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An exploration into factors which influence positive object play experience for children who are living with severe physical and intellectual disabilities

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CARL Research Project
in collaboration with
COPE Foundation



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CARL seeks to:

- provide civil society with knowledge and skills through research and education;
- provide their services on an affordable basis;
- promote and support public access to and influence on science and technology;
- create equitable and supportive partnerships with civil society organisations;
- enhance understanding among policymakers and education and research institutions of the research and education needs of civil society, and
- enhance the transferrable skills and knowledge of students, community representatives and researchers (www.livingknowledge.org).

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Abstract

Background: Toy/object play is accepted as an integral and valued occupation for all children. Though play in general is a topic which commonly receives attention in research, object play, remains relatively unexplored especially for children with severe physical and intellectual disabilities, a population which is commonly described as experiencing ‘play deprivation’.

Purpose: The purpose of this study is to explore factors which influence positive toy/object play experiences for children who are living with severe physical and intellectual disabilities.

Method: This study took a qualitative methodology that is informed by the theoretical approaches of ethnography. This study utilises method triangulation; participant observations, semi-structured interviews and focus groups to obtain rich and in-depth findings.

Participants: After ethical approval, 5 child participants, 6 parent(s)/guardian(s) and 6 teachers/SNAs were recruited.

Findings: 4 major themes, ‘*Play as an Occupation, Play as an Activity*’; ‘*An Empowered and Empowering Play Partner*’; ‘*The 'Just-Right' Play Object*’ and ‘*Considerations for Contextual participation*’ as well as relevant subthemes were identified through thematic analysis. The interaction between the play form, play object and play context (including environment and social supports) is highlighted clearly within these analytical themes.

Implications for practice: Although the findings are specific to this study sample, play facilitators may use them to further their understanding of the nature of object play for this population and inform future play interactions. By recognising the multiple facets of positive play influence, object play can be better understood and championed as a central to these children's occupational lives.

Keywords: toy or object, play, disabilities

Introduction

Though there remains no consensus on the definitive definition of play, it is most commonly defined in terms of freedom, choice and control (Bundy, 2012; Graham, Nye, Mandy, Clarke & Morris-Roberts, 2018; Neumann 1971; Sheridan, Howard, & Alderson, 2011). Play has consistently been recognised as the primary occupation of childhood (Crawford, 2014; Hamm, 2006; Larson, 1995; Parham & Primeau, 1997; Reilly, 1974). From an evolutionary perspective, play is understood to be necessary for early skill development (Sturges, 2003). The many benefits of play have been well established in research. Play has a positive effect on physical, cognitive and social development (Cordier, Bundy, Hocking, & Einfeld, 2009; Goodley & Runswick-Cole, 2010; Peisner-Feinberg et al., 2001; Poulsen & Ziviani, 2004). Additional to these benefits of what we call extrinsic value (i.e., how it contributes to development), are those which are of intrinsic value (Goodley & Runswick-Cole, 2010) which defines the meaning of play in terms of the enjoyment and pleasure it evokes for the individual. Indeed, play's most immediate and palpable benefit, is enjoyment. The very word 'play' is associated with feelings of pleasure, recreation, and fun, all of which are associated with wellbeing (Lester & Russell, 2010).

Object play has been observed to be of particular note in promoting child physical, cognitive and social development (Pellegrini & Gustafson, 2005). Object play, also called toy play, involves the use of a play prop, wherein an object is the vehicle of play. Play provides the combination of both recreational appeal and developmental benefit for a child. It is therefore understandable that therapists and educators often try and harness this powerful combination and use play as a medium of intervention, to achieve other functional and academic goals. However, for the purpose of this study, play can universally be regarded as a 'typical childhood experience', something of which children have the right to engage in for its own sake. Rationale for this research topic comes from both international and national levels. Ireland committed to promote children's rights in respect of the United Nations Convention on the Rights of the Child (UNCRC, 1992). Play is a fundamental right for every child which is stated by the United Nations (The United Nations Convention on the Rights of the Child, 1989).

Young children with disabilities, differ in the frequency, diversity, and complexity of their play with objects compared to their typically developing peers (Frey & Kaiser, 2011). Play, particularly object play among children with disabilities, is therefore a subject that merits research in order to promote more positive play experiences, for all children.

Literature Review

A search for relevant literature was conducted across the following databases: EBSCO, ProQuest and Web of Science, using the following key terms: expansions of ‘child’, mesh terms for ‘play’, toy’, ‘severe’ and ‘disability’. Results were limited to scholarly reviewed articles. The following themes emerged from this review: *Play Deprivators and Playfulness Among Children with Disabilities*, *The Role of Social Support in Play Enablement* and *The Role of Environmental Factors*.

Play Deprivators and Playfulness Among Children with Disabilities:

Children with physical and intellectual disabilities are at increased risk of limitations to participation in everyday activities, including play (Law, et al., 2006; Miller-Kuhaneck, Spitzer, & Miller, 2010; Pierce-Jordan & Lifter, 2005; Rutherford & Rogers, 2003) due to primary and secondary factors, as to be discussed. This may result in what is known as ‘play deprivation’. Play deprivation is defined as the absence of play opportunities, to the detriment of a child’s health and well-being (Brown, 2013). The gravity of this issue can be felt in a study by Kok, Kong, and Bernard-Opitz (2002), whose research demonstrate that children with disabilities who are deprived of typical play opportunities may be viewed as having a second disability. Play deprivation for children with physical disabilities can result directly from the impairment itself- *primary* play deprivation, or from a lack of access to substitute play activities that are analogous in form and function to the more typical play activity - *secondary* play deprivation, (Tam et al., 2007). This deduction implies that scholarly opinion of play deprivation aligns with a medical model perspective, in that the limitations reside primarily with the individual and are less reflective of environmental and societal restrictions.

Decreased playfulness may also be a result of play deprivation. A child’s playfulness, is their tendency to actively seek out play opportunities and engage in play. Though playfulness may be an inherent trait (Harkness, & Bundy, 2001) playfulness may also be an adaptive trait, related not only to individual, but also environmental traits (Pinchover, Shulman, & Bundy, 2016). Bundy (1997) suggested that a child who is more playful has more internal control, is more intrinsically motivated, is freer from some constraints of reality, and is better able to give and receive interactional cues than a child who is less playful (Hamm, 2006; Harkness, & Bundy, 2001; Okimoto, Bundy, & Hanzlik, 2000). In other words, a more playful child is better able to develop coping strategies and self-regulate, skills which may be seen as particularly beneficial to a child with a disability. The benefits of play multiply for the child living with a disability, be it physical or intellectual, as the acquisition of

more sophisticated object play skills may counteract the exacerbating the delays associated with the disability (Childress, 2011). This, therefore, warrants further research to generate more positive play experiences for children who may otherwise be denied these experiences.

The Role of Social Support in Play Enablement:

The re-occurring emphasis on adult participation in play among children with disabilities, was apparent throughout the literature. This may be by default, as spontaneous, independent play may not be possible for children with physical and intellectual disabilities as they may be more dependent on support from parents or other caregivers (Brodin, 2005). However, adult involvement has also been utilised to instigate more positive play experiences (Cook, Howery, Gu, & Meng, 2000; Crawford, Stafford, Phillips, Scott & Tucker, 2014; Frey & Kaiser, 2011; Graham, 2018). Though the evidence is not well established, research suggests that the role of the ‘play facilitator’ is pivotal in enabling playful experiences and subsequently enabling play skill development (Frey & Kaiser, 2011).

The common consensus throughout the literature is that an individualised approach is critical for children with disabilities (Crawford et al., 2014; Malone & Langone, 1999), in that the adult facilitator’s actions should be guided by the specific needs of the child (Reid, DiCarlo, Schepis, Hawkins, & Stricklin, 2003; Schepis, Reid, Ownbey, & Clary, 2003; Townsend, 2007). Often a person who is familiar to the child promotes a more comfortable atmosphere and may facilitate a more positive play experience (Campbell & Sawyer, 2007; Childress, 2011; Keilty & Galvin, 2006; Woods, Kashinath, & Goldstein, 2004).

