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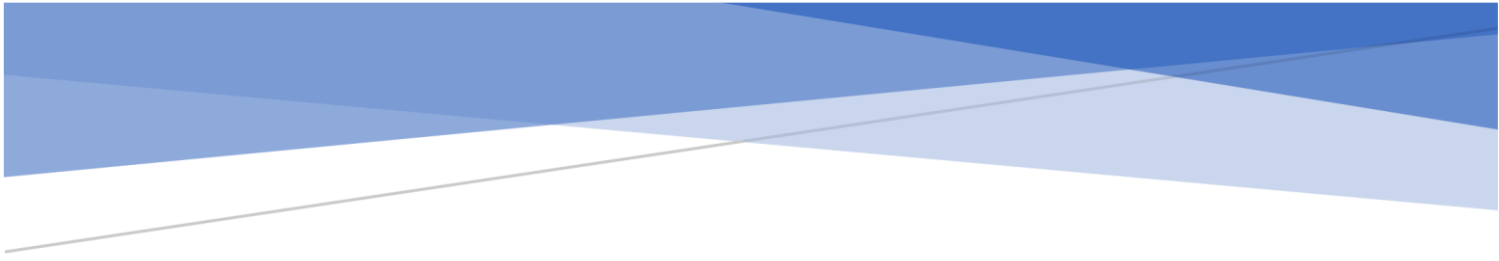
PhD Thesis

Children, adults, and online sociodramatic play in the family home

Caughey, Jane

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**CHILDREN, ADULTS, AND
ONLINE SOCIODRAMATIC PLAY
IN THE FAMILY HOME**

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Doctor of Philosophy

Institute for Learning Sciences and Teacher Education

Faculty of Education and Arts

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STATEMENT OF AUTHORSHIP AND SOURCES

This thesis contains no material that has been extracted in whole or in part from a thesis that I have submitted towards the award of any other degree or diploma in any other tertiary institution.

No other person's work has been used without due acknowledgement in the main text of the thesis.

All research procedures reported in the thesis received the approval of the relevant Ethics/Safety Committees (where required).

Signed: *Jane Caughey*

Date: 14/10/2024

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PUBLICATIONS PRODUCED DURING CANDIDATURE

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Stavholm, E., Mackley, H., Caughey, J., Heard, A., & Edwards, S. (2024). Co-design with children, families, and educators for understanding children’s digital life-worlds for play and learning. *CoDesign*. Advance online publication. <https://doi.org/10.1080/15710882.2024.2427011>

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KEYWORDS

online play, children, parents, grandparents, screen time, online safety

ABSTRACT

This thesis addresses the contemporary dilemma that children and adults have different lived experiences and perspectives of online play. Specifically, it identifies notable points of commonality and tension occurring between 8- to 12-year-old children and their caregivers (e.g., parents, grandparents) in relation to online sociodramatic play within the blended ecology of family homes in a digitised society. Online sociodramatic play sees children creating and enacting imaginary play situations with each other in a virtual world environment via video chat whilst they are physically located in their separate homes (Caughey et al., 2024). Research indicates that online sociodramatic play provides opportunities for the current generation of children to reap a range of cognitive benefits such as development of imagination and memory (Caughey, 2021).

Identifying the complex nature of the commonalities and tensions under investigation was achieved by conceptualising online sociodramatic play as “institution” using Hedegaard’s (2009) model of child learning and development through participation in institutionalised practice. The upper tier of Hedegaard’s (2009) cultural-historical model was informed by Vygotsky’s (1930/1978) concept of mediation and practice theory (Kemmis et al., 2014; Schatzki, 2012) to gain insight into the specific types of caregiver practices guiding 8- to 12-year-old children’s participation in online sociodramatic play in the family home and cultural artifacts mediating these practices. The lower tier of Hedegaard’s (2009) model was informed by Vygotsky’s (1933–1934/1998a) periodisation of child development, with a particular focus on the crises of age theory, to better understand children’s motives for engaging in online sociodramatic play and their perspectives of caregiver practices guiding participation in such play in the family home.

Philosophically underpinned by the qualitative research tradition of hermeneutic phenomenology and guided by a co-design research approach, this investigation employed a case study design to identify commonalities and tensions constituting the institution of online sociodramatic play. The study was conducted with 8- to 12-year-old children who regularly engage

in online sociodramatic play, and their caregivers, from four different families. These families participated in a range of creative, collaborative data gathering activities that were specifically designed to gain insight into their lived experiences, understandings, and perspectives of online sociodramatic play.

Findings indicated five predominant caregiver practices (e.g., scheduling online play, allocating household spaces for online play) guiding 8- to 12-year-old children's participation in online sociodramatic play in the blended ecology of the family home. Such practices were described as being simultaneously mediated by long-established cultural artifacts (e.g., child-centred philosophies, family norms) and recently established cultural artifacts (e.g., parenting websites advising screen time limits, digital learning policies in schools). Children in the 8- to 12-year-old age group were found to be highly cognitively and socially motivated to engage in online sociodramatic play. They also agreed with some mediated caregiver practices whilst strongly disagreeing with others.

Jointly, these findings informed the identification of six notable points of commonality, such as using timed reminders to end online play, and six notable points of tension, such as limiting or disallowing time for online play after school, occurring between 8- to 12-year-old children and their caregivers to constitute the institution of online sociodramatic play. The six tensions suggested that some mediated practices in the home potentially restrict the cognitive developmental needs of 8- to 12-year-old children and the social developmental needs of 10- to 12-year-old children in relation to online sociodramatic play. In response to these findings, two theoretically based propositions were developed to guide the creation of new cultural artifacts that could better inform the current (and future) generation of caregivers about supporting the unique developmental needs of 8- to 12-year-old children who enjoy engaging in online sociodramatic play.

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LIST OF ABBREVIATIONS

ABC	Australian Broadcasting Corporation
ACU	Australian Catholic University
ACU HREC	Australian Catholic University Human Research Ethics Committee
BYOD	Bring Your Own Device
CAF	Children’s Advisory Forum
COVID-19	Coronavirus Disease
CRAG	Children’s Research Advisory Group
CRC	Convention on the Rights of the Child
DEEWR	Department of Education, Employment and Workplace Relations
ESRB	Entertainment Software Rating Board
MKC	MineTime Kids’ Club
MMS	Multimedia Messaging Service
NHMRC	National Health and Medical Research Council
NP	Neopoints
PEGI	Pan European Game Information
RAT	Rapid Antigen Test
TV	Television
UNCRC	United Nations Convention on the Rights of the Child
UNICEF	United Nations International Children’s Emergency Fund
USA	United States of America

Chapter 1: Introduction

This chapter begins by describing the problem being addressed in this research and the contemporary context in which it is situated. Following this, the aim of this investigation and the main research question (and associated sub-questions) are identified. The scope of the research is established, and the significance of new knowledge revealed in this study is considered. The chapter concludes with an overview of the structure of the thesis.

1.1 Context of the study

Digitally networked devices (e.g., smartphones, touchscreen tablets, laptops) and fast, wireless internet connectivity have become standard features of many family homes located in the Global North (Heaselgrave, 2023; Roth et al., 2024). Global North is a normative term used to describe regions of the world characterised by advanced economic development (e.g., Australia, Singapore, United Kingdom, United States of America) compared to Global South regions where localised economies are in the process of being industrialised (Braff & Nelson, 2022).

Most children growing up in the Global North are citizens of privileged societies where a broad range of integrated, digitised technologies (e.g., networked devices, internet, online games, video chat software platforms, informational websites) are made accessible for purposeful human activities (e.g., play, learning) in everyday cultural settings, such as homes and schools (Stephen & Edwards, 2017). In the Global South, however, such technologies are less common and/or more difficult to access meaning children growing up in these societies face different risks and opportunities within digital contexts compared to children living in the Global North (Livingstone & Bulger, 2014; Nawaila et al., 2018). It is important to note, therefore, that the research reported in this thesis was conducted in Australia – a highly digitised society classified as a region of the world firmly situated in the Global North (Braff & Nelson, 2022).

In past years, networked devices (e.g., desktop computers, smartphones) located in family homes within highly digitised societies were often shared among family members (Clark, 2011; Enevold, 2014; Willett, 2017) or personally owned by teenagers compared to younger children

(Office of Communications [Ofcom], 2024; Rhodes, 2017). Recent research has found, however, that increasing numbers of 8- to 12-year-old children growing up in these societies own at least one networked device and use it regularly for a range of recreational activities (e.g., see Graham & Sahlberg, 2021; Ofcom, 2023; Rideout et al., 2022; Roth et al., 2024). In Australia, this increase may be due, in part, to many primary schools implementing Bring Your Own Device (BYOD) programs which see children bringing personally owned networked devices (e.g., touchscreen tablets, laptops) to educational settings (Zagami, 2022).

Several studies indicate that a popular recreational activity for many children in the 8- to 12-year-old age group is online play (eSafety Commissioner, 2024a; Ofcom, 2024; United Nations International Children's Emergency Fund [UNICEF], 2019). Online play sees children in different geographical locations interacting with each other in the same multiplayer virtual world environment (e.g., Minecraft, Roblox, Fortnite) via embodiment as avatars whilst synchronously using voice chat facilities (e.g., those embedded in the game design) or separate video chat software platforms (e.g., FaceTime, Messenger Kids, Skype) to verbally discuss their shared in-world activities. For clarity, avatars are customisable, animated images representing players within a multiplayer virtual world (Marsh, 2011).

Usually, online play occurs when children and their friends are geographically separated. In this research, friends refer to real-life peers (e.g., classmates) with whom a child has developed a close personal relationship based on shared interests, mutual companionship, and/or emotional support (McAuley et al., 2012). It is unsurprising, therefore, that children's participation in online play increased significantly during recent Coronavirus Disease (COVID-19) pandemic lockdowns when they could not play together in co-located spaces (eSafety Commissioner, 2022a; Rideout & Robb, 2021).

The COVID-19 pandemic emerged in late 2019 and by early 2020, governments across the world were enforcing strict (often repeated) lockdowns that resulted in millions of children being isolated in their homes for significant periods of time (Oflu et al., 2021). In response to this rare

historical event, children living in highly digitised, privileged societies located in the Global North were actively encouraged to use networked devices for educational activities such as virtual schooling (Koller et al., 2023; Squire, 2022) and recreational activities such as online play (Cleave & Geijsman, 2020; Cowan et al., 2021; Navarro, 2021).

Despite most lockdowns being lifted by the end of 2021, many 8- to 12-year-old children continue to engage in online play with friends (eSafety Commissioner, 2024a; Ofcom, 2024). This widespread phenomenon has helped form new blended ecologies, comprising digital and non-digital activities in which children and their caregivers participate, within many family homes located in digitised societies (Albarello et al., 2021). In this study, caregivers refer to adults (e.g., parents, grandparents) in the family home who assume legal and moral responsibility for supporting the developmental needs of children (Frey & Ferguson, 2021).

Contemporary blended ecologies see children's online play with friends situated in relationship to caregivers' responsibilities for guiding children's participation in such play. These ecologies have evolved over time based on three generations of thinking about children's use of digital technologies (Edwards, 2023). The first generation of thinking emerged in the 1980s and saw adults questioning whether technologies (e.g., desktop computers) might support child development (e.g., by fostering children's problem-solving skills via coding activities) or hinder child development (e.g., by distracting children's attention away from hands-on learning activities).

First generational thinking reflects technological determinism, a philosophical standpoint suggesting that technologies drive social change instead of the motives of people evoking such change. For example, technological determinist thinking implies that children's increased participation in online play has been driven by the widespread availability of multiplayer virtual worlds (e.g., Minecraft, Roblox, Fortnite) rather than children's heightened interest in such play.

The second generation of thinking was prompted by children's widespread uptake of touchscreen devices after 2010 when the first Apple iPad was released. This mode of thinking predominantly focused on the notion of digital play as a "construct for describing and explaining

young children's interactions with technologies" (Edwards, 2023, p. 782) that were significantly easier to use compared to unwieldy mouse/keyboard configurations. Digital play thus became commonplace in many homes during the 2010s as children increasingly participated in new social activities such as using iPads to play Minecraft online with friends (Dezuanni et al., 2015; Trček, 2014). These types of activities prompted a "digital turn" (Mills, 2010, p. 246) in the way technologies were viewed by adults, particularly in relation to how touchscreen devices might support development of "new" literacy skills, such as digitally mediated collaborations, discourses, and interactions (Flewitt et al., 2015).

The notion of "postdigital" encapsulates the third (and current) generation of thinking (Edwards, 2023, p. 783). Third generational thinking views physical and digital aspects of everyday human activities as integrated because both are jointly evident in children's play and learning (Knox, 2019; Marsh, 2019). For example, children might use construction blocks (physical) to recreate Minecraft in-world environments (digital) (Caughey et al., 2024). First generational thinking (e.g., technological determinism) is thus redundant in the postdigital because technologies are recognised as being seamlessly integrated into everyday social activities, including play. Postdigital thinking informs the basis of the new blended ecology that currently exists in family homes located in highly digitised societies.

In relation to online play, this blended ecology is comprised of a social network that includes children's verbal exchanges and in-world interactions with each other, caregiver practices guiding children's participation in such play, and digital technologies used to play online games (e.g., internet, networked devices, multiplayer virtual worlds, video chat software platforms). Exploring this new blended ecology is important because postdigital thinking implies that previous generations of thinking are unlikely to consider the unique developmental needs of children currently being raised in highly digitised societies situated in the Global North.

1.2 Research problem

Children's online play in the family home occurs in a blended ecology that places them in relationship with their friends and their caregivers. However, as digitised societies have evolved over time, the affordance for this type of play has also grown or evolved with 8- to 12-year-old children over time. Affordances represent unique features of a particular environment that are perceived by people as supporting their ability to achieve meaningful, goal-directed activities (Gibson, 2014), such as play.

The evolution of digital affordances within family homes over time means there are qualitative differences in children's experiences and understandings of online play and that of their caregivers. Many caregivers did not engage in online play when they were 8- to 12-years-old as it was simply not available as an option for play (see Rutter & Bryce, 2006). As such, most caregivers cannot draw on their childhood experiences to inform their everyday practices guiding children's participation in online play, such as setting screen time limits for such play and/or supervising children's online interactions with friends (and other people) within virtual world environments (eSafety Commissioner, 2022a).

While practices in the home are comprised of what caregivers do in relation to children's online play, on what basis caregivers enact these practices (given their own childhoods were not as intensely digital as those of their children or grandchildren) is an important consideration. Research suggests that caregiver practices guiding children's participation in online play are often informed by societal discourses, such as beliefs about child development, contradictory parenting advice (often accessed online), and hopes about children's imagined futures (Livingstone & Blum-Ross, 2020).

These discourses, however, have contributed to a "generational gap of opinion" between children and their caregivers about online play (Albarello et al., 2021, p. 303) which has given rise to tensions in the family home that did not exist in previous generations (Third & Moody, 2021). Such tensions can include caregivers viewing online play as a waste of children's time that

displaces their interest in real-world play activities while children believe online play is important and worthy.

Examples of these types of caregiver views are evidenced in recent studies indicating that some parents believe children who engage in online play are “missing out on other activities” (eSafety Commissioner, 2024a, p. 66) such as creative play and spending time with friends (Graham & Sahlberg, 2021). In other examples, some grandparents are reportedly concerned about the amount of time their grandchildren “waste online, especially on gaming platforms” (Graham & Sahlberg, 2021, p. 30) and believe that parents should “ban” children from using networked devices and encourage them to “grab a book” instead so they “do not lose their ability to think and keep their imagination active” (Ivan & Nimrod, 2021, p. 111).

