Play-based Learning

Academic, Social and Emotional Outcomes

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General Overview

Play is an essential aspect of every child's life, providing them with an opportunity to explore, develop and test aspects of their cognitive, linguistic and social worlds. Young children explore their surrounding world through play and it is crucial for the development of communication, cognitive, physical, social, and emotional wellbeing of young children (Ginsburg, 2007).

Evidence of what we typically think of as 'play' can be observed towards the end of a child's first year of life and the start of their second year (Fein,1981). However, the precursor to play behaviours begin when children are babies, through the experiences they have with their parents (e.g. during routines such as feeding, sleeping, dressing, bathing). Children's very first "playmates" are their parents. Early parent–child playful interactions are critical as they provide a context for the development of attachment, which is critical to the child's future mental health and wellbeing (Sroufe 1996) and social development (Vibbert and Bornstein 1989). From two years of age onwards, children's play develops through their adoption of characters and different roles, and their increasingly imaginative use of objects to represent other things, leading to the invention of imagined objects during second and third years (Fein 1981). Later, these skills become more complex, as they incorporate other children and adults as playmates (Westby 1991).

Just as play supports the development of communication, social and cognitive skills, research has shown that language, cognitive and social environments also have impact on the

frequency and type of play children engage in (Brown & Watson, 2017). Children with atypical development (such as those with autism or other developmental disorders) which impact on their language and cognitive development, may therefore show different play-behaviours to typically developing children, as language development and modalities of communication are related to the emergence of play skills, and influence the relationship with other children in mutual play situations (e.g. Muzyoka, 2015). Many deaf children born to hearing parents experience a delay to their language acquisition, which in turn impacts on other aspects of their development (Hall, Inge-Marie, Bortfeld, & Lillo-Martin, 2016). Several studies have compared the play behaviours of hearing and deaf children, and also explored the use of free play and structured games as an intervention tool for deaf children.

Studies with Deaf Children

Studies investigating play in deaf children have been of interest since the 1970s, where the focus was on the associations between children's language abilities and play. The majority of these early studies highlighted the overwhelming overlap in behaviour and style of play between deaf and hearing children (Gregory & Mogford, 1983; Bornstein et. al., 1999). However, other studies revealed an important distinction between Deaf children who were born to Deaf parents, and those who were born to hearing families. For example, Spencer et al. (1990) found no significant differences between Deaf children from Deaf families and age-matched hearing children in free play interaction, amount of time spent in pretend play, number of play episodes, level of pretend play, or length of time spent playing. However, in a later study, Spencer & Deyo (1993) added another group of deaf children with hearing parents, categorizing the dyads by language level. This revealed differences for time spent in ordered sequences, in substitute play and for play diversity. These findings are important as they suggest that language delay is associated with delayed pretend play, not

hearing loss per se. Similar findings have been found in subsequent studies, which have found delayed language or lower language ability in deaf children to be associated with delayed pretend play (Spencer, 1996; Brown et. al., 2001; Quittner et al. 2016).
Deleau (1993) investigated the ability of hearing mothers to maintain pretend play through joint reference, with their deaf or hearing toddlers. Hearing mothers with deaf children were more likely to experience difficulty in maintaining joint reference, having shorter, less complex play episodes. Pratt (1991) also found that hearing mothers of deaf children tended to be more directive when they had their child's attention, suggesting they regarded play interactions as opportunities for instruction. Likewise, Brown and Remine (2004) found hearing mothers of deaf children more likely to be directive, literal and to produce/scaffold more play behaviours than their hearing counterparts. It appeared that, although these mothers used scaffolding techniques which are known to enhance play in hearing children, problems in maintaining joint engagement with their child may render these interactions less playful and creative. Overall, findings from these studies suggest that the play of deaf toddlers from hearing families may often be delayed, whereas Deaf children from Deaf families show more typical patterns of play due to the greater ease of communication. Brown & Watson (2017) argue that play should therefore be a strong focus of assessment and early support for families of children with sensory impairments.

Play also provides a context in which children are motivated to communicate, build and negotiate relationships with other children. The availability of playmates once children attend preschool or nursery increases the frequency and range of opportunities for language practice and developing social skills. Initiating, mediating, and sustaining a joint, playful activity requires children to practice communicating clearly in social exchanges. Mills et al. (2014) observed that verbal interactions between peers were more likely to occur during play time

than during any other classroom activity. Barton and Wolery (2008) found that providing an intervention to increase play skills led to increased vocalisations, even though language was not a direct target of the intervention, indicating that free play between young children is a strong support for language development.