Yet, the literature also suggest that the play facilitator’s influence often needs to be bridled for optimum child involvement. Because children with physical and or intellectual disabilities have limited capabilities to be autonomous in their play and play choices, these children typically engage in adult-chosen play activities, and the quality of their play may be compromised (Cook et al., 2000). Because children with disabilities may take longer to respond and make less obvious responses, adults take on the role of play director (Cook et al., 2000), again reducing the opportunity for children to exhibit playfulness. The literature emphasises that the most appropriate role for the adult is that of an equal partner in play, where the adult focuses on ‘doing-with’ as opposed to ‘doing-to’. This ‘conversationalist method’ provides more opportunity for discovery, learning and enjoyment by the child (Crawford et al., 2014; Cook et al., 2000; Frey & Kaiser, 2011)

The Role of Environmental Factors:

Environmental or contextual factors, are of pivotal importance in shaping a child's play experience. Though, as discussed previously, the role of social supports majorly influence many environmental strategies, the contextual environment (particularly the play object and the physical play space) in and of itself can influence children's engagement in play (e.g. Crawford et al., 2014), and therefore this theme is deemed separate and distinct. The environment is often regarded as the most amenable of facilitative play strategies, such as environmental arrangement and selection, presentation and adaptation of materials (Crawford et al., 2014; Kok et al., 2002; Kohler, Anthony, Steighner, & Hoyson, 2001; McCabe, Jenkins, Mills, Dale, & Cole, 1999).

Research shows that there is a link between the demands of activity and the inherent abilities of the child (Brodin, 2005), yet these demands may be mediated by the physical environment. Considerations such as arrangement of space into clearly defined places, without the obstruction of furnishings, helps children to focus on the play materials in each area. Accommodations regarding noise-levels, lighting, and general accessibility also promote more positive play experiences, for children of various abilities (Doctoroff, 2001).

The impact of adaptive toys for the enjoyable experience of play, has been identified over a number of research studies. Adaptive toys are play materials that have been modified specifically for children with disabilities (Hsieh, 2008), whether to accommodate the child's physical abilities, or moderate the cognitive demand necessary to interact with a toy. It has been established that children with physical and intellectual disabilities often require and prefer toys adaptive technologies to participate in object play (Cook et al., 2000; Tam et al., 2007). Ultimately, the literature posits, that if they are offered an object that attracts them, in an environment that is conducive to their needs, children may exhibit more playful behaviours, and engage more readily in play.

The following gaps in research were identified from this review. Studies to date regarding this topic have been found to exclusively address children with either a physical or intellectual disability, but rarely both. Though play in general is a topic which commonly receives attention in research, object play, remains relatively unexplored. Within the literature, there are repeated calls for research to identify specific means of increasing toy play among young children with disabilities (Blasco, et al., 1993; DiCarlo, Schepis, & Flynn, 2009; Reid et al., 2003). The concept of play deprivation requires research attention outside that of the medical model to represent a social model perspective. The focus of research regarding play and children with severe disabilities, is often on assessment,

treatment and training, and on learning of different skills. Therefore, there remains a need for research which measures the meaning or ‘success’ of play in terms of the enjoyment it ensues.

Research Question and Aims

The following research question was therefore established: *What are the factors which influence positive object play experience for children who are living with severe physical and intellectual disabilities?*

The following aims for the study were specified:

- To explore the meaning of toy/object play for children living with severe physical and intellectual disabilities, their teachers, and their parents.
- To explore how object play is facilitated within the home, and school environment.
- To investigate as to whether there are certain characteristics of toys that influence the child’s interaction with and enjoyment of play.
- To develop a greater understanding into the enablers/barriers of object play, for children living with severe physical and intellectual disabilities.
- To explore the potential challenges for facilitators of play.

This study is investigative in nature, in that it aims to gain insight into the factors which contribute to a more positive play experience for a population which is commonly described as experiencing play deprivation.

Research Design

Research Methodology

A qualitative research design was employed as it aligned with the aims of this study. Qualitative research enables exploration and description of a concept, phenomenon or process as it happens in its natural setting, and enkindle understanding on a human level (Carpenter & Suto, 2008). The aim of this research was to explore the experience of positive toy/object play, which could not be quantified by numerical data. Therefore, this study was informed by the theoretical approaches of ethnography as a methodology. The intention of ethnography, as stated by Carpenter and Suto (2008, p. 68) is "to develop a rich or thick description that interprets and facilitates a greater understanding of the experiences of people within a cultural group" speaking to disability as a cultural identity (Lawson,

2001). Expression of culture as state by Carpenter and Suto (2008, p. 68) "is embedded in the routine and mundane patterns of daily living and inferred from the words, actions, interactions and emotions of members of the group". Ethnography results in a rich interpretation of a cultural phenomenon that is specific (Carpenter & Suto, 2008) therefore, was the medium in which the research question was satisfied. Therefore ethnography directly aligned with the research question, addressing what are the factors which influence a child's positive experience of toy/object play.

Method

The research question, as well as our guiding theoretical approach of ethnography informed the research methods. Triangulation of methods was employed as the child participants in this study have very limited communication and expression abilities, therefore, three phases were employed 1) semi-structured interviews with parent(s)/guardian(s), 2) focus groups with teachers/SNAs and 3) observations of children. Observations in ethnography are often combined with other methods such as focus groups and interviews, providing rationale for methods used (Carpenter & Suto, 2008).

In ethnography, semi-structured interviews are used to support the data that is obtained through participant observations (Carpenter & Suto, 2008). Focus groups as described by Carpenter and Suto (2008, p. 86) are used to "enable the researcher to solicit explanation or clarification for observed interactions or behaviour" and therefore were deemed essential to substantiating information obtained through observation. Parent(s)/guardian(s) and teacher(s)/SNAs know the children best and spend the most time with them, therefore, granting them unique and detailed insight into the children's experiences of positive toy/object play. Completing participant observation was central to this study as it is the primary method utilised in ethnographic studies (Carpenter & Suto, 2008). In addition, the use of observation as a method of data collection was advocated by our research partner, in the design of this study. Fundamentally, this combination of various methods of data collection, as stated by Denzin and Lincoln (2005, p. 5) shall add "rigor, breadth, complexity, richness and depth to an inquiry".

Participants

Participants included the children, their parent(s)/guardian(s) and their teachers/Special Needs Assistants (SNAs). Inclusion criteria were that children are aged between five and ten years old, are living with severe physical and intellectual disability and are attending a special school. In addition, adults who are parent(s)/guardian(s) of these children were included, as well as their teachers/SNAs.

Exclusion criterion constitutes children outside of the specified age range and who do not have both a severe physical and intellectual disability. Adult participants are excluded if they are not the parent(s)/guardian(s) and teachers/SNAs of the children and if they do not provide informed consent. Participants were aimed to be recruited through a gatekeeper in a local special school, ¹Cope Foundation, for children with disabilities. It was aimed to have five to six child participants that would be recruited utilising purposive sampling. Purposive sampling, as defined by Etikan, Musa, and Alkassim (2016, p. 2) “is the deliberate choice of a participant due to the qualities the participant possesses”.

Ethical Approval

Ethical approval was obtained for this study from the Social Ethics Research Committee in University College Cork (appendix A) and also from Community Academic Research Links in University College Cork and Cope Foundation.

Recruitment

Initially, contact was made with the principal of the special school (refer to appendix B) to inform about the nature of the study. The gatekeeper purposively identified 10 children that would be suitable for the study and their parent(s)/guardian(s) were provided with information letters (appendix C). Six parents returned consent forms and assent forms for their children. One child was excluded from the study as he/she was unwell, leaving five child participants and parent(s)/guardian(s) representing each child. In addition to having five parent(s)/guardian(s), during one semi-structured interview a child’s mother was accompanied by the child’s grandmother and verbal consent was obtained for their participation in the research study, leaving 6 parent(s)/guardian(s). Six teachers/SNAs that are directly working with the children in school were also recruited through providing them with information letters (appendix D). It was ensured that consent was *informed* as the researchers provided contact details to ask any questions regarding the nature of the study prior to signing the parent consent form (appendix E) or teaching staff consent form (appendix F) and detailed their right to withdraw from the study.

¹ As this is a Community Academic Research Project, the Cope Foundation organisation wished to be named for the purpose of the study.

Child Participants	Parent(s)/Guardian(s)	Teachers/SNAs
Qualitative Observations	Semi-structured interviews	Focus Groups
Pippa (age six)	Father	Teacher A
Lily (age eight)	Mother	Teacher B
	Grandmother	SNA A
Conor (age six)	Mother	Teacher C
Emily (age five)	Mother	SNA B
Charlotte (age five)	Mother	SNA C

In total, 17 participants were recruited including five children for qualitative observations, six parent(s)/guardian(s) for semi-structured interviews and six teachers/SNAs for focus group discussion.

