Using musical play with children with profound and multiple learning disabilities at school

Rushton, Rosie; Kossyvaki, Lila

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Rushton, Rosie (1)

Kossyvaki, Lila (2): University of Birmingham, School of Education, Edgbaston, Birmingham, B15 2TT

Contact details:

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Play which is recognised in Article 31 of the United Nations (UN) Convention on the Rights of the Child (UN, 1989) is '*an end in itself*' (Gammeltoft & Sollok Nordenhof, 2007, p. 10) during which children learn and develop social and emotional skills, cognition, language and gross and fine motor skills (Sheridan, Howard & Alderson, 2011). A number of theorists explored play (Henricks, 2019); Freud saw play as 'an exercise in pleasure-seeking' (p. 368) (emphasis on the emotion), Piaget presented play as way to learn the world (emphasis on the cognition) and Vygotsky combining the above theories argued that play is '*a blending of thought, feeling and action*' (p. 372). Play also enhances children's health and wellbeing (Goldstein, 2012) and active involvement in creative play is central to the wellbeing and social growth of all children (Almon, 2003). It builds resilience (Ginsburg, 2007) and for both Typically Developing (TD) children, and those with Learning Disabilities (LD) play brings 'pleasure, meaning and coherence' (Corke, 2012, p. 3) into their lives. Fully immersive play activities may also reduce inhibitions (Brown, 2010) and relieve anxieties (Goldstein, 2012). However, despite the acknowledged benefits of play, and its positive impact on individual wellbeing, there is a paucity of research to systematically evaluate this (Landreth, 2012). Although children learn to investigate and explore creatively through the medium of play (Clark, 2013), the capacity for playful learning can be restricted by numerous variables; socio environmental factors, together with their emotional condition, physical and intellectual development all impact on opportunities and engagement with play (Elkind, 2007).

Play development is likely to follow a different pathway in children with Profound and Multiple Learning Disabilities (PMLD) (Imray & Orr, 2015). The definition of PMLD as provided by the Core and Essential Service Standards (Doukas, Fergusson, Fullerton & Grace,

2017) is adopted in this paper; PMLD is a description of a heterogeneous group of people with a profound intellectual disability, often combined with additional disabling conditions such as physical disabilities, sensory impairments and complex medical needs. Literature has provided so far varying estimates with regard to the number of people with PMLD. Despite the difference in the estimates, from 9,000 to 15,000 in England, (Emerson, 2009; Salt, 2010; Hatton, Glover, Emerson & Brown, 2016), there is a consensus that these numbers are increasing primarily because of medical advances which results in premature born babies surviving (Carpenter, Egerton, Cockbill, Bloom, Fotheringham, Rawson &Thistlewaite, 2015). Emerson (2009) estimated that between 2009 and 2026 the number of adults with PMLD in England will increase from 16,234 to 22,035 (i.e. an increase of 30% in 17 years). Given this increase in numbers, it is very likely that teaching staff, especially staff working with children with special educational needs and disability (SEND) will need to work with a child with PMLD at some point in their career.

Studies on play and play interventions for children with LD reveal play opportunities, characteristics and behaviours to be disparate to TD children (Kossyvaki and Papoudi, 2016; Orr, 2003). Imray and Orr (2015) suggest that the process in which individuals with PMLD learn to play is often different to that of TD children. Typical reactions to play may not manifest in individuals with PMLD. This might be the case as physical spontaneity may be limited due to physical disabilities (Watson and Corke, 2015) or individuals with PMLD might have difficulties in identifying and interpreting reactions and interactions during play (Ware, 2003). However, Watson and Corke (2015) suggest that playfulness, as a state of mind, is prevalent. Although the forms of play demonstrated by TD children are rarely demonstrated by individuals PMLD, does this mean that they do not and cannot play? An awareness of the potential difficulties in identifying, interpreting and responding to playful exchanges may impact on the play opportunities and types of playful experiences explored (Ware, 2003). Accepting that children with PMLD are different and therefore have different requirements for, and outcomes of, play may be fundamental to developing and facilitating successful play (Brodin, 2007).

Facilitating social and playful opportunities through peer-play can be challenging when supporting individuals with PMLD (Watson &Corke, 2015). Peer-play is inevitably constrained by the limitations of the awareness levels and communication skills of those

involved (Ware, 2003). Presentations of peer-play for individuals with PMLD may include the concept of shared focus of attention and happiness and 'associative play' (White, 2006) in which social interactions occur through shared play materials. Play-partnerships between learners with PMLD and supporting adults during play activities reflect many of the playful interactions between caregiver and TD infant (Watson, 2014). Children with PMLD may not become spontaneously motivated to play (Imray, 2017), therefore the role of play-partners, usually adults, is extremely important in encouraging playfulness (Watson, 2014) and fundamentally influential on play experiences (Imray & Hinchcliffe, 2013). Watson (2014) concludes effective play partners simply need an innate desire for playfulness and an ability to 'tune in' to the child. However, the desire for playfulness varies between personalities and individuals, and thus theoretical and practical guidance to support and enhance play may be necessary. Developing and 'teaching' play is also considered as a role of the adult play-partner, particularly within educational settings. Although a range of play interventions have been developed for children with complex needs, the suitability of these for learners with PMLD is questionable (Imray & Hinchcliffe, 2013). Balancing a progressive approach, dominant within educational settings, together with the improvisatory nature of child-led play, will evidently prove challenging for play-partners. The juxtaposition of an adult-led, progression focused approach, and the innate spontaneity of creative play, combined with the acknowledgement of the frequent need for externally prompted playful stimuli, may lead to great ambiguity within the role of a successful play-partner. Approaching play with an agenda rather than simply for the sake of creating and exploring playful opportunities could compromise the role of the play-partner, creating an adult directed rather than individual led play environment. When skill development becomes a prerequisite to play, instead of an accidental outcome, the act of play itself may be diminished. Play-partners need to be responsive, reflective and creative in their approach (Watson, 2014). Considering these factors, it is worth addressing the place of play; the environment, the activities of play and its place within the curriculum.

