CORA Cork Open Research Archive
Cartlann Taighde Oscailte Chorcaí

Title	Making choices in digital play spaces: children's experiences
Authors	Loudoun, Fiona M.;Boyle, Bryan;Larsson-Lund, Maria
Publication date	2023
Original Citation	Loudoun, F.M., Boyle, B. and Larsson-Lund, M. (2023) 'Making choices in digital play spaces: children's experiences', Scandinavian Journal of Occupational Therapy, 30(8), pp. 1460–1471. doi: 10.1080/11038128.2023.2271050
Type of publication	Article (peer-reviewed)
Link to publisher's version	10.1080/11038128.2023.2271050
Rights	© 2023, The Author(s). Published by informa UK limited, trading as Taylor & Francis Group. This is an open access article distributed under the terms of the creative commons attribution-noncommercial-noderivatives license (http://creativecommons.org/licenses/by-nc-nd/4.0/),which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in anyway. the terms on which this article has been published allow the posting of the accepted Manuscript in a repository by the author(s) or with their consent.ARTICLE HISTORYReceived 25 April 2023Revised 5 October 2023Accepted 11 October2023KEYWORDSChild-centred; family;play; qualitative;technology
Download date	2026-11-07 01:18:52
Item downloaded from	https://hdl.handle.net/10468/16310



University College Cork, Ireland
Coláiste na hOllscoile Corcaigh



Taylor & Francis
Taylor & Francis Group

Scandinavian Journal of Occupational Therapy

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/iocc20

Making choices in digital play spaces: Children's experiences

Fiona M. Loudoun, Bryan Boyle & Maria Larsson-Lund

To cite this article: Fiona M. Loudoun, Bryan Boyle & Maria Larsson-Lund (2023) Making choices in digital play spaces: Children's experiences, Scandinavian Journal of Occupational Therapy, 30:8, 1460-1471, DOI: 10.1080/11038128.2023.2271050

To link to this article: https://doi.org/10.1080/11038128.2023.2271050

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

Published online: 02 Nov 2023.

Submit your article to this journal

Article views: 827

View related articles

View Crossmark data

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=iocc20

SCANDINAVIAN JOURNAL OF OCCUPATIONAL THERAPY
2023, VOL. 30, NO. 8, 1460–1471
https://doi.org/10.1080/11038128.2023.2271050

Taylor & Francis
Taylor & Francis Group

RESEARCH ARTICLE

OPEN ACCESS Check for updates

Making choices in digital play spaces: Children's experiences

Fiona M. Loudoun[a,b], Bryan Boyle[a,b] and Maria Larsson-Lund[b]

[a]Department of Occupational Science and Occupational Therapy, University College Cork, Cork, Ireland; [b]Department of Occupational Therapy, Health, Medicine and Rehabilitation, Luleå University of Technology, Luleå, Sweden

ABSTRACT

Background: Digital spaces are rapidly emerging as a space for children to engage in autotelic play.

Aim: To explore and describe children's experiences of choice-making in their play in digital spaces from the perspective of children themselves.

Methods: Focus groups were conducted with a total of eight children aged six years of age within their school, in a large city in Ireland. A Mosaic Approach with drawing, cutting, and colouring in was used to elicit the children's voices to ensure their active engagement throughout the data collection. Data was analyzed using focus group analysis.

Results: Data analysis revealed three main themes; children enjoy the ability to make choices in their play, that they are often constrained in their ability to make choices, and that they negotiate ways in which they can select options for play in digital spaces.

Conclusions: Findings indicate that children are agentic individuals who are capable of making decisions in their play in digital spaces. This knowledge provides implications for Occupational Therapists to enhance play as an occupation in digital spaces.

ARTICLE HISTORY
Received 25 April 2023
Revised 5 October 2023
Accepted 11 October 2023

KEYWORDS
Child-centred; family; play; qualitative; technology

Introduction

Play is the primary occupation of children [1] with the *right* to play widely acknowledged [2]. Play is known to further children's physical, social, emotional, and psychological well-being, building confidence and self-esteem and allowing children to form friendships and construct attachments to places and people [3]. Play is often characterized as an activity engaged in for its own sake (autotelic) or secondary purposes such as learning, skill development, or rehearsal (instrumental) [4]. Thus, play as a unique children's experience is defined as being initiated, organized, and controlled by the child themselves [1,2,4]. The exceptional way in which play is experienced by children has been illustrated in studies [5,6], in which researchers found variance in children's and adults' perceptions of play with children recognizing an activity as play when they had a choice, autonomy, and less adult involvement. Consequently, a key component in how children experience free play is each child's capability to make free choices with regard to that play.

The terms choice or decision are often used as equivalent to each other with assumptions often made that making a choice or decision being equally available to all [7,8]. Ultimately, making choices are complex; influenced by a child's intrinsic motivation and ownership, often made in response to the perspectives of others and any social discourses, as well as being dependent on the context in which they are participating [7–9]. For children, choice-making is also known to be influenced by the value of participating and whether there is any social approval gained [10]. Children experience choice in play as a result of a transactional and relational process as influenced by the characteristics of the child, the activity, the relationships involved, and the context indicating the situatedness of choice-making [11,12]. Thus, children's ability to express their views and make choices are part of their everyday repertoire of doing and being.

It should be stressed that play is not a single, homogenous experience for children as it manifests in many forms and is often reflective of the context in which it occurs. Descriptions of play are often

CONTACT Fiona M. Loudoun floudoun@ucc.ie Department of Occupational Science and Occupational Therapy, University College Cork, Cork, Ireland; Department of Occupational Therapy, Health, Medicine and Rehabilitation, Luleå University of Technology, Luleå, Sweden
© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (http://creativecommons.org/licenses/by-nc-nd/4.0/), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

informed by our understanding of; 1. The child's developmental capabilities, 2. The context in which the play occurs, 3. The objects implicated in the play. Much of the literature regarding play in this sense is centred around the natural or built environment [13–15]. With such forms of play and in these contexts, we understand the choices made by children in terms of *what* to play, *who* to play with, and *when* to play, with each choice illuminating a new perspective on the meaning children derive from their experiences.