Data Generation

Five semi-structured interviews were completed with five parent(s)/guardian(s) and one grandmother of a child participant. A question guide was used by researchers (appendix G) and the interview was audio recorded to ensure accuracy in data collection. Two focus groups were conducted with six teachers/SNAs and a question guide (refer to appendix H) was utilised to maintain the flow of the discussion, without constraint (Kitzinger, 2006) and was audio recorded to ensure accurate data collection also. Some teachers and SNAs brought artefacts to the interview (e.g. toys/objects) which they spoke about in the group discussion. These artefacts were photographed with their permission. Observations of the children participating in object/toy play were conducted within the school environment, facilitated by the onsite occupational therapist and or teachers and SNAs. Video recordings were made of these observations to facilitate transcription and analysis. Note taking was not completed by researchers during observations as it would affect the involvement of the participant during observations (Carpenter & Suto, 2008) however, researchers formulated fields notes post observation. Two parents also provided home videos of their children engaging in toy/object play adding another valuable insight for this study.

Data Analysis

Analysis took the form of thematic analysis which is a method used to identify, analyse and report patterns (themes) within data (Braun & Clarke, 2006). It was stated by Pope, Ziebland, and Mays

(2006, p. 70) that “thematic analysis often includes themes that are anticipated”, through findings of the literature review and also themes that “emerge”.

Firstly, the videoed child observations were watched by researchers and field notes were formulated. They were then transcribed by detailing the events of the video. Finding the key words that detail what is being researched was a "vital step in transcription of video" (Lynch & Stanley, 2017, p. 4) facilitated by the goal and question of the research (Lynch & Stanley, 2017). The Revised Knox Preschool Play Scale, the Test of Playfulness and the Test of Environmental Supportiveness were used to guide analysis². By considering tools which appreciate the multiple contextual factors that influence the experience of play (e.g. social interaction, physical environment, child abilities), it draws a more comprehensive and in-depth analysis of findings (Okimoto et al., 2000; Reid, DiCarlo, Schepis, Hawkins, & Stricklin, 2003).

Three distinct phases for analysis included data reduction, data display and conclusion drawing and verification (Miles and Huberman, 1994). Stage one also included familiarisation with the transcribed data from observations, interviews and focus groups (including field notes), and then categorisation. Initial coding took the form of in-vivo coding, which moved onto pattern coding as can be seen in appendix I, J and K. In phase two, concept maps can be an “integral component of determining overlap and linkages between categories for the next stage of the analytic process” (Carpenter & Suto, 2008, p. 116) as demonstrated in appendix L. Therefore, the emerging categories are clustered to form themes and, as described by Carpenter and Suto (2008, p. 117), this “represents a process of moving to higher levels of abstraction”. In the final phase, overarching themes were developed.

Trustworthiness

Trustworthiness was addressed through selectively employing, adapting and combining strategies including credibility, transferability, dependability and confirmability (Carpenter & Suto, 2008). Credibility was ensured through both method and researcher triangulation as it is "one of the most powerful strategies for strengthening credibility" (Carpenter & Suto, 2008, p. 152). Member checking was utilised as it "reflects some core values of qualitative research related to accurate representation, privileging participant's knowledge and experience" (Carpenter & Suto, 2008, p. 153). Transferability was aimed for by including an in-depth and thick description of findings, with dependability being

² These tools were not used in a formal, standardised manner. They were used to form ideas around analysis of play and environments

ensured by completing an audit trail throughout. Confirmability was addressed through use of reflexivity and criticality of which was supported through use of journal keeping and both method and researcher triangulation and supervision. In line with ethnographies requirements for researchers to immerse themselves in the data, reflexivity was of "paramount importance at every stage of the research process" (Carpenter & Suto, 2008, p. 69).

Ethical Considerations

Ethical factors were considered throughout the research process. In the case of the child participants, whose physical and intellectual disabilities prevent them from giving written consent, assent was sought through behavioural and/or verbal indicators and a protocol was utilised to ensure ongoing consent of child participants during observations (Wiles, Charles, Crow, & Heath, 2004). Informed consent was obtained from parent(s)/guardian(s) and from teachers and SNAs through the information letters provided and through discussion with the researchers. Pseudonyms have been used to protect the anonymity of participants and confidentiality was addressed in focus groups. Data will remain confidential, with all data being stored securely in accordance with the Data Protection Act (2003) and UCC guidelines, with physical and electronic data being stored on a password protected computer or in a locked file which will be kept for 10 years and then permanently destroyed. Welfare and safety of participants was ensured as researchers were garda vetted and were never in contact with the children without supervision from teaching staff, occupational therapists, or parents, all of which know the children well, which also served to minimise potential upset to children while completing observations. Researchers also endeavoured to ensure the physical safety of participants by completing discussions in appropriate, safe and private spaces.

Findings

The following four core themes and relevant sub-themes were identified from the coded data, as demonstrated in table format:

Theme 1: Play as an Occupation, play as an Activity	Theme 2: An Empowered and Empowering Play Partner	Theme 3: The 'Just-Right' Play Object	Theme 4: Considerations for Contextual Participation
Play as an occupation	Play Enabler vs. Reciprocal Playmate (<i>Empowering</i>)	Object Suitability	Safety and usability of environment
Play as an Activity	Understanding and Resourcefulness of Play Partner (<i>Empowered</i>)	'Non-toy' Toys	Opportunities for Onlooker and Spectator play

Theme 1: Play as occupation, play as an activity

Play was noted in the findings as embodying different purposes. This included process-orientated play or play as an occupation, and goal-orientated play or play as an activity. Both were recognised as valued play forms of significant meaning in the children's occupational lives.

Play as an occupation: Process-orientated play was regarded consistently throughout the findings. Play was observed having given precedent to the 'fun' aspect on an occasion within the classroom setting where a teacher played a 'peek-a-boo' game with her pupils. The experience was described in terms of the pleasure and enjoyment it elicited: *"like a big old towel or scarf or cloth and you throw it over them and they have to find their way out... All kids love that kind of stuff"* (Teacher C). Likewise, 'play for play's sake' was given emphasis in accounts of play that occurred within the home: *"If you're building a tower, she nearly finds it funny now to try and knock it down before you've had a chance to build it up properly - because that's funny like!"* (Lily's mother). This form of play can be seen as valued within household culture: *"In general, it's just free play to have some fun"* (Pippa's father). Play occupation was also described as serving a practical purpose within the home environment which provides added meaning to this form of play. An enjoyable play experience may occupy the child for a period of time while the responsible adult attends to other tasks. One parent remarks: *"If we need a half an hour for cooking dinner... she'd empty the whole box [of toys and] play with it for a while"* (Pippa's dad). Teachers also regard play as an occupier as perhaps more prevalent

at home: *"I mean some households are very busy ... maybe it is about keeping somebody occupied for 10 minutes while I sort out the other two kids or whatever"* (SNA C).

Play as an Activity: Play as an activity was demonstrated in observations at school, with both parents and teaching staff utilising play as a medium for skill-development. Play as an activity is the most readily utilised play form within the educational setting, a teacher was observed encouraging Pippa to grasp a brick and place it in a small hole in a box. The purpose for play in this instance becomes apparent as the teacher stated *"the latest thing we are working on is their fine motor skills"* (Teacher A). However, the skill-development aspect is often disguised to make it more appealing: *"We also bring out that stuff that looks like toys, but it could be so that they are grasping or choosing"* (SNA B). Play objects which are seen to not sufficiently challenge and promote skill development are not given equal value. For instance, the use of tablets has been regarded, in some instances as *"a bad thing, because it doesn't encourage them to build up their physical abilities, and you know the screen can only challenge them so much, I think"* (Teacher C). Parent's spoke of the need to integrate object play into therapy: *"Anything sensory, anything that makes a noise, anything that has a funny touch or feel on it - she loves that kind of stuff. They are stimulants for her in terms of physio even"* (Pippa's father).

Moreover, though both process-orientated and goal-oriented may be seen as having distinct primary play purposes, the actual play experience was observed to possess elements of both, in that the object play experience may be both recreational and encourage skill development. Further discussion of 'striking the balance' shall follow in the next section.

Theme 2: An Empowering and Empowered Play Partner

A commonality among the data was the role and influence of a partner. Through observations and accounts it was found that the child participants were customarily accompanied by a play partner in their engagement in object play.