It is perhaps no coincidence that within the Western World the term 'to play music' is common; for example, children learn to 'play the violin' and orchestras develop the ability to 'play together.' Musical activity is considered to be playful, and so there is a strong possibility that this correlation works in reverse; playful activities may also be musical ones.

The creative, flexible and spontaneous possibilities within music-making are in fact the same attributes associated with play and playfulness. Relationships with and responses to music are culturally dependent (MacDonald et al., 2017) though it is generally recognised that music increases and intensifies environments and can impact on the energy and emotional levels of listeners and participants (Corke, 2002). When considering the concept of 'musical play' for learners with PMLD, Imray and Hinchcliffe (2013) argue that there is a very strong case for play to be set within the creative curriculum, further supported by Watson and Corke (2015) who highlight the many opportunities for play endeavours found within the creative arts. Music is highly motivating for individuals with PMLD (Ockelford, 2002); its inclusive merits, absence of formal language, and its universal appeal make the use of music a notable contender in supporting and enhancing play opportunities for individuals with PMLD. Nevertheless, there is an absence of research within this area, seemingly music educators do not research play, and play researchers do not include music; with both areas overlooking the populace of those with PMLD.

METHODOLOGY

This study followed a mixed-method case study with a pre-established class in a primary-aged complex needs special school in England (Thomas, 2017). A Musical Play intervention developed by the first author in collaboration with the class staff was put in place and quantitative data on the impact of the intervention on children with PMLD as well as qualitative data on class staff views were collected.

Participants and setting

A sample of five children aged 8-10 years, who were identified as having PMLD and 4 school practitioners took part in the study. Child participants of this study were four males and one female, with a wide range of complex needs; all child participants were wheelchair users (see Table 1 for child participant details). Adult participants were, three Learning Support Practitioners (LSP) and one class teacher. All adult participants were female. The setting was chosen as the researcher had an established working relationship with the school. All

children and staff typically worked in the same classroom setting; the class was chosen as all children in the class had PMLD, and there was a lower staff turnover within the class in comparison to the other classes for learners with PMLD within the school setting.

Table 1: Details of child participants

LEARNER	GENDER	AGE IN YEARS	MOBILTIY	CURRICULUM
Aaron	M	9	Non-ambulatory. Involuntary upper body movement	Adapted national curriculum
Beata	F	8	Non-ambulatory. Significantly limited movement- single digit reactive movement.	Alternative therapeutic curriculum
Chris	M	10	Non-ambulatory. Intentional upper-body movement	Adapted national curriculum
Daniel	M	10	Non-ambulatory. Intentional restricted upper body movement.	Adapted national curriculum
Eddie	M	9	Non-ambulatory. Involuntary restricted upper body movement.	Alternative therapeutic curriculum.

- All learners' names are pseudonyms

Intervention

Adult participants were provided with a framework of the General Principles of Musical Play (see Table 2), developed from numerous previously existing practices; including principles of Intensive Interaction (Nind& Hewett, 2001), Corkes' Playful Practice (2012), a reduction of distractions and language discussed by Ware (2003) and the Adult Interactive Style Intervention (AISI) developed to promote spontaneous communication among individuals with autism and learning disabilities (Kossyvaki, Jones & Guldberg, 2012). Guidelines were also provided to support the role of adults during play (i.e. Play Partners: The Role of Adults in Play, see Table 3), adapted from Music Play (Kemple, Batey, &Hartle, 2004). Principles were omitted, where not appropriate for use with individuals with PMLD. For example, the

original document (Kemple et al. 2004, p. 31) includes statements such as 'enhance children's exploration by adding well chosen-and often open-ended questions,' which for learners with PMLD is likely to be at a higher cognitive level than they are able to comprehend. Principles were also simplified to improve understanding and usability. For example, 'model- join in and demonstrate a new behaviour non-intrusively', via parallel play. When adults model movement to music whilst also describing their actions and offer suggestions children engage more in differentiated and synchronised movement' (Kemple et al., 2004, p. 32) was simplified to 'model- join in, model new behaviours or play alongside showing new ideas'. Initial drafts of both documents were piloted with adult participants and individuals were asked for verbal and written feedback. As a result of feedback, descriptive examples for each of the General Principles of Musical Play were developed within the framework. It was thought that this would improve its usability and enhance understanding within a working setting.

Table 2: General Principles of Musical Play

PRINCIPLES OF MUSICAL PLAY
An invitation to play
Follow the child's lead/focus of attention
Respond to all communication attempts
Use exaggerated facial expressions and tone of voice
Explore objects playfully
Minimise speech
Support peer-play

Table 3: Play Partners: The Role of Adults in Play

ROLE OF ADULT	DEFINITION
Observe	Watch the child's interaction with the object/instrument or other child/children
Participate	Share and enjoy the music and play, imitate feelings of joy and delight
Extend	Enhance the exploration of a musical object. Extend the play activity by adding an object/movement or response
Model	Join in, model new behaviours or play alongside showing a new idea
Motivate	Encourage child to take part. This may be verbal prompting or through physical tangible support (introducing or re-introducing an object for play)

Each session included two learners, one member of class staff and the music specialist. Learners were paired randomly by class staff. Learners Chris and Daniel remained as a constant pairing throughout the study whereas other pairings had to change due to absences. Pairings between adult participants and child participants were not constant throughout the intervention due to the availability of class staff. Sessions were delivered weekly for a period of five weeks; each session lasted from 15- 35 minutes (with an average time of 25 minutes) depending on the needs and alertness of the participants. Sessions were delivered in the music room or playroom in order to reduce classroom distractions and maximise the potential levels of engagement, impact and responsiveness (Ware, 2003).