In contrast, many 8- to 12-year-old children consider online play as an activity that enables them to use their imagination and learn new skills (e.g., digital skills, problem-solving skills, hand-eye co-ordination skills) (eSafety Commissioner, 2024a). Many children in this age group also reportedly consider online play as providing opportunities for them to connect, collaborate, engage, and have fun with their friends (Albarelo et al., 2021; Carter et al., 2020a; Ofcom, 2023; Rustad et al., 2024) and have made it clear that they still have a “great time” playing with their friends in co-located spaces (Livingstone & Pothong, 2021, p. 7).

Moreover, despite children’s increased participation in online play during COVID-19 lockdowns, research has found that many 8- to 17-year-old children were “ready to get back to in-person socialisation, with many wanting to spend even more time together than they did prior to the pandemic” (Rideout & Robb, 2021, p. 25). Insights such as these reject adult notions that online play displaces children’s interest in co-located play activities and is a waste of their time.

Needless to say, a prevailing concern shared among many caregivers is that children might be bullied by other players and/or approached by strangers during online play (Carter et al., 2020a; eSafety Commissioner, 2018; Martin et al., 2021). While such concerns are undoubtedly valid and necessary, recent studies suggest these types of interactions are relatively uncommon (eSafety

Commissioner, 2022a; 2024a; Ofcom, 2023). Further research has found that many 8- to 12-year-old children proactively respond to negative in-world interactions by muting or blocking players who say or do things that make them “feel uncomfortable” (eSafety Commissioner, 2024a, p. 104) and/or speaking to someone in real life (e.g., a parent, friend, or teacher) after encountering “something worrying or nasty online” (Ofcom, 2023, p. 38). Moreover, children in this age group have been found to adopt a “cautious approach to online interactions with strangers in digital games” by “employing specific strategies to maintain boundaries” (Rustad et al., 2024, p. 303).

Empirical evidence of tensions arising in the family home in relation to online play was reported in a recent study conducted with 709 children (aged over 9 years) from 27 countries spanning six continents (Third & Moody, 2021). Findings indicated that many of the child participants felt their choice of online play as a highly valued recreational activity was misunderstood by the adults in their lives. The researchers conducting this study noted that “in all parts of the world, the tension between time online and other activities – such as playing outside or completing homework or household duties – was palpable” (p. 22).

This type of palpable tension was also reported in an Australian survey where children believing that caregivers valued offline play activities more so than online play was recognised as a potential source of conflict in many family homes (eSafety Commissioner, 2024a). For example, 25% of the 1,799 child participants (aged 8 to 17) reportedly argue with their parents about the amount of time they spend playing online games. Interestingly, further data suggested that few caregivers considered online play as a context for supporting child development.

Another key finding indicated that children “emphatically” (p. 9) wanted adults in their lives to better understand why they “love” (p. 77) online play and how happy such play makes them feel. This finding is particularly interesting because it suggests that the generational gap of opinion between children and their caregivers continues to exist despite online play providing much needed social interactions, enjoyment, and emotional comfort for many children during lockdowns (Graham & Sahlberg, 2021; Rideout & Robb, 2021).

For caregivers living in highly digitised societies, the emphatic pleas of children who “love” engaging in online play should not be ignored. This is because such play potentially fosters children’s cognitive development (Caughey et al., 2024), social competencies (Carter et al., 2020a; Navarro, 2021), and emotional wellbeing (eSafety Commissioner, 2024a; UNICEF, 2022). Pervasive adult beliefs that online play is unlikely to support the developmental trajectories of the current generation of children is thus a significant dilemma in a digitised society that requires urgent consideration.

Addressing this contemporary dilemma can be achieved by drawing on theoretically based perspectives of child development. For example, Hedegaard (2009) theorises that if children’s motives for engaging in psychologically beneficial social situations (e.g., online play) conflict with adult demands for such activities in everyday cultural settings (e.g., homes), child development may be restricted. In the family home, the demands of adults (e.g., household rules set by caregivers) are reflected in their everyday practices guiding children’s participation in social activities. For online play, such practices can be grouped into two general categories: 1) screen time management practices; and 2) online safety monitoring practices (eSafety Commissioner, 2018; Graham & Sahlberg, 2021; Ofcom, 2022).

While there may be differences in children’s and caregivers’ perspectives regarding online play, it is important to note that commonalities are also evident. For example, many 8- to 12-year-old children reportedly agree with reasonable screen time limits for online play (Carter et al., 2020b; Rustad et al., 2024; Third & Moody, 2021), enjoy using age-appropriate multiplayer virtual worlds (e.g., Minecraft) for online play (Caughey et al., 2024; UNICEF, 2024), and/or are willing to adhere to online safety rules (e.g., not sharing personal information) during online play (eSafety Commissioner, 2024a). In these instances, caregiver practices guiding children’s participation in online play seem to be aligning with children’s motives for engaging in such play.

In accordance with Hedegaard (2009), these types of child/adult alignments in motives for play and practices guiding the opportunity for play potentially optimise the cultural conditions in

the home for supporting the developmental trajectories of children through online play. However, while recent studies provide separate insight into the lived experiences and perspectives of children (e.g., see eSafety Commissioner, 2024a; Livingstone & Pothong, 2021; Rideout & Robb, 2021; Rustad et al., 2024) and caregivers (e.g., see eSafety Commissioner, 2022a; Graham & Sahlberg, 2021; Ofcom, 2024) regarding online play, very little is currently known about how caregiver practices in the home align or conflict with children's motives for engaging in such play.

This extent of alignment and conflict between children's motives and caregiver practices in relation to online play is a significant problem because play is known to support 8- to 12-year-old children's learning and developmental outcomes (Bergen & Fromberg, 2009), yet caregiver practices in the new blended ecology of the family home may or may not be supportive of such outcomes. The research reported in this thesis, therefore, identifies notable commonalities and tensions occurring in the family homes of 8- to 12-year children and their caregivers in relation to online sociodramatic play.

1.2.1 Defining online sociodramatic play

Online sociodramatic play enables separately located children to adopt various roles as avatars and create imaginary play situations with each other in an open-ended virtual world (e.g., Minecraft played in Creative mode) using symbolic actions and objects while participating in verbal language exchanges via video chat (e.g., using FaceTime) (Caughey et al., 2024). For example, children who are located in their separate family homes might adopt roles as adventurers in a Minecraft virtual forest and embark on a horse-riding adventure using virtual actions (e.g., packing supplies, riding horses, navigating the terrain) and objects (e.g., maps, compasses, food, saddles) whilst participating in language exchanges (e.g., saying "Let's go!" or "We're lost!") via FaceTime.

It is important to note that children's ability to create and enact imaginary situations in a virtual world environment is significantly enabled by open-ended game designs, such as Minecraft played in Creative mode. In this mode of play, users' avatars have access to unlimited virtual resources (e.g., building materials, tools, food) and can freely roam in-world environments without

being attacked by hostile creatures (e.g., zombies, skeletons) or perish by falling from high places. These types of in-world threats to an avatar's safety are characteristic of Survival mode, the other main mode of play in Minecraft.

Online sociodramatic play was the focus of a recently completed Master of Education (Research) study (Caughey, 2021). The master's study investigated how two 7- to 8-year-old children (with an existing friendship) used imaginative thought to give rise to sociodramatic play in a digitally mediated environment using Minecraft: Education Edition (played in Creative mode) synchronously with FaceTime. Minecraft: Education Edition is a modified adaptation of the general, publicly accessible version of Minecraft and is only available to children through educational institutions.

The participating children gained access to Minecraft: Education Edition via educators at the school they both attended. This version of Minecraft was highly valued by these children's parents (who also participated the study) because it meant their children could play with each other as avatars in a safe, online space without being approached by avatars controlled by strangers. Recent research indicates that Minecraft: Education Edition is also highly valued by educators because they believe this software platform supports children's ability to express their creativity, collaborate with peers, and become active participants in their own learning (Slattery et al., 2023a).

Findings reported in the Caughey (2021) study suggested that 7- to 8-year-old children who engage in online sociodramatic play potentially reap cognitive benefits similar to those achieved by children engaging in sociodramatic play in co-located physical spaces. These cognitive benefits include the development of imagination (an important psychological function arising when children are capable of acting in imaginary situations), memory (a central psychological function supporting children's ability to effectively participate in everyday social situations), intentional behaviours (an ability to self-regulate one's actions and interactions), reflective thinking (an ability to view different situations from multiple perspectives), abstract thought (an ability to assign new symbolic

meaning to objects, actions, and ideas), and sophisticated intentional behaviours (an ability to plan and monitor one's mental processes).

Engaging in online sociodramatic play was also recognised in the Caughey (2021) study as providing opportunities for separately located children to develop their ability to exhibit self-control and willpower (e.g., by advancing their usual level of behaviour to adapt to the imaginary situation) and pay attention to common social activities with others (e.g., co-constructing imaginary play situations with friends based on their different life experiences). The ability to pay attention is crucial during development because it prepares a child to be psychologically capable of forming new cognitive schema enabling them to assign meaning to their actions (Kravtsova, 2006) and engage in learning activities at school with more knowledgeable others (e.g., advanced peers, educators) via a social situation conceptualised as “collective theorising” (Edwards, 2011, p. 197).

A further key finding from the Caughey (2021) study indicated that children's ability to successfully, competently, and safely engage in online sociodramatic play in the family home is enabled or constrained by significant adults in their lives, such as parents and educators. For example, parents may (or may not) provide children with access to digital technologies that make such play possible and/or set screen time limits that support (or restrict) children's ability to create and enact sophisticated imaginary play scenarios in a digitally mediated environment (particularly if technical issues disrupt their in-world play). Moreover, educators may (or may not) provide children with access to Minecraft: Education Edition and either foster or limit children's ability to acquire the skills they need to successfully navigate the Minecraft game design.

1.3 Personal orientation to the research

The key finding reported in my master's study (Caughey, 2021) indicating that adults enable or constrain children's ability to engage in online sociodramatic play sparked my interest in exploring this contemporary dilemma at a doctoral level. As my husband and I had guided our own children's participation in online play (using Minecraft via FaceTime) during their primary school years (in the mid-2010s), I chose to focus specifically on the home setting.

After establishing the context of the study, I was particularly interested in exploring children's perspectives of the way their caregivers enabled or constrained their ability to engage in online sociodramatic play (as per the findings from my master's study). This interest was largely based on the high value I place on the perspectives of children after spending many years as a primary school teacher and mother. I also recognised that my husband and I (like many caregivers) could not draw on our own childhood experiences of online play to inform how we guided our children's participation in such play. While we had both thoroughly enjoyed playing digital games during childhood using family gaming consoles popular at the time (e.g., Atari, Commodore 64), such games were predominantly rules-based arcade games (e.g., Space Invaders, Galaga) often played in co-located household spaces (e.g., loungerooms).

Online sociodramatic play, however, now enabled our children to potentially reap a range of rather impressive cognitive benefits. These insights drew me to Hedegaard's (2009) thinking about child development, particularly as it is grounded in cultural-historical theory – the theory I had used to conceptualise my master's study, specifically Vygotsky's (1933/2016) notion of sociodramatic play leading development of 3- to 7-year-old children's central psychological function of memory. The development of memory is crucial during childhood because it supports children's ability to effectively participate in social situations such as collaborative learning activities with more knowledgeable others (e.g., educators, more advanced peers) at school (Vygotsky, 1935/1978).

My decision to draw on Hedegaard's (2009) cultural-historical thinking to inform a doctoral study exploring commonalities and tensions occurring in the home between children and their caregivers in relation to online sociodramatic play was made during one of the strictest (and longest) COVID-19 lockdowns in the Australian state of Victoria (where we live). This unique experience further heightened my interest in exploring the nature of these types of commonalities and tensions during a period in history when children's ability to reap developmental benefits of co-located sociodramatic play was significantly restricted.

1.4 Aim of the study and research questions

Currently, very little is known about commonalities and tensions occurring in the blended ecology of the family home between 8- to 12-year-old children and their caregivers in relation to online sociodramatic play. This includes the ongoing implications of such commonalities and tensions on children's opportunities for play as a basis for learning and development. The aim of this research is to identify these types of commonalities and tensions by exploring how caregiver practices guiding children's participation in online sociodramatic play in the home align, or otherwise conflict, with 8- to 12-year-old children's motives for engaging in such play.

In the work reported in this thesis, the aim of the study is theoretically informed by Hedegaard's (2009) model of child learning and development through participation in institutionalised practice. This model centralises the importance of an "institution" (p. 73) as the context in which children's learning and development occurs via the relationship between their own experiences and motives, and that of the societal norms of the situations in which they live incurred through the practices of their caregivers. In this study, online sociodramatic play is positioned as an institution comprised by children's motives for play and caregiver practices guiding the availability or constraint of such play in the family home.

While Hedegaard's (2009) theoretical model will be explained in Chapter 3, it is important to note that an institution represents an arena of activity where adult demands (e.g., household rules) for certain social situations in everyday settings are intertwined with children's motives for engaging in these social situations. In this study, gaining insight into the institution of online sociodramatic play therefore represented the unit of analysis informing the main research question:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

Addressing the main research question required insight into the commonalities and tensions occurring in the family home between 8- to 12-year-old children and their caregivers in relation to online sociodramatic play. Accordingly, three sub-questions were formulated:

Sub-question 1: How are caregiver practices mediated by cultural artifacts regarding children's participation in online sociodramatic play in the family home?

Sub-question 2: What are children's motives for engaging in online sociodramatic play?

Sub-question 3: What are children's perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home?

Sub-question 1 is informed by Hedegaard's (2009) understanding that adult practices in everyday settings (e.g., family homes) involving children are co-constituted by societal norms, values, and discourses about what is considered an appropriate means of supporting children's learning and development in a particular society. This understanding is grounded in the cultural-historical notion of *mediation* in which human practices are constituted by cultural artifacts (e.g., societal norms, values, and discourses) (Vygotsky, 1930/1978, p. 54). In this study, caregiver practices are interpreted drawing upon practice theory which explains their defining elements (Kemmis et al., 2014) and temporal and spatial dimensions (Schatzki, 2012).

Sub-questions 2 and 3 are informed by understanding children's motives for engaging in online sociodramatic play and their perspectives of caregiver practices guiding their participation in such play in the home. With children's experiences (e.g., motives, perspectives) comprising the lower tier of Hedegaard's (2009) model of child learning and development, *motives* in this research were conceptualised drawing on Vygotsky's (1933–1934/1998a) periodisation of child development.

1.5 Scope of the research

This research identifies commonalities and tensions occurring in the blended ecology of the family home between 8- to 12-year-old children and their caregivers in relation to online sociodramatic play. In this study, specifying the age group of the children was crucial because Vygotsky's (1933–1934/1998a) periodisation of child development theorised that 8- to 12-year-old children experience profound psychological changes as they emerge from the early childhood years (birth to 8 years) and approach adolescence (12 to 17 years).

These changes were of particular interest to this investigation because they enabled theoretical insight to be gained into a range of age-specific commonalities and tensions, meaning the potential for learning and development to be optimised or constrained by caregiver practices in the home in relation to online sociodramatic play may vary as children get older. Understanding the potential for optimisation or constraint is important given the ongoing nature of the blended digital and non-digital ecologies of children and caregivers in families living in digitised societies.

