Music and Dance as Learning Interventions for Children with Intellectual Disabilities

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Abstract

Amongst the many disadvantaged groups of people in the world, an important minority are children with intellectual disabilities. Relative to their counterparts without intellectual disabilities, children with intellectual disabilities face a wide spectrum of challenges, including learning difficulties, social segregation and negative stereotyping. Children with intellectual disabilities find it difficult to perform various functions such as communicating and socialising with others, and, in many situations, even looking after themselves. They are extremely vulnerable to depression, poor self-image and a lack of self-confidence. The pace at which they learn and grasp things is much slower than that of children without intellectual disabilities. Appropriate interventions are therefore required for them to function at an acceptable level in school. Various interventions have been identified to assist such children cope with their learning challenges. Amongst these interventions is the integration of music and dance into formal lessons in order to facilitate their learning. The purpose of this study was to examine the contribution made by music and dance to improving learning in the classroom amongst children with intellectual disabilities. Following a qualitative approach, three focus group interviews were conducted using purposive samples of educators. Interpretative phenomenological analysis procedures were used to analyse the data. The following key themes emerged through the process: confidence in communicating, group work, knowledge, concentration and behaviour. The study found that dance and music are positive mediums that contribute significantly to the learning experience of children with intellectual disabilities.

Keywords: Dance, music, intellectual disabilities, interventions, confidence, concentration, behaviour

1. Introduction

Amongst the many disadvantaged groups of people in the world, an important minority are children with intellectual disabilities. In 2009, it was estimated that there were approximately 200 million people with intellectual disabilities in the world (Special Olympics, 2009). Caldwell, Brinko, Krenz and Townsend (2008:129) describe an intellectual disability as “a significant impairment in intelligence and significant limitations in adaptive functioning”. It is also known as developmental delay or mental retardation, which comprises a group of disorders defined by diminished cognitive and adaptive development (Disabled World, 2013). The main characteristics of intellectual disabilities are deficits in social interaction, language and communication, and abnormal behaviour (Dempsey & Foreman, 2001). Most intellectual disabilities are associated with either Angelman syndrome, Asperger’s syndrome, Autism, Down syndrome, Fragile X, Pervasive Development Disorder or Prada-Willi Syndrome (Activ, 2007).

Relative to their counterparts without intellectual disabilities, children with intellectual disabilities face a wide spectrum of challenges, which include learning difficulties, social segregation and negative stereotyping (King, Law, King, Rosenbaum, Kertoy & Young, 2003). They are one of the most marginalised groups in society - discriminated against historically and culturally (Special Olympics, 2009). As a result, their performance expectations are low and the opportunities for them to participate in general group activities are limited (Sooful, Surujlal & Dhurup, 2010).

Children with intellectual disabilities are unable to perform various functions such as communicating and socialising with others, and, in many situations, even looking after themselves. They experience problems with basic activities, including eating, dressing, talking and walking. They are extremely vulnerable to depression, poor self-image and a lack of self-confidence. The pace at which they learn and grasp things is much slower than that of children without intellectual disabilities. These individuals find it difficult to learn and the time taken to teach them is substantially longer than that taken to teach those without intellectual disabilities. Appropriate interventions are therefore required for them to function at an acceptable level in school. Green (1996) argues that early intervention with children with intellectual disabilities can produce large, comprehensive and meaningful improvements in many important domains within the learner. Various interventions have been identified to assist children with intellectual disabilities cope with their learning challenges. These include language therapy, family therapy, and the integration of music and dance into formal lessons.
to facilitate learning, (Fidell, 2000). Halpern (1999) argues that of all the factors that influence learning, few are as far reaching and as little understood as music.