In recent years, digital technologies and connected online spaces have provided children with new places and contexts in which to play. From simple puzzle games to complex strategy and construction games, digital spaces are proffering children a range of play experiences. These digital play spaces are accessed by a range of technologies and digital platforms, allowing children to participate in spaces such as Minecraft or Roblox. Play in digital spaces, as in all contexts, evolves throughout childhood with the motives for play changing as children get older. Younger children commonly engage with tablets and older children prefer consoles and computers [16]. Opportunities for play in digital spaces are now entangled within everyday experiences [17,18] which challenges us to understand more about the nature of children's play experiences including those in a digital space.

Within digital spaces, children have commented that their choices in play in digital spaces can be constrained by the input and influence of adults. Children report such constraints on their free choice as emerging from adult concerns with limits focused on screen time allowance and that the negotiation of rules around devices confused [19,20]. Whereas in more traditional play contexts such as the outdoors or playgrounds, there is an increased recognition of the value of providing children 'free choice' [21], the prevailing narrative suggests that children are not capable of making choices when it comes to technology. In such circumstances the choices of *what* to play, *who* to play with, and *when* to play in digital spaces are significantly less 'free' than when play is situated in other spaces such as playgrounds. A fear or 'moral panic' with technology is often associated with levels of consumption, addiction and violence [22,23]. This results in restrictions on screen time suggesting that as adults we do not trust children to make choices. Thus, an examination of the choices that children make in their play in digital spaces is hampered by decisions about whether or not they should be playing at all. However, as with inquiries that focus on the choices made by children in other play spaces and by recognizing the reciprocal relationship between the child and the technology, we can shift from individualist perspectives where the nature of choice is one of personal agency to recognizing the range of entities that configure the play choice moment [24,25].

Despite the ongoing debate about play in digital spaces, children themselves describe their active engagement with technology and electronic games as play and describe them as playing [4]. Furthermore, a growing body of research has emerged that examines the benefits of children's play in digital spaces, including a focus on understanding young people's motivation for engaging in play in digital spaces and with electronic games [26–28]. Despite a recent influx of research examining the benefits of children's play in digital spaces [29–31], to our knowledge there remains no in-depth examination of children's experiences of choice-making in play in digital spaces. Thus, understanding the choices that children make in their play in digital spaces in everyday life warrants further exploration.

Engagement in play that reflects the child's unique play preferences should be a primary goal of paediatric occupational therapy [1]. In early research relating to digital play, occupational therapy interventions involving computer play were shown to enable children with disabilities to engage in play [32]. In later research, computer play was identified as a meaningful occupation amongst children with sensorimotor disorders, and therefore they were motivated to engage in interventions involving digital play [33]. However, using a prescriptive approach to digital play interventions and eliminating the choices offered to children resulted in decreased motivation over time [34]. Exploration of the child's subjective experiences would undoubtedly enrich implementation of interventions involving digital play.

A greater understanding of the choices children make in the context of play in digital spaces can be utilized by Occupational Therapists to support play in digital spaces as a meaningful and purposeful occupation as well as by other stakeholders, such as, game designers and wider society to enhance wellbeing and alter current discourses. Therefore, the aim of this inquiry is to explore and understand how children experience choice-making within play in digital spaces.

Methods

Study design

A qualitative study using a focus group design was applied [35,36] to generate discussion between participants and to gather their collective thoughts and

experiences. This included a plethora of data collection tools as indicated by the Mosaic Approach [37]. This ensured that the participants were actively engaged and felt listened to and advocated the conceptualization of children as meaning-makers [38,39]. Ethical approval was provided by University College Cork's Social Research and Ethics Committee [Log 2021–110] and the Swedish Ethical Review Board [Log 2021– 03411].

Participants

The study was conducted within a primary school in a large city in Ireland. Inclusion criteria included being in 1st class and thus aged between 6–7 years of age, attending the specific class and school, speaking English, and having returned assent and consent forms. The principal of the school acted as the gatekeeper, distributed information and consent forms to the children and parents of a whole class. The participants and their parents were provided with separate, age-appropriate information sheets and consent/assent forms, providing parents with the necessary information to discuss with their child. A total of eight written informed consent forms from parents and assent forms from girls were returned from a class of around 28 pupils. All participants played games in digital spaces to varying degrees.

Data collection

Preparation for focus groups

To prepare for the data collection an initial dialogue was conducted *via* telephone call with each participant's parent to answer any questions parents may have had with regards to the research and to ensure informed consent was also confirmed verbally. This also served as an opportunity to introduce the research team (FL, MLL, BB), the first author (FL) as the group moderator and to have an initial discussion regarding play at home and specifically their child's play in digital spaces. By gathering information from the parents and taking brief notes from the dialogue, ensured that the initial focus group with the participants was relevant and meaningful to each individual whilst ensuring the main scope of data was generated by the child.

Focus groups

Following this, a total of seven focus groups were conducted between January and March 2022 to gather data. Data was collected in the school context as children were familiar with this environment, however, the discussions focused on children's typical play experiences. The first two focus group sessions were run with 4 participants attending each session, with the third session having no more than 3 participants to provide each child with further opportunity to share their views (Table 1). Only one participant was unable to attend one session. The first author (FL) moderated all focus groups. A reflective journal was used and field notes were taken at the end of each group session which were used for triangulation purposes.