In literature, children aged 8 to 12 years are variously referred to as preadolescents (Corsaro, 2015), preteens (Willett, 2016), or tweens (Kafai, 2010; Rideout et al., 2022). This age group has also been described as “middle childhood” by several scholars (e.g., see Bergen & Fromberg, 2009; Karpov, 2020; Kuczynski et al., 2018; Newland et al., 2018). In this thesis, however, 8- to 12-year-old children are referred to as “school age” children because this term is used in Vygotsky’s (1933–1934/1998a, p. 193) periodisation of child development. This theoretically based decision is explained further in Chapter 3 – Theoretical Framework (pp. 99–100).

1.6 Significance of the study

New knowledge revealed in this study provides theoretically based insight into the types of commonalities and tensions constituting the institution of online sociodramatic play. Such commonalities and tensions occur in the family home when caregiver practices guiding school age children’s participation in online sociodramatic play align, or otherwise conflict, with children’s motives for engaging in such play. In digitised societies, this knowledge is important because how caregivers guide children’s participation in online sociodramatic play in the home creates the cultural conditions for supporting, or otherwise restricting, children’s learning and development (Hedegaard, 2009). This insight into the institution of online sociodramatic play, constituted by caregiver practices and children’s motives and perspectives, will provide new understandings about how caregivers can most effectively mobilise this form of play to support children’s learning and development.

1.7 Structure of the thesis

This thesis is structured across seven Chapters. Chapter 1, the Introduction, has provided insight into the problem being addressed in this research and the contemporary context in which it is situated. This chapter also detailed the aim of the study, the main research question (and associated sub-questions), and the scope and significance of the research reported in this thesis.

Chapter 2 provides a review of the scholarly literature about caregivers' and children's experiences of online sociodramatic play in the blended ecology of the family home. First, findings from studies exploring how caregivers manage and monitor children's use of networked devices and online play in the family home, including during recent COVID-19 lockdowns, are reported. Societal factors influencing these everyday practices are also examined. Second, research seeking insight into children's motives for engaging in online play using different types of multiplayer virtual worlds are reviewed. Third, scholarly insights into how the perspectives of children are conceptualised in the literature and sought in digital contexts are explored.

Chapter 3 provides a detailed presentation of the philosophical origins and consequent principles of cultural-historical theory as a key informing conceptual framework for this study. Then, Hedegaard's (2009) model of child learning and development through participation in institutionalised practice is explained in relation to how it was used to theoretically frame this research. Following this, three fundamental theories providing insight into the analytical planes of Hedegaard's (2009) model, as it was used to conceptualise this research, are explained. These theories include Vygotsky's (1930/1978) concept of mediation, practice theory (Kemmis et al., 2014; Schatzki, 2012), and Vygotsky's (1933–1934/1998a) periodisation of child development, with particular focus on the crisis at age seven (Vygotsky, 1933–1934/1998b) and the crisis at age thirteen (Vygotsky, 1930–1931/1998c). The chapter concludes by explaining why Hedegaard's (2009) model of child development provides a suitable analytical framework for exploring the unit of analysis in this research – the institution of online sociodramatic play.

In Chapter 4, the methodological process guiding this investigation is detailed. First, philosophical assumptions informing the research paradigm underpinning this phenomenological case study are identified, and the co-design research approach is explained. Second, qualitative methodological tools employed to guide how data was gathered and analysed in this study are presented. Third, ethical implications and factors contributing to the qualitative rigour of this research are considered.

In Chapter 5, findings from this research are reported. First, findings relating to caregiver practices guiding 8- to 12-year-old children's participation in online play in the blended ecology of the family home are explained. Cultural artifacts (e.g., societal norms, values, and discourses) mediating these practices are also identified. Then, 8- to 12-year-old children's motives for engaging in online sociodramatic play in the family home are reported and their perspectives of caregiver practices guiding their participation in such play are explored. The chapter concludes by explaining how the reported findings specifically answer each of the three sub-questions, enabling insight into the main research question guiding this study.

In Chapter 6, the main research question is answered by attending to the findings regarding commonalities and tensions between children and their caregivers constituting the institution of online sociodramatic play. This discussion is uniquely informed by cultural-historical understandings regarding the play-based developmental and learning needs of school age children described by Vygotsky (1933–1934/1998a; 1933–1934/1998b; 1930–1931/1998c). The chapter concludes by explaining how the commonalties and tensions identified in this research represent new knowledge that can be used to help caregivers most effectively optimise the provision of online sociodramatic play for 8- to 12-year-old children to benefit their learning and development.

Chapter 7 provides a conclusion to the thesis. The conclusion revisits how the aim of this investigation was methodologically addressed, and the sub-questions answered as a basis for engaging with the main research question. The significance of the findings related to the main research question are presented, specifically attending to the capacity of caregivers to optimise the

cultural conditions for child learning and development in the blended ecology of the family home for 8- to 12-year-old children who are motivated to engage in online sociodramatic play. The chapter concludes by acknowledging the limitations of this research and proposing several suggestions for future studies that could provide further insight into the significance of understanding the institution of online sociodramatic play for children in terms of the relationship between caregiver practices and children's motives for such play.

Conclusion

This chapter has posed the problem of better understanding the institution of online sociodramatic play in terms of caregiver practices and children's motives for engaging in such play in light of the blended digital and non-digital ecologies characterising family homes in digitised societies. This study is important and necessary because research shows a generational difference in caregivers' and children's experiences of such play, and therefore the value attached to the play as an activity in the home. Play is known to support children's learning and development and yet, as societies continue to become increasingly digital, there is currently little in the way to help caregivers enact practices that will optimise, rather than constrain, children's participation in online sociodramatic play. My personal interest and commitment to this research is particularly heightened given my own children's enjoyment of online play (including during recent lockdowns) and the scholarly insights I gained from defining online sociodramatic play in a previous research study. In Chapter Two, Literature Review, the relevant literature to online sociodramatic play in the blended ecology of the family home for 8- to 12-year-old children and their caregivers is detailed.

Chapter 2: Literature Review

Introduction

In this chapter, the scholarly literature is reviewed according to the main research question comprised by the three sub-questions. These questions suggest three central areas of interest: 1) caregiver practices; 2) children's motives; and 3) children's perspectives. The first area of interest, caregiver practices, reviews studies examining how caregivers manage and monitor children's online play using networked devices in the blended ecology of the family home, including during recent COVID-19 lockdowns. Wider societal factors influencing these practices are also explored in relation to how they have been reported in the literature.

The second area of interest, children's motives, describes scholarly insights into children's motives for play whilst using multiplayer virtual worlds embedded with different types of game designs. The third area of interest, children's perspectives, explores how the perspectives of children have been conceptualised in the scholarly literature in relation to any aspects of their everyday lived experiences, and methodologically engaged in digital contexts by researchers with children. The chapter concludes by considering how these three central areas of interest shape the requirement for this study, particularly attending to the commonalities and tensions occurring between 8- to 12-year-old (i.e., school age) children and their caregivers in the blended ecology of the family home regarding online sociodramatic play.

Search Strategy

The scholarly literature reviewed in this chapter was sourced via a search strategy using the Australian Catholic University (ACU) online library. First, four key concepts drawn from the main research question and sub-questions were identified. These key concepts were: 1) caregiver practices; 2) children's motives; 3) children's perspectives; and 4) online sociodramatic play. While studies exploring children's motives for play in multiplayer virtual worlds and children's perspectives of aspects of their everyday lived experiences (including those in digital contexts) are

widely reported, the other two key concepts (i.e., caregiver practices and online sociodramatic play) were renamed to align more strongly with how they are conceptualised in the scholarly literature.

First, the key concept of “caregiver practices” was renamed “parental mediation” as this theoretically based term is widely used by scholars to describe how caregivers manage and monitor children’s use of networked devices and/or interactions in online spaces in the home (e.g., see Clark, 2011). The term “parental mediation” was not used at any further point in this thesis, however, because Vygotsky’s (1930/1978) concept of *mediation* informed the theoretical framework conceptualising this research. This means the term “mediation” referred to cultural effects on caregiver practices rather than a form of parental management of children’s technology use. Second, the key concept of “online sociodramatic play” encapsulates children’s imaginary play in open-ended virtual worlds with geographically separated peers via video chat (see Caughey et al., 2024). This key concept was simplified to “online play” during the search.

The four key concepts were then re-classified as *subjects* and a wide range of synonyms and/or alternative search terms and phrases relating to each subject was generated. For example, terms and phrases relating to the subject of “online play” included virtual worlds, online gaming, multiplayer games, Minecraft, Roblox, and Fortnite. Base words and relevant concepts were also combined where necessary. For example, terms and phrases relating to the subject of “children’s perspectives” combined the base words “child” and “children” with relevant concepts such as perspectives, views, perceptions, experiences, attitudes, rights, and understandings.

Terms and phrases generated for each subject were then separated using the Boolean term “OR” and combined with selected terms and phrases generated for the other subjects using another Boolean term “AND” to form cohesive arrangements (e.g., child OR children AND motives AND online gaming OR Minecraft). These cohesive arrangements were then entered into the thesauruses of a wide range of online databases, such as ProQuest Central, Taylor and Francis Online, SAGE Journals, and SpringerLink, to achieve a comprehensive search. Each database was accessed through the ACU online library. Publicly accessible internet search engines (e.g., Google, Google

Scholar) were also utilised to source grey literature (e.g., large-scale reports, screen time guidelines) relating to the four subjects.

During this inceptive phase of the search strategy, a broad range of peer-reviewed, empirically based journal articles and book chapters, along with several large-scale reports, exploring the four subjects was accumulated. In selecting relevant journal articles, the publishing journal's impact factor was considered for academic credibility and filters specifying peer-reviewed journal articles were applied. To ensure contemporary and relevant scholarly insights were garnered, online searches relating to parental mediation, children's motives, and online play were further refined by prioritising articles, chapters, and reports published during the past five years.

Scholarly sources relating to children's perspectives, however, were unrestricted by date of publication as this subject was considered more widely in historical contexts in relation to how the perspectives of children have been conceptualised and elicited by adult researchers in relation to aspects of their everyday lived experiences. Studies involving 8- to 12-year-old children were also prioritised during the search to reflect the age of the children participating in this research, as were studies exploring children's perspectives of their lived experiences in home-based digital contexts.

2.1 Caregiver practices

In this section, scholarly understandings about caregiver practices guiding children's participation in online play and use of digital technologies in the family home are reviewed. This literature is presented in three main sections: 1) screen time management practices; 2) monitoring practices; and 3) societal factors influencing caregiver practices.

2.1.1 Screen time management practices

The term *screen time* refers to time children spend using screen-based technologies (e.g., televisions, touchscreen tablets, smartphones, computers, laptops) in blended ecologies of contemporary family homes. As discussed in Chapter 1 (p. 3), blended ecologies refer to the integration of digital and non-digital activities and affordances available to children and their caregivers at home in light of the continued digitalisation of society. Managing screen time is a

significant issue for many 8- to 12-year-old children and their caregivers within these ecologies because increased access to networked screen-based devices, and an enormous range of digital content directed towards this age group (including social media), makes interacting with these devices highly motivating for school age children (eSafety Commissioner, 2024a; Ofcom, 2023; UNICEF, 2024).

Historically, studies exploring how caregivers managed children's screen time in the family home were primarily concerned with mitigating the negative effects that watching (analogue) television was believed to have on child development (Clark, 2011; Nikken & Jansz, 2014). Children's widespread use of networked devices (e.g., iPads, laptops) in the home, however, prompted the scholarly emphasis to shift towards exploring how caregivers (mainly parents) navigated the complex task of managing children's screen time in relation to screen-based technologies that were readily accessible, portable, and internet-enabled (Livingstone et al., 2017).

While everyday household routines in the late 20th century were generally managed around children's screen time due to set television programming schedules (e.g., see Lull, 1980), the current generation of caregivers manage children's screen time around household routines such as mealtimes and/or after homework or chores are completed (Chaudron et al., 2019; Roth et al., 2024; Shin & Li, 2017; Willett, 2017). Another commonly shared practice among caregivers is setting time limits (e.g., 1 to 2 hrs per day) for school age children's use of networked devices in the home (eSafety Commissioner, 2024a; Lafton et al., 2024; Martin et al., 2021; Rustad et al., 2024).

These screen time rules are often stricter on school days compared to non-school days (e.g., weekends, school holidays) when limits are reportedly "more relaxed" (Lips et al., 2017, p. 33), "longer and more flexible" (Twining et al., 2017, p. 93), "less regulated and looser" (Chaudron et al., 2019, p. 141), and a "free-for-all" (Heaselgrave, 2023, p. 12). This shared practice was evidenced in a recent report where many 9- to 17-year-old children from 11 different countries were found to "spend on average about two hours a day online during the week and roughly double that each day of the weekend" (UNICEF, 2019, p. 13).

Scholarly insights into how parents manage screen time for 7- to 11-year-old children's participation in online play on school days were reported in a qualitative study conducted in the United States of America (USA) (Willett, 2016). The research found that screen time limits for children's online play ranged from "no screens on school nights to two hours per day, with many variations in between" (p. 470). A key reason for these temporal variations was attributed to children's free time on school days being limited due to after-school activities, homework, and/or household chores. Interestingly, conflicting after-school schedules and/or screen time limits were described as significant barriers to 7- to 11-year-old children playing online with their friends.

Another shared practice among caregivers is employing the use of timers (e.g., kitchen timers, digital timers, mobile applications such as SelfControl) to manage children's screen time (Ofcom, 2022; Salway et al., 2023; Zaman et al., 2016). Some caregivers also reportedly employ specific strategies to signal to children that screen time has ended. These include turning off or removing children's networked devices (Livingstone & Blum-Ross, 2020; Zaman et al., 2016) and turning off, or changing the password of, the home internet connection (Balmford et al., 2021; UNICEF, 2019).

Some caregivers are inclined to set more restrictive screen time limits for primary (elementary) school children compared to older children. For example, an online survey conducted with 1,977 Australian parents found that children aged 6 to 13 years were more likely to have daily screen time limits compared to teenagers (Rhodes, 2017). More recently, quantitative data from another Australian survey indicated that 61% of 559 parents set screen time limits for 8- to 10-year-old children's online play and 55% of 311 parents set screen time limits for 11- to 12-year-old children's online play (eSafety Commissioner, 2024a). These findings suggest that up to 45% of 8- to 12-year-old Australian children may therefore have no set screen time limits for online play.

Several recent studies provide insight into why caregivers set screen time limits in the home. For example, some parents encourage children to play outdoors (especially when the weather is nice) rather than use networked devices (Lafton et al., 2024; Zaman et al., 2016) and/or discourage

children from using networked devices before bedtime (Graham & Sahlberg, 2021; Rhodes, 2017). In another example, the aforementioned online survey conducted across 11 countries found that some parents restrict 9- to 17-year-old children's screen time because they believe it minimises their exposure to online risks (UNICEF, 2019).

The authors of this large-scale report argued, however, that this screen time management practice may be counterproductive because it constrains children's ability to develop digital skills and build "online resilience" (p. 40). They hence recommended that caregivers worry less about restricting children's screen time and focus more on providing suitable entry-level activities for children via a "ladder of online participation" (p. 24). Interestingly, the suggested activity for school age children stepping onto the first metaphorical "rung" of this ladder was specified as playing online games.

Some caregivers adapt their usual screen time limits depending on the digital and/or online activities in which children engage. For example, a Belgian study found that parents generally restrict 3- to 9-year-old children's screen time on weekdays (e.g., up to one hour) but make exceptions "when media usage serves educational goals" (Zaman et al., 2016, p. 15). In another example, a survey conducted in Singapore indicated that while over three quarters (76.1%) of 557 parents set screen time limits for primary school age children's use of networked devices, such limits were less likely to be imposed when children were communicating with others in online spaces (Shin & Li, 2017).