Each adult was provided with a set of musical instruments (e.g. wrist bells, wrist shell-shakers, chime-tree, flat-skinned drum and large shell-shakers). Instruments were chosen for their accessibility, tactile interest and variety of timbre. All participants had experience using these instruments prior to the intervention. During the first sessions, a modelling approach (Joyce & Showers, 2002) was used to introduce the staff to the intervention. Before commencing sessions the researcher and the staff member talked through the principles and guidelines, the researcher demonstrated conventional (e.g. hitting the drum on the skin), and non-conventional (e.g. tapping sides of drum/tipping drum over/ putting head under drum skin) ways in which the instruments could be used playfully within the session.

Recorded playful music, which within the Western world is considered to be in a major key and upbeat in tempo (Lundqvist, Carlsson, Hilmersson, & Juslin, 2009) was playing as the participants entered the space and for the whole duration of the sessions. Each session consisted of two parts; initially 1:1 play between learner and adult, followed by peer-play. During the second part of the session, peers were placed facing each-other, restricted by wheel-chairs and trays, and adults used the guidelines and principles to support and encourage peer-play. The researcher acted in the role of adult play-partner to support the 1:1 section of the sessions and further observed and supported the adult participant during the peer-play section of the intervention

Data collection

Video recorded observations of the children and a focus group interview with the staff were the two data collection methods used.

All Musical Play sessions were video recorded. The video camera was set-up before participants entered the room in order to reduce obtrusive or distractive distortions on the data collected. Video recording the sessions allowed subtle changes in expression, movement, posture and vocalisations of the participants (Jewitt, 2012) to be recorded; these non-verbal cues were fundamental to capture in order to evidence the potential impact of the intervention on children with PMLD.

The focus group interview was conducted at the end of the intervention period in order to gain a greater understanding of the impact of the intervention on staff attitudes and perceptions of play. It was felt that the dynamics of the established staff team would allow for a supported interchange of ideas and may generate a broader discussion, allowing for further comprehension of the values and understanding of the intervention. An audio recording of the focus group interview was documented for transcription.

Ethics

The current study was designed and implemented following the ethical considerations of the University of Birmingham. This study also abides by the British Educational Research Association's (BERA) guidelines for educational research (2018). Informed consent was obtained from staff and from parents of child participants. The level of learning disabilities

of the children made it impossible to ask for their assent to participate in the study. Particular attention was given to the well-being of the child participants. All adult participants agreed that children displaying signs of unhappiness/distress, as a result of involvement with the study, would be withdrawn. Children who were not at a point of arousal, or asleep also would not attend the session. Child participants were given pseudonym names and only the roles of the adult participants were mentioned in this paper to protect their identity. All data was securely stored in password protected devices.

RESULTS AND DISCUSSION

Results on the impact of the intervention on child participants and adult participants were considered separately. Data on child participants showed the impact of the intervention on the playfulness of children with PMLD and the impact of the intervention on peer awareness and peer-play. Data on adult participants displayed staff attitudes and confidence levels towards play with children with PMLD and the impact the intervention had on these.

Impact on children levels of playfulness and engagement

Results from video recordings

Ten-minutes of video-footage, of each learner's first and last session were coded using an adapted version of the Social Play Record (SPR) (White, 2006). Video-footage included five minutes of the 1:1 play between learner and adult, and five minutes of peer-play, footage was taken from the middle of each of the two parts to allow learners to transition and respond to the activities. Coding the first and last sessions for comparison ensured learners had sufficient exposure to the intervention, as the pace of learning for learners with PMLD is considerably slower than that of TD children (Quest for Learning, 2014). Although coding more sessions may have revealed a more detailed reflection of the Musical Play intervention this was not possible due to time and resource constraints. It has to be noted here that changes in the behaviour of people with PMLD tend to be very small, such as a change in breathing or stilling of the body (Manchester, 2012), making them difficult to detect. Therefore, coding of relevant video footage can be very time consuming.

The frequency in which learners displayed different types of reactive and reciprocal play were documented. Frequency was defined as: 'Never', 'Sometimes' (1- 5 times), and 'Often' (> 5 times). Reactive Play was defined as play in which a child reacts to an adult entering or imposing on their play space whereas in Reciprocal Play the child takes a more active part in play activities; skills such as turn-taking and imitation also begin to emerge (White, 2006). Data from Time 1 (the first session) and Time 2 (the last session) was then quantified and compared to measure potential changes. 'Never' was given a score of 0 points, 'Sometimes' a score of 1 point and 'Often' a score of 2 points.

Figure 1 presents the frequency of different types of Reactive Play by all learners whereas Figure 2 shows the frequency of Reactive Play for each learner individually.