2. Music and dance as instruments of learning

Music and dance are strongly connected to learning. Research (e.g. Staum, 2013; Sze & Yu, 2004; Barry & King, 1999) has shown that music and dance are able to stimulate learning. Skoning (2008) argues that the use of creative arts such as dance and movement enables students to experience increased understanding of content and serves to modify their classroom behaviour for the better. Through activating, stimulating and giving meaning to those who are mentally challenged, engagement with dance and music taps into their strengths and establishes contact and emotional connection. Sooful et al. (2010) posit that dance and music encourage personal effort, provide the opportunity to overcome the limitations imposed by their disabilities and facilitate a greater sense of achievement. The authors posit that the motivation to reach one’s potential, regardless of the level of ability, raises the human spirit of those with intellectual disabilities and increases the chances of them socialising with others.

Hallam (2002) asserts that music has been used with success to facilitate interaction and communication amongst children with severe intellectual disabilities. According to the author, music promotes stimulation and arousal, and creates the basis for learning. Stambough (1996) found music to be beneficial for students with mental retardation and learning disabilities. Music has the ability to help individuals realise their strengths and enables them to connect with different groups of people (Henderson & Gladding, 1998). Since music is a natural reinforcing stimulus, which is immediate in time, it provides the motivation for practicing skills other than those of music (Staum, 2013). While dance assists in developing fine motor skills (Krapp & Wison, 2005), learning takes place when children with intellectual disabilities are required to understand and follow instructions. This further contributes to them being able to take care of themselves and develop a sense of independence.

Music has the potential to play an important role in the lives of children with intellectual disabilities because these children need special instruction and intervention. Sze and Yu (2006) posit that the use of music in the classroom can help improve the quality of life of individuals with intellectual disabilities as well as facilitate speech and improve cognitive ability. As it is a non-verbal form of communication, music has been found to be an effective medium in evoking positive responses from children with intellectual disabilities (Staum, 2013).

Music enables children with intellectual disabilities to develop socially and emotionally, and promote cognitive development, which involves recognising, processing, organising and using information appropriately (Allen & Marotz, 2003). The cognitive process encourages activities such as discovery, interpreting, sorting, classifying and remembering so that those with intellectual disabilities understand themselves as well as their environment. Sze and Yu (2004) posit that normal teaching strategies accompanied by music benefits the learner cognitively, socially and emotionally. The authors found that music assists in releasing tension, thereby enabling learners to engage on an individual level as well as in a group.

In order for learners with intellectual disabilities to interact socially, it is important for their communication skills to develop. For this to happen, they should be able to understand concepts and relationships before applying them. Given its non-threatening nature, music is able to facilitate both verbal and non-verbal communication. Staum (2013) found that planned activities such as passing a ball back and forth, playing musical chairs or playing sticks encourage interaction, helps children develop eye contact with each other and focuses attention.

Music and dance encourage increased engagement and provide the stimulus for the processing, assimilation and recollection of information for learners with intellectual disabilities. Barry and King (1999) allude to the fact that classroom lessons can be greatly enhanced through the introduction of calming background music. Music has also been found to be effective in improving and capturing the attention of a learner so that he/she acquires a sense of control and is able to create a routine, which is essential for academic success (Brunk, 2004). Music and dance also bring out creativity in learners with intellectual disabilities, which contributes to enhanced self-awareness, self-expression and self-esteem.

3. Problem statement

It is important that interventions designed to assist learners with intellectual disabilities to develop and progress academically are planned, developed and introduced into the classroom as quickly as possible, in order to help learners reach their potential as swiftly as possible. In many instances, it may taken for granted that such learners are unable to cope, absorb or retain knowledge and educators often fall into the trap of doing the bare minimum and sticking to a
mundane/boring routine in the class without being creative in their efforts to assist the learner. The adoption of this stance results in non-learning or slow learning, which is perpetuated over time causing these learners’ intellectual development to be compromised. The classroom provides the best opportunity for learners with intellectual disabilities to develop emotionally, socially and academically.