Similarly, the aforementioned Australian survey conducted by Rhodes (2017) found that one of the leading reasons why 60% of 1,725 children in the 6- to 13-year-old age group were allowed more than 2 hours of screen time per day was for communication purposes, such as video chatting with friends or relatives. Findings such as these are important because they provide insight into how caregivers managed children's screen time prior to the COVID-19 pandemic, an historical event during which children's reliance on networked devices for play and learning "increased exponentially" (Graham & Sahlberg, 2021, p. 18).

2.1.1.1 Screen time management practices during COVID-19 lockdowns

To navigate the profoundly changed conditions of children's everyday lives during COVID-19 lockdowns, some governmental health agencies advised caregivers to brace for an inevitable increase in children's screen time. For example, the American Academy of Child and Adolescent Psychiatry (2020) encouraged caregivers to continue setting screen time limits for children whilst also recognising that an increase in such limits was "warranted" (p. 1) during lockdowns. In another example, a researcher at the University of Cambridge Cognition and Brain Sciences Unit advised caregivers to worry less about children's screen time going "through the roof" during lockdowns and focus more on the capacity for networked technologies to scaffold much-needed social interactions for children, such as online play (Orben, 2020, para. 11–12).

Children's screen time "rocketed into a new dimension" (Rideout & Robb, 2021, p. 1) during lockdowns. For example, data from a cross-sectional survey conducted with 253 Turkish parents indicated that 3- to 10-year-old children's recreational screen time more than doubled during periods of government enforced lockdowns (Ofly et al., 2021). Similar findings were reported in an online survey of 1,333 Canadian mothers where 9-year-old children's recreational screen time was found to be extended by approximately 11 hours per week during the COVID-19 pandemic compared to pre-pandemic times (McArthur et al., 2021).

Interestingly, a systematic review of 89 research studies found that 6- to 10-year-old children experienced the largest increase in recreational screen time per day compared to younger children, adolescents, and adults (Trott et al., 2022). This review suggested that an increase in screen time (particularly in relation to online play) was positively associated with feelings of anxiety in children from all age groups. Such findings indicate, therefore, that caregivers may have provided increased opportunities for 6- to 10-year-old children to engage in online play during lockdowns to help alleviate feelings of pandemic-related worries (e.g., not being able to play with friends in co-located spaces).

According to Livingstone and Pothong (2021), global lockdowns resulting from the pandemic “accelerated the importance of social play in the digital environment at a time when social distancing was the new normal” (p. 23). It is unsurprising, therefore, that many caregivers (particularly parents) viewed networked devices as a “saving grace” (Graham & Sahlberg, 2021, p. 7) during lockdowns because children isolated in their homes could engage in socially interactive play in online spaces. This heightened appreciation may have prompted caregivers to extend their usual screen time limits for online play during lockdowns so children could play with their friends using multiplayer virtual worlds such as Minecraft, Roblox, and Fortnite (e.g., see Cowan et al., 2021; Díaz et al., 2023; Navarro, 2021).

Extended screen time limits during lockdowns also resulted from caregivers providing increased opportunities for isolated children to use video chat software platforms such as FaceTime, Zoom, WhatsApp, and Messenger Kids to verbally communicate with their friends (e.g., see Holt & Murray, 2022; Koller et al., 2023; Quinones & Adams, 2021). According to one Australian parent, these types of communicative opportunities were “invaluable” for supporting children’s wellbeing during lockdowns (Graham & Sahlberg, 2021, p. 19) and may explain why downloads of Messenger Kids “pole vaulted” from the bottom of the most downloaded mobile application charts to the top when lockdowns were enforced globally in March 2020 (Brown, 2020, para. 1).

Children’s extended screen time limits during lockdowns may have resulted from new practices enacted by caregivers in the home. For example, Australian parents set up an interactive digital platform that enabled two 7-year-old friends to play virtual games and co-construct imaginary performances together whilst isolated in their separate homes during lockdowns (Quinones & Adams, 2021). In another example from Australia, caregivers provided opportunities for 7- to 17-year-old children to socially interact as avatars in the same Minecraft virtual world environment through a specially designed program entitled *LibraryCraft* (Cleave & Geijsman, 2020). The *LibraryCraft* program was established by an Early Childhood Programming Officer and

delivered via a heavily moderated public library server in Western Australia. This program enabled 100 children isolated in their homes to play together in a safe, online space during lockdowns.

Some caregivers, however, have understandably expressed concerns about the long-term impact of children's over-reliance on networked devices during lockdowns (Graham & Sahlberg, 2021). It is possible that such concerns may prompt these caregivers to set stricter screen time limits for children in post-lockdown times. This supposition is prompted by findings reported in a recent mixed methods study conducted in the United Kingdom (Salway et al., 2023). The study found that the average number of minutes per day 393 children (aged 10 to 11 years) used networked devices (e.g., gaming consoles, touchscreen tablets) during pre-lockdown times was higher on school days and weekends compared to post-lockdown times.

Findings such as these suggest that extended screen time limits during lockdowns may have ongoing repercussions for 8- to 12-year-old children who viewed networked devices as "very important" for supporting their ability to "have fun" (e.g., via online play) during lockdowns (Rideout & Robb, 2021, p. 5). Moreover, Squire (2022) recently argued that online play may have provided emotional comfort to many children during what was a stressful, isolating, and uncertain time.

Some children may thus continue to view online play as a recreational activity that helps them relax, a finding reported in recently conducted post-lockdown studies (eSafety Commissioner, 2024a; UNICEF, 2024). In this research, these insights were of specific interest because the participating children had recently experienced strict, repeated lockdowns in the Australian state of Victoria (i.e., over 200 days across a two-year period) (see Vally & Bennett, 2021).

2.1.2 Monitoring practices

According to van Manen (1997), the family home represents a "safe centre" (p. 82) from where children can explore the world. As children's primary protectors, however, many caregivers feel "heavily disempowered in this traditional role" when children use, and interact in, online spaces (Livingstone & Third, 2017, p. 665). In relation to online play, this feeling of disempowerment is

largely due to caregiver fears that children may encounter negative in-world experiences, such as being exposed to harmful content (e.g., virtual worlds embedded with gory or violent material) and/or hurtful interactions with other players. Such interactions include griefing (i.e., purposely causing annoyance in an online gaming community), cyberbullying, and/or being approached or contacted by people they do not know (eSafety Commissioner, 2018; 2022a; Martin et al., 2021; Ofcom, 2023).

Navigating these challenges has prompted many caregivers to actively employ a range of monitoring practices that aim to minimise children's exposure to potential harms during online play whilst maximising the benefits of such play (e.g., the provision of socially interactive play opportunities for separately located children). The term "monitoring" is conceptualised differently in the scholarly literature. For example, some researchers have explored monitoring as a retrospective practice, such as parents checking the browser history on a networked device after a child has used it (Dedkova & Smahel, 2020; Shin & Li, 2017). Other studies have examined the way some parents covertly monitor their children's use of online spaces by friending them (and members of their peer group) on social media platforms such as Instagram (Balmford et al., 2021; Heaselgrave, 2023).

In this thesis, however, *monitoring* refers to the way caregivers supervise and safeguard children's online play. Drawing on this definition, a shared monitoring practice among many caregivers is ensuring that children only use age-appropriate multiplayer virtual worlds. This practice is reflected in studies where caregivers have allowed 8- to 12-year-old children to use Minecraft for online play (eSafety Commissioner, 2024a; Martin et al., 2021; UNICEF, 2024) which is currently rated suitable for children in this age group across several media review websites (e.g., Apple App Store, Common Sense Media, Entertainment Software Rating Board [ESRB], Google Play, Pan European Game Information [PEGI]).

In contrast, some caregivers allow school age children to use multiplayer virtual worlds recommended for older children. This practice is evidenced in studies where caregivers have

seemingly allowed 5- to 12-year-old children to use Roblox and/or Fortnite for online play (Carter et al., 2020a; eSafety Commissioner, 2024a; Roth et al., 2024; Rustad et al., 2024; Scholes et al., 2022) despite these gaming platforms being rated 12+, 13+, or Teen across most media review websites (e.g., Common Sense Media, ESRB, Google Play, PEGI).

Insight into allowing school age children to use gaming platforms intended for older children was illuminated in a recent study where only 10% of 113 parents living in the USA believed it was a parent's responsibility to ensure that 5- to 10-year-old children used age-appropriate online games (Martin et al., 2021). Concerningly, some participating parents also allowed children to play online games rated 17+ by the ESRB such as Call of Duty and Assassin's Creed. Most parents (73%), however, felt concerned "all the time" (p. 11) about their child's safety during online play. These concerns included the potential for children to be bullied and/or interact with avatars controlled by strangers. Such concerns are warranted because school age children have reportedly encountered, interacted with, and/or felt scared by avatars controlled by strangers whilst using multiplayer virtual worlds (Dezuanni et al., 2015; Mavoia et al., 2018; Twining et al., 2017).

Further insight into why some parents allow 5- to 10-year-old children to use software platforms recommended for older children was provided in a recent study conducted in Norway (Lafton et al., 2024). The study found that these parents are acutely aware of age-related recommendations but choose to override them if they feel the software platform is appropriate for their child. For example, a participating father guided a group of 9-year-old boys (including his own son) to use Discord (a voice chat software platform) to verbally communicate with each other during online play. Currently, Discord is rated 13+ by Common Sense Media and 17+ in the Apple App Store. The authors of this study noted that parents who allowed their children to use software platforms recommended for older children were more likely to have a "candid interest" (p. 209) in these platforms themselves and thus understood ethical challenges their children may encounter.

Some caregivers may also be aware that age-based classification systems are generally based on content risks (e.g., violent themes) rather than the types of interactions occurring between

players during in-world play (eSafety Commissioner, 2024a). For example, despite Fortnite being rated 12+ on PEGI due to moderate violence, recent studies report that parents who allow school age children to use Fortnite for online play believe its game design supports co-operative play (Navarro, 2021) and fosters “collaborative and creative problem-solving skills” (Albarello et al., 2021, p. 312).

Other caregivers, however, may not be aware that some children bypass household rules about using age-appropriate software platforms. For example, some school age children play Fortnite when their parents are not home (Carter et al., 2020a) or gain access to games they are not otherwise allowed to play via Roblox (Lafton et al., 2024; Roth et al., 2024). In Roblox, children can play user-generated alternative versions of popular online games such as Assassin’s Creed, Call of Duty, and Grand Theft Auto (all of which are rated 17+ across several media review websites).

Another monitoring practice shared among caregivers is closely supervising children while they engage in online play. For example, some caregivers remain nearby when children engage in online activities to facilitate their ability to check what children are doing (Dedkova & Smahel, 2020; Shin & Li, 2017; Zaman et al., 2016). Similarly, some caregivers only allow children to use networked devices in main living areas of the home so they can monitor their digital and/or online activities more effectively (eSafety Commissioner, 2024a; Graham & Sahlberg, 2021; Ofcom, 2023). Interestingly, caregivers are less likely to supervise the online activities of children aged over 11 compared to younger children (eSafety Commissioner, 2018; 2022a; Ofcom, 2023). One of the key reasons for enacting this practice is that caregivers tended to trust that older children would be “sensible” in online spaces (Ofcom, 2023, pp. 27–29).

Interestingly, some caregivers allow 8- to 12-year-old children to play online in private household spaces, such as bedrooms (eSafety Commissioner, 2024a). Insight into this practice was highlighted in a recent Swedish study where parents allowed 5- to 10-year-old children to use their bedrooms for online play with friends when they needed a “quieter place” for such play (Lafton et al., 2024, p. 206). Such findings support the scholarly notion that online play is often co-constituted

with domestic spaces within family homes located in digitised societies (Balmford & Davies, 2020; Enevold, 2014).

Another monitoring practice see caregivers utilising parental control tools such as Circle (Cino et al., 2020), Kids Place (Alelyani et al., 2019), Net Nanny (Ghosh et al., 2018), and McAfee Family Protection (Ofcom, 2024). Other caregivers apply web filters to block certain websites and/or mobile applications (apps) used by children (eSafety Commissioner, 2022a) or utilise privacy settings embedded in the software systems of networked devices (Rhodes, 2017), multiplayer virtual worlds (Livingstone & Pothong., 2021), and video chat software platforms such as Messenger Kids (Quinones & Adams, 2021).

Parental control tools, however, are likely to constrain children's ability to autonomously (and privately) access socially interactive online activities with friends, such as online play (Du et al., 2021; Rustad et al., 2024) which may evoke conflicts between children and their parents (Stoilova et al., 2024). Examples of these family conflicts are reflected in studies where children have expressed the belief that parental control tools invade their privacy in digital environments (Alelyani et al., 2019; Ghosh et al., 2018) whereas caregivers feel that utilising such tools is a "necessary strategy in line with their role of 'good' caregivers" (Cino et al., 2020, p. 213).

A prominent monitoring practice enacted by caregivers globally is reminding children to adhere to online safety rules during online play. For example, a recent Australian survey found that 14% of 1,782 parents only allowed 8- to 17-year-old children to use multiplayer virtual worlds for online play provided they did not communicate or play with avatars controlled by strangers (eSafety Commissioner, 2024a). Two vignettes describing this practice were reported in recent studies.

In the first vignette, a mother living in the United Kingdom explained how she drew up a "behaviour contract" for her 9-year-old son to play Fortnite online with his friends (Ofcom, 2022, p. 38). The contract stated that this child was not allowed to speak to players he did not know in the real world and that if he breached this rule (even once), he would not be allowed to play Fortnite anymore. In the second vignette, an Argentinian mother explained how she closely monitors her 8-

year-old son's in-world activities in Fortnite and if she notices an avatar controlled by a stranger, asks her son to "kick him out" of the game (Albarelo et al., 2021, p. 310).

In relation to establishing online safety rules in the home, another practice shared among caregivers is talking to children "about what should or should not be shared on the internet" (Shin & Li, 2017, p. 11). A key reason for establishing this rule is that many caregivers are concerned that children might share their personal details with "inappropriate people" (e.g., strangers with nefarious intentions) in online spaces (Ofcom, 2023, p. 36). Enacting this practice might also include teaching or reminding children how to mute or block other players (e.g., those who ask for personal details) during online play (eSafety Commissioner, 2024a).

Some caregivers also establish behavioural rules for online play to heighten children's ability to engage in enjoyable and equitable in-world play activities. For example, some parents remind their children to be respectful to others in online spaces (eSafety Commissioner, 2018) and/or raise their sons' awareness about the importance of perceiving and treating "female gamers as equals" (Heaselgrave, 2023, p. 10). In another example, caregivers were asked to contribute to the development of behavioural guidelines for the aforementioned *LibraryCraft* program (Cleave & Geijsman, 2020). Example guidelines included respect other players, be courteous, no swearing, and no bullying (LibraryCraft, n.d.). Similar behavioural guidelines are stipulated in the "Community Standards" or "Community Rules" section of most multiplayer virtual worlds such as Minecraft (Mojang, 2024a), Roblox (Roblox Corporation, 2023), and Fortnite (Epic Games, 2024a).