Figure 1: **Frequency of Reactive Play characteristics displayed by all learners; first and last Musical Play session**
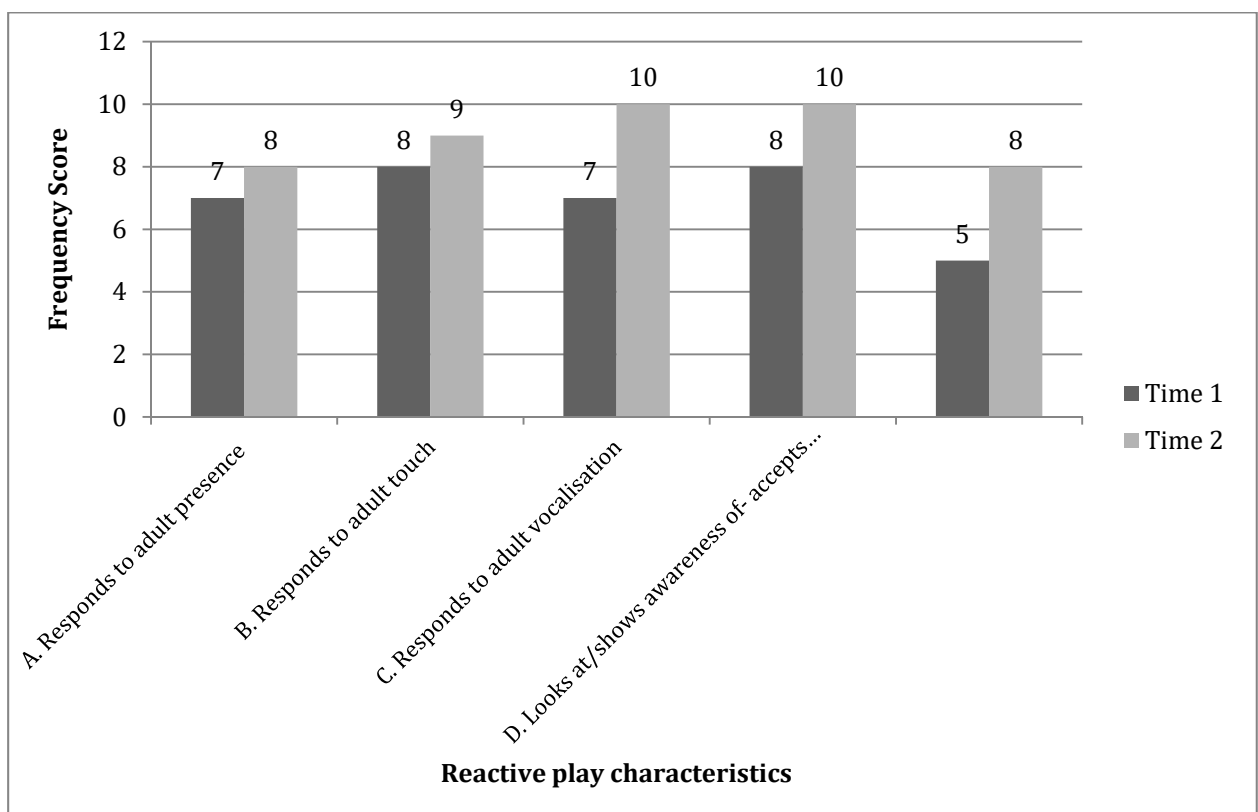
Musical Play had a positive impact on all aspects of children's Reactive Play skills. Most impact was recorded for children with the most complex needs, functioning at the lowest cognitive levels within the sample (see Figure 2). Beata and Eddie were working at a sensory experiential level (see Table 1) developing basic reflexes with limited intentional movement and tactile exploration of their surroundings being restricted.

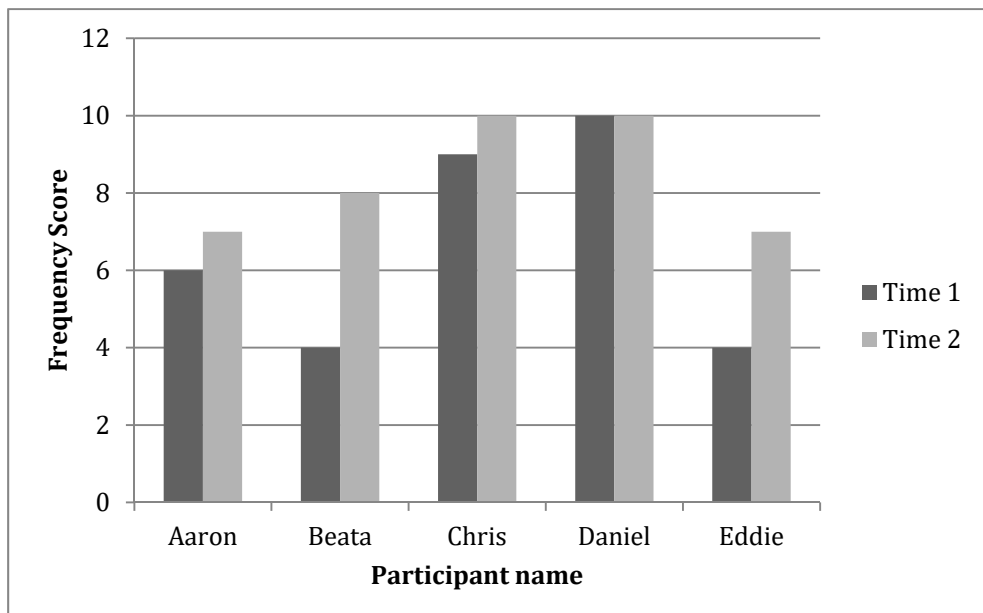**Figure 2: Total frequency scores for each participant: Reactive Play**

Figure 3 presents the frequency of different types of Reciprocal Play by all learners whereas Figure 4 shows the frequency of Reciprocal Play for each learner individually.