Each focus group began by welcoming the participants to the group and encouraging each child to speak clearly and one and a time [40]. Each participant was reminded that the sessions were audio-recorded and that they were present if they wanted to be and could withdraw at any time. Name badges were created and worn by each participant to assist the group moderator when facilitating the focus group and consequently when transcribing the data. The *first focus group* gathered initial discussions from the children as they drew pictures of their favourite games and characters. This information was used along with the information from their parents to download and print pictures and photographs for *the second focus group*. This ensured that the session was relevant to each participant's interests and engaging for all participants. Activities that were familiar to them, such as drawing, cutting, and sticking down pictures were used to create their collage. This provided the children with a visual representation that aimed to generate and elicit an open discussion between the participants of their experiences of play [39,40]. The discussions and collage-making focused on their whole play repertoire enabling the group moderator to use probing questions to further explore the digital dimensions. The *third focus group* provided each child the opportunity to reflect on their collage and explore some of the factors that influence their selection and choice-making in play in digital spaces [39]. Open-ended and probing questions, such as 'tell me more about that' facilitated a more in-depth

Table 1. Focus groups.

Session	Focus group	Participants (pseudonyms assigned)	Length of focus group
Session 1	Group 1	Rebecca, Caitlin, Ciara, & Hannah	39 min
	Group 2	Brianna, Sinead, Samantha, & Emily	37 min
Session 2	Group 3	Rebecca, Ciara, Hannah, & Sinead	54 min
	Group 4	Emily, Brianna, & Samantha	56 min
Session 3	Group 5	Rebecca, Samantha, & Ciara	43 min
	Group 6	Brianna, Emily, & Hannah	38 min
	Group 7	Sinead & Caitlin	47 min
Mean length of focus group			45 min

discussion ensuring that the focus of the discussion was led by the children [38]. On listening to the recordings, it was challenging to pick up each distinct voice especially when participants were talking simultaneously. Thus, the recordings required to be transcribed verbatim and cross-checked several times. Following this, the transcripts were anonymized, and pseudonyms were assigned to each participant.

Data analysis

Focus group analysis was applied to the data as described by Dahlin-Ivanoff & Hultberg [35] and Krueger & Casey [36]. The first step in the process of analysis began during the focus groups and continued by listening to the audio recordings and reading the transcripts numerous times to provide an overall sense of the collective discussions [35,36]. Further, reflective discussions between the first and second authors were also carried out. The next stage involved reviewing each transcript to identify elements of the whole discussion relevant to the purpose of the inquiry; children's experiences of choice-making in play in digital spaces. This stage was completed for each transcript with the emerging findings synthesized from all focus groups until preliminary themes were established, for instance, the constraints children experience in their play in digital spaces. This enabled the raw data to be organized into themes and sub-themes ensuring that the meaning was adequately reflected and that the analysis remained close to the original data. Throughout the data analysis, the process was dynamic, referring back to the themes, sub-themes, and the purpose of the study. A clear consensus was achieved between all authors by repeatedly checking and discussing the data, themes, and sub-themes to ensure trustworthiness. The use of quotations demonstrating the discussion between the participants and language close to that of the children is utilized throughout the findings as a way to ensure the quality of analysis by keeping close to the data [36].

Findings

The analysis of children's discussions of their experiences of choice-making in their play in digital spaces generated three main themes with sub-themes [see Table 2]. The first theme describes the enjoyment they experience when making choices in their play in digital spaces. The second theme indicates the constraints in choice making that children describe due to restricted possibilities in their play in digital spaces. With the third theme conveys the ways in which children feel they negotiate play experiences of choice making in digital spaces.

Enjoyable play experiences in digital spaces

Children's experiences reflected how they enjoyed the flexibility and variety of choices in their play in digital spaces. The sub-themes demonstrate how children like variation in their play, that their play includes the requirement to manage responsibility and that play offers the right amount of challenge.

Variation in play in digital spaces

Children expressed that they enjoyed variation whilst they played in digital spaces and recognized that if it was all the same then it would get boring. Games such as 'Adopt Me' offered a variety of pets as well as different levels and editions of the game to keep play interesting and varied:

> Ciara: There's only two of the same thing…
>
> Researcher: And then what are the rest?
>
> Ciara: They're all different
>
> Hannah: This one is Adopt Me guy, Adopt Me Pet…
>
> Researcher: Do you think it's good to have things in games that are all different?
>
> Hannah: Because you'd get bored of that one game that's the exact same as all the other games and you'd just get really bored
>
> Researcher: yeah…
>
> Hannah: The reason I like Adopt Me, it's not the same and there are lots of different pets that you can collect and there is a Halloween edition, Christmas edition…
>
> Ciara: yeah.

Table 2. Overview of themes and sub-themes.

Theme	Sub-themes		
Enjoyable play experiences in digital spaces	Variation in play in digital spaces	Managing responsibilities	Creativity and challenge
Constrained possibilities for play in digital spaces	Play in digital spaces being less valued	Boundaries to access play in digital spaces	Play in digital spaces dependent on others
Negotiating play in digital spaces	It's play!	Secrets!	Extending possibilities for play in digital spaces

They preferred the ability to choose themselves, as well as being flexible to play with the things they wanted in that moment or when they were in the mood for certain types of play. Children enjoyed the possibilities of their play which typically included both play in digital and physical spaces. Children indicated that they enjoyed play with physical Barbie dolls as well as playing with the online game, Barbie Dreamland and spoke about how the physical and virtual were combined. Despite, children describing playing with the physical Barbie doll and the Barbie avatar in the digital space, they saw continuity between these two experiences by drawing attention to the objects not the space or platform for the play.