Play Enabler vs. Reciprocal Playmate: Positive play experiences were less associated with equal exchange and negotiating play preferences but more with centrality of the child with the disability or impairment in the play partnership. In one such instance the child enjoyed the action of throwing a ball and the teacher, acting as playmate, complemented and elaborated on the play action by turning it

into a target game. The perceived role of the acting playmate, is fundamentally *"to encourage them."* (Teacher C). Encouragement was presented in many forms, such as dramatic reactions to play: *"You have to be like literally vaulting and handstands - and they absolutely love it."* (SNA A) and the response to mischief and teasing *"He'd drop [his toys] and you'd pick them up and then he'd laugh at you."* (Conor's mother). By adopting the role of play enabler, the child is 'empowered' by being offered a sense of autonomy and independence, which due to its scarcity, has added value for the child with a disability: *"And I think, like the kids we're working with are so vulnerable, like they do need a lot of help, so to give them that tiny little bit of independence, it means a lot to them! So you have give them the opportunities"* (Teacher C).

Understanding and Resourcefulness of Play Partner: It was also identified that certain traits and tendencies 'empowered' the play partner to facilitate more positive play experiences for the child. Such findings were yielded from play observations, where the child's play engagement, social participation and positive affect were observed when the child while engaging with a familiar play partner, and when that play partner demonstrated competency in choosing the appropriate play activity and play delivery. This was also acknowledged by teachers and parents who noted it was advantageous to be both familiar with the child: *"you can kinda read them by watching them after a while."* (Teacher C); and for the child to have established familiarity with the play partner: *"she would always go for the person she's had this charm for the first time"* (Emily's mother). It was found that creative and resourceful repurposing of objects could mediate practical constraints and promote positive play experiences, in spite of contextual barriers: *"I made him stress balls, very soft stress balls, out of balloons"* (Conor's mother); *"Yea like you're going to become hoarders! Everything like, 'Oh, I might be able to use that"* (Teacher C).

An empowering and empowered play partner was found to not only facilitate more positive object play experiences but also elicit more playful responses for the child. Therefore, such characteristics can be seen to be significantly advantageous for overall play participation and enjoyment.

Theme 3: The 'Just-Right' Play Object

A prevailing theme among the findings was the positive influence of the 'just-right' play object, which appropriately challenges and stimulates the child.

Object Suitability: The suitability of a toy or play object was found to be a factor in promoting positive play experiences. In one instance, Lily was observed playing contently with a pink musical jewellery box with a rotating ballerina and a mirror on its lid. The child was provided the opportunity to play with a toy that was both attractive - *"she likes girly things"* (Lily's mother), and stimulating for the child- *"something that spins, something that is not too technical, basic enough"* (Lily's teacher, A). Parents and teaching staff alike spoke of the need to choose simple and not overly complex toys. It was apparent among the findings that the play object must support the sensory preferences and motor capabilities of the particular child, and thus 'ability-appropriate' toys were selected over age-appropriate toys: *"sometimes people will buy age appropriate toys and I'm like, there's no point buying age appropriate toys because he's not able for them"* (Conor's mother) with teaching staff also stating: *"I think a lot of the times in school they try to age appropriate which obviously in the severe and profound doesn't match-up"* (Conor's SNA, B). Other favourable aspects included cause-and-effect toys which promoted instant gratification and an atmosphere of anticipation: *"The Jack-in-the-Box, they would get to know the toy and they would anticipate that it's going to pop up, some get excited, some get a bit scared or cover their ears...balloons are a favourite toy. They love the whole game of blowing the balloon up and then letting the balloon off around the room"* (Lily's teacher, A)

'Non-toy' Toys: The purposing of non-toy objects for play function, was evident among the findings. This occurred both as a result of both creative repurposement - as was observed with a teacher, acting as play partner, using a brush, sponge and other objects to engage in sensory play with Emily- or circumstantial coincidence - *"Like if Pippa is in her wheelchair her favourite toy is actually the door, banging presses [cupboards]"* (Pippa's father). The use of objects being incorporated into play in variable and unconventional ways also included the playmate as a physical play object: *"As soon as she comes up in to my arms she will grab my nose, she will try and squeeze my nose, so that is play. So, we will do small things like blow on her face, pretend to sneeze, do raspberries, all that kind of stuff, she loves it"* (Pippa's father). In such an instance the 'toy' becomes more of a play prop in that the centrality of play is less about the child's interaction with the play object and more about the playmate or environment.

The toy or play object itself was found to play to provide a vehicle for play interaction, something of which has added value for the child with a cognitive or physical impairment who is

otherwise offered fewer opportunities for play. Therefore the ‘just-right’ toy can be seen as central to positive play experiences.

Theme 4: Considerations for Contextual Participation

The safety of the environment as well as its usability were key to ensuring the facilitation of a positive play experience. Opportunities for onlooker play – play that the child is not physically participating in but is engaging in was also considered.

Safety and usability of environment: A supportive physical environment was found to enable positive play object play experiences. Aversion to participation resulted when either the child and or responsible adult perceived the environment as unsafe or unusable. This was observed when a child's reservations to engage in object play in the presence of unfamiliar company which resulted in decreased playful behaviours and subsequently decreased object play. The level supportiveness of the environment was not, however, found to be a constant across all play circumstances. For instance, while specialised seating in the form of activity chairs were observed to compensate for physical impairment and enable table-top play, in other circumstances the chairs may be seen as a barrier to play participation: “*Activity chairs do get in the way of interacting with each other*” (Lily’s teacher, A). The weight and movability of special equipment can serve as a physical barrier. Therefore, the environment and activity must be complementary to each other to enable positive object play experience.

Opportunities for Onlooker and Spectator play: Play for children with severe disabilities was often actuated through watching, be it as an onlooker of others at play, or a spectator of other visual stimuli. Indeed, play for this population is defined by one teacher as: “*a lot of watching and laughing at other things the other children would do.*” (Lily’s teacher, B). One parent noted that particularly for the child with typically developing siblings, this play medium is present in everyday circumstance: “*But if they want to play on their own they will not bring her back. ‘No I want to play on my own.’ I say ‘ok, you just stay here and be watching’. She love that.*” (Charlotte’s mother). This play medium was found to be prevalent among this demographic, as characterised by this account of the role of visual play objects: “*For Conor to use his hands to lift a toy, you know that’s a huge amount of effort for him to do that, but that’s why I think they love the screens more-so than physical side of things cause it’s not as hard for them*” (Conor’s teacher, C). The lessening of physical demands made the play more

accessible in this instance. Opportunities for this valued play medium can be readily traced back to the environment, which may support onlooker and spectator play by default- as was in the case of the child with multiple siblings, as well as by conscious consideration as was observed in turn-taking with a toy in a classroom setting.

Maximising the safety and the usability of the environment leads to object play that is inclusive and enjoyable for the child. Onlooker play is a valued play medium for children with disabilities, facilitated by the play context.

Discussion

The thematic analysis of the research findings illuminated new insights into the child's perspective on object play and elaborates on this topic as an under researched area (Reid, 2009) including the meaning and value of play forms, the influence of an empowering and empowered play partner, the suitability of the object and environmental considerations.

The purpose of this study was to explore positive toy play experiences for children with severe physical and intellectual disabilities, which involves investigating the meaning and role of this form play in these children's occupational lives. Contrary to the belief that play cannot be truly experienced when activities focus on therapy, education or other skill components (Goodley & Runswick-Cole, 2010), the findings of this study suggest that play is irrespective of form or purpose. The findings have demonstrated that play may be both process and or goal orientated. Although play as an occupation more readily align with the definition of play in that it is organic, child-led and improvisational, the findings indicate play as an activity may also classify as 'true play'. Goal-orientated activities may be accepted as play when the *child's* engagement is process-orientated rather than motivated by external reward, the child is provided with an opportunity for autonomy (they are at least partly in control of the direction of play), and the child's play interaction is not bound by practical or reality constraints in that they are engrossed in the activity. An example of this was given for the child who played with blocks which was used as an activity for skill-development. Parents and teachers alike have stressed the priority of skill acquisition and development for their children, however the ultimate ideal of 'striking the balance' was identified, where play is both purposely charged yet appealing, enabling child enjoyment. Allowing the child to lead while the adult guides and scaffolds play was found to be

elemental to achieving play balance, as is advocated in the literature (Lynch & Moore, 2016). The identified play forms of this study warrant appreciation for their respective contributions to health, development, and well-being. Indeed, other studies have shown that play even without a focus, has developmental benefits for all children (Fisher, Hirsh-Pasek, Golinkoff, & Gryfe, 2008; Graham, Truman, & Holgate, 2015). The findings of this study therefore demonstrate play as an occupation and as an activity as distinctive play forms, each of perceived individual and collective value in benefiting children's occupational lives.