Figure 3: Frequency of Reciprocal Play characteristics displayed by all children; first and last Musical Play session.
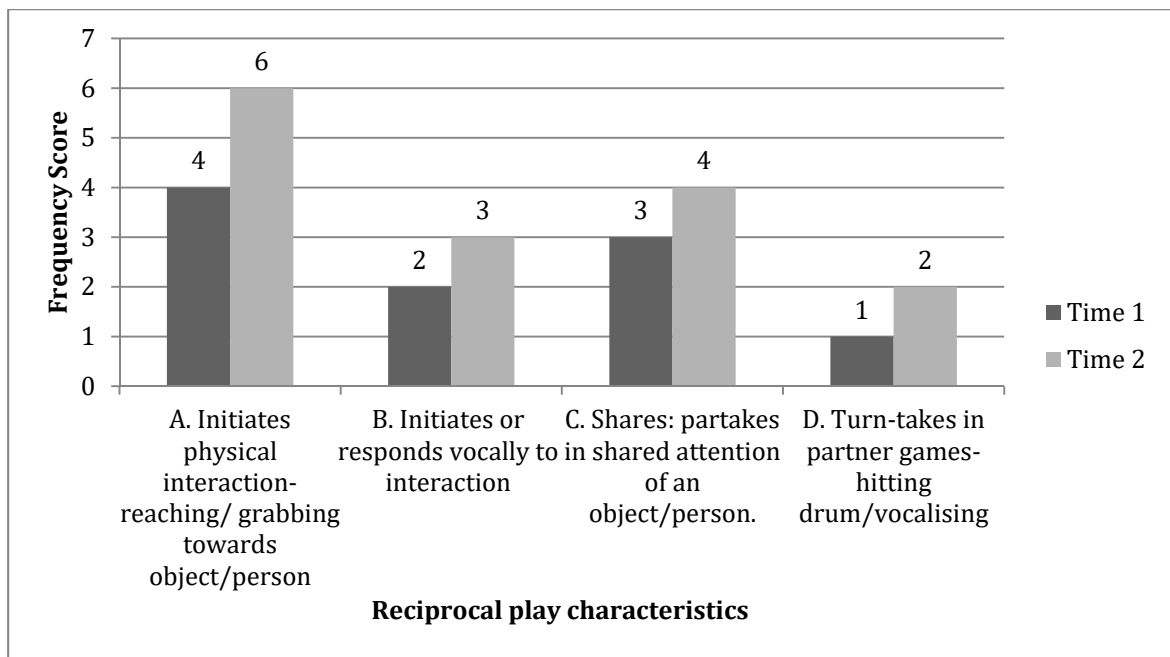
There was less impact on frequency of Reciprocal Play characteristics (Figure 3) displayed by the children than Reactive Play characteristics (Figure 1). This is perhaps due to the extra complexity of the skills required for Reciprocal play and the time restrictions of the intervention. However, there were significant differences in the frequency of Reciprocal Play characteristics displayed by Chris (see Figure 4). Chris had controlled upper-body movement, and was able to grab, manipulate and throw objects. He worked at sensory exploration level, had developing contingency awareness and showed preference to objects and sounds.

Figure 4: Total frequency scores for each participant: Reciprocal Play
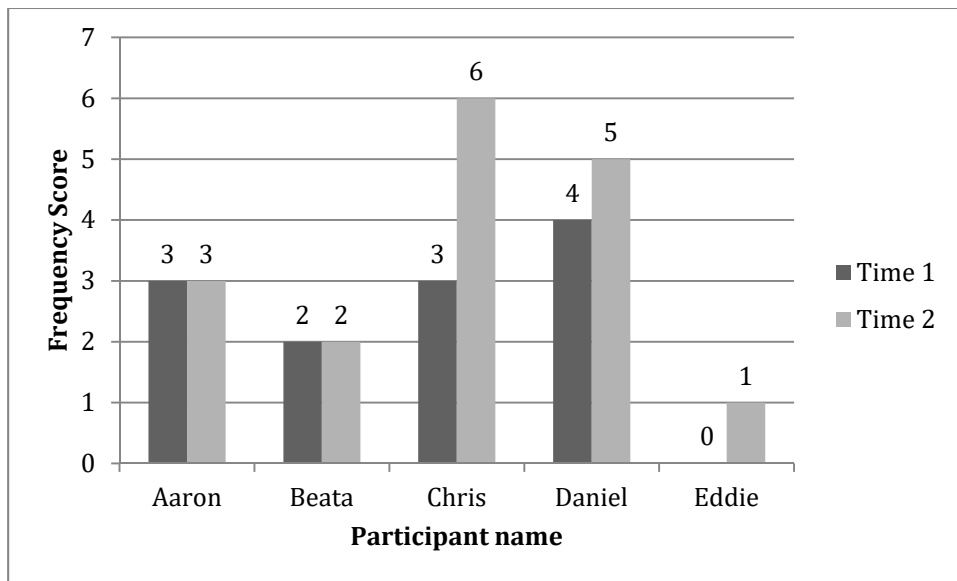
Evidence suggests that Musical Play positively impacted on the levels of engagement and playfulness for all child participants. Results from the adapted SPR as shown in Figures 1 and 3 revealed that the play skills presented by children with PMLD vary greatly. Children with the most complex needs, however, were still able to increase their Reactive Play skills over the duration of the intervention. A child functioning at a higher cognitive level was able to increase the frequency of their Reciprocal Play skills. Further research is required to consider additional influential factors such as learner alertness, arousal level and situational variants which may impact on the Musical Play intervention.

Impact on peer awareness and peer-play

The impact of the Musical Play intervention on peer awareness and peer-play was measured through coding video recordings of the first (Time 1) and last (Time 2) sessions using the adapted SPR (White, 2006). Staff quotes from the focus group interview were also used to demonstrate further evidence. Characteristics of peer-play were separated into categories using the adapted SPR. These categories and their behavioural descriptions appear in Table 4.

Table 4: Characteristics of peer-play

Categories of peer-play	Behavioural characteristics
OBSERVER- passive observation of peer without participation	-Shows awareness of peer -Turns towards peer - Gives attention to shared play object between self and peer
PARALLEL- playing besides a peer often with similar materials	-Plays alongside peer but independently - Copies peer attention - Watches peer whilst playing
ASSOCIATIVE- playing with other children, sharing materials and developing an awareness of others	- Responds positively to peer presence -Shows awareness of peer use of shared play object - Makes contact- Vocal or physical interchange with peer

