trend was found between their perception of their listening skills and musical skills, suggesting that children understood that listening skills are related to being musical (see figure 2).

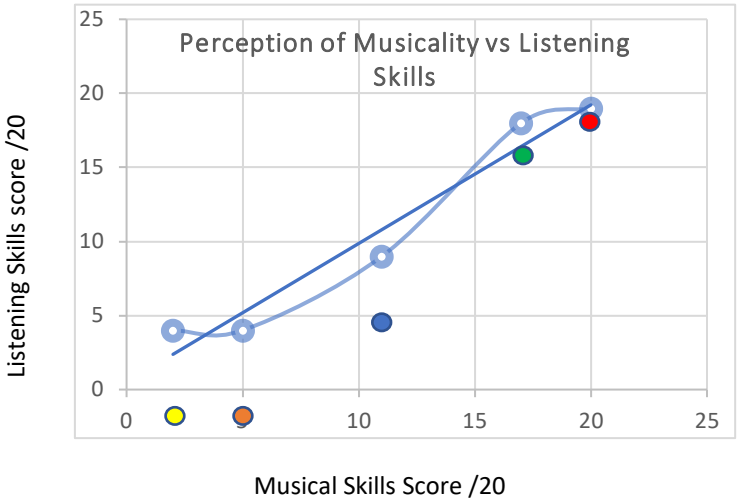


Figure 2: A Graph to show an example from the data collected of the positive correlation between musical and listening skill scores. The different colours represent the children from

Hargreaves et al. (2005) claim how children with low musical self-esteem and poor concentration skills can be rectified if given 'expert' status and the chance to engage in non-verbal tasks, where their judgement is emphasised how it is valued. This can be supported by the fact that musical self-esteem did increase for all the pupils, although musical self-esteem increased most for the children that were classed as the lowest attainers in core subjects (see figure 3).

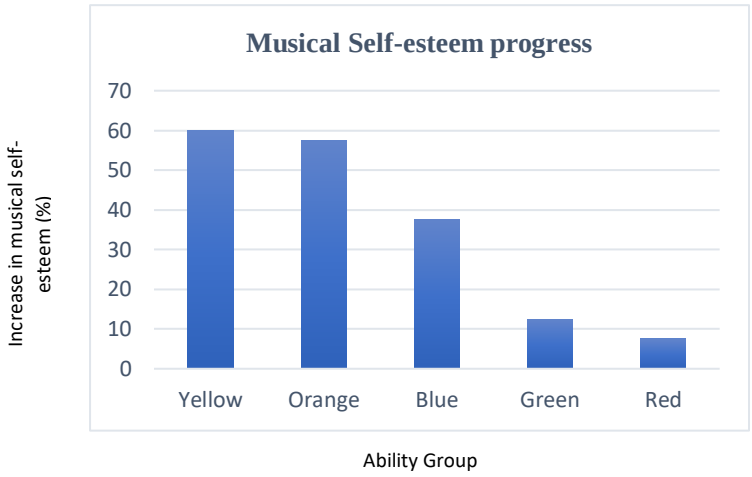


Figure 3: A graph to show how musical self-esteem increased overtime using the checklists from the project

Qualitative analysis

Observations

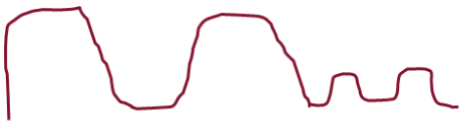


Figure 4: Drawn by child A as an interpretation of rhythm. A large wave represented a beat, while a smaller wave represented half a beat.

Figure 5: Drawn by child B using child A's ideas. A large heart represented a beat, while a smaller heart represented half a beat.