2.1.3 Societal factors influencing caregiver practices

A predominant finding evident within scholarly literature suggests caregivers are heavily influenced by societal discourses circulating the notion that children's screen time be strictly limited in the family home. For example, several studies indicate that many parents feel deeply concerned about their children using screen-based devices excessively (Auxier et al., 2020; Balmford et al., 2021; Graham & Sahlberg, 2021) and "find themselves succumbing to the seemingly simple public expectation that they should limit or 'police' their children's 'screen time'" (Livingstone & Blum-

Ross, 2020, p. 33). In one study, a mother of a school aged child (who enjoyed engaging in online play) “confessed” that she regularly resorts to lying about her actual screen time rules by telling medical professionals (e.g., paediatricians) what they “want” to hear (Willett, 2018, p. 112).

According to Squire and Steinkuehler (2017), societal discourses promoting the notion that children’s screen time be strictly limited in the home are highly problematic in digitised societies because they “decontextualize technology and sever it from its context of use, rendering a given use or practice utterly disconnected from broader networks of activity and meaning” (pp. 2–3). Screen time discourses thus reflect first generational thinking (e.g., technological determinism) and strongly misalign with third generational (i.e., postdigital) thinking where technologies are recognised as being seamlessly enmeshed into everyday human social activities (Edwards, 2023).

The influence of pervasive (and often conflicting) screen time discourses has resulted in many caregivers being inclined to focus more on the amount of time children spend using networked devices rather than the content of their digital and/or online activities (Chaudron et al., 2019; Graham & Sahlberg, 2021). Such discourses may also explain why Salway et al. (2023) found that parents of school age children tend to impose stricter screen time rules for children’s use of tablets and digital games compared to television. These authors posited that this practice may be indicative of parents regarding children’s use of television as “acceptable” screen time (based on their own childhood experiences) and children’s use of networked devices (e.g., iPads) as “unacceptable” screen time (based on pervasive screen time discourses).

Currently, screen time guidelines are disseminated via governmental organisations (e.g., American Academy of Child and Adolescent Psychiatry, Australian eSafety Commissioner) and parenting organisations (e.g., Raising Children Network, Happy Families, Netmums). Some caregivers seek advice about managing children’s screen time via websites developed by these organisations (Auxier et al., 2020; Livingstone & Blum-Ross, 2020). While some governmental organisations advise time-based limits (e.g., Australian Government Department of Health and Aged Care, 2021), others have been recently updated to advise caregivers to develop a “screen time

plan” with children that promotes positive and healthy uses of networked devices in the home (e.g., American Academy of Child and Adolescent Psychiatry, 2024; eSafety Commissioner, 2022b).

Such advice aligns with scholarly calls for screen time discourses to focus less on simplistic temporal measures and consider more deeply why children are motivated to use networked devices in the home (Livingstone & Blum-Ross, 2020; Squire, 2022). Some caregivers embraced this approach prior to recent governmental policy changes. For example, the aforementioned mother who felt the need to lie about her actual screen time rules to medical professionals explained how she encouraged her son to “recognise the need for balance in the day, rather than getting too concerned about counting minutes of screen time” (Willett, 2018, p. 112).

In relation to monitoring children’s use of networked devices and/or interactions in online spaces, some caregivers reportedly utilise the Google search engine to seek information about keeping children safe online (eSafety Commissioner, 2018) and consult media review websites (e.g., PEGI) to determine if online games are age-appropriate for their child (Rustad et al., 2024). Caregivers have also been found to draw on advice from educators (e.g., school policies, information nights) to inform how they guide children with using networked devices and/or online spaces in safe, responsible, and healthy ways (Chaudron et al., 2019; Graham & Sahlberg, 2021).

Shared discourses among caregivers from different families reportedly influenced why some parents allowed school age children to use Roblox and/or Fortnite for online play during lockdowns (Navarro, 2021; Salway et al., 2023). Prior to lockdowns, such discourses also prompted parents from two different families to provide opportunities for 7- to 8-year-old children to communicate with each other via iMessage (a text-based chat facility), a decision that ultimately enabled these children to independently begin engaging in online sociodramatic play with each other (Caughey, 2021).

Discourses among parents are likely to be a key societal factor influencing how decisions are made in the blended ecology of the family home given that some parents judge, or feel judged by, other parents in relation to their screen time management and/or monitoring practices

(Livingstone & Blum-Ross, 2020). These (often unspoken) judgements may explain why some caregivers manage and/or monitor children's use of networked devices and online interactions in ways that are designed to keep children "within the social norm" (Chaudron et al., 2019, p. 141) by reflecting those of other families they know (Balmford et al., 2021). Such discourses, however, may be challenging for some parents when they disagree with other parents about how children "should" use (or not use) networked devices and interact with others in online spaces (Lafton et al., 2024).

The personal backgrounds of caregivers themselves may also influence their everyday screen time management and monitoring practices. For example, some parents reportedly draw on their own childhood memories (e.g., play experiences, how their own parents managed screen time) to inform such practices (Livingstone & Blum-Ross, 2020). According to Adams (2014), however, adults' nostalgic evocations of their own childhoods can adversely affect their views about how children "should" be raised, particularly when "natural lapses inherent in memory function include bias which can further adversely affect childhood recollections" (p. 173).

The nostalgic childhood memories of some caregivers may thus constrain children's ability to engage in online play, particularly if they value a "climbing-tree childhood" over a "digital childhood" (Chaudron et al., 2019, p. 140). Caregivers' own lived experiences of watching television during childhood may have also shaped the "widespread parental perception of digital media and technologies as an entertainment device" (Graham & Sahlberg, 2021, p. 2) rather than tools that can potentially support cognitively beneficial play activities for children, such as online sociodramatic play.

In contrast, some parents "acknowledge their own shortcomings in simply transferring practices and values to the next generation" (Lafton et al., 2024, p. 205) suggesting they feel deep insecurities about adeptly guiding the current generation of children to navigate the digital world in which they live. Parents who enjoy playing digital games, however, have been found to actively encourage, mentor, and/or facilitate children's participation in online play. For example, mothers who are gamers themselves are reportedly "generous" in allowing children extra time to engage in

online play (e.g., before bedtime) and view networked devices as facilitating both work (e.g., children's homework, parental work that is brought home) and play opportunities (Enevold, 2014, p. 11).

Similarly, fathers who enjoy gaming have been found to assist their school age children to use software platforms such as Minecraft (Willett, 2018) and Discord (Lafton et al., 2024) for online play with friends. These findings reflect Enevold's (2014) assertion that parental practices guiding children's use of networked devices and/or interactions in online spaces in the home are often "subordinated and subjected to the norms of the family" (p. 21). Such norms are also reflected in a study where parents who did not consider themselves digitally skilled were more likely to restrict 6- to 14-year-old children's use of online spaces compared to parents who considered themselves digitally skilled (Livingstone et al., 2017).

Another prominent societal factor influencing how caregivers make decisions about managing and monitoring children's online play is mainstream media. For example, Balmford and Davies (2020) assert that positive mainstream media reports about Minecraft may have prompted many caregivers to view this software platform as a "relatively healthy play space" (p. 16) for children. Similarly, Carter et al. (2020b) have argued that negative mainstream media reports about Fortnite have contributed to moral panic that stigmatises this software platform as a "violent, addictive, and problematic game" (p. 140), even among "children as young as 9 years" (p. 144).

Some caregivers, however, are reportedly sceptical about moral panics based on assumptions disseminated by mainstream media (rather than research) so they enact screen time management and monitoring practices in the home according to what they believe is "best" for their children (Lafton et al., 2024, p. 205). According to Livingstone and Blum-Ross (2020), these beliefs see many caregivers "hedging their bets against guessed-at outcomes" (p. 9) by balancing practices that are simultaneously informed by traditional beliefs about childhood (e.g., children need plenty of outdoor play and fresh air) and contemporary beliefs about childhood (e.g., children need to develop digital skills for their imagined futures).

Contemporary beliefs that the current generation of children need to be equipped with the digital skills they require to thrive in future educational and/or workplace contexts thus represent another societal factor influencing caregiver practices in the home. This assertion is evidenced by research suggesting that some European parents believe that 6- to 8-year-old children's use of networked technologies is "unavoidable" in homes and schools, so it is important that children have a "fluent relationship" with such technologies (Chaudron et al., 2019, p. 140). Similar findings were reflected in a survey where a significant majority (88%) of 2,032 British parents expressed the belief that understanding how to use technology was important for their children's future (Livingstone & Blum Ross, 2020).

The studies reviewed in this section indicate that the screen time management and monitoring practices of caregivers, specifically in relation to guiding school age children's participation in online play, are being influenced by a wide range of societal factors. As such, it is feasible to suggest that these societal factors are inherently present within the new blended ecologies of family homes located in highly digitised societies.

2.2 Children's motives

Over a decade ago, Sarachan (2013) drew on the foundational work of several virtual world scholars (i.e., Dickey, 2007; Lundgren & Björk, 2012; Roussou et al., 2008; Salen & Zimmerman, 2004; Yee, 2006) to posit that children's motives for play in multiplayer virtual worlds are fundamentally driven by four identifiable activities. These activities include socialising (e.g., interacting with other players), gaming (e.g., playing rules-based games), exploring (e.g., freely navigating the in-world environment or embarking on game-controlled adventures), and creating (e.g., customising an avatar and/or in-world virtual environment).

A key aspect of these in-world activities is that they are either facilitated or impeded by embedded features of the multiplayer virtual world game design suggesting such features are dialectically related to children's motives for play. In scholarly literature, these embedded features

have been widely explored in relation to three general categories: 1) subscription-based game designs; 2) rules-based game designs; and 3) open-ended game designs.

2.2.1 Subscription-based game designs

Multiplayer virtual worlds embedded with subscription-based game designs offer users exclusive access to a range of “premium features” via the payment of a monthly fee (Grimes, 2015, p. 118). Examples of such features include the receipt of a specified amount of virtual currency (i.e., in-world credit) that can be used to purchase virtual items (e.g., pets, food) and highly prized items such as fancy skins (i.e., clothing/outfit for an avatar) and accessories (e.g., furniture to decorate an avatar’s house) (Kargin, 2018; Marsh, 2011). Paid subscribers might also receive exclusive access to member-only activities such as themed parties and adventure quests (i.e., complex, multi-screen challenges) (Burke, 2013; Hafner, 2015; Sarachan, 2013). This type of promotional tool is described by Grimes (2015) as the “velvet rope model” (p. 118).

Subscription-based virtual worlds are often referred to as *commercial freemium sites* because basic versions of the game are usually free to download, however, users are frequently exposed to in-world advertisements specifically designed to remind non-members about the premium features of paid memberships (Willett, 2018, p. 102). Such advertisements might also promote real-world merchandise distributed by the company that owns the virtual world, such as material toys that “match their virtual counterparts” (Sarachan, 2013, p. 256). For example, in Club Penguin (where users’ avatars are represented by anthropomorphic penguins roaming an Arctic environment), children can adopt and care for small fuzzy creatures known as *puffles* and stuffed toy versions of these puffles were available for purchase in the early 2010s (Burke, 2013).

According to Grimes (2015), subscription-based virtual world game designs reframe “play” as “consumerism” because they promote the notion that accumulating virtual items is the key to successful gameplay (p. 128). It is unsurprising, therefore, that school age children’s motives for play in subscription-based virtual worlds have been found to be strongly driven by a desire to accrue in-world virtual items. For example, Marsh (2011) described how an 11-year-old child, who

was a subscribed member of Club Penguin, expressed a desire to “buy a wide range of goods” (p. 109), particularly new items that were released every month. Similarly, Hafner (2015, p. 108) reported how his 10-year-old daughter took pride in her ability to create a “fashionable” two-storey house due to being a subscribed member of Moshi Monsters (where users’ avatars adopt and care for pet monsters).

Perhaps the most striking insights into children’s motives for play whilst using subscription-based virtual worlds emerged from a study exploring the in-world activities and interactions of 50 children (aged 5 to 8 years) using Club Penguin in a co-located after-school setting over a 12-week period (Kargin, 2018). During the first four weeks of the study, all participating children were non-members and reportedly spent 99% of their time playing rules-based games. In Club Penguin, non-members can play arcade-style games (e.g., racing games, card games) to earn virtual currency represented by gold coins (Sarachan, 2013).

In the following four weeks, some children were provided with access to paid Club Penguin memberships whilst others were not. During these sessions, fully paid members became acutely aware of (and thoroughly enjoyed) their “privileged status” in the game whilst non-members faced the confronting reality that they were now considered lower class in-world citizens (Kargin, 2018, p. 15). In the final four weeks of the study, however, all participating children received paid memberships.

Interestingly, children who had previously enjoyed paid memberships were observed “working even harder to hold on to their upper-class status” (p. 15) by playing more rules-based games so they could accrue “rare” in-world items (e.g., unique furniture to enhance their avatar’s igloo). The author of this study highlighted the ethically dubious nature of subscription-based virtual world game designs because (like findings reported in earlier studies) they essentially motivated children (rather strongly) to consume rather than play.

According to Burke (2013, p. 69), when children’s play in a virtual world is “driven by a consumer ethos”, their ability to think creatively and make autonomous in-world decisions is

significantly impaired. Moreover, research has found that subscription-based virtual world game designs may evoke feelings of frustration and resentment in children who do not have paid memberships. For example, children reportedly “hate” not being able to acquire clothing without a paid membership in Club Penguin (Sarachan, 2013, p. 264) and consider the idea of Club Penguin memberships as “wrong because kids don’t make money, and that is a kids’ game” (Kargin, 2018, p. 15). Several scholars have thus strongly recommended that adults (e.g., parents, educators) remain consciously aware that connecting virtual rewards to real-world economy could teach children the “wrong message about effort and achievement” (Sarachan, 2013, p. 266) and result in compulsive play that “normalises perpetual spending” (Livingstone & Pothong, 2021, p. 43).

Currently, several multiplayer virtual worlds popular among 8- to 12-year-old children are embedded with subscription-based game designs. For example, Roblox (where users’ avatars play and/or create rules-based games) offers a Premium membership meaning users can pay a monthly fee (based on a three-tier entry system) to receive a specified amount of virtual currency (known as *Robux*) and stylised avatar skins (Roblox Corporation, 2024). Similarly, Fortnite (where users’ avatars engage in battles with other players) enables users to become members of the *Fortnite Crew* via payment of a monthly fee (Epic Games, 2024b). Each month, Fortnite Crew members receive 1,000 *V-Bucks* (virtual currency) and a *Crew Pack* – a curated bundle containing one avatar outfit and matching accessories/actions such as weapons (e.g., pickaxes), emotes (e.g., dance moves), and wraps (e.g., cosmetic enhancements for weapons and vehicles).

Given these enticing features, the subscription-based game designs of Roblox and Fortnite are likely to motivate some children to accumulate in-world items (e.g., virtual currency, avatar skins and accessories) during online play. For this reason, Roblox and Fortnite may inhibit children’s ability to engage in online sociodramatic play because the imaginary situation (i.e., shopping) has been created by adult game designers, not children. As discussed in Chapter 1 (p. 9), children’s ability to create imaginary situations is a core feature of online sociodramatic play (Caughey, 2021).

It is important to note that Minecraft also offers a subscription-based game design where users pay a monthly fee to access to a private server (known as a *realm*) that enables them to interact as avatars in the same virtual environment with friends (via invitation only) without being exposed to avatars controlled by strangers (Mojang, 2024b). Virtual currency and/or items, however, are not included in the monthly membership fee meaning children with paid memberships can freely create (and enact) their own imaginary situations. As such, the Minecraft subscription-based game design (when played in Creative mode via voice or video chat) is likely to support children's ability to engage in online sociodramatic play.