Historically, activities for children with intellectual disabilities have been organised and institutionalised separately from those who do not have disabilities (Sooful et al., 2010). In many instances, these children are required to be in either separate classrooms or separate schools, under the supervision of specialist teachers in order to cater for their special educational needs. The home environment, the child’s perceived self-competence, family and child preferences, family demographics and lack of social support from schools and communities, all contribute to their segregation (King et al., 2003). Although learners with intellectual disabilities are limited in their capacity to understand different instructions to dance and music fully, they have the potential to learn through the experience. Therefore, interventions using dance and music that assist in their learning development by providing an environment conducive to learning should be introduced.

Music and dance as interventions in the learning process need to be viewed as more than just leisure activities. They need to be formalised as an integral component of the curriculum so that children with intellectual disabilities are able to attain their educational goals. According to the American Music Therapy Association (AMTA) (2006), the repetition of songs enable intellectually challenged children to identify numbers, colours and objects, develop cognitive, behavioural, physical, emotional and social skills, and enhance communication. AMTA (2006) also argues that involvement in music stimulates attention and encourages participation in educational settings.

Few studies have examined the effectiveness of the integration of music and dance with individuals with intellectual disabilities. This exploratory study attempts to fill that void. Over the past decade, numerous studies on the development of children with intellectual disabilities have been conducted. The majority of these studies focused on the physical development of these children while there is a paucity of research on interventions such as dance and music as interventions that contribute to their intellectual and psychological development.

4. Purpose of the study

The purpose of the study was to examine the views of educators regarding the contribution of music and dance to learning in the classroom amongst children with intellectual disabilities.

5. Methodology

5.1 Design

As the aim of the current study was to examine the contribution that music and dance makes to improving learning in the classroom amongst children with intellectual disabilities, a phenomenological approach was deemed most appropriate. Therefore, data were collected through the use of semi-structured qualitative focus group interviews and subsequently subjected to interpretative phenomenological analysis, which aims “to explore in detail the participant view of the topic under investigation” (Smith, Jarman & Osborn, 1999:218). This approach potentially evokes responses that are ‘rich’ and explanatory in nature.

5.2 Sample

Purposive sampling was used to recruit the subjects for the study - the advantage being that it allows the researcher to deliberate on people or events, which have good grounds in what they believe, which will be critical for the research (Dane, 1990). The principals of two schools for children with intellectual disabilities were approached and explained the purpose of the research being undertaken. After permission was obtained to conduct the study, the principals were requested to identify ‘seasoned’ educators to participate in the study, based on their experience, involvement and participation in dance and music with children with intellectual disabilities. Subsequently, principals identified and selected educators with experience of five years and more to participate in the interviews.

5.3 Data collection

Prior to the interview, participants were informed of the topic to be discussed and the purpose of the study. Data were
collected from three focus group interviews. Each interview lasted between 45 minutes and 60 minutes. An extensive literature review guided the development of a semi-structured interview protocol. All three focus groups were subjected to the same set of questions. Where answers were very brief and unclear, probing questions were asked as a follow-up. Probing was also used to explore new themes and issues that were not initially considered (Gray, 2004; Henning, Van Rensburg & Smit, 2004).

5.4 Ethical considerations

At the outset, consent was obtained from each participant that took part in the focus group interviews. Participants were informed that participation was voluntary and that they could terminate their participation and remove their data at any stage without providing a reason. The responses of participants were recorded with their permission. Core ethical issues such as respect, honesty, confidentiality and anonymity were adhered to during the study.

5.5 Data analysis

The interviews were transcribed verbatim from the recordings. The data from the transcripts were subjected to interpretative phenomenological analysis procedures, as described by Smith, Jarman and Osborn (1999). In order to reveal the underlying meaning of the participants' accounts “through a process of interpretative engagement with the texts” (Smith, 1995:123), each transcript was read and reread a number of times and notes regarding the similarities and differences concerning the data were made. From these preliminary notes, emergent themes within the text were developed.