Managing responsibilities

Children discussed the fun they had managing different responsibilities which were proffered by the games they chose to play in digital spaces. Their management of their routines was indicated by what they typically enjoyed playing with and involved favourite animals, resulting in their perceived competence in their play. Children told of earning game money to buy certain things within the game, which also resulted in their perceived competence in their game play. The chores required for looking after animals were expressed as an important responsibility by the children. Despite this, they also expressed frustrations that came with carrying out, what they perceived managing chores, indicating the negotiation that they engage with:

> Researcher: What's the problem, with playing Toka Life?
>
> Brianna: It's because whenever you feed them, they always poo and it's really annoying…
>
> Researcher: Any why's that annoying?
>
> Brianna: Because, even if you feed them something they poo, and it's just really annoying
>
> Sinead: Humans do that
>
> Brianna: Yeah, I know. But you have to clean it up afterwards. And the problem is Toka Life people poo way more than the other ones and its annoying
>
> Emily: Horses can't clean up themselves, so we have to do it.
>
> Brianna: Why can't they clean it up, they're in a video game? They're not actually real.

Children described that they had the skills and understanding that device maintenance was part of their play. This included being able to charge them and download games onto devices. They spoke of developing mastery and their perceived competence in being able to look after the devices.

Creativity and challenge

Children enjoyed the possibility to choose autotelic play in digital spaces with various characteristics, such as creativity and challenge. The levels presented in games afforded the possibility of differentiation in their play which resulted in their sustained engagement. Children expressed that they enjoyed the anticipation of getting new characters, the skills of being able to unlock new parts of the game and earn rewards, such as rare diamonds and coins and timing themselves:

> Researcher: And why do you like that?
>
> Samantha: Because I like timing myself…
>
> Ciara: Oh, I love timing myself
>
> Samantha: I mean, I like timing myself. So, I can give myself a challenge

Children expressed that the affordances of play in digital spaces offered the ability to do things that you might not be able to do in real life, including making your own stories and characters:

> Researcher: Yeah, do you like that one [game] better?
>
> Samantha: Yeah, because on Toka you're able to steal
>
> Researcher: How does that make you feel if you're stealing stuff?
>
> Samantha: It's not really stealing because it's a game
>
> Researcher: So, it's fun?
>
> Ciara: It's fun stealing
>
> Rebecca: And the other person can steal it back…
>
> Samantha: But they don't steal it back. You can make characters and the characters made there already and you can make, like, stories with it. It's like a record button so you can make stories with it. It's really fun.

This negotiation to engage in play in digital spaces, resulted in children participating and creating a range of creative and diverse play experiences, sometimes beyond what was intended by the game. Children also spoke about imaginative play such as role playing and being able to build houses, hotels, or skyscrapers, and

trying to replicate real world elements within the digital. Children discussed doing various things are the same time, such as playing games on the go.

Constrained possibilities for play in digital spaces

Children recurrently expressed how their choices of play in digital spaces were restricted dependent on the constraints presented. This formed three sub-themes reflecting how the children experienced restrictions which included play in digital spaces being less valued, that there were boundaries to access various games and devices, and that this play was often dependent and controlled by others.

Play in digital spaces being less valued

Children spoke of the choices that they intended to make for personal interest, enjoyment or skill level being not necessarily valued by their parents. They recognised that certain games and devices may be valued more by their parents that had been played by themselves when they were children, as well as games that teach you stuff and that got you moving. Certain types of devices, applications, and games were deemed more valuable by parents and caregivers which was often in opposition to what the children's interest was. Children reported times when they were not allowed to play on the iPad but were allowed on the Nintendo or Xbox:

> Researcher: So, what else do you think your mummies and daddies think?
>
> Ciara: I think we're robots
>
> Hannah: I think, they think we're screen robots.
>
> Researcher: what does that mean?
>
> Hannah: that we're addicted to screens….
>
> Caitlin: My daddy hates Adopt me! Because all you do is trade but it's actually really fun but my dad hates it…he says it sounds really boring because he thinks that the Xbox and the Nintendo switch are way better because they actually teach you stuff. On the Xbox you can play driving games, but I always crash into stuff, and I always get police following me.
>
> Researcher: Do you think you always have to learn stuff when you play?
>
> Hannah: no
>
> Ciara: no
>
> Caitlin: And my daddy played the Super Nintendo and the Xbox all…he used to always play that when he was a kid. And we still have the exact same one

The children discussed how play in digital spaces was limited by what to play, for how long, when, and with whom. The restrictions were bounded by the constraints of parents' rules and largely dominated by 'screen time' discussions. They were constrained by rules to play only at the weekend or for a certain time after school. However, they spoke of times that this would change when their older siblings were allowed to play with friends online.

Boundaries to access play in digital spaces

Children indicated that there were boundaries to their choice making in their play in digital spaces which consisted of access to the devices used and to play experiences, elements of the game costing money, and as a result of games being too difficult.

Children expressed that they reliant on using their parents' old devices or had apps on their parents' current device. Some children received their own tablet devices as a birthday or Christmas present, others shared a device with siblings or their parents, whilst others were dependent on visiting family to play on devices. Children expressed that they could only play with certain games and devices with certain people and in certain places. Roblox becomes an example of a game with restrictions, where getting cool pets cost money; limiting children's play and progression within a game. Children also acknowledged and discussed factors such as in-game advertising which influence the flow of play within the game or application and impacted on their choice making within their play in digital spaces:

> Brianna: I've got these cube games. It's really annoying because when I'm in the game, the game is really quick, but when I'm in the middle of playing it the ads come up, and it's really annoying and I have to get them and it takes ages for the ad to be over. You have to keep on watching the ad.
>
> Sinead: You can just fast forward
>
> Brianna: No, you have to wait until it's over and it's really annoying

Despite children enjoying the challenge in play in digital spaces, they also indicated that the devices and games themselves could lead to restrictions in their play in digital spaces. If games were perceived as being too difficult or challenging, children spoke of this being annoying and frustrating and at times this would result in them stopping play.