2.2.2 Rules-based game designs

In multiplayer virtual worlds, rules-based games see users adhering to a prescribed set of rules to achieve game-driven goals (e.g., progressing to a next level of play, overcoming hostile or dangerous threats) and/or player-driven goals (e.g., accruing in-world currency, working as a team) (Sayuno, 2021). Some children are strongly motivated to play rules-based games in virtual worlds so they can earn virtual currency. For example, 10- to 14-year-old children reportedly enjoyed playing rules-based games (e.g., Hot Air Balloon Race) in Whyville “for the simple reason that playing them is the most prominent way to build one’s salary” (Kafai, 2010, p. 11). In Whyville, users’ avatars engage in science-based activities to earn virtual currency known as *clams*. As clams cannot be purchased with real-world currency, Kafai (2010) posited that earning a higher salary in Whyville was associated with an elevated status in the game.

From a first-person perspective, Lu (2010) recounted how she had enjoyed playing rules-based games (e.g., puzzles) in Neopets (where users’ avatars adopt and care for fantastical creatures as pets) when she was 10-years-old primarily so she could earn virtual currency (known as *neopoints* or *NP*). Retrospectively, Lu (2010) explained that “all I cared about was earning NP for my personal satisfaction and for the wellbeing of my pet” (p. 14). Similarly, Sarachan (2013) found that an 11-year-old girl was highly motivated to play rules-based games (e.g., ice fishing) in Club Penguin so she could earn gold coins to “buy stuff” for her puffle (p. 261). Interestingly, this child

was a subscribed member of Club Penguin who regularly “hung out” with her separately located friends during in-world play.

These insights suggest that school age children may be motivated to play rules-based games in multiplayer virtual worlds so they can adeptly perform the role they are positioned to adopt (e.g., pet owner) by adult game designers. This assertion is reflected in Burke’s (2013) observation that 10-year-old children take their obligation as pet owners in Club Penguin “very seriously” (p. 66). It is important to note, however, that virtual world game designs positioning children to adopt specific roles inhibit their ability to create their own imaginary situations. This is because children’s actions and interactions in the virtual environment are dictated by such roles (e.g., pet owners must care for pets) rather than roles they autonomously choose to adopt (Caughey, 2021).

Some children are motivated to play rules-based games in multiplayer virtual worlds so they can win or unlock highly prized in-world rewards. For example, Burke (2013) reported that a 10-year-old boy was motivated to play mini-games (e.g., catching games, board games) in Club Penguin so he could “win costumes for his penguin, such as the coveted knight costume” (p. 66). More recently, Carter et al. (2020a) found that some 9- to 14-year-old children engaged in time-consuming, complex Fortnite challenges (accessible via a monetised *Battle Pass*) because they were highly motivated to unlock the maximum number of virtual rewards (e.g., avatar skins and dance moves) on offer once these rules-based challenges were completed.

In both of these studies, winning coveted rewards by playing rules-based games was recognised as heightening children’s ability to establish a performative in-world identity, a socially situated process that elevated their status among other players. According to Wernholm (2019), these types of in-world social systems can be described as “hierarchies of proficiency” (p. 48) because children understand that some players are more adept at playing rules-based games in multiplayer virtual worlds and will thus attain a higher in-world status compared to other players whose gaming skills are still developing.

Some children enjoy viewing rich, immediate rewards after playing rules-based games (whether they win or not) in multiplayer virtual worlds. For example, Sarachan (2013, p. 261) observed 6- to 11-year-old children playing a 2-player card game (known as *Card-Jitsu*) in Club Penguin with avatars controlled by strangers so they could watch the “winning penguin physically vanquishing the other (e.g., giving the opponent a stomach kick, drenching him with a fire hose)”.

Similarly, Sayuno (2021, p. 300) observed early primary school age children (from Grades 1 and 2) having a “good laugh” when their avatars were pummelled with a bat whilst they played the rules-based Roblox game *Escape Grandma’s House Obby*. The aim of this game is to escape Grandma’s house by avoiding various dangers presented in each room (e.g., jumping over lounge chairs to avoid drowning in floors made of lava, being attacked by Grandma).

Rules-based games requiring users to overcome in-world obstacles are highly popular among school age children. For example, 8- to 12-year-old children reportedly enjoy playing Minecraft in Survival mode because they find this mode of play more challenging than Creative mode (Dezuanni et al., 2015; Petry, 2018). In Survival mode, users must adhere to the rules of play by keeping their avatars alive. This is largely achieved by locating and gathering resources (e.g., building materials, armour, food), constructing protective shelters, and avoiding in-world dangers such as being attacked by hostile, game-controlled creatures (e.g., zombies, skeletons), starving, drowning, and/or falling from high places.

Insight into the challenging nature of playing Minecraft in Survival mode was illuminated in a recent study where two 12- to 13-year-old Swedish girls (with an existing friendship) strived to win the game after playing it together for “about a month” (Wernholm, 2021, p. 12). In Survival mode, users “win” by surviving long enough to overcome the final in-world obstacle, which is to destroy a giant, flying creature known as the *Ender Dragon*. These children were highly motivated to “not give up” trying to win Survival mode, although they reportedly still had fun when they kept losing (e.g., when one of their avatars drowned in lava). Wernholm (2021, p. 15) found that “having

fun and feeling a sense of belonging appear to motivate the children to pursue joint enterprises” whilst playing Minecraft in Survival mode.

The children’s determined persistence to win this rules-based game was also described by the author as “grit” (p. 12) because they had invested a significant amount of time into achieving shared play-related goals and exhibited a willingness to “learn from their mistakes and make use of these experiences when facing new situations, which are dealt with more effectively” (p. 17). The Swedish children also exhibited grit by actively striving to refine their in-world skills, such as learning to scan the in-world environment for hostile threats and developing their ability to fight hostile creatures that were attacking their avatars. Interestingly, these children explained how they refined their survival skills by using the Google search engine to locate instructional Minecraft-related YouTube tutorials.

Children exhibiting “grit” whilst playing Minecraft in Survival mode was also evidenced in an Australian study where Dezuanni (2018, p. 243) observed his 9-year-old daughter adopting a “trial and error” approach to keeping her avatar alive. This child (who also consulted Minecraft-related YouTube tutorials to refine her in-world survival skills) assisted a separately located friend to build a protective shelter in the same Minecraft virtual environment (played in Survival mode) using sophisticated materials such as glass and wool (rather than wood). Similar findings were reported in a study where a 10-year-old boy enjoyed helping his separately located friends refine their in-world constructions whilst they played Minecraft in Battle Mode (a rules-based game where users have 5 minutes to build a set structure) via Skype (Twining et al., 2017).

While Battle Mode is now defunct, Minecraft continues to offer a range of (often monetised) rules-based games such as *Adventure Maps* (i.e., complex adventure quests) and *Mini-Games* (i.e., arcade-style games such as obstacle courses) via Minecraft Marketplace (Mojang, 2024c). According to Dezuanni (2018, p. 246), children’s play in rules-based Minecraft environments “requires collaboration, co-operation, respect for others’ achievements and possessions, and a willingness to learn from others”.

As previously discussed, another popular multiplayer virtual world embedded with rules-based games among school age children is Fortnite. This virtual world offers various modes of play (e.g., *Battle Royale*, *Save the World*) where users can either work individually or with other players (e.g., in duos or squads) to achieve set play-related goals (e.g., vying to be the final player standing, surviving an apocalyptic storm) (Navarro, 2021). Many school age children reportedly enjoy working together with their friends (or avatars controlled by strangers) to scavenge for virtual items (e.g., weapons, ammunition, medical supplies, building materials) and defeat opposing squads during online play using Fortnite (Albarelo et al., 2021; Carter et al., 2020a; Scholes et al., 2022).

A common thread permeating these studies is that children's collaborative in-world activities (victories in particular) in Fortnite equate to highly valued *social capital* among their real-world peers (who also enjoy playing Fortnite) and the wider Fortnite gaming community. According to Bourdieu (1977), social capital represents resources (e.g., knowledge, skills) promoting an individual's positioning (or status) among a group of people within a shared social network.

In addition to social benefits, school age children may reap other developmental benefits by playing (and winning) rules-based games during online play. For example, some 8- to 11-year-old Australian children describe the experience of winning during online play as "increasing their confidence" (eSafety Commissioner, 2024a, p. 27). Such findings indicate that children in the 8- to 12-year-old age group may be strongly motivated to play rules-based games during online play because achieving shared goals (e.g., collaborative victories) enables them to reap emotional benefits similar to those experienced via rules-based games in co-located spaces (e.g., team sports).

Children's enjoyment of in-world victories was also reported in another recent study conducted in Finland (Kahila et al., 2020). The study found that sixth- and ninth-grade children were highly motivated to defeat other players – especially their friends – whilst using multiplayer virtual worlds embedded with rules-based games such as *Hay Day* (where users' avatars grow and customise a farm) and *Counter Strike* (where users' avatars engage in first-person shooter battles

with other players). Rules-based games were found to “increase competition between players, which drives participants to put in more effort and work harder, and the success empowers them” (p. 693).

A particularly interesting aspect of the Finnish study was that some children believed that playing rules-based games in online environments improved their ability to concentrate, solve problems, make tactical decisions quickly, and use their imagination. Such games were also found to provide children with opportunities to establish new friendships with real-life peers and avatars controlled by strangers “from all over the country and even around the world” (p. 698) who shared common gaming interests.

It is important to note, however, that children’s motives for playing rules-based games (in online spaces and co-located spaces) always result from the imaginary situation rather than give rise to an imaginary situation (Caughey, 2021; Leontyev, 1944/2009). For example, while multiplayer virtual worlds embedded with rules-based games (e.g., Minecraft Survival mode, Fortnite *Battle Royale*, *Escape Grandma’s House Obby* in Roblox) represent imaginary situations (created by adult game designers), children’s motives to act are predominantly driven by the rules of the game (e.g., defeat hostile threats, overcome in-world obstacles).

In contrast, children’s motives to act during online sociodramatic play are driven by the roles they choose to adopt, and this process gives rise to an imaginary situation (Caughey, 2021). For example, children who choose to adopt roles as adventurers in Minecraft (played in Creative mode) will speak, act, and interact in ways dictated by that role (e.g., packing supplies, riding a horse, using a map and compass to navigate a virtual forest, saying “Let’s go!”). Naturally, this means children’s ability to create imaginary situations in multiplayer virtual worlds embedded with rules-based game designs is significantly impeded.

Research suggests, however, that some children creatively negotiate set aspects of rules-based games in virtual worlds to suit their unique playstyles. For example, a 9-year-old girl explained how she climbed trees and/or hid from zombies threatening to kill her avatar in Minecraft

Survival mode rather than adhere to conventional rules of the game which imply that such creatures be “violently killed with a sword” (Dezuanni et al., 2015, p. 157). The authors lauded this innovative strategy as enabling this child to explore “creative and inventive ways to use the game for her own purposes – in a sense to ‘hack’ it – by playing in unexpected ways” (p. 157).

In another example, children who enjoyed watching their avatars being pummelled with a bat in the Roblox game, *Escape Grandma’s House Obby*, were observed playing hide and seek with each other in this game rather than trying to escape Grandma’s house (as per the rules of the game) (Sayuno, 2021). An older school age girl participating in this same study was also observed asking avatars controlled by strangers (via text chat) to “adopt her” (p. 305) in the Roblox game *Meep City* rather than building and decorating a home for her avatar (as per the conventional rules of this game). These insights prompted the author of this study to posit that some Roblox games may be capable of facilitating a new layer of engagement for children who enjoy creating their own story-worlds via agentic in-world interactions rather than adhering to pre-determined rules.

2.2.3 Open-ended game designs

Multiplayer virtual worlds embedded with open-ended game designs are colloquially referred to as *sandbox* games because they enable users to move freely and purposefully within in-world environments based on what motivates them (Sarachan, 2013; Slattery et al., 2023b). Studies indicate that school age children are highly motivated to use the open-ended game design of Minecraft Creative mode because this mode of play enables them to create “anything” (e.g., cities, underwater houses, castles, interesting landscapes) they like (Trček, 2014, p. 172), build “whatever” they want (e.g., skyscrapers) (Newland et al., 2018, p. 1572), and make use of “endless” opportunities to set their imaginations “free” (Dezuanni & O’Mara, 2017, pp. 39-40).

The ability to express one’s creativity, therefore, is likely to be a key motivating factor for children to engage in online play using multiplayer virtual worlds embedded with open-ended game designs. This assertion is evidenced in an Australian study where, in relation to Minecraft, a 12-

year-old boy explained that “Creative is more for if you are trying to make things whereas Survival is more for if you just want to play the game for recreational purposes” (Dezuanni, 2018, p. 245).

Recently, a mixed methods study conducted in Ireland indicated that an overwhelming majority (over 93%) of 173 children (aged 8 to 13) agreed or strongly agreed that Minecraft: Education Edition provided them with opportunities to express their creativity (Slattery et al., 2023b). Similar findings were reported in another recent study where 91% of 245 children (aged 6 to 17) agreed that “open-ended” was a suitable term to describe the quality of their free play experiences in Minecraft (Livingstone & Pothong, 2021, p. 44). Interestingly, other key terms used by most children to describe these free play experiences included diverse (93%), imaginative (92%), and immersive (90%).

The authors of this research described these terms as four essential qualities of digital games facilitating play opportunities for children. Many children also used these same four terms to describe their play experiences in Roblox and Fortnite highlighting the need for further research to explore more deeply how these multiplayer virtual worlds support children’s ability to engage in imaginative play. For example, Fortnite offers a sandbox mode of play (Fortnite Creative) yet very few studies explore children’s play in this online space despite it being released over five years ago (in 2018).

In relation to the open-ended game design of Minecraft, some children are motivated to reimagine aspects of their everyday real-life experiences whilst using this mode of play. For example, in one of the first studies exploring children’s synchronous use of Minecraft and Skype for online play, two separately located Swedish children (aged under 15) co-constructed a virtual cowboy building based on a popular television documentary entitled *The Cowboy Builders* (Wernholm & Vigmo, 2015). In this study, children’s knowledge of this television program was recognised as an important resource informing how they expressed their creativity in Minecraft, such as discussing which building materials to use.

In another example, two separately located 7- to 8-year-old children (with an existing friendship) reimagined aspects of their lived experiences (e.g., riding horses) whilst co-constructing imaginary situations using Minecraft in Creative mode via FaceTime (Caughey et al., 2024). Interestingly, these children were also found to draw on their shared in-world experiences (e.g., encountering a virtual forest, using a bow and arrow) to inform their imaginary play scenarios.

Similarly, in an earlier study, two 8- to 9-year-old children (with an existing friendship) co-constructed a monster cave after they accidentally discovered a large virtual cave whilst playing Minecraft in Creative mode (Dezuanni, 2015). This collaborative construction was recognised by the authors of this study as the creative result of these children adopting roles as “adventurers who bravely explore new terrain and try out new, secretive, and unknown things” (p. 155).

Interestingly, other 8- to 9-year-old children participating in this study (who were classmates of the children who created the monster cave) were reportedly aware of, and impressed by, the monster cave elevating the status of its creators to Minecraft “experts” among their Year 3 cohort due to their “perceived technical ability, knowledge, design, and creation skills” (p. 155). Similar findings were reported in a more recent study conducted in Ireland where school age children who had acquired Minecraft skills at home assumed leadership roles by sharing their knowledge with peers whilst using Minecraft: Education Edition for class activities (Slattery et al., 2023a). According to an educator participating in this study, some of these children had rarely assumed leadership roles previously and were “difficult to engage in class” (p. 10).