The need for an adult to facilitate play for children with disabilities is a common theme within the literature (Buchanon 2009; Graham et al., 2015; Hewitt-Taylor, 2009; Skar, 2002; Spencer-Cavaliere & Watkinson, 2010), however not adequately explored in relation to the child's perspective (Graham et al., 2018). This view differs to that of typically developing children who reported an activity to be more characteristic of play when no adult is present (Howard, 2002; McInnes, Howard, Miles & Crowley, 2009). The findings of this study elaborate on the existing evidence in that analysis demonstrated that a play partner who is both *empowering* and *empowered* promoted positive play experiences for the child with disabilities. By lending autonomy and control to the child and possessing certain favourable characteristics in their play style and delivery, the child's engagement was increased, and enjoyment was elicited. The findings of this study suggest that for children with disabilities positive play experiences are associated with the involvement and contribution of an adult or older child, as opposed to solitary play or peer play, which is supportive of previous research claims (Cook et al., 2000; Crawford, et al., 2014; Frey & Kaiser, 2011). This may be because adults and older children are perhaps more perceptive of and therefore more responsive to the needs and wants of the child than their peers. As of such, they more readily undertake an inter-dependent play interaction and role of enabler over that of reciprocal partner. It was also found that a resourceful and creative play partner had the power to mediate and overcome logistical and physical barriers to participation.

This point also reflects the role of contextual factors - both the play environment and the play object itself. The environment was found to directly influence the child's extent of play participation and parents and teachers noted utilised modified and purposively designed toys and play spaces to enable positive play experiences. Environmental adaption for enabling participation is common within occupational therapy (Campbell, Milbourne & Wilcox, 2008), however the findings of this study note that inclusive design is the ideal rather than adaptation, which is reflective of previous research (Doctoroff, 2011). An appropriate toy or play object was also found to be a central factor in

promoting positive play experiences. Though toys are valued vehicles for play for all children (Levinovitz, 2017), the suitability and appeal of the play object may be considered as particularly significant for children with disabilities, who are often restricted in their abilities and opportunities to autonomously select and operate the play object.

Unconventional or variant play processes involving toys or objects was evident among the findings. This is reflective of the literature in that play for children with disabilities has been found to be qualitatively different to that of their typically developing peers (Graham et al., 2018; Okimoto, et al., 2000). What constitutes as variant or unconventional is subjective (Harkness & Bundy, 2001), however such play process reflect the core component of play which is 'the suspension of reality' and therefore due appreciation must be given. The importance for recognition of variant forms of play, however requires recognition as onlooker play and 'non-toy' play have all been correlated with positive object play experiences, such as in the case of Charlotte and her mother watching her siblings at play. The prevalence of onlooker play for this population is apparent within the findings and provides recognition as a valid play process, for as posited by Polatajko et al. (2007), individuals can be fully engaged and participating within activity despite limited performance. Play is about the process rather than the product of engagement and can include low intensity activities including watching others play (Lynch & Moore, 2016) which is a common form of participation for children with disabilities (Buchanan, 2009; Gcaza & Lorenzo, 2008; Graham et al., 2018; Law et al., 2006; Pollock et al., 1997; Schiariti et al., 2014; Skär & Tamm, 2000). The findings of this study acknowledge onlooker play as both a frequent and valued play process for these children, their parents, and their teachers. As long as the role of onlooker is *assumed* rather than *assigned*, onlooker play may be recognised a valid play form. Likewise, the unconventional purposing of objects into toys was a valued play process, as exhibited in the case of a parent using their physicality as a play object or a teacher repurposing household materials. By premeditatedly or spontaneously integrating 'non-toy' toys into play choice, and acknowledging this as an accepted play process, the child and play partner alike are offered more powers of selection which may promote more playful interactions and positive play experiences.

Adopting a social model perspective, it was imperative for this study to acknowledge the children's level of impairment as inconsequential in the sense that they cannot be viewed as direct influences. Because this study investigated the factors which influence positive play experiences, the children's individual level of physical or cognitive impairment were not acknowledged as true, variable factors. Since disability is a constant in all facets of life for these children and their carers, the

true factors are how the children are received, considered and accommodated in object play experiences.

Implications and recommendations for practice

This research study provides a foundation from which to gain a greater understanding as to the factors of positive toy or object play experience for children living with severe physical and intellectual disabilities. Valuable insights were obtained through completion of this study, and such information may assist families, teachers and therapists with facilitating positive play experiences for this group of children. The study recognises positive play as reflective of subjective enjoyment it ensues for the child, as opposed to skill-development efficacy. This study also promotes a social model perspective, advocating a receptive and accommodative approach as opposed to a remedial approach. Occupational therapists who work with children and their families are encouraged to spend time enhancing play for fun and be aware of the factors that influence positive play experiences, and consistent with the findings in this study, be both an empowered and empowering occupational therapists throughout their practice. Harkness and Bundy (2001, p. 85) encourage occupational therapists to work with those involved with these children to review the time that is being spent “playing freely, alone, with peers or family, and just being a ‘kid’”. Furthermore, intervention to increase the child’s play opportunity should be considered in context, and support may be provided to provide efficient ways to promote toy/object play for children with disabilities (Hamm, 2006).

Limitations of research and ideas for future research

Ethnography aims to provide “an insider perspective on everyday life through the researcher’s engagement with people *over time*” (Sharkey & Larsen, 2005, p. 168). While this study was informed by ethnography, the short duration of the study period for this research project may be seen as a limitation of this study as researchers did not have the time resource to complete a longitudinal study. This study used a small convenience sample of participants which could potentially reduce the transferability of the findings. There are also limitations to consider when utilising videoing as a data collection method. While videoing participant observations is an effective method of generating data, it must be noted that the role of the researcher as a participant observer may be impacted by holding a video camera. (Lynch & Stanley, 2017). Unobtrusive methods of data collection are utilised in

ethnography (Carpenter & Suto, 2008), but the presence of the researcher as the observer, as stated by Pope and Mays (2000, p. 34) may “stimulate modifications in behaviour and action”. Researchers cannot be sure of how video may affect what might have happened otherwise, but research states that “young children appear to be relatively unperturbed” by videoing (Gillen, Cameron, Tapanya, Pinto, Hancock, Young, & Gamannossi, 2007, p. 214).

While this study addressed the need to research toy play among children with disabilities (DiCarlo, Schepis, & Flynn, 2009; Reid et al., 2003) further research is required to substantiate the findings in this research study. There is an identified need to examine the role of the human and non-human environment (Hamm, 2006) and the effect that this has on playfulness (Harkness & Bundy, 2001). Gaps in research implore further study on play for children who have *both* an intellectual and physical disability.

Conclusion

This study has identified the various factors which promote positive object play experiences for children with severe physical and intellectual disabilities. The 'success' of play was defined primarily in terms of the subjective enjoyment it ensues for the child, as opposed to previous research which measure positive play interaction largely in terms of skill-development efficacy. This study has adopted a social model perspective, contrary to that of previous studies regarding the general topic of participation among children with disabilities. Findings of this study represent the objective experience of the child and subjective reports of parents, guardians and teachers.

The themes: Play as an Occupation and an Activity; An Empowered and Empowering Play Partner; The 'Just-Right' Play Object and Considerations for Contextual participation as well as relevant subthemes were identified through data analysis. The congruous interaction between the play form, play object and play context (including environment and social supports) is highlighted clearly within these analytical themes. The alternate play forms as play as an occupation and an activity were each identified as being of individual and collective value in benefiting children's occupational lives. Play for play's sake was advocated by parents and teachers alike, however they also emphasised skill acquisition and development as a fundamental aspect of object play. The ultimate ideal of 'striking the balance' was established, where play is both purposely charged yet uncontrived, simultaneously enabling development and enjoyment. Of paramount importance is a play enabler, but findings from this study reveal that this person must not just simply be present, they are required to be both

empowered and empowering to ensure that positive toy/object play is experienced. Findings revealed that offering opportunities for autonomy and self-directed play led to increased positive object play experiences for children and was an important value held by participants in this study. The suitability of the toy and play space were deemed a critical component to ensuring a positive experience. Toys and play objects that were preferred by children and their teachers and families had simple, cause-and-effect mechanisms with stimulating sensory elements that provided instant gratification. The employing of variant or unconventional play processes was associated with positive play experiences for this demographic. This included the utilisation of non-toys or objects and the practice of onlooker play which could be enhanced by the supportiveness of the physical environment. Fundamentally, the overarching determinant to positive experience was the maximisation of resources and minimisation of contextual constraints.

Although the findings are specific to this study sample, play facilitators may use them to further their understanding of the nature of object play for this demographic and inform future play interactions. By recognising the multiple facets of positive play influence, object play can be better understood and championed as a central to these children's occupational lives.