Play in digital spaces dependent on others

Children expressed that their choices in their play in digital spaces was dependent on being included or

invited to play with others, such as siblings, cousins, and their parents. Children indicated that although they developed knowledge and awareness of certain games from their siblings, their play was often constrained by a dependency on them to play. Non-mobile devices such as Xbox or Nintendo's were often located in their siblings' bedrooms which restricted their use of them freely. Children also indicated that their play in digital spaces needed to adjust to the changing needs and wants of their siblings as they grew older. Children expressed that their younger siblings tended to dominate play or that they enjoyed playing with their siblings in the past when they were asked to but as their siblings got older, their play habits changed and developed:

> Rebecca: we used to play that every time. So, my brother kind of got bored of it because like you do the same thing over, and over again. So, then we started playing like other games like they go on adventures and more. And then and then for some reason, he just stopped.
>
> Researcher: Why do you think he stopped?
>
> Rebecca: I don't know…He is nine, turning ten in April.
>
> Ciara: maybe he's too old for those baby games?
>
> Rebecca: yeah, maybe

Children also indicated that their play was influenced by other events, family commitments and routines, such as visiting family or birthdays. Children also spoke of digital spaces being used as a distraction by their parents, as Samantha recalls being given a tablet when she had a 'thorn in my finger' or Brianna remembers being allowed to play when they're 'in a restaurant and we're waiting for food' with Hannah recalling that 'sometimes, when I'm waiting for my sister to finish something or do something I play Angry Birds on mummy's phone and I really like that game'. Children told of the choices for play in digital spaces being dependent on the time their parents had to download specific games or applications. This also included the time that their parents had to play with their children in digital spaces due to busy work schedules.

Negotiating play in digital spaces

Children spoke of the ways and means in which they negotiated and selected their play experiences in digital spaces to enable further possibilities for play in digital spaces. The sub-themes indicate that children negotiated more play experiences by persuading parents, keeping secrets, and by promoting social opportunities with friends.

It's play!

Children spoke about how they negotiated play experiences within digital spaces. They queried how play was defined, expressing that they themselves were able to recognise a distinction in the way digital devices and technologies were potentially used. Children particularly differentiated between the passivity of watching and the doing of the play with screens and the levels of interactivity afforded by devices:

> Brianna: when you play, you do stuff and you're watching stuff you don't do anything. You kind of have to move your hands and TV you can just sit down.
>
> Emily: When you're playing, you're moving but when you're watching something you just sit there and look
>
> Sinead: and you make the characters do what you want. On TV, people will do what they're meant to do…
>
> Emily: Just Dance is watching and playing because you watch then person then play the game

Irrespective of how it was defined, children were able to recognise their competence in their play and not requiring adult assistance and doing so with independence.

Secrets!

Children spoke about how they negotiated their play in digital spaces to increase their possibilities, often without adult awareness. Children recognised that although at times they weren't 'allowed' their devices, children would sneak them up to their bedroom and put a 'do not disturb' sign up on their bedroom door or turn the volume down so they wouldn't be heard. Children expressed ways such as charging their devices in their bedrooms to prepare for the possibility to play if they wanted. Children also told of the ways in which they were secretive from their parents to hide certain games otherwise they feared it would be deleted:

> Roisin: …I put a do not disturb sign up
>
> Researcher: You've got a do not disturb sign on your door?
>
> Roisin: yeah
>
> Neasa: yeah, do you know what I do if I'm playing a video game in my room and I don't want anyone to know? I turn off the sounds…so they don't hear me playing.

Extending possibilities for play in digital spaces

Despite the restrictions imposed on children with regards to their play with digital devices, children expressed the ways and means in which they negotiated opportunities for play and have fun. Children spoke of the opportunities that were possible from sharing games between friends:

> Roisin: if you get one for Christmas, Santa gives you a game with it even if you don't ask for it…
>
> Neasa: Well, I probably do. I really want the Mario game. I love the Mario game
>
> Roisin: If you want, erm, I could give you a rent of it

Children recognised that play in digital spaces offered the possibilities of being able to play both alone and together. Their experiences reflected on the social dimensions of play in digital spaces as opportunities to engage with friends and siblings. However, children also spoke of wanting to play on their own. When playing with friends, children recognised that they could ask their dad to text their friend's dad to see if he's available to play online. Children also indicated that playing with siblings and friends also improved their skill level.

Discussion

This study aimed to explore and describe children's experiences of their choice making within play in digital spaces. The findings from the inquiry are based on conducting focus groups resulting in a descriptive examination of their own experiences. The findings indicate that children's choice making is influenced by a range of dynamic components. The variation proffered by the technology and digital spaces provide children a space in which they enjoy the flexibility to make choices in their autotelic play experiences. However, making choices in their play was constrained by entities such as being dependent on others to play and access to devices resulting in children negotiating further play experiences.

The findings from the study indicate that children are both competent and capable of sharing their unique perspective of their play in digital spaces and emphasises the significance of listening to children as substantiated by the UNCRC [2]. They actively describe the range of choices available in play in digital spaces as being fun and when they were good at it, enjoying the creativity and challenge afforded by the play. Wider research indicates that children enjoy the freedom to make their own choices such as personalisation and developing their own characters [41,42] indicating that play in digital spaces denotes purpose and meaning for children [43]. However, in a recent study by Livingstone & Pothong [44] children expressed that play in non-digital contexts tended to be more diverse, imaginative and 'offered a greater sense of achievement than play in digital contexts' [p. 491]. This signifies that children seek play opportunities in digital spaces that offer these experiences rather than constraining their play and choice making. Play in digital spaces that offers challenge can result in children's sustained engagement in their play often confused with the discourse of addiction focused on the quantity of time spent on device [45]. This can be explained by the wider research with regards to the concept of 'flow' whereby individuals experience a state of complete engagement with temporary loss of conscious awareness of time and space [46]. Specifically, flow refers to the correspondence between the child's perceived skill, the challenge provided along with the immediate feedback which result in play that is rewarding and engaging [47].