5.6 Reliability

The interpretation of the data was tested by requesting an independent experienced researcher in qualitative research to read the transcripts in conjunction with the emergent themes and comment thereon. Thereafter, through a discussion between the researcher and the independent researcher, consensus was reached regarding the emergent themes. In addition, reliability was ascertained using member validation (Lincoln & Guba, 1985). A summary of the transcripts as well as the emergent themes were sent to two participants from two focus groups for feedback to ascertain whether the themes were representative of their respective focus group interviews. In all instances, there was consensus regarding the interpretation of the data.

6. Results and discussion

In qualitative research, the description and interpretation of the data are closely linked; therefore, these two subsections have been integrated. In this way, the repetition of explanations is avoided (Gustafsson, Hassmén, Kenttä & Johansson, 2008). An analysis of the transcripts revealed several consistencies in responses across the three focus groups. These responses were subsequently grouped and the following key themes emerged: confidence in communicating, group work, knowledge, concentration and behaviour.

6.1 Confidence in communicating

There was consistency across all three focus groups regarding the contribution that music and dance made in boosting the confidence of learners in communicating. The frequency of this finding and the manner in which the participants' responses were articulated illustrated the value of integrating music and dance in formal classroom lessons. This confidence was reflected in the manner in which the learners tried to express themselves during lessons.

Coyle (2011) found that music encourages those who may not normally communicate to communicate in different ways when they listen to music. Hanser (1999) found music to play a pivotal role in developing the self-esteem of children, thereby increasing their confidence to communicate. Tallapragada (2007) found that although children with intellectual disabilities have limited vocabulary, dance and music helped them to develop communication skills, which enabled them to interact better and more confidently.
The role that music and dance plays in boosting that confidence of learners’ communication is aptly encapsulated in the following excerpts:

“Even the ones that can’t talk, you will see their mouths trying to form the words as the others have.”

“You see it in their body language, you will see it, then you can just see how they got self-confidence, how they build up. It’s just fantastic; they are shedding their inhibitions; that they can imitate any singer or they can imitate any dancer.”

6.2 Group work

Dance and music serve well as a medium for group activity, as they create a unifying energy and a cohesive framework in which children with intellectual disabilities are able to express themselves (Sooful et al., 2010). Music has been found to improve socialisation skills, open the doors of communication and process feelings in children with learning difficulties, mental illness and mental retardation (Grimm & Petley, 1990). In addition, it provides opportunities to form friendships, express creativity, develop a self-identity and foster meaning and purpose in life (Dykens, Rosner & Butterbaugh, 1998; Fromholz & Schaefer, 2009).

Coyle (2011) found music to have an effect on the actions of individuals. Individuals tend to express different actions such as clapping and dancing during the music session. Those who suffer from intellectual disabilities normally prefer to be on their own but they are encouraged through music and dance to interact with others. This helps build friendships and facilitates group work. Tallapragada (2007) posits that dance and music contributes greatly to children engaging in groups. The author found that the introduction of dance into lessons stimulated and motivated learners, and rhythmic dance provided the children with the opportunity to work and interact with each other.

A few of the excerpts that illustrate the positive development of group work are as follows:

“They always in a circle and they always together in a group”

“They really start bonding together”

“They got experiences together that they share”.

6.3 Knowledge

Through listening to music and dancing learners are compelled to follow and remember actions and movements via the transmission of information to the brain (Tallapragada, 2007). Dance and music helps to imitate movement with the application of the mind, thereby contributing to cognitive development. In this way, expression skills are also developed. In Australia, music was integrated into the curricula to introduce Aboriginal knowledge and perspectives in school and to convey indigenous interpretation of Australian life (Neuenfeldt, 1998). The lyrics of songs encode different meanings and worldviews, and are able to convey different stories (Huy Lê, 1999). This may be particularly beneficial in the production of new knowledge in learners with intellectual disabilities.