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UCC

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Dr. Helen Lynch
Dept. Occupational Science & Occupational Therapy
UCC

1st November, 2017

Dear Dr. Lynch

This is to confirm that your research proposal entitled "An exploration into factors which influence positive object play experience for children living with severe physical and profound intellectual experiences (CT-SREC-2017-18)" (co-investigators: A. Butler, D. O'Connor) has been approved by the UCC Social Research Ethics Committee (Clinical Therapies sub-committee).

With best wishes

Prof. Nicole Müller
On behalf of SREC (Clinical Therapies sub-committee)

Appendix B: Letter to the Principal



Department of Occupational
Science and Therapy,
Brookfield Health Science Complex,
University College Cork,
College Road,
Cork City.

LETTER OF INTRODUCTION

Dear Principal,

We are final year occupational therapy students of University College Cork. We are writing to you regarding our upcoming final year research project, 'The Gateway Project', which we are completing in collaboration with the occupational therapist, Norma Foley. It is our hope to conduct this study within Cope Foundation, with the involvement of its staff and pupils, with your permission, from January to May 2018.

Our research project aims to explore the factors which influence positive object/toy play experience for children who are living with severe physical and intellectual disabilities. This study is investigative in nature, in that it aims to gain insight into the factors which contribute to a more positive play experience among a population which is commonly described as experiencing play deprivation. Ultimately, it is hoped that such a study may help gain valuable insight, for therapists, teachers, and families, to enable them as facilitators for positive play experience.

A variety of research methods shall be employed to achieve a richer insight. We aim to conduct a focus group with teachers and SNAs working in the school, semi-structured interviews with parent(s)/guardian(s) of the children and carry out guided observations of the children at play, within their school environment. This 'Gateway Project' will be completed under the supervision of Dr. Helen Lynch of the Occupational Science and Occupational Therapy Department in UCC and has been approved and reviewed by the University College Cork Social Research Ethics Committee. Both researchers have been garda vetted and are approved to carry out this study.

Consent shall be sought from teachers, SNAs, and parent's alike, as well as behavioural assent shall be continuously sought from the children involved throughout the course of our study. The relevant parties shall have the opportunity to withdraw from the study, and their rights as participants shall be made aware to them, and upheld with the utmost integrity.

We consider an opportunity to collaborate with the Cope Foundation a great privilege and would very much appreciate your support in our research endeavour. Please do not hesitate to contact us should you have any outstanding queries or wish to discuss this in more detail.

Thank you and looking forward to your response!

Yours Sincerely,

Deirdre O'Connor and Alison Butler

CONTACT FOR FURTHER INFORMATION:

You are invited to discuss any issues which you may have with research supervisor and researchers.
Contact details are:

Researchers:

Alison Butler –email: 114324516@umail.ucc.ie

Deirdre O'Connor – email: 114451642@umail.ucc.ie

Supervisor:

Dr. Helen Lynch,
Department of Occupational Science and Occupational Therapy,
Brookfield Health Science Complex,
University College Cork,
College Road,
Cork City.
E-mail: h.lynch@ucc.ie

Phone : 021-490-1535

Appendix C: Parent/Guardian Information Letter



Department of Occupational
Science and Therapy,
Brookfield Health Science Complex,
University College Cork,
College Road,
Cork City.

PARENT/GUARDIAN INVITATION TO PARTICIPATE IN A RESEARCH STUDY:

You are invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

RESEARCH STUDY: An exploration into factors which influence positive object play experience for children who are living with severe physical and intellectual disabilities.

WHAT IS THE PURPOSE OF THE STUDY?

This study aims to explore the experience of enjoyment or pleasure, specifically through object play, or play through toys, for children who are living with severe physical and intellectual disabilities. It is hoped that this study may help gain valuable insight, for therapists, teachers, and families, to enable them as facilitators for positive play experience.

WHY HAVE I BEEN INVITED TO PARTICIPATE?

You have been invited to take part in this study, being the parent/guardian of a child attending Cope Foundation. This, therefore, enables you to have a greater insight and understanding into the play experience of your child. We believe that this knowledge and experience is an invaluable resource to successfully carry out this research study.

DO I AND MY CHILD HAVE TO TAKE PART?

It is your choice whether you and your child take part or not, but your agreement to do so would be greatly appreciated.

In the case of the child participants, whose physical and cognitive disabilities prevent them from personally giving written consent, assent shall be continuously sought through behavioural and/or verbal indicators. The protocol to ensure ongoing consent of child participants may include: if the children appear bored, distracted, or unengaged, this may be interpreted as an indication of withdrawing informed consent; if the child appears agitated or upset, researchers may interpret this as a need to either postpone/reschedule the activity, or as an indication of the child withdrawing consent; If the child participants display fear at any stage during the research activity, the activity shall cease at that time.

WHAT WILL HAPPEN IF I TAKE PART?

As a parent/guardian in this study, you will be asked to engage in one interview about your child's object/toy play experiences and behaviours. The interview will be audio-recorded to ensure accurate data collection and to assist us in typing up the interview. The location of this interview will be at your child's school, at a time of your convenience, and will last for approximately 40 minutes to an hour.

It is also intended for the researchers to carry out observations of your child's object/toy play, which under the supervision of onsite occupational therapists, shall take place within the school environment. Video and/or photos will be used to ensure accurate data collection. Participants will be given opportunity to review discussion transcripts, upon completion, and elaborate on subjects as they deem necessary.

WILL THE INTERVIEW BE KEPT CONFIDENTIAL?

All information regarding your personal details is confidential, and any information collected will be kept securely under lock and key, accessible by the researchers and the authorised research supervisor, and stored in UCC for 10 years as per UCC guidelines. Your name and your child's name will be changed and a pseudonym used on any written material in reporting the study. Any data recorded via email or online will be password protected.

CAN I CHANGE MY MIND?

Yes. You can change your mind and withdraw from the research without providing a reason or excuse, up to two weeks post interview/ child observation.

WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY?

The researchers intend to share the results of this study with those involved upon completion. An information meeting shall be organised in summer 2018 to share these findings with both staff and parents who have been involved throughout the course of the study.

In addition, the study will be written up and presented to University College Cork (UCC), Occupational Therapy Department. The results may also be used for educational purposes, at conferences for example, or published in professional journals.

WHO IS ORGANISING THE RESEARCH?

The research study is being organised through the Department of Occupational Therapy, UCC, and conducted by two final year Occupational Therapy students.

WHO HAS REVIEWED THE STUDY?

It has been approved and reviewed by the University College Cork Social Research Ethics Committee. Both researchers have been Garda vetted and are approved to carry out this study.

Thank you.

Yours sincerely,

Deirdre O'Connor and Alison Butler

CONTACT FOR FURTHER INFORMATION:

You are invited to discuss any issues which you may have with research supervisor and researchers.
Contact details are:

Researchers:

Alison Butler; email: 114324516@umail.ucc.ie

Deirdre O'Connor; email: 114451642@umail.ucc.ie

Supervisor - Dr. Helen Lynch

E-mail: h.lynch@ucc.ie

Phone : 021-490-1535

Appendix D: Teaching Staff Information Letter



Department of Occupational
Science and Therapy,
Brookfield Health Science Complex,
University College Cork,
College Road,
Cork City.

STAFF INVITATION TO PARTICIPATE IN A RESEARCH STUDY:

You are invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

RESEARCH STUDY: An exploration into factors which influence positive object play experience for children who are living with severe physical and intellectual disabilities.

WHAT IS THE PURPOSE OF THE STUDY?

This study aims to explore the experience of enjoyment or pleasure, specifically through object play, or play through toys, for children who are living with severe physical, and intellectual disabilities. It is hoped that this study may help gain valuable insight, for therapists, teachers, and families, to enable them as facilitators for positive play experience.

WHY HAVE I BEEN INVITED TO PARTICIPATE?

You have been invited to take part in this study as you work with, and are in close contact with the children in the school. This, therefore, enables you to have a greater insight and understanding into the play experience of these children. We believe that this knowledge and experience is an invaluable resource to successfully carry out this research study.

DO I HAVE TO TAKE PART?

It is your choice whether you take part or not, but your agreement to do so would be greatly appreciated. In the case of the child participants, parental consent shall be obtained before proceeding with any involvement in this study. In addition to this, due to the child's physical and cognitive disabilities which prevent them from personally giving written consent, assent shall be continuously sought through behavioural and/or verbal indicators. The protocol to ensure ongoing consent of child participants may include: if the children appear bored, distracted, or unengaged, this may be interpreted as an indication of withdrawing informed consent; if the child appears agitated or upset, researchers may interpret this as a need to either postpone/reschedule the activity, or as an indication of the child withdrawing consent; If the child participants display fear at any stage during the research activity, the activity shall cease at that time.