Dezuanni et al. (2015) assert that a “hierarchy of achievement” (p. 156) exists among children who enjoy playing Minecraft in Creative mode, evidenced by the awe-inspiring expertise of the children who co-created a monster cave. This phrase bears similar connotations to the aforementioned “hierarchy of proficiency” (Wernholm, 2019, p. 48) that reportedly exists among children who enjoy playing Minecraft in Survival mode. Such phrases indicate that “achievement” in the open-ended game design of Minecraft Creative mode relates to a high level of creativity

whereas “proficiency” in the rules-based game design of Minecraft Survival mode relates to the skilful ability to keep one’s avatar alive.

Children often learn skills required to express their creativity in Minecraft from their in-world play partners. For example, Wernholm (2021) observed a 9-year-old Swedish girl teaching her 9-year-old friend how to build a fence for a virtual zoo they were co-constructing whilst playing Minecraft in Creative mode. The author argued that children often seek guidance from “more knowledgeable people who explain or show them what to do” (p. 16) during in-world play. For these children, representing oneself as a “learner” (e.g., by asking questions) in the virtual environment was an important step in the process of becoming a “knower” of highly valued Minecraft skills.

Similar insights were reported a decade ago by Trček (2014) who asserted that “intragenerational tacit knowledge exchange plays its role in informal learning on the way to game mastery” (p. 174) in Minecraft. This type of intragenerational knowledge exchange has been widely recognised as equating to social capital among school age children who enjoy playing Minecraft in Creative mode. Examples of such capital include actively participating in Minecraft-related discussions within peer networks and broader gaming communities (Dezuanni & O’Mara, 2017; Wernholm & Vigmo, 2015; Willett, 2016) and/or demonstrating in-world skills whilst creating impressive Minecraft structures (Dezuanni et al., 2015; Wernholm, 2021).

According to Dezuanni and O’Mara (2017), many children are “motivated through a deep, interest-driven desire to learn new knowledge and skills” (p. 36) in Minecraft via a process they refer to as “impassioned learning” (p. 36). This type of learning can lead to children feeling a sense of pride and achievement when their Minecraft creations receive validation and/or recognition from friends, peers, and the wider gaming community. For example, children might strive to acquire and/or refine their Minecraft skills so they can build impressive in-world structures (e.g., a sauna for a cruise ship) because they enjoy receiving positive recognition for these creations after sharing them with friends (Dezuanni et al., 2015).

The potential for children to reap social capital in the open-ended game design of Minecraft Creative mode suggests this mode of play represents a *virtual third place* within the blended ecology of family homes located in digitised societies. According to Steinkuehler and Williams (2006, p. 886), virtual third places see players bridging social capital (e.g., conversing knowledgably about shared interests, exhibiting proficient skills) whilst using neutral multiplayer virtual worlds (i.e., those embedded with loosely structured open-ended game designs). Importantly, success in a virtual third place is not based on real-world social, academic, or economic status but on in-world status based on an ability to exhibit technical, creative, and problem-solving skills. Recently, Squire (2022) asserted that Minecraft may have acted as a virtual third place for many children during recent COVID-19 lockdowns when traditional third places, such as playgrounds, were unavailable.

It is important to note, however, that some children may be motivated to acquire virtual items using real-world currency in open-ended game designs. For example, Minecraft Marketplace offers users the opportunity to purchase virtual items they can “show off” to their friends (Mojang, 2024c, para. 3). Such items include virtual currency (known as *Minecoins*) which can be used to purchase stylised in-world environments and/or avatar skins, *Skin Packs* (themed virtual costumes such as those based on Star Wars characters), and/or *Texture Packs* (virtual tools used to customise in-world materials).

Like subscription-based game designs, these economic features normalise commercial spending and may evoke feelings of frustration in some school age children (Livingstone & Pothong, 2021). Minecraft: Education Edition, however, does not allow users to exchange real-world currency for virtual currency or items. By eliminating the opportunity to purchase virtual items, Minecraft: Education Edition (played in Creative mode via voice or video chat) is thus likely to support children’s ability to participate more fairly in online sociodramatic play.

2.3 Children's perspectives

In this section, the term *children's perspectives* is defined and explained in relation to how it is conceptualised in the literature when seeking insight into children's own views of their everyday lived experiences, particularly those pertaining to their lived experiences of online play in the blended ecology of the family home. Then, the importance of respecting the perspectives of children living in highly digitised societies is explored, with a specific focus on the recent acknowledgement of children's rights in the digital environment.

2.3.1 Conceptualising children's perspectives

Determining how children's perspectives have been conceptualised in the scholarly literature requires an informed understanding of how this term differs to a similar sounding academic concept known as *child perspectives*. This is important because the meanings, orientations, and applications of these terms are incongruent in several significant ways (Sommer et al., 2013). Their contrasting nature is clarified by Sylva (2010) who argued that studies investigating child perspectives employ an "outside in" approach, whereas inquiries examining children's perspectives adopt an "inside out" approach (p. vi).

The outside in approach used to explore child perspectives sees researchers directing their attention towards interpreting and reporting how children experience, perceive, and act in the world. These types of studies essentially manifest as purposeful, realistic reconstructions of the various ways children participate in, and/or make meaning from, specific activities or situations as refracted through an adult lens. In contrast, the inside out approach requires researchers to suspend adult beliefs, views, and understandings about child- and/or childhood-related phenomena to reveal children's own views about their lived experiences. Such inquiries seek deeper insight into children's experiences and understandings about their everyday lived experiences as expressed verbally and/or via written texts or pictorial representations.

Researchers seeking to elicit children's perspectives venture into uncharted territory as they strive to understand what it means to be a child living in contemporary society. This can be a

challenging task because adult researchers may be required to “rethink the nature of childhood itself” (Claverling & McLaughlin, 2010, p. 606). Such research is important, however, for informing and/or transforming adult practices so children might not be compromised by tensions incurred from societal constraints and structural-based expectations that regulate their everyday lives. In the blended ecology of the family home, these types of constraints and expectations include caregiver practices that may have been influenced by pervasive screen time discourses, nostalgic memories of outdoor childhoods, and/or negative mainstream media reports about virtual world gaming platforms.

According to Cannella (2002), viewing children as “simple predetermined entities who are to be regulated” (p. 158) not only fails to acknowledge children’s fundamental right to be heard and respected as equal human beings, but denies the complexity and ambiguity of their everyday lives. Expecting children to yield to the authority of adults is the result of deeply embedded power ideologies that attempt to control children’s ability to act as social agents who are capable of understanding, acting upon, and co-constructing their own lives (Waller, 2006).

Viewing children as active social agents means recognising that child development is not biologically and psychologically deterministic, rather, children can “construct and shape the social structures and processes of their lives” (Farrell et al., 2004, p. 624). Here, the concept of child agency refers to the individual competencies of children to independently form relationships with others and actively participate in social situations in everyday cultural settings, such as the family home (James, 2009; Mayall, 2002).

The philosophical underpinnings of child agency manifested in the late 20th century through an interdisciplinary scholarly field known as Childhood Studies. Conceptualised as the “new social studies of childhood” (James et al., 1998, p. 3), Childhood Studies aimed to examine the normality of childhood by recognising children in their own right. This thinking thus rejected traditional notions of children as passive, vulnerable recipients of adults’ guidance and information (Qvortrup et al., 2009). Rather than being viewed as “adults-in-the-making” (Adams, 2014, p. 164) or

“becomings” (Qvortrup et al., 2009, p. 9), children were viewed as unique individual “beings” capable of acting independently – with agency – and thus able to play a key role in shaping the societies in which they live (James, 2009, p. 36).

Childhood Studies inspired a scholarly movement that increasingly positioned children as knowledgeable and insightful members of society as opposed to being informed, transformed, and shaped by societal influences and on a trajectory toward adulthood. According to Mayall (2002), children’s agency can be either enhanced or limited by different hierarchical (e.g., teacher/student) and generational (e.g., parent/child) relationships that exist between children and adults. For example, caregiver practices in the family home might support or constrain children’s ability to agentively participate in online play with their separately located friends (Caughey, 2021; Lafton et al., 2024). Children’s agentic actions, therefore, have potential to inspire social change or be simply reproduced depending on the practices of adults in local and global societal contexts.

Studies drawing on the philosophical underpinnings of child agency are framed by the belief that children are “actors or agents on a number of stages and within many contexts” (Qvortrup et al., 2009, p. 4) who are “capable of holding opinions and ideas” (Merewether & Fleet, 2014, p. 898). Adhering to a child agency philosophical paradigm thus requires researchers to closely examine how children subjectively and meaningfully perceive specific aspects of their lived experiences. This philosophy is thus often used to inform research eliciting children’s perspectives because it represents a clear shift from viewing children as “objects of research” to regarding them as active agents who are involved in the production of new knowledge (Clavering & McLaughlin, 2010, p. 609). For example, the concept of child agency has informed studies seeking children’s perspectives of childhood (Adams, 2014), multiplayer virtual worlds (Hafner, 2015; Livingstone & Pothong, 2021), factors affecting their subjective wellbeing in relation to the digital environment (Lafton et al., 2024; UNICEF, 2024), and meaningful leisure activities in digital contexts (Rustad et al., 2024).

In this research, the inside out approach (Sylva, 2010), underpinned by philosophical notions of child agency, was used to elicit 8- to 12-year-old children's perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home. Subsequently, children's perspectives are defined in this thesis as children's experiences and understandings of the way their caregivers manage and monitor their ability to participate in online sociodramatic play within the blended ecology of family homes in digitised societies. By adopting this child-centred philosophical approach, children participating in this study were given the opportunity to "give voice to their thoughts and feelings" (Sommer et al., 2013, p. 468) about caregiver practices in the home that are essentially based on household rules for online play.

2.3.2 Respecting children's perspectives

In the late 1980s, children living in largely democratic societies globally were recognised as having a fundamental right to express their views about matters affecting them via the United Nations Convention on the Rights of the Child (UNCRC, 1989). This revolutionary treaty codified the obligations of governments from 140 countries (a figure that has since increased to 196) to recognise, respect, and realise the rights and perspectives of children aged under 18 (or the state-specified threshold of legal adulthood) who reside in these countries.

Recently, the contemporary relevance of the initial UNCRC treaty document was addressed via a supplementary article entitled *General Comment No. 25 on Children's Rights in Relation to the Digital Environment* (UNCRC, 2021). This ratified document advises adults living in democratic countries to actively promote, respect, protect, and fulfil the rights of all children by providing them with safe, purposeful access to meaningful activities in digital environments, such as recreational play experiences enabling social interactions with friends and those promoting "autonomy, personal development, and enjoyment" (p. 18).

In alignment with a children's rights-based philosophy, *General Comment No. 25* was informed by the perspectives and lived experiences of 709 children and young people (aged 9 to 22) from 27 countries across six continents, including Australia (Third & Moody, 2021). In the study,

many children and young people regarded networked devices as playing an “integral role in shaping who they are and how they live their lives, by providing them with more, and different, opportunities to play, communicate, learn, and express themselves” (UNCRC, 2021, p. 79).

Importantly, *General Comment No. 25* draws attention to the “critical neurological growth spurts” (p. 3) children experience during early childhood (birth to age 8) and adolescence – a period of childhood currently defined as 10- to 19-years-old by the World Health Organisation (2021). Children entering adolescence are recognised in this article as being more likely to explore online environments away from the supervision of their caregivers. Caregivers, therefore, are encouraged to enact practices in the home that respect an adolescents’ right to privacy in digital environments, whilst also keeping them safe. This advice was particularly relevant to the research reported in this thesis because several of the child participants were aged 10- to 12-years-old.

Of further relevance to this research, *General Comment No. 25* highlights the need for robust, comprehensive studies (particularly those conducted with children) that critically examine the implications and significance of digital environments in the lives of children growing up in digitised societies. Such research is recognised in this article as crucial for assisting caregivers with supporting children’s evolving capacities and autonomy in the digital environment via a child-centred approach that prioritises mutual respect and empathy, rather than prohibition and control.

Prioritising child agency in digital environments, however, may challenge the rights of caregivers to agentively enact practices in the home based on their own values, aspirations, philosophies, and traditions (Livingstone & Blum-Ross, 2020). To address this issue, *General Comment No. 25* makes it clear that research exploring children’s rights in the digital environment “should be based on an understanding of the specificity and uniqueness of parent-child relations” (UNCRC, 2021, p. 14). As such, the thoughts, values, and opinions of caregivers participating in the research reported in this thesis were also elicited (and highly respected). According to Lafton et al. (2024), the perspectives of caregivers are as equally important as the perspectives of children when conducting research in the context of the family home.

Like the generational gap of opinion discussed in Chapter 1 (p. 5), the study conducted to inform development of *General Comment No. 25* suggested that a “digital generation gap” exists between children – who regard themselves as members of the digital generation – and their caregivers – who were raised in family homes where digital technologies were sparse (Third & Moody, 2021, p. 79). As a result of this “gap”, many children participating in the study were found to perceive digital technologies quite differently to their caregivers. For example, children explained how they interacted with a wide social network in online spaces whereas they believed their caregivers predominantly interacted online with family members only. A further important finding suggested that children become particularly frustrated when household rules set by their caregivers are “borne from a misunderstanding and undervaluing of their opinions, motivations, digital experiences, and skills regarding the digital environment” (p. 78).

More recently, this type of generational gap was again identified in a study conducted with 50 children (aged 8 to 16 years) from five European countries (Austria, Greece, Norway, Romania, and the United Kingdom) (Rustad et al., 2024). Many children participating in this study described how they enjoyed socialising with their real-world friends in digital contexts (e.g., via online play) but felt their parents would much prefer them to interact with friends in co-located spaces. The authors of this study suggested that many “parents have a different perspective on what they consider meaningful leisure-time activities compared to the digital activities preferred by their children” (p. 313). Such insights highlight the importance (and urgency) of eliciting children’s perspectives about the new blended ecologies that exist within family homes in digitised societies.

2.3.3 Seeking children’s perspectives in digital contexts

A core tenet of the original UNCRC (1989) treaty is that childhood is a critically important period of human development. Subsequently, this “momentous document” (Qvortrup et al., 2009, p. 5) endows children with basic human rights, special assistance, and care, so their personalities can develop and evolve in a fully supported, harmonious manner. In this document, *Article 12 (1)* stipulates that children who are psychologically capable of forming views about matters that affect

them should have the right to freely express such views. Importantly, *Article 12* also specifies that children's views should be "given due weight" (UNCRC, 1989, p. 4) meaning they should be heard and thoughtfully considered by adults in the democratic societies in which they live.

As a result of the UNCRC (1989), seeking the perspectives of children became an increasingly necessary component of empirical research exploring child- and/or childhood-related phenomena (Adams, 2014; Sommer et al., 2013). Several examples of these type of studies were reviewed previously where researchers elicited children's views of using multiplayer virtual worlds such as Club Penguin (Burke, 2013; Marsh, 2011; Sarachan, 2013), Minecraft (Dezuanni & O'Mara, 2017; Dezuanni et al., 2015; Slattery et al., 2023b), and Fortnite (Carter et al., 2020a; 2020b; Scholes et al., 2022).

Although scant, previous research studies provide some insight into how children experience and understand the way caregivers manage and monitor their use of networked devices and/or online spaces in the home. An example of these perspectives was highlighted in Chapter 1 (p. 7) where screen time limits for online play were recognised as a source of conflict between many Australian children and their caregivers (eSafety Commissioner, 2024a). Another recent Australian study found that an 8-year-old child was confused as to why he was not allowed to use the family touchscreen tablet to play Minecraft in his bedroom, but his parents could use their own networked devices in their bedroom (Balmford & Davies, 2020).