Data attitudes to learning had shifted from the normal classroom behaviour, whereby peers from the higher attaining core groups were willing to learn and listen to those in the lower attaining groups. The pupils, who were all keen to explore their instruments with one another, were given the freedom to express their musical communicative style when interpreting a basic rhythm in notation format. This approach in itself created inclusion, but in this case, with the collaboration element of pedagogy being used differently, since it was interesting to see how one student's style (see figure 4) influenced the rest of the class (see figure 5). The big waves drawn were the slower beats and the smaller waves drawn were considered the faster beats. Through these notations, it was evident they had a musical understanding of rhythm but it was also observed that the children used verbal sounds to notate, for example, "da da dadada" as another way of communicating and interpreting the rhythm. Although these pupils were able to attend to both rhythm and pulse, this research may not support whether these skills increase at the age of six-to-seven-year olds (Gooding & Standley, 2011), but it can support Gooding and Stanley's (2011) musical age chart that this age category is able to attend to both skills. In terms of levels of engagement via body language, children showed behaviours of being on-task during musical activity by moving/swaying in rhythm to their instrument playing, and of the music generated as a group collaboratively. A lot of imitation of rhythms by individuals was a primary communicative strategy, which to some degree, did establish turn-taking (Nadel et al. 1999).

Children started to use musical terminology of rhythm, tempo, volume, and beats when communicating, as a result of modelling and teaching these concepts. They also communicated their musical intention through gestures of bodily movement, which was also partly adapted due to the technical demands of producing the sound for that particular percussion instrument. This often either produced constraints or possibilities in how the music was communicated by the individual and as a group collectively affecting the overall musical communication. Therefore, it suggests that each child's resulting sound can be

generated from a variety of sources which created the overall musical dialogue produced (Hargreaves et al., 2005). It was also noticeable that some forms of musical activity flourished when children played quite alone. This can be justified by Young and Glover's (2000) findings that pleasing sequences of sounds require bouts of concentrated solitary play. Arguably, it could suggest that children may still be playing as if communicating with others imaginatively, even though they are alone (Young and Glover, 2000).

Pedagogy A: Verbal collaboration

This approach was considered a verbal form of musical communication due to using graphic scores to represent notation with the universal language of numbers and symbols in the scores. Numbers were used to create how many beats the composition would last for and was also read out loud by the children when playing. The symbols, such as shapes or instrument drawings were used to represent the sound produced by their instrument (Glover & Young, 2016).

Figure 6: Graphical notation drawn by pupils. Each symbol represents a beat.

When the pupils were reading and playing through the given Graphic scores, a verbal approach of counting the beat in numbers out loud helped them as a group to musically communicate. This seemed to produce heightened levels of enthusiasm and motivated them to be on task, allowing successful collaboration and inclusion as all children, including those with EAL, were fully involved in the task. The children swayed to the rhythm happily while they were synchronizing their instrumental play with others, giving eye contact, and smiling. Musical communication seemed to promote a focus on attention and a reduction of hostility (Montello & Coons, 1998), but also increased sustained attention towards peers (Sussman, 2009). It could be suggested that this verbal collaborative approach may have also influenced social inclusion in peers throughout the project.

This approach was further exercised by letting them create a composition of rhythm using a Graphic score as a group (see figure 6). It was interesting to note that the children decided to write the rhythm on the graphic score before playing it out. It can be argued that this is an uncommon way to create music, however, the children were still collaborative in teamwork, and were able to successfully read the score and play it as an inclusive team. Furthermore, it is a good start for children to understand the concept of the communicative language of music through notation (Gooding and Stanley, 2011).

Pedagogy B: Non-verbal collaboration

When pupils work collectively at a composing task they often begun by improvising (Loane, 1984). This often itself lead to musical communication between the individuals, however when participating in the overall musical dialogue, musical communication between the children would often be interrupted. Webster and Hickey (2000) explain that participation could bias the objective of what is considered as individualistic processes of improvising, but also mediation was found to upset rhythm in children's musical communication. Such processes of children's music-making are those where 'good spontaneity and flow are at the premium' (Keil 1966, p. 347). Letting the children play and finding their rhythm with each other through emphasising listening skills was useful. The only issue was that although musical communication did take place during composition with stimuli, the process of reproduction of the same composition during the spontaneity of being left alone was something that was not achieved. A possible explanation for this could be from what was noted upon observation, whereby two pupils, even though given paper to write/draw on, decided to rearrange the notes of the xylophone so they could play a certain tune and rhythm. When the notes were moved back to their original positions, they lost the rhythm and tune they were originally playing. This suggests that these children tended to rely more on their spatial awareness to determine the rhythm and produce sound, rather than the musical pitches, which may give an explanation to the similarity, rather than a replica, in the musical communication produced between practice and performance.