WHAT WILL HAPPEN IF I TAKE PART?

As a member of school staff in this study, you will be asked to engage in one focus group discussion with other members of staff, to discuss the play experience of children who are attending Cope Foundation. The focus group discussion will be recorded on an audio tape to ensure accurate data collection and which will allow us to type up the discussion afterwards. If you so choose, you may bring artefacts (e.g. photos, play materials, videos, etc.) which may substantiate your contribution to group discussion. These artefacts may then be photographed and included in our study, with your permission. The focus group will take place at the school, at a time that is convenient for you and fellow staff, and will last for approximately an hour. The focus group will take place in spring 2018.

It is also intended for the researchers to carry out observations of the child's object/toy play (with consent of parent(s)/guardian(s)), which under the supervision of onsite occupational therapists, shall take place within the school environment. Video and/or photos will be used to ensure accurate data collection. Parents will also be invited for interview as part of the project. Participants will be given opportunity to review discussion transcripts, upon completion, and elaborate on subjects as they deem necessary.

CAN I CHANGE MY MIND?

Yes. You can change your mind and withdraw from the research without providing a reason or excuse, up to the date of the focus group. After the focus group, member checking will be in operation - you can read over the typed discussion and amend or remove comments that you have made in the discussion.

WILL THE FOCUS GROUP DISCUSSION BE KEPT CONFIDENTIAL?

All information regarding your personal details is confidential, and any information collected will be kept securely in a locked filing cabinet, which will only be accessed by the researchers and authorized research supervisor. Your name will be changed and a pseudonym used on any written material in reporting the study. Any data recorded via email or online will be password protected.

WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY?

The researchers intend to share the results of this study with those involved upon completion. An information meeting shall be organised in summer 2018 to share these findings with both staff and parents who have been involved throughout the course of the study. In addition, the study will be written up and presented to University College Cork (UCC), Occupational Therapy Department. The results may also be used for educational purposes, at conferences for example, or published in professional journals.

WHO IS ORGANISING THE RESEARCH?

The research study is being organised through the Department of Occupational Therapy, UCC, and conducted by two final year Occupational Therapy students.

WHO HAS REVIEWED THE STUDY?

It has been approved and reviewed by the University College Cork Social Research Ethics Committee. Both researchers have been garda vetted and are approved to carry out this study.

Thank you.

Yours sincerely,

Deirdre O'Connor and Alison Butler

CONTACT FOR FURTHER INFORMATION:

You are invited to discuss any issues which you may have with the research supervisor and researchers whose contact details are found below:

Researchers

Alison Butler– email: 114324516@umail.ucc.ie

Deirdre O'Connor – email: 114451642 @umail.ucc.ie

Supervisor - Dr.Helen Lynch

E-mail: h.lynch@ucc.ie

Phone : 021-490-1535

Appendix E: Parent/Guardian Consent Form



RESEARCH STUDY: An exploration into factors which influence positive object play experience for children who are living with severe physical and intellectual disabilities.

Name of Parent/Guardian: _____

Name of Child: _____

DOB: _____

Phone Number: _____

Email: _____

This is to confirm that I have been fully informed of the research project. I also confirm (please tick the boxes):

1. The researcher has invited my child and I to take part in this research ☐
2. I understand what is in the information letter about the research and I have a copy of same ☐
3. I have had the chance to speak to the researchers and ask questions about the research ☐
4. I know what my part and my child's part will be in the research and how long it will take ☐
5. I know that the interview will be recorded and that my child's play will be observed and videoed and/or photographed ☐
6. I know that the research has been approved the University College Cork Social Research Ethics ☐
7. I understand that personal information will be treated as confidential and that my name, my child's name, our address and personally identifying details will not be used ☐
8. I know that I can withdraw without any consequences from the study up to two weeks post interviews and observation ☐
9. I am aware that the outcomes of this study may be published or used for educational purposes ☐
10. I understand that if I have any questions concerning the research that I can contact the researchers ☐

Optional:

I give permission for any artefacts (e.g. photos, play materials, videos, etc.) which may substantiate my contribution to this research project, to be included in this study ☐

I consent to participate in the study. I give consent for my child to participate in the study.

Signature: _____

Date: _____

CONTACT FOR FURTHER INFORMATION:

You are invited to discuss any issues which you may have with research supervisor and researchers. Contact details are:

Researchers:

Alison Butler –email: 114324516@umail.ucc.ie

Deirdre O'Connor – email: 114451642@umail.ucc.ie

Supervisor: Dr. Helen Lynch

E-mail: h.lynnch@ucc.ie

Phone : 021-490-1535

Appendix F: Teaching Staff Consent Form



RESEARCH STUDY: An exploration into factors which influence positive object play experience for children who are living with severe physical and intellectual disabilities

Name of staff member: _____ **Post:** _____

This is to confirm that I have been fully informed of the research project. I also confirm (please tick the boxes):

1. The researcher has invited me to take part in this research ☐
2. I understand what is in the information letter about the research and have a copy of same ☐
3. I have had the chance to speak with researchers and ask questions about the study ☐
4. I know what my part will be in the study and I know how long it will take ☐
5. I know that I can withdraw without any consequences up to the date of the focus group but if decide to withdraw from the focus group after it has been completed I know that I can read over the typed discussion and amend or remove comments that I have made in the discussion ☐
6. I know that the focus group discussion will be recorded ☐
7. I know that the study has been approved by the University College Cork Social Research Ethics Committee ☐
8. I understand that personal information will be treated as confidential and that my name and personally identifying details will not be used ☐
9. I am aware that the outcomes of this study may be published or used for educational purposes ☐

Optional:

I give permission for any artefacts (e.g. photos, play materials, videos, etc.) which may substantiate my contribution to group discussion, to be included in this research study ☐

I freely and voluntarily consent to take part in this study.

Signature: _____ **Date:** _____

CONTACT FOR FURTHER INFORMATION:

You are invited to discuss any issues which you may have with research supervisor and researchers. Contact details are:

Researchers:

Alison Butler: 114324516@umail.ucc.ie

Deirdre O'Connor: 114451642@umail.ucc.ie

Supervisor - Dr. Helen Lynch

E-mail: h.lynch@ucc.ie

Phone : 021-490-1535

Appendix G: Interview Questions

Semi- structured interviews with parent(s)/Guardian(s)

Parent(s)/guardian(s) will be greeted, welcomed and thanked for attendance. An introduction would be given about the purpose and nature of the research study.

A explanation of the interview will be also given, as well as the role of this discussion in the overall research study.

Parent(s)/guardian(s) would be again made aware of their right to withdraw from the interview/overall study, confidentiality, overview of timespan also would be given.

Q. 1 What do you understand about the concept of ‘play’?

- types of play
- tools for play

Q. 2. Tell me about how your child plays.

- specifically object play

Q. 3. Where does your child play? What are the differences between these environments and do these differences affect the play experience?

Q. 4. Does your child have a favourite toy?/ What are some of your child’s favourite toys?

Q. 5 How do you know if a child is enjoying the object/toy?

Q. 6. Do you look for any specific features/ characteristics in a toy, when choosing an object for play?

What are these characteristics?

Why are these important?

Examples?

Q. 7. Are there barriers to your child’s play experiences?

What are some of the barriers?

- intrinsic
- extrinsic

Q. 8. Tell me about your role in your child’s play experience with objects or toys.

- do you perceive the teacher/SNAs role as any different in facilitating play?

Q. 9. Do you feel there are challenges for you in helping your child play? What are some of the challenges, for you as a facilitator in promoting a positive play experience for your child?

Researchers thank participants for contributions. Reassure confidentiality, and anonymity. If any issues or queries have arisen as a result of this interview discussion, participants are encouraged to approach researchers or research supervisor. Participants will be given opportunity to review interview transcripts, upon completion, and elaborate on subjects as they deem necessary.

Appendix H: Focus Group Questions

Focus Group Questions

All participants greeted and welcomed, thanked for attendance. An introduction would be given about the purpose and nature of the research study.

If it may help establish cohesion within the group, an icebreaker game may be used.

An explanation of focus groups would be also given, as well as the role of this discussion in the overall research study.

Participants would be again made aware of their right to withdraw from the focus group/ overall study, confidentiality, overview of timespan also would be given.

Q. 1 What do you understand about the concept of ‘play’?

-types of play

-tools for play/toys

-importance of object/toy play, for all children? For children with severe disabilities?