Further, the findings indicate that children are aware of and actively work around parents' perspectives of play in digital spaces which influences their decision making. Children indicated that play in digital spaces for secondary purposes, such as education or being physically active, was preferred and encouraged by their parents. As reflected in their discussions, restricted choices in play in digital spaces was often influenced and concentrated on 'screen time'. Further research indicates that children do not recognise the necessity for play in digital spaces to hold secondary benefits [44]. A recent review of the literature on parents' mediation of media found that parents are influenced by a variety of factors, including their knowledge and experience, the vulnerability of their child, potential risks of online experiences, and how intense the activities are [48]. Generally, adults' perspectives reflect on their own childhood memories to consider the value and meaning of play for their children [49]. However, this fails to consider the continued evolution of gaming, leisure, and technology in our day to day lives. To explore digital spaces and technologies as a place where children engage and participate in play, the language beyond 'screens' and 'screen time' needs to be promoted. Thus, looking beyond the quantity of time spent on devices and rather examining the quality.

From the discussions, children described that their overall play repertoire was not dominated by play in digital spaces and that they recognised the benefits of variation in their play, being inside and outside.

Thus, what was not influencing their choice making in play in digital spaces, is a decision between play being either indoors or outdoors, real or virtual. Children in this study were not constructing a binary decision as is typically presented, rather a much more nuanced choice making process. They recognised variation prevented them from getting bored and provided them with an increase of choice. The fluidity between the digital and non-digital contexts was evident throughout the findings thus rejecting the traditional notions of the dichotomies of play being either online or offline. This is consistent with research by Livingstone and Pothong [44] and Brooker & Siraj-Blatchford [50] that suggest that children do not typically distinguish between them as adults do. However, the choices that are available are hinged on the possibilities that are ideal and possible in a given context [51].

The findings in the study suggest that the choices children make in play in digital spaces, tend to be choices that engage them opposed to choices of children requesting the most up to date application, console, or game. The choices are influenced by mundane and everyday experiences, who is around them, what they have, and what their friends and family have. The choices that children engage in their play in digital spaces are often proximal to them, for example, games and apps that are preloaded on devices such as tablets and smart phones. Thus, their choice making is restricted within parameters set out for them. Practical requirements such as apps being linked to adults' Google or Apple accounts indicate a wider reliance on parents for them to participate in play experiences [52]. Children spoke of their play being shaped by larger play systems such as Lego, Barbie, Roblox and that play was influenced by alternative and broader transmedia frameworks and systems [52]. Findings from this study demonstrated children's ability to negotiate their play experiences in digital spaces within the context of the family unit. Arnott [53] found that the process of negotiating their play in digital spaces was not as a result of children lacking agency or understanding; rather children were conscious of the expectations that were presented to them.

Clinical implications to occupational therapy

For decades, Occupational Therapists, have been leveraging the potential of technology for children with disabilities in educational establishments, at home, and within their communities. The results of this study provides new knowledge and understanding which elevates play in digital spaces as a meaningful and purposeful occupation for *all* children. Thus, providing Occupational Therapists with the understanding of the potential role of digitalisation in children's everyday play. This knowledge can be utilised to support children to organise, direct, and control the choices they have in play in digital spaces [2]. Further, given the exponential growth of occupations in digital spaces, the requirement to integrate and expand theories and frameworks to acknowledge occupations with and through technologies is necessary for occupational therapy and occupational science.

Limitations

The inquiry was conducted within a specific area within a large city in Ireland effecting the potential transferability of the findings to another location. A further limitation of the study was only girls were recruited to the study, whereby a mix of gender would have added a broader understanding of choice making offering a more transferable perspective. Additionally, further information regarding the characteristics of the child's play at home and the family context may have alternative perspectives. However, this study is the first that we are aware of which explores children's experiences of choice making within their play in digital spaces. The choice of using a focus group design provided depth to the data collection. However, further research would be beneficial to examine the breadth of children's choice making in digital spaces. The group moderator was the lead researcher in the study which supported data analysis, however, a reflective diary mediated potential limitations. Despite having extensive experience of working with children on an individual and group basis, the group moderator had limited experience of conducting focus groups which may be seen as a limitation. All researchers involved assumed different roles in the analysis process to increase the trustworthiness. Further research would be beneficial which elevates children's perspectives and experiences of their play in a digital landscape and specifically explore the affordances and meaning of engaging in, with, and through technology.

Conclusion

The findings demonstrate that children are making choices in their play in digital spaces. This knowledge provides an enhanced understanding of play in digital spaces. The findings of this inquiry demonstrate that children experience that the distinction between watching and playing was not consistently recognised

by adults, thus diminishing their unique perspective and ability to make choices [2]. Despite the prevailing narrative of the passivity of children in society and the use of technology, the findings can be used to elevate active choice making for children in their play in digital spaces and position children as agentic individuals within society who are capable of making decisions. However, this creates both a challenge and responsibility for parents and caregivers in navigating children's opportunities for choice making in their play in digital spaces amidst the backdrop of the societal discourses. Thus, emphasising the value of future research being contextualised and from the child's experiences may help shift perspectives [54].

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research was funded by the European Union's Horizon 2020 research and innovation programme under Marie Skłodowska-Curie grant agreement No 861257.