Figure 5: Total frequency scores for each participant: Observer Play

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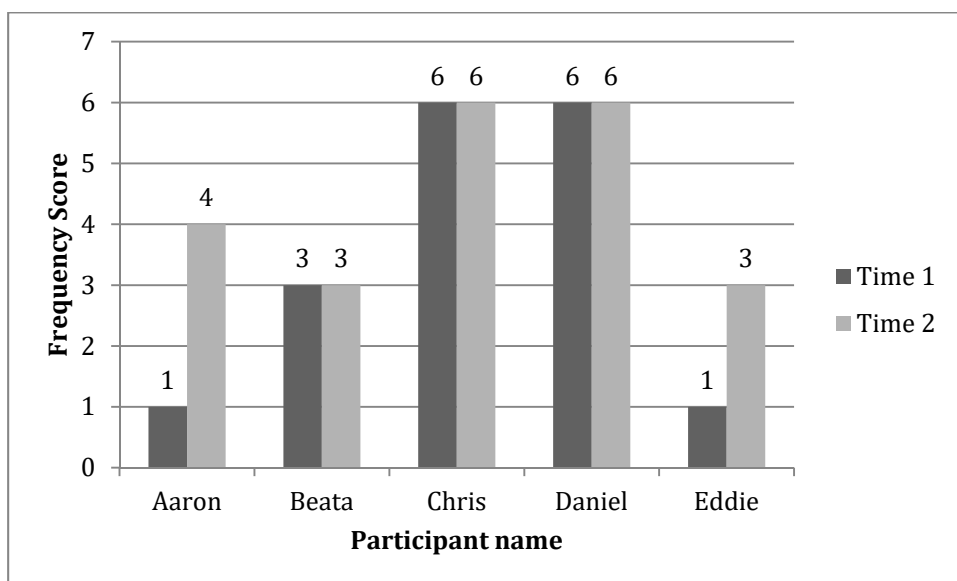
In relation to the Observer peer play skill the most impact was recorded for Aaron (see Figure 5). During the focus group interview staff referred to Aaron's peer play skills commenting:

> 'But you know ours can't do that [play as mainstream children]. It doesn't mean we can't help them, you know we can try and get them to focus on other things, other people, if at all possible.'

Figure 6: Total frequency scores for each participant: Parallel Play
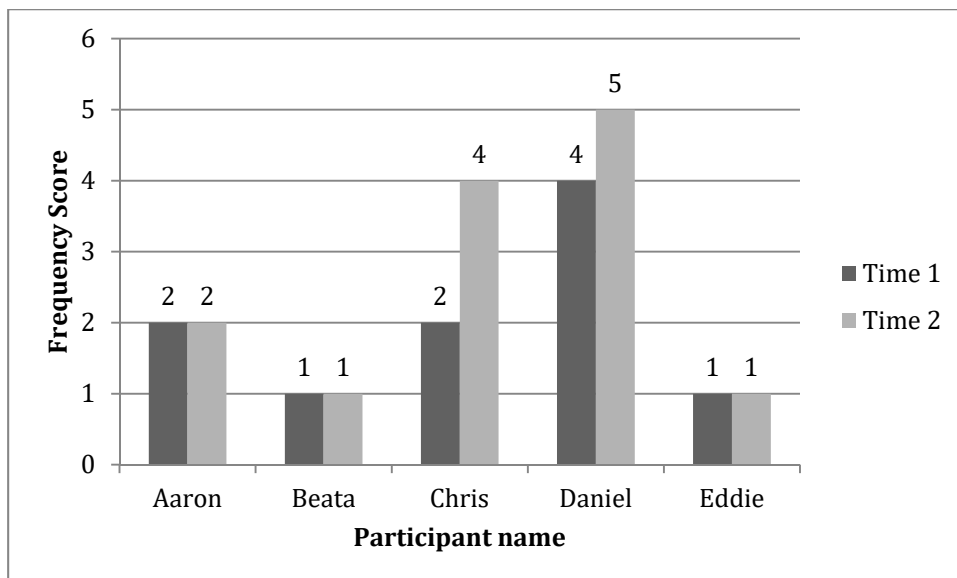
Figure 7: Total frequency scores for each participant: Associative Play

Chris and Daniel, the two children at the higher end of cognitive and physical abilities, increased the frequency in which 'Parallel' peer play skills were demonstrated. The two of them also showed the most increase in their 'Associative' peer play skills (see Figures 6 and 7). It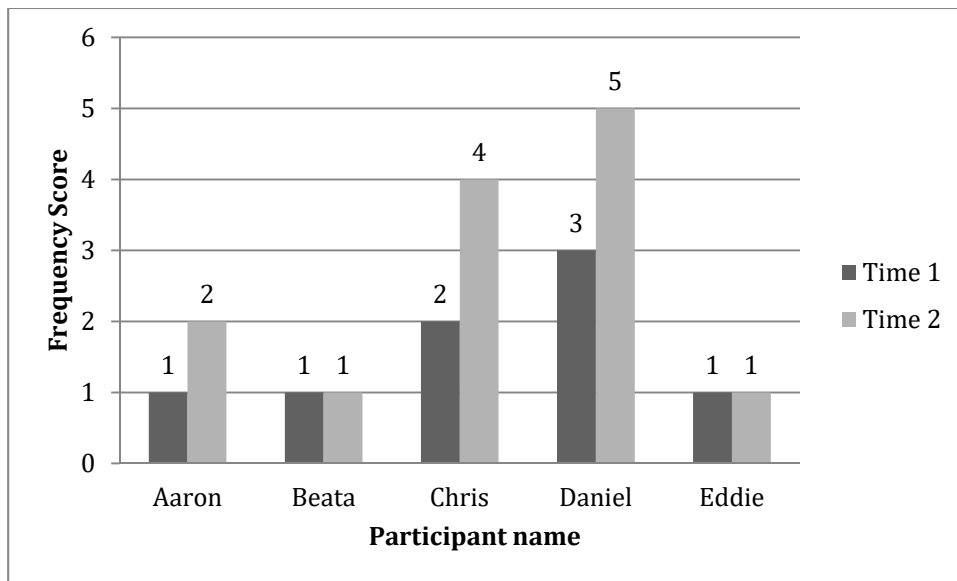 has to be reminded here that Chris and Daniel remained a constant pairing for the duration of the intervention. Chris and Daniel vocalised, smiled and used eye-contact to communicate. The researcher was aware that Chris and Daniel were also frequently paired during class settings pre-intervention and this might have impacted on the greater progress they showed on parallel and associative play skills during the intervention.