Excerpts from the focus group interviews that illustrate the positive effects music has in improving the knowledge base of children with intellectual disabilities include the following:

“Because their vocabulary improves quite a lot using the songs”

“Vocabulary is…because you explain the word, the difficult word to them and they know, this is the word and it’s the meaning while they are singing it and they are acting it with… If it’s possible they are acting the song so their vocabulary improves a lot”

6.4 Concentration

Cavanagh (2001) found that children with intellectual disabilities were easily distracted, had lower task orientation and tended to be hostile. This resulted in difficulties in organisation, controlling their behaviour and focusing on their task performance (Barabasz & Barabasz, 2000). Music and dance produce a safe environment, which helps in redirecting learners’ attention so that they are able to concentrate on a particular task. Brunk (2004) found music to be effective in improving the attention span of the child, thereby improving his/her concentration so that the child has a greater sense of control in the environment. This enables the child to develop a routine. Crump (2010) reports that music assists in
reducing hyperactivity. The author posits that learners with intellectual disabilities learn to relax through the introduction of dance and music, which, in turn, increases their attention and focus.

The responses of the participants regarding the contribution of music and dance to increased concentration are illustrated in the excerpts that follow.

“So you can see that they start to concentrate and because they want to do the work”

“Relaxation - they are more relaxed and they are working so nice together with the music”

6.5 Behaviour

Behaviour disorders have often been linked to mental health problems that lead to social difficulties. They are grouped into two broad categories, namely externalising and internalising. Externalising behaviours, which include aggression, interfering and attention seeking (Crump, 2010), disrupt classroom routine, directly challenge authority and affect teachers’ ability to instruct.

According to the National Coalition of Creative Arts Therapies Association (2010), dance/movement and music are forms of expressive and creative interventions that have been found to be effective in improving behaviour as well as self-expression. The implication here is that through the improvement of self-expression improved learning takes place. Similarly, Jackson, Muro and Parker (2008), and Rickson (2006) found movement to be instrumental in improving behaviour. Music, if purposefully used, has been found to be effective in modulating mood change, modifying and managing behaviour (Jackson, 2003; Adamek & Darrow, 2005; Rickson, 2006). Music may be used as a positive reinforcement to encourage socially acceptable behaviour (Crump, 2010). It has also been found to increase group cohesion (Horton, 2005). Tallapragada (2007) used a sound-based and sensory-centred Tiger Dance Therapy on children with intellectual disabilities and found it to be helpful in converting aberrant behaviour into excellent behaviour patterns. Riddoch (2006), in similar vein, found that the introduction of music in painting lessons over a six-week period not only improved the quality of work significantly but also improved behaviour and attitude significantly.

The following excerpts provide evidence of the contribution of music and dance to improved behaviour of learners with intellectual disabilities in the classroom:

“I’ve got a boy in my class, and he is terrible very, very ….behaviour is terrible. But when he goes into the hall, he sits down and he sings with his mouth open, and when we get out of there, he just for a while gets better”

“And also I have a boy in my class. He’s a big guy and oh! And his behaviour is something very, very bad but when I put on the music, he starts working”

“Same with me, with my Benny, switch on the music, he settles down otherwise he’s jumping up and down, screaming; it’s another stimulant for our learners”

7. Limitations of the study and implications for further study

It is important to consider that the results of this study were derived from three focus groups representing two schools whose geographical locations were close to each other. Therefore, the results cannot be generalised to the population of children with intellectual disabilities. Notwithstanding these limitations, the study does provide implications for further research. The study could be conducted using a quantitative research approach over a broader geographical scope. Other interventions to improve classroom learning could also be investigated and the outcomes of the different interventions compared.

8. Conclusion

The results of this study reveal that music and dance are indeed useful interventions, which contribute to improved learning amongst learners with intellectual disabilities. The many positive perceptions of educators regarding music and dance as interventions indicate that music and dance not only contribute to learning but also, more importantly, to the socialisation of learners with intellectual disabilities. The results of this study confirm that learners with intellectual disabilities have the ability to perform well academically as well as to interact with others, provided that they have appropriate stimulating interventions.
References