ORCID

Fiona M. Loudoun http://orcid.org/0000-0003-3726-6681
Bryan Boyle http://orcid.org/0000-0002-9630-7415
Maria Larsson-Lund http://orcid.org/0000-0002-0341-6197

Data availability statement

The data that support the findings of this study are available on reasonable request sent to registrator@ltu.se and the last author. The data are not publicly available due to Swedish ethical and legal restrictions under the Swedish Act for Ethical Review of Research on Humans and the Swedish Secrecy Act.

References

[1] Lynch H, Moore A. Play as an occupation in occupational therapy. Br J Occup Ther. 2016;79(9):519–520. doi:10.1177/0308022616664540.
[2] UNCRC. The United Nations Convention on the Rights of the Child. UNICEF. 1989. Available from: https://www.unicef.org.uk/rights-respecting-schools/wp-content/uploads/sites/4/2017/01/UNCRC-in-full.pdf
[3] Gleave J, Cole-Hamilton I. A world without play: A literature review. A literature review on the effects of a lack of play on children's lives. [Internet]. Play England. 2012. Available from: http://www.playengland.org.uk/media/371031/a-world-without-play-literature-review-2012.pdf.
[4] Loudoun F. M. Play, children, & being digital: exploring children's autotelic play in digital spaces. Extended Abstracts of the 2021 Annual Symposium on Computer-Human Interaction in Play (p. 409–410). 2021.
[5] International Play Association Scotland. Children's right to play: a booklet for a richer understanding of children's right to play. 2016.
[6] Theobald M, Danby S, Einarsdóttir J, et al. Children's perspectives of play and learning for educational practice. Educ Sci. 2015;5(4):345–362. doi:10.3390/educsci5040345.
[7] Galvaan R. The contextually situated nature of occupational choice: marginalised young adolescents' experiences in South Africa. J Occup Sci. 2015;22(1):39–53. doi:10.1080/14427591.2014.912124.
[8] Parnell T, Whiteford G, Wilding C. Differentiating occupational decision-making and occupational choice. J Occup Sci. 2019; 26(3):442–448. doi:10.1080/14427591.2019.1611472.
[9] Galvaan R. Occupational choice: the significance of socio-economic and political factors. In Whiteford GE, Hocking C, Editors. Occupational Science: Society, Inclusion, Participation. Oxford, UK: Wiley-Blackwell; 2012.
[10] Pyle A, Alaca B. Kindergarten children's perspectives on play and learning. Early Child Dev Care. 2018;188(8):1063–1075. doi:10.1080/03004430.2016.1245190.
[11] King P, Howard J. Children's perceptions of choice in relation to their play at home, in the school playground and at the out-of-school club. Child Soc. 2014;28(2):116–127. doi:10.1111/j.1099-0860.2012.00455.x.
[12] Miller E, Kuhaneck H. Children's perceptions of play experiences and play preferences: a qualitative study. Am J Occup Ther. 2008;62(4):407–415. doi:10.5014/ajot.62.4.407.
[13] Brussoni M, Gibbons R, Gray C, et al. What is the relationship between risky outdoor play and health in children? A systematic review. Int J Environ Res Public Health. 2015;12(6):6423–6454. doi:10.3390/ijerph120606423.
[14] Moore A, Lynch H. Accessibility and usability of playground environments for children under 12: a scoping review. Scand J Occup Ther. 2015;22(5):331–344. doi:10.3109/11038128.2015.1049549.
[15] Ridgers ND, Knowles ZR, Sayers J. Encouraging play in the natural environment: a child-focused case study of Forest school. Child Geogr. 2012;10(1):49–65. doi:10.1080/14733285.2011.638176.
[16] Lundtofte T. Young children's tablet computer play. Am J Play. 2020;12(2):216–232.
[17] Crowe N, Bradford S. 'Hanging out in runescape': identity, work and leisure in the virtual playground. Child Geogr. 2006;4(3):331–346. doi:10.1080/14733280601005740.
[18] Potter J, Cowan K. Playground as meaning-making space: multimodal making and re-making of meaning