Play is widely acknowledged as a good vehicle for developing other essential social and interpersonal skills (e.g., play turn-taking, sharing), for all children, and also between children with and without hearing loss (Bat-Chava & Deignan, 2001). De Luzio and Girolametto (2011) evaluated the types of initiations and responses during play between children with normal hearing and children with severe to profound hearing loss. They found no significant difference between the two groups in terms of their initiation efforts or strategies, with both deaf and hearing pre-schoolers using vocalisations, smiles, and object-related acts as strategies to initiate play. However, Harris (2014) notes that whilst both deaf and hearing children use similar strategies for initiating play interactions, both groups of children tend to interact more frequently with peers who have similar hearing status/language ability. Qayyum, Khan, and Rais (2015) observed play behaviour during leisure time of children with hearing impairment in special schools. Through their observations, they found that the most frequent play behaviour that the deaf children engaged in was social play (group play) followed by non-play behaviour (active conversation) and the activities that the children engaged in the least involved cognitive play (games with rules, which required higher language skill).

Recently, Muzyoka (2015) reported findings from an observational case study of a deaf child in a preschool. The study concluded with suggestions for simple adjustments that teachers may make to encourage and allow deaf children to engage in cooperative play behaviour.

These included ensuring that the layout and space in a classroom is considered, so visually oriented deaf children have a clear view of peers, teachers and others in the room. Decisions on the classroom space can affect the nature play behaviour demonstrated and the expected learning outcome from the play (Morrow & Rand, 1991) .

Secondly, Muzyoka highlights the importance of incorporating the use of various play materials that will stimulate rich play behaviours whilst being particularly aware of the visual needs of the deaf child when interacting with the play materials. Play materials that require a deaf child to be visually engaged with the play material may impact their visual social engagement with others.

Thirdly, children's chosen play partners should also be taken into consideration. The two most important characteristics that impact play behaviour which have been identified in many studies are familiarity to play partners and shared language ability. Muzyoka reiterates the importance of teachers' ability to assess their students' social and language skills and use these assessments when pairing student as play partners. Shared language is important for social interaction including play. By attending to the child's social and language needs, the teacher can have a positive impact their play behaviours.

Examples of play-based activities used in research with deaf children

Structured or teacher-led games can often be easily adapted to include hearing impaired children. Games that require little use of language, but work on cognitive and social skills can be particularly useful. For example, "The Detective Game" is a typical classroom game which has been used in several settings with deaf children between the ages of 6 and 11 (Mason, 2017). It is suitable for a mixed group of both deaf and hearing children, and based

on the widely-played game “follow the leader.” The children sit on chairs in a circle. One child is chosen as the “detective” who has to leave the circle and turn their back, whilst the rest of the group choose who will be the ‘leader’. The leader then starts performing an action (e.g. clapping their hands), which the rest of the group - the “followers” must copy. Every so often, the leader must change the action (e.g. to tapping their head), and the followers copy. The ”detective” walks around the circle and must watch the group closely to try to identify which person is the leader.

As well as encouraging children to pay close attention, this game requires sophisticated theory of mind (e.g. if everyone stares at the leader, then it will be obvious to the detective who the leader is, so children have to learn to observe the leader’s changing actions in a subtler way). It is also an excellent game for developing social skills, as it involves co-operation and turn-taking. For example, sometimes younger children who have the role of “follower” will want the detective to discover who the leader is quickly, so that they can have their turn as either detective or leader. The repetitive nature of the game helps to reinforce the notion of teamwork and patience, which can be particularly difficult for younger children.

Unstructured play or “free play” has also been used with children in more therapeutic settings. For example, Chapel (2005) explored child-centred play therapy with deaf children, whereby the children were given special free-play time where they could communicate any emotion or feeling they had, without restriction and in confidentiality. The children were provided a wide variety of toys that would stimulate imaginative play, including action figures and a basket of plastic “food” and a set of dishes with plastic utensils and cups. There was also a toy revolver, a foam dart gun, and working handcuffs with a hand release as well as a key, a foam ball, and ten small toy race-cars. A dollhouse with a small family of dolls

was set up, and a basket with baby dolls, a blanket, and a bottle was placed on the floor, along with a large container of Legos© and a small portable sandbox with construction-type trucks. A “dress-up” basket was also provided, filled with large pieces of coloured fabric, a plastic fireman’s and army helmet, a flower crown, play high heels and sunglasses and a skipping rope. Art supplies included paint and paint brushes, construction paper, markers, scissors, tape, and glue. Chapel (2005) details how each of the 4 children in her case study responded to the freedom of expressing themselves through play, throughout their developing relationship with the play therapist. The study powerfully demonstrates the use of play for enabling deaf children to express themselves socially and emotionally.

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