Q. 2. How would you compare object/toy play for a child that has severe disabilities and typically developing children?

Q. 3 Where do these children play? Where do they like to play? Where do they play best? What are the differences between these environments? Do these differences affect the play experience?

Q. 4 Are there barriers to these children's' play experiences?

What are some of the barriers?

-intrinsic

-extrinsic

Q. 5 How do you know if a child is enjoying the object/toy?

Q. 6 Do you look for any specific features/ characteristics in a toy, when choosing an object for play?

-What are these characteristics?

-Why are these important?

-Examples?

Q. 7 Tell me about your role in the child's play experience with objects or toys.

-do you perceive the parents role as any different in facilitating play?

Q. 8 Do you feel there are challenges, being a facilitator of play for these children? What are some of the challenges, for you as a facilitator in promoting a positive play experience for these children?

Researchers thank participants for contributions. Reassure confidentiality, and anonymity. If any issues or queries have arisen as a result of this discussion, participants are encouraged to approach researchers or research supervisor. Participants will be given opportunity to review discussion transcripts, upon completion, and elaborate on subjects as they deem necessary.

Appendix I: Semi-structured interview coding

<p>Interview continued:</p> <p>Researcher: ok excellent, and I was thinking there if ye are going out buying a toy how do ye find that experience? Is it hard to find something or?</p> <p>Pippa's father: No it's not hard. We go with specific, like we know what sections to go to so it ends up being the VTEC, Fisherprice and for A then it ends up being the O-3 years old even though she is turning 7 do you know what I mean</p> <p>Researcher: yes I do</p> <p>Pippa's father: maybe it's not 0-3 but maybe 2-3 years so that kind of age bracket. That's kind of what we go for; so all of those VTEC things have buttons, they are bright, colourful. That's where we know where to go.</p> <p>Researcher: OK I understand. Is her play different do you think between home and school?</p> <p>Pippa's father: See at home it's a lot freer you know what I mean, like in school I would imagine that her play is more structured to achieving a result whereas at home, once she's at home she is just playing all the time with something. So what we do we give her a box and we fill the box with books and toys and pictures. She loves looking at pictures too as well, like photographs. She'll take everything out of the box and play with it and drop it and then she will go to the next thing and drop so it's literally just for fun you know. It's either for her fun or for our fun. It keeps her occupied too.</p> <p>Researcher: Ya</p> <p>Pippa's father: Ya, for songs or cartoons, she likes some thing's but it's the super simple songs. She won't keep her attention in front of the television if you. If we need a half an hour for cooking dinner and we throw on songs for her sister or cartoons, A wont. But if A had a box of toys she'd empty the whole box, have the room destroyed and she'll just start picking stuff up, play with it for a while and then move onto the next thing.</p> <p>Researcher: so it's her own choice to pick what she wants</p>	<p>Coding:</p> <p>Specific toys</p> <p>0-3 years even though she is turning 7</p> <p>Toys that are bright and colourful</p> <p>Play at home is freer</p> <p>Play at school for achieving a result</p> <p>Just for fun</p> <p>If parents need half an hour for cooking dinner</p> <p>Play with toys for a while and then move on</p>	<p>Coding:</p> <p>Toy suitability</p> <p>Developmentally appropriate not age appropriate</p> <p>Toy suitability: Physical components of toys – sensory elements</p> <p>Play in home environment versus school environment</p> <p>Home: play occupation</p> <p>School: Play activity (for achieving a result)</p> <p>Play as an occupier</p> <p>Choice of toys/objects</p>
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<p>Pippa's father: Ya at the minute now we are trying choices with her so like we will offer her two toys. So last night now her sister said which one do you want and there was a toy phone and there was a shaker , like a crescent shape with bells on it and she would love the two of them because one when you shake it makes noises but she went for the phone</p>	<p>Trying choices with her</p> <p>She went for the phone versus the bells</p>	<p>Teaching a skills – play activity</p> <p>Choice of toys/ autonomy</p>
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Appendix J: Focus Group Coding

<p>Focus group continued:</p> <p>SNA A: Yea and like these other thing [refers to toy] that other bit it spins as well. They can move it themselves. So it's exactly that. We don't have to do the work for them, but they actually love us to do the work for them!</p> <p>Teacher C: Yea they get more enjoyment out of that then... and it's nearly like turn taking as well, you're getting into that side of things too. She'll spin she knows S is going to... and then it'll be her turn to lift the hand, d'ya know like that kind of thing.</p> <p>Researcher: And do they ever, say with toys like, would they ever be on their own playing or does someone nearly always have to be with them?</p> <p>SNA A: No they wouldn't... well like obviously it's different with those ones [gestures to toys] that they actually use themselves. And they can be actually quite happy to go off and play with them.</p> <p>Teacher C: Yea like we have one it's like a big apple with the letters of the alphabet on it and press a button and it'll make a noise. Like D and GA not so much but sometimes she would sit there happily and independently and play with that. And then another thing we're doing with GA really, and we've turned it into a game is grasping and releasing, so we'll have it like a big bucket, like a bucket of balls and we'll get her to put them into a basket. So we're actually turning it into a game. But like if we were to sit it up, it'd be like 'OK G' She would have to really...</p> <p>Researcher: Yea like you have to help her. Yeah and like that what you were saying, it doesn't always have to be like... a 'toy' to be played with like a toy?</p> <p>SNA A: yea like D in our class he actually doesn't... he'll interact more if he's actually doing something. Like stacking cups or things like that, he'd actually do it better, and he's actually very good at trying to do the jigsaw pieces together. Whereas he wouldn't have a remote interest in something like that.</p> <p>Teacher C: that's the same as S, S would be very like that as well.</p>	<p>Coding:</p> <p>Children can do things themselves but they love teachers to do work for them</p> <p>Also encourages turn-taking</p> <p>Certain toys enable independent play</p> <p>Cause and effect, electronic toys, colour, shape</p> <p>Turned it into a game for grasp and release</p> <p>Constructing, physical over visual</p> <p>less fine motor demand</p>	<p>Coding:</p> <p>Role of play facilitator</p> <p>Use as opportunity for learning: Play Activity</p> <p>Toy/object suitability</p> <p>Toy/Object suitability</p> <p>Play Activity</p> <p>Role of play partner/ Creativity of facilitator</p> <p>Non-traditional sense of the concept of a 'toy'</p>
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Appendix K: Video Transcription

Video Transcription:	Coding:	Coding:
Lily is in her wheelchair in her classroom environment. Lily's teacher places a musical jewellery box on the tray of her wheelchair. Lily stares intently at this object.	Lily in wheelchair. Teacher picks toy	Role of play partner
Lily's teacher winds up the ballerina in the jewellery box and the researcher opens the lid. The ballerina then starts spinning and making music.	Teacher winds up the toy Spins and music	Role of play partner
Lily reacts to this by staring at it, by moving her right arm around and then her right arm onto the jewellery box. Lily does not touch the ballerina that is spinning around.	Lily stares at the jewellery box	Toy suitability
Lily then looks away from the jewellery box and looks at a classmate. She smiles at the classmate who has a green squishy toy in his hand. Lily's attention then goes back to the jewellery box.	Attention on member of class Attention back to jewellery box	
Lily then puts her hand into the jewellery box and it half closes on her hand. The music stops.	Music stops	
While the teacher is attending to another child, the researcher asks if Lily would like to do it again. Lily puts her hand on the box and the researcher winds the toy up.	Researcher winds up the toy	Role of play partner
Lily moves her hand and the lid of the box closes and the music stops. Lily continues to touch the jewellery box and it is opened again.		
Lily looks away from the jewellery box and looks to other children in the classroom.	Looks at other children in the classroom	Watches other children play
The teacher then chooses a jack in the box for Lily to play with. The teacher pulls up a stool to sit in front of Lily. the teacher says "you know whats going to happen don't you" and Lily smiles. The teacher proceeds to wind up the jack in the box. Music comes from the box as it is wound up and the teacher sings. Lily smiles to this.	Teacher chooses jack in the box Sits in front of Lily	Role of play facilitator. Toy suitability.
The teacher says "ready" before the box pops open and Lily smiles. The box then pops open and Lily smiles again.	Lily smiles as the box pops open Hand over hand	Reaction of enjoyment

<p>The teacher takes Lily s hand and they both push the monkey back into the box. The teacher then closes the lid. Lily stares intently at the box while this is happening.</p> <p>The teacher asks Lily if she would like it again. Lily starts moving her hands. The teacher says "yes, because you are trying to wind it up.</p>	<p>Teacher asks Lily if she would like it again</p>	<p>Autonomy/choice</p>
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Appendix L: Concept Maps