in the (virtual) playground. Glob Stud Child. 2020; 10(3):248–263. doi:10.1177/2043610620941527.
[19] Balmford W, Davies H. Mobile minecraft: negotiated space and perceptions of play in Australian families. Mob Media Commun. 2020;8(1):3–21. doi:10.1177/2050157918819614.
[20] Willett R. Online gaming practices of preteens: independent entertainment time and transmedia game play. Child Soc. 2016;30(6):467–477. doi:10.1111/chso.12155.
[21] Cetken-Aktas S, Sevimli-Celik S. Play preferences of preschoolers according to the design of outdoor play areas. Early Childhood Educ J. 2023;51(5):955–970. Available from doi:10.1007/s10643-022-01358-7.
[22] Palmer S. Toxic childhood: how the modern world is damaging our children and what we can do about it. 2nd ed. London: Orion Books Ltd; 2015.
[23] Vander Bilt J, Franklin J. Gambling in a familial context. In Shaffer HJ, Hall MN, Vander Bilt J, George E. Reno, Editors. Futures at stake: youth, gambling, and society. Western psychiatric institute and clinic. Pittsburgh (PA): University of Nevada Press; 2003. p. 100–125. Available from: https://www.scopus.com/inward/record.uri?eid=2-s2.0-60349129147&partnerID=40&md5=d167fa2b3dd68cbd6c5b32ac07596dbd
[24] Marsh J. The internet of toys: a posthuman and multimodal analysis of connected play. Teach Coll Rec. 2017;119(12):1–32. doi:10.1177/016146811711901206.
[25] Zhang K, Kemme B. Transaction models for massively multiplayer online games. Proc IEEE Symp Reliab Distrib Syst (p. 31–40). 2011.
[26] Hamlen KR, Gage HE. Negotiating students' conceptions of 'cheating' in video games and in school. Int J Gaming Comput Simulations. 2011;3(2):44–56. doi:10.4018/jgcms.2011040103.
[27] Kutner LA, Olson CK, Warner DE, et al. Parents' and sons' perspectives on video game play: a qualitative study. J Adolesc Res. 2008;23(1):76–96. doi:10.1177/0743558407310721.
[28] Olson CK. Children's motivations for video game play in the context of normal development. Rev Gen Psychol. 2010;14(2):180–187. doi:10.1037/a0018984.
[29] Granic I, Lobel A, Engels RCME. The benefits of playing video games. Am Psychol. 2014;69(1):66–78. doi:10.1037/a0034857.
[30] Sauce B, Liebherr M, Judd N, et al. The impact of digital media on children's intelligence while controlling for genetic differences in cognition and socioeconomic background. Sci Rep. 2022;12(1):7720. doi:10.1038/s41598-022-11341-2.
[31] Scholes L, Mills KA, Wallace E. Boys' gaming identities and opportunities for learning. Learn Media Technol. 2022;47(2):163–178. doi:10.1080/17439884.2021.1936017.
[32] Isabelle S, Bessey SF, Dragas KL, et al. Assistive technology for children with disabilities. Occup Ther Health Care. 2003;16(4):29–51. doi:10.1080/J003v16n04_03.
[33] Sandlund M, McDonough S, Häger-Ross C. Interactive computer play in rehabilitation of children with sensorimotor disorders: a systematic review. Dev Med Child Neurol. 2009;51(3):173–179. doi:10.1111/j.1469-8749.2008.03184.x.
[34] James S, Ziviani J, King G, et al. Understanding engagement in home-based interactive computer play: perspectives of children with unilateral cerebral palsy and their caregivers. Phys Occup Ther Pediatr. 2016;36(4):343–358. doi:10.3109/01942638.2015.1076560.
[35] Dahlin Ivanoff S, Hultberg J. Understanding the multiple realities of everyday life: basic assumptions in focus-group methodology. Scand J Occup Ther. 2006; Jun13(2):125–132. doi:10.1080/11038120600691082.
[36] Krueger R, Casey MA. Focus groups: a practical guide for applied research. 5th ed. Thousand Oaks, CA : SAGE Publications Ltd; 2015.
[37] Clark A. Listening to young children: a guide to understanding and using the mosaic approach. 3rd ed. London: Jessica Kingsley Publishers; 2017.
[38] Curtin C. Eliciting children's voices in qualitative research. Am J Occup Ther. 2001;55(3):295–302. doi:10.5014/ajot.55.3.295.
[39] Kilia M, Zacharos K, Ravanis K. Four- to six-year-old children using photographs as sources of information about space. Eur Early Child Educ Res J. 2015;23(2):164–182. doi:10.1080/1350293X.2015.1016803.
[40] McCloy L, White S, Bunting KL, et al. Photo-elicitation interviewing to capture children's perspectives on family routines. J Occup Sci. 2016;23(1):82–95. doi:10.1080/14427591.2014.986666.
[41] Iqbal A, Kankaanranta M, Neittaanmäki P. Participation of the young ones in virtual worlds: a look at experiences and motivations. World J Educ Technol. 2011;3(1):16–27. Available from: https://ucc.idm.oclc.org/login?URL=http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2012-24263-002&site=ehost-live
[42] Sarachan J. Exploring the online playground: understanding motivation in children's virtual worlds. J Gaming Virtual Worlds. 2013;5(3):251–269. doi:10.1386/jgvw.5.3.251_1.
[43] Fisher AG, Marterella A. Powerful practice: a model for authentic occupational therapy. Fort Collins: Center for Innovative OT Solutions, Inc; 2019.
[44] Livingstone S, Pothong K. Imaginative play in digital environments: designing social and creative opportunities for identity formation. Inf Commun Soc. 2022; 25(4):485–501. doi:10.1080/1369118X.2022.2046128.
[45] Carter M, Moore K, Mavoa J, et al. Children's perspectives and attitudes towards fortnite 'addiction. Media Int Aust. 2020;176(1):138–151. Available from: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85085936260&doi=10.1177/1329878X20921568&partnerID=40&md5=f8a8a52210abd17742497026fc9736e5
[46] Csikszentmihalyi M. Flow: the classic work on how to achieve happiness. 2nd ed. London: Rider Books; 2002.
[47] Rebeiro KL, Polgar JM. Enabling occupational performance: optimal experiences in therapy. Can J Occup Ther. 1999;66(1):14–22. doi:10.1177/000841749906600102.

[48] Nichols S, Selim N. Digitally mediated parenting: a review of the literature. Societies. 2022;12(2):60. doi:10.3390/soc12020060.
[49] Simone MG. Already connected digital early childhood between digital media and the net. IJE. 2020; 12(3):1. doi:10.5296/ije.v12i3.17504.
[50] Brooker L, Siraj-Blatchford J. 'Click on miaow!': how children of three and four years experience the nursery computer. Contemp Issues Early Childhood. 2002; 3(2):251–273. doi:10.2304/ciec.2002.3.2.7.
[51] Rudman DL. Occupational terminology. J Occup Sci. 2010;17(1):55–59. doi:10.1080/14427591.2010.9686673.
[52] Willett R. 'Friending someone means just adding them to your friends list, not much else': childrens casual practices in virtual world games. Convergence. 2017;23(3):325–340. doi:10.1177/1354856515599513.
[53] Arnott L. An ecological exploration of young children's digital play: framing children's social experiences with technologies in early childhood. Early Years. 2016;36(3): 271–288. doi:10.1080/09575146.2016.1181049.
[54] Loudoun FM, Boyle B, Larsson-Lund M. Children's experiences of play in digital spaces: a scoping review. Potenza MN, editor. PLoS One. 2022; 17(8):e0272630. doi:10.1371/journal.pone.0272630.