Discussion of Findings and Conclusion

The data analysed has drawn attention to some important aspects of children's musical listening skills and how it can be used to enhance musical self-esteem to contribute to collaboration and inclusion in an ability grouping school. Another point to note is that musical communication was successful despite some of the children speaking very little English i.e. EAL. Children's perception of their listening skills and musical self-esteem increased throughout the research. It could suggest that it is because they understood the importance of listening skills in music due to the positive correlation in the qualitative data collected (see figure 2).

Although there was not much of a difference in musical self-esteem with the higher attaining students in core subjects, the aim was about changing the student's perception of any pre-existing social hierarchical scale that may have been created with an "ability-group" setting (Barmby, 2018). Raising students' musical self-esteem could be argued to have partly contributed to the positive interactions witnessed between the pupils. This could be because

although this was a small sample size, the positive correlation between core “ability” ranking of the child and their musical self-esteem suggests that even though children are only grouped in attainment with core subjects, it may impact their self-esteem in other subjects too. A potential explanation could be that Maths and English were taught every day every morning from year 1, so it may be understood how the pupil’s perception of “ability” and esteem overtime can be linked as being internal and fixed (Barmby, 2018). Therefore, raising musical self-esteem can potentially shift this perception in children and contribute to the breakdown of social hierarchy in the classroom (Barmby, 2018) contributing to inclusion.

This project also shows how using children’s innate musical skills collectively to allow successful musical communication can create a strong emotional social response (Hargreaves et al, 2005) between the children. This also potentially could oppose any social hierarchical issues caused by an “ability” group setting (Barmby, 2018). Social competence is important for a variety of reasons as enhanced social competence can lead to the prevention of many negative outcomes (Catalano et al., 2004). To conclude, it was the verbal approach of simple graphic scores that supported inclusion the most, as this pedagogy allowed continuous successful communication and aroused more of an emotional response of inclusion than the non-verbal strategy. This can be justified by Hargreaves et al. (2005) claiming that children commonly enjoy synchronizing their instrumental play with others, typically maintaining an exactly matched steady beat together for a continuous period. This kind of highly coordinated action represents a simpler level of interaction which makes fewer demands on communicative skills. Perhaps for this reason it was equally effective with children with EAL, whereby social interaction with others may be more difficult during the early stages of additional language acquisition. It may suggest that the safety of using and saying the universal language of numbers out loud while playing collectively also promoted the sense of inclusion. Another possible explanation could be that the safety in numbers allowed longer immersion times in musical communication, which in itself also may have promoted and contributed to inclusion.

Limitations and Next steps

To conclude, since the study involves people, there could naturally be a variety of external variables that could have resulted in enhanced musical self-esteem, and being a small study is a limitation in itself to provide any generalisations. However, this project has bought important attention to the effects of collaboration and inclusion that musical communication can bring to the classroom when paired with certain pedagogical approaches, for example, raising musical self-esteem and the verbal approach to musical communication. The next

steps in terms of research would therefore involve more than one Music group to further explore musical communication with basic rhythmic compositions with the children using graphical notation, and developing their skills with this further. However, it is important to note as a music teacher that the selection of instrument itself, and therefore what instruments are available to the children, and how it is played can partly determine the musical communication processes. The use of numbers and shapes as a pedagogical approach with the graphic scores was useful in contributing to musical communication. Therefore, it would also be interesting to see how using the safety of maths and symbols could be further explored as a pedagogy to work on musical communication and inclusion in verbal and non-verbal approaches. Through cross-observations, children with SEN (special educational needs) in the school setting tended to be placed in the lowest attaining "ability" groups. Therefore, it would be intriguing to also explore the use of universal languages and concepts to influence inclusive pedagogical approaches in creating musical communication when involving children with SEN into the mixed group dynamic.

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