Considering the impact of Musical Play on peer awareness and peer-play, the evidence suggests that children can develop a more frequent awareness of their peer during the intervention. Children with a higher cognitive ability and more established skill set increased their peer interaction, either vocally or physically. Peer-play, as presented by TD children, may never be evident within a PMLD setting. However, the results suggest that with appropriate adult support and the use of music, children can begin to increase their social awareness of peers, and for some engage in supported shared peer-play activities. Using musical play objects, which make sounds, may have aided the increased frequency of 'Parallel' and 'Associative' Play as using an auditory stimuli to attract and develop shared attention may be more successful for learners with PMLD, who often have complex sensory

impairments, than using non-musical play objects. Further investigation into supporting peer interaction, the value of peer relationships for people with PMLD and attitudes towards peer-play is required.

Play partners: Impact on staff attitudes and confidence

Data on staff attitudes towards play was collected during the focus group interview after the end of the intervention. The focus group interview was conducted during lunch-time, which was convenient for participants, and lasted for approximately 25 minutes. Transcribed data from the focus group interview was coded using the inductive approach of the constant comparison method (Thomas, 2013).

Table 5: Inductive thematic analysis of staff comments collected during the focus-group

Theme	Keywords	No. of times it appeared in the focus group interview transcript
Positive experiences	*Amazing, loved, they could*	13
Targets	*Targets, achieve*	11
Environment	*Room, quiet, focus, out*	7
Staffing	*One-to-one*	5

The most common theme to emerge from the focus group interview was the positive experiences staff felt towards the intervention reflecting on both themselves and the learners (see Table 5). A secondary theme was that of 'targets'. After beginning the focus group interview, staff were asked if they ever had the chance to 'just play' and it became obvious that staff felt their role and interaction with the learners was restricted to target work. For example, some of the quotes they shared show this scepticism towards targets:

> *'Why does everyone and everything need to have a target?'* and *'Why can't we play and then at the end of the day go? These are the things we did.'*

The focus group interview also showed that staff did not feel they were given opportunities to play freely with the children without a target driven motive. This is in line with existing literature which argues that although staff use playful approaches when working with children, they are not given time to play in the intrinsic sense, independent of outcome (Brown, 2010). Indicative is the example of a LSP who wondered:

> *'why are we making someone who's a developmental age of 9-12 months…*
> *sit in a chair… and do a puzzle and things like that?'*

Staff also discussed the difference between a structured approach to target work and the developmental and learning opportunities play provides. Acknowledging the developmental age of learners with PMLD, it seems staff feel a more play-led approach would be beneficial for the learners. They commented on the success of this during the Musical Play intervention:

> *'Also think of all the things we were playing with [Beata] yesterday, you*
> *come back and then look at all the things [they] have to achieve and I bet*
> *you could have ticked off a lot of those things…'*

Staff also commented on the value of time spent out of the classroom, in a less distracting environment and the focus and attention which could be achieved when working one-to-one with the learners:

> *'…it was one-to-one, in a quiet environment, when you're in the classroom*
> *it's just sound everywhere…so with this you're actually focusing on that one*
> *child.'*

They remarked that there was little chance for them to work as smaller groups out of the classroom space, due to staffing limitations, but stated as a result of the intervention one child was now accessing daily one-to-one time out of the classroom.

Staff acknowledged the value in Musical Play and felt confident in their role as play-partners. However, it seemed that they were frustrated and conflicted within their role. Playful approaches were being used to aid learning in task-led activities, but there was a sense of staff feeling restricted in their opportunities to support play purely as a child-focused, spontaneously joyful activity. This is in line with Imray and Hinchcliffe's (2013)

claim that play ceases to be a teaching priority post the Early Years Foundation Stage (EYFS) although engagement with play is needed even into adulthood for those with PMLD. It was evident that staff in this study can see the value in child-focused play for learners with PMLD, both as a way of enhancing well-being and providing a less formal platform to facilitate learning opportunities. Further research into the skill acquisitions and development of staff, through delivering the Musical Play intervention, and the transferability of these skills to everyday practice would be of interest. This was beyond the scope of this study, primarily for ethical reasons as staff were actively engaged in the development of the intervention and coached on its delivery on top of very busy school days. Additionally, time and resource limitations did not permit a more thorough analysis of the learning process of the adult learning.

CONCLUSION:

The results of this study argue the case that Musical Play sessions can provide engaging and playful experiences for learners with PMLD. Using the frameworks developed for this study (General Principles of Musical Play and The Role of Adults in Play, see Tables 2 and 3 respectively), staff facilitated experiences which elicited playful responses from the learners. An increase in the frequency in which play skills were demonstrated at the end of the intervention implies that learners with PMLD were able to develop their abilities to respond to and partake in playful activities. Data suggests that over time learners increased their awareness of, and interaction with, their peers during Musical Play activities. Therefore, increased exposure to discrete play opportunities is likely to develop these skills. Additional research is needed to address the barriers associated with play for individuals with PMLD; practical suggestions to develop play experiences and overcome obstacles met within play facilitation are necessary. Interventions grounded within theory and research with a practical and viable application within PMLD settings will further the opportunities and experiences of the learners.

Children with PMLD are complex and unique. Settings which facilitate dedicated one-to-one time, for effective communication and interaction to be established, will realise the significant impact this has, not only on the experiences and development of the children,

but also on the attitudes and relationships of staff. This is beneficial to the wellbeing of all involved. Creating discrete play opportunities, alongside incorporating playful practice into school life ensures that the value and benefits of play are not diminished, but instead viewed as crucial to the development of the learner. If children are musically motivated, staff have an obligation to utilise this to enhance all aspects of their life including play. Staff must also acknowledge that their disposition, availability and responses to interaction as well as choice of stimuli impacts on the play experience of people with PMLD. Mindfully observing the reactions and interactions of learners and following their interest provides repeated opportunities for learners to engage and practice their playful skills, allowing for meaningful play experiences. These in turn can provide 'accidental' opportunities for learning and consolidation. Juggling all of these skills, as play-partners, may be challenging. However, the satisfaction of sharing in the joy and delight of successful playful exchanges, especially with disadvantaged people such as those with PMLD, is surely immeasurable.

References

Almon, J. (2003) 'The vital role of play in early childhood education', in S. Olfman (ed.) All work and no play…How educational reforms are harming our pre-schoolers. Praeger Publishers/Greenwood Publishing Group, 17-42. [Online]

British Education Research Association-BERA (2011) 'Ethical guidelines for educational research' [Online].

Brodin, J. (2007) 'Diversity of aspects on play in children with profound multiple disabilities', *Early Childhood Development and Care*, 175 (7), 635-646.

Brown, S. & Vaughan, C. (2010) Play: How it Shapes the Brain, Opens the imagination, and invigorates the soul. America: TarcherPerigree- Penguin Books.

Carpenter B., Egerton J., Cockbill B., Bloom, T., Fotheringham, J., Rawson, H. &Thistlewaite, J. (2015) *Engaging Learners with Complex Learning Difficulties andDisabilities*. Abingdon, Oxon: Routledge

Clark, C. (2013) 'The state of play', *International Journal of Play*, 2 (3), 161-62.

Corke, M. (2002) *Approaches to communication through music*. United Kingdom: David Fulton Publishers.

Corke, M. (2012) *Using playful practice to communicate with special children*. Oxon: Routledge.

Doukas, T., Fergusson, A., Fullerton, M. & Grace, J. (2017) *Supporting people with profound and multiple learning difficulties: Core and Essential Service Standards*. [Online]

Elkind, D. (2007) T*he Power of Play; learning what comes naturally.* Boston: Da Capo Press.

Emerson, E. (2009) 'Estimating future numbers of adults with profound multiple learning disabilities in England'. *Tizard Learning Disability Review*, 14 (4), 49-55.

Gammeltoft, L. &SollokNordenhof, M. (2007) *Autism, play and social interaction*. London: Jessica Kingsley Publishers.

Ginsburg, K. (2007) 'The importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds', T*he American Academy of Paediatrics*, 119 (1), 182-191.

Hatton, C., Glover, G., Emerson, E. & Brown, I. (2016) *Learning Disabilities Observatory People with learning disabilities in England 2015: Main report*. London: Public Health England.

Henricks, T.S. (2019) 'Classic Theories of Play', in P.K., Smith & J.L. Roopnarine (eds) *The Cambridge handbook of play: Developmental and disciplinary perspectives*. Cambridge: Cambridge University Press.

Goldstein, J. (2012) *Play in Children's Development, Health and Well-being*. Brussels: Toy Industries of Europe. [Online]

Imray, P. & Hinchcliffe, V. (2013) *A curricula for teaching children and young people with severe and profound multiple learning difficulties: Practical strategies for education professionals*. London: Routledge.

Imray, P. & Orr, R. (2015) 'Playing to Learn or Learning to play? Ideas on ensuring that the opportunity to play is continually accessible for learners with SLD/PMLD', in P. Lacey, R. Ashdown, P. Jones, H. Lawson & M. Pipe (eds) *The Routledge Companion to Severe, Profound and Multiple Learning Difficulties*. London: Routledge.

Imray, P. (2017) *Equals SLD (Semi-Formal) Curriculum Schemes of Work: My Play and Leisure*. London: Equals.

Landreth, G. (2012) *Play Therapy: The Art of the Relationship* (third edition). London: Routledge.

Lundqvist, L-O., Carlsson, F., Hilmersson, P., &Juslin, P. N. (2009)Emotional responses to music: experience, expression, and physiology. *Psychology of Music*, *37*(1), 61–90.

Kemple, K., Batey, J., &Hartle,L. (2004) Music play creating centres for musical play and exploration. *Young Children,* 59 (4), 30-37.

Kossyvaki, L., Jones, G. & Guldberg, K. (2012) 'The effect of adult interactive style on the spontaneous communication of young children with autism at school', *British Journal of Special Education*, 39(4), 173-184.

Kossyvaki, L. &Papoudi, D. (2016) 'A review of Play Interventions for Children with Autism at School', *International Journal of Disability, Development and Education*, 63 (1), 45-63.

MacDonald, R., Hargreaves, D. &Miell, D. (eds) (2017) *Handbook of Musical Identities*. Oxford: Open University Press.

Manchester, H. (ed.) (2012) *Creative approaches to improving participation: Giving learners a say*. Oxon: Routledge.

Nind, M. & Hewett, D. (2001) *A Practical Guide to Intensive Interaction.* London: British Institute of Learning Disabilities.

Northern Ireland Curriculum (2014) 'A Focus on Learning', *Guidance and Assessment Materials for Profound and Multiple Learning Difficulties*. Quest for Learning. 21-24. [Online]

Ockelford, A. (2008) *Music for children and young people with complex needs*. London: Oxford Music Education.

Orr (2003)*My Right to play. A child with complex needs.* London: Open University Press.

Salt, T. (2010) *Salt review: independent review of teacher supply for pupils with severe, profound and multiple learning difficulties (SLD and PMLD)*. Nottingham: Crown Copyright.

Sheridan, M. Howard, J. & Alderson, D.(2011) *Play in early childhood: From birth to six years* (third edition). Abingdon, Oxon: Routledge.

Thomas, G. (2017) *How to Do Your Research Project: A Guide for Students*. London: Sage.

United Nations (1989) *Convention on the right of the child*. Brussels: United Nations Assembly.

Ware, J. (2003) *Creating a responsive environment: For people with profound and multiple learning difficulties* (second edition). London: David Fulton Publishers.

Watson, D. (2014) *'Go-getters' and 'clever little cookies': A summary of a multi-method study on playfulness and children with PMLD.* University of Bristol. [Online]

Watson, D. &Corke, M. (2015) 'Supporting playfulness in learners with SLD/PMLD: going beyond the ordinary', in: P. Lacey, R. Ashdown, P. Jones, H. Lawson and M. Pipe (eds) *The Routledge Companion to Severe, Profound and Multiple Learning Difficulties*. London: Routledge.

White, C. (2006) *The Social Play Record: A Toolkit for Assessing and Developing Social Play from Infancy to Adolescence*. London: Jessica Kingsley Publishers.