Interestingly, the Balmford and Davies (2020) study also highlighted two examples where children disagreed with how their parents monitored their use of Minecraft, so they actively eroded their parents' attempts at enforcing these household rules. In the first example, parents in one family home had initially set a household rule that their children (aged 6 and 10) were not to harm virtual animals whilst playing Minecraft. During family interviews conducted for this research, however, these children proceeded to set virtual sheep on fire and blow them up using virtual dynamite (activities they visibly enjoyed).

In the second example, a father in another family home had initially set a household rule that his children were not allowed to download digital games involving weapons, guns, or zombies. His eldest child (who was aged 14 when the study was conducted), however, downloaded Minecraft (a game involving both weapons and zombies) onto the family iPad without his parents' knowledge. Over time, this child's parents realised that the Minecraft open-ended game design enabled their son to freely express his creativity which ultimately reframed their household definition of digital games involving weapons and zombies. These insights led the authors of this study to assert that children's use of Minecraft in the home is "governed not by hard rules but by discursive, negotiated, and sophisticated understandings that emerge around the game" (Balmford & Davies, 2020, p. 15).

A similar situation was reported in a recent paper where the author (a mother named Jessica) explained how she had initially disallowed her preadolescent son to play Fortnite due to her "general distaste" of digital games involving weapons (Navarro, 2021, p. 13). During COVID-19 lockdowns, however, Jessica relented after her son "made a persuasive argument for how Fortnite allowed him to connect and play with his friends, even while socially isolated" (p. 13). Interestingly, this new household rule prompted a transformative shift in the way Jessica (an accomplished social scientist) viewed the capacity for Fortnite to act as a dynamic and complex site for developing children's social competencies.

A particularly fascinating aspect of Jessica's shift in thinking was that it occurred after her son explained how he and his friends had protected a younger player (they did not know in the real world) and helped him find weapons because it was his birthday and he had no one else to play with. Ultimately, Jessica recognised that her fear-based preconceptions about Fortnite had been significantly shaped by mainstream media reports citing research that utilised a deficit-based perspective of digital and online games involving weapons and thus contributed to societal discourses that created "a false dichotomy between violent and prosocial games" (p. 14).

In the previous examples, children's own perspectives of Minecraft and Fortnite were successful in reshaping how their parents viewed these multiplayer virtual worlds. Such findings

suggest that child-centred philosophies represent another important societal factor influencing how caregivers make decisions about managing and monitoring children's use of networked devices and/or interactions in online spaces in the blended ecology of the family home. Further examples of this child-centred parenting approach are evidenced in studies where caregivers have reportedly trusted children's judgement about digital games embedded with violent themes (e.g., stoning bats with catapults) (Zaman et al., 2016) and negotiated screen time limits with children (Lafton et al., 2024; Willett, 2018). Such insights add further weight to the importance of seeking the perspectives of children and their caregivers in relation to digital environments.

Conclusion

In this chapter, a review of the scholarly literature has canvassed three central areas of interest. Studies relating to the first area of interest, caregiver practices, indicated that caregivers living in highly digitised societies enact a varied, and often contrasting, range of practices to manage children's screen time and monitor children's participation in online play in the blended ecology of the family home. Such practices were found to be strongly influenced by a myriad of adult-directed societal factors including screen time discourses, educators, other parents, mainstream media, and the personal backgrounds of caregivers. These insights highlighted the need for the voices of children to be included in the discussion about the way online play (a social activity they reportedly love) is managed and monitored in the home.

In the second area of interest, children's motives for play in multiplayer virtual worlds were described as being dialectically related to embedded features of the game design. These features were classified into three general categories including subscription-based game designs, rules-based game designs, and open-ended game designs. Importantly, subscription-based game designs and rules-based game designs were recognised as inhibiting children's ability to engage in online sociodramatic play, whereas open-ended game designs (particularly Minecraft: Education Edition played in Creative mode) were identified as supporting children's ability to freely create and enact

imaginary play scenarios thus successfully facilitating online sociodramatic play (when used synchronously with voice or video chat software platforms).

Scholarly insights relating to the third area of interest, children's perspectives, underscored the importance of eliciting and respecting the experiences and understandings of children who engage in meaningful activities in the blended ecology of the family home, such as online sociodramatic play. Caregivers' right to express their perspectives about these activities was also emphasised. Previous studies provided some insight into how children experience and understand caregiver practices guiding their use of networked devices and/or participation in online play in the home. These insights highlighted the potential for children's perspectives to inform, and potentially transform, such practices particularly when caregivers embrace child-centred parenting approaches.

While the three areas of interest explored in this chapter provide a firm grounding for understanding caregiver practices, children's motives, and children's perspectives in their distinctive scholarly fields, few studies currently examine how they are intertwined in the blended ecology of the family home to comprise the institution of online sociodramatic play itself that creates the cultural conditions for supporting, or otherwise restricting, children's learning and development. The next chapter in this thesis, Chapter 3 Theoretical Framework, will detail the cultural-historical underpinnings to this work, leading to the use of Hedegaard's (2009) model of child learning and development through participation in institutionalised practice, and the notion of mediated caregiver practices and children's motives according to Vygotsky's thinking about mediation (1930/1978) and the periodisation of child development (1933–1934/1998a).

Chapter 3: Theoretical Framework

Introduction

This chapter begins with an overview of the central tenets of cultural-historical theory leading to the emergence of Hedegaard's (2009) model of child learning and development through participation in institutionalised practice. This model provided the theoretical framework for addressing the main research question guiding this investigation:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

and three sub-questions addressing the main research question:

SQ1: How are caregiver practices mediated by cultural artifacts regarding children's participation in online sociodramatic play in the family home?

SQ2: What are children's motives for engaging in online sociodramatic play?

SQ3: What are children's perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home?

Following this, cultural-historical understandings of mediation (Vygotsky, 1930/1978) and the scholarly field known as practice theory will be explained in terms of how they provided theoretical insight into the upper tier of Hedegaard's (2009) model for the purpose of this thesis. Then, Vygotsky's (1933–1934/1998a) periodisation of child development will be discussed in relation to how it theoretically informed the lower tier of Hedegaard's (2009) model framing this research. Jointly, mediation, practice theory, Vygotsky's (1933–1934/1998a) periodisation of child development, and Hedegaard's (2009) model of child development provided the theoretical framework for exploring the unit of analysis in this research – the institution of online sociodramatic play.

3.1 Cultural-historical theory

Cultural-historical theory is rooted in the pioneering work of Lev Vygotsky, a Russian teacher, scholar, and paedologist (developmental psychologist) during the 1920s and early 1930s.

During this historical era, Vygotsky collaborated with a wide network of scholars to develop an integrative theory of child development that encompassed a diverse web of interdependent ideas, practices, and methods (Yasnitsky, 2011).

Vygotsky and his close colleagues, Alexander Luria (a neuropsychologist) and Alexei Leontyev (a fellow paedologist), are widely considered to be the troika (or “Big Three”) founding fathers of cultural-historical theory (van der Veer & Valsiner, 1991; Vasileva & Balyasnikova, 2019). Their theoretical views, however, did not always align and were thus often vigorously debated. For example, Luria was more heavily influenced than Vygotsky by Freud’s (1905/1977) psychoanalytic theory which suggested that children progress through psychosexual developmental stages (see Luria et al., 1979) and Leontyev (1944/2009) viewed activity as generating human psychological development whereas Vygotsky (1930/1978) thought cultural artifacts (e.g., sign systems, material tools) predominantly mediated this process. Vygotsky’s (1930/1978) thinking about the cultural-historical concept of mediation will be explored in Section 3.3 of this chapter.

All three members of the troika, however, were strongly influenced by the German philosopher Karl Marx (1867) who viewed human cognition as dialectically interrelated to the external world (van der Veer & Valsiner, 1991). Here, the use of the term *dialectical* suggests that human consciousness “from the very beginning is a social product” (Leontyev, 1978, p. 46) because it relies on, and is inseparably tied to, the sociocultural conditions of the environments in which people live. Marxists, therefore, believe that people develop psychologically by acting in the world rather than reacting to it. This view was revolutionary in the early 1900s because it rejected widely held notions that external cultural conditions bore little influence on human cognition.

While cultural-historical theory evolved in the 1920s, it did not gain global recognition until the 1970s when a series of interviews, oral presentations, and memoirs emerging from the troika and their students (e.g., El’Konin, 1971/1999; Zaporozhets, 1963-1967/1997) were published (Yasnitsky, 2011). Earlier access to such revolutionary work was hindered when the Stalin-led Communist Party governing Russia in 1936 denounced paedology as perverse (likely due to its

Freudian influences) and dangerous (due to its Marxist foundations being increasingly influenced by Western capitalist ideologies) (van der Veer & Valsiner, 1991). This decree effectively halted much of the scholarly exploration of cultural-historical concepts about child development.

Moreover, this era not only gave rise to a period of anxiety and instability, but Vygotsky's seminal work was highly criticised and condemned throughout Russia (Yasnitsky, 2011). Vygotsky himself did not bear witness to this travesty, however, as he died of chronic tuberculosis in 1934, aged 38-years-old.

3.1.1 Philosophical origins

Drawing on Marxist dialectics, cultural-historical theory suggests child development is constituted by two different, yet dialectically related, lines (van der Veer & Valsiner, 1991). The first line represents children's natural (biological) development (e.g., growing taller, dental eruptions) and the second line represents children's social and cultural (psychological) development (e.g., acquiring speech, developing abstract thought).

While distinguishing between these lines of development was challenging for many paedologists in the early 20th century (including Vygotsky), the notion that they were inseparably fused prompted a philosophical shift in how developmental and educational psychologists at the time viewed the external conditions of children's everyday lives. Subsequently, cultural-historical theory revolutionised how child development was, and continues to be, theorised, particularly for children in the early childhood years (birth to 8) and those with intellectual and/or physical disabilities (van der Veer & Valsiner, 1991).

The notion of dialectics is strongly embedded in cultural-historical theory, possibly due to Vygotsky's early career as a teacher of literature where he explored the "dialectical unity of opposites" (van der Veer & Valsiner, 1991, p. 22) within literary texts such as traditional fables and the Shakespearean tragedy *Hamlet*. The narrative structures of such texts are often dialectically related as they involve two opposing, yet interdependent, themes (e.g., good/evil, life/death,

action/inaction) and progressively intensify (in equal measures) along two lines to create new psychological enlightenment in the reader.

Vygotsky's (1930/2004) appreciation of traditional Russian fables is evidenced in his seminal paper theorising how imagination develops in childhood where he refers to "a hut on chicken legs" (p. 13), a key element of the traditional Russian fable *Baba Yaga*. Interestingly, such texts often involve a catastrophe toward the end (e.g., Hamlet is killed, Baba Yaga threatens to kill an innocent young girl) to ensure the meaning of the story is imparted to the reader.

Cultural-historical theoretical concepts, therefore, are often based on the understanding that humans strive to overcome the "elemental chaos of nature" (van der Veer & Valsiner, 1991, p. 17). For example, Vygotsky's (1933–1934/1998a) periodisation of child development theorised that children strive to overcome chaotic psychological shifts at certain ages. This developmental theory is explained further in Section 3.5 of this chapter.

In Marxist philosophy, the concept of dialectics refers to the dualistic relationship between an individual's biologically determined developmental trajectory of their physical being, and the socially and culturally determined developmental trajectory of their personality (Leontyev, 1978). While this concept was embraced by many scholars over a century ago (including Vygotsky and his colleagues), it has since evolved to encompass the notion of *dialectical theories* to consider how human development is in a continual state of change.

3.1.2 Dialectical theories of child development

According to Riegel (1975), dialectical theories embrace how situational changes occurring over short periods of time (e.g., informal conversations) and developmental changes within humans (e.g., new motive orientations) and societies (e.g., the introduction of technological innovations) occurring over longer periods of time are fundamentally interdependent. Dialectical theories concerned with childhood, such as cultural-historical theory, adopt a scientific approach to examining child development by recognising the internal psychological and biological changes that

manifest in children (inner dialectics) and the external social and cultural conditions in which they are raised (outer dialectics).

In dialectical theories, the dynamic, complex, and interdependent interaction between inner dialectics and outer dialectics transforms the societies in which humans live whilst simultaneously transforming the lives of the humans who create such societies. For example, Corsaro's (2015, p. 27) interpretive reproduction theory explores inner and outer dialectics by considering how "micro" (e.g., children's ability to act as social agents) and "macro" (e.g., how the notion of childhood is structured in society) aspects of children's lives influence their psychological development. In alignment with cultural-historical theory, Corsaro's (2015) theory suggests that children do not simply internalise the societies in which they live but make changes to them through agentic actions and interactions.

Some child developmental theories, however, offer an alternative approach by exploring the complexities of inner and outer dialectics separately. For example, Piaget's (1950) theory of cognitive development focuses on the fundamental role of inner operations in children's mental activities. This theory suggests that children learn and develop by interpreting, organising, and assimilating information from their environmental surrounds to build mental structures (known as *schema*) through an internal, cyclical set of stages. In this sense, children's "knowledge of the world is made, not found" (Bruner, 1997, p. 66) as they seek to understand the world in which they live.

In Piaget's (1950) theory, the quest for cognitive harmony is known as *equilibrium* – a central, powerful force propelling children to compensate for discordances that may arise in their everyday lives. While this theory posits that children often establish equilibrium innately without disruption or conflict (depending on their social activities in everyday settings), dialectical theories prioritise such discordances as essential to human development (Riegel, 1975). This is because the societies in which children live are in a constant state of flux, change, and transformation.

Dialectical theories, therefore, are ideal for conceptualising studies exploring child development

during times of significant societal transformations, such as children's increasing participation in online play.

Other theories of child development explore beyond children's inner dialectics to consider more deeply the outer dialectics that influence development. For example, Bronfenbrenner's (1977, 1986) ecological systems theory views human mental development as a complex process that is fundamentally inscribed into a concentric arrangement of interdependent systems. Each system is comprised of a specific set of dynamic interactions representing the ever-changing informal and formal social contexts or ecological environments in which humans live and these are organised (or "nested") according to the level of impact each has on the individual.

In ecological systems theory, the innermost systems (e.g., micro- and mesosystem) consider how complex relationships among and between children and adults (e.g., sibling relationships, parents' interactions with teachers) influence child development. Whereas the outermost systems (e.g., exo-, macro-, and chronosystem) consider how adult settings (e.g., parents' workplaces, education departments, systems of government), biological changes (e.g., the onset of puberty), and environmental factors (e.g., global pandemics) influence child development.

Interestingly, Bronfenbrenner (1977, 1986) was inspired to consider the developmental consequences of ever-transient external structures more deeply after a philosophical discussion with troika member, Professor Alexei Leontyev. During this informal interaction, Leontyev reportedly asserted that developmental psychologists should focus more on discovering how children come to be who they not yet are, rather than how they come to be who they are. This experience prompted Bronfenbrenner (1977) to fondly refer to this sentiment as "Leontyev's Law" (p. 529) and highlights how situational changes (such as informal conversations) can profoundly affect the trajectory of an individual's development.

In cultural-historical theory, these situational changes are considered more deeply to examine how specific social activities at different ages reflect the unique sociocultural conditions

for fostering important psychological constructs during childhood. These social activities are referred to as *social situations of development*.

3.1.3 Social situations of development

According to Vygotsky (1933–1934/1998a), social situations of development represent important social activities that restructure children’s existing mental competences into new, dynamic competences and prompt transformative changes in the way children relate to their external surrounds. For example, acting in imaginary situations is considered a social situation of development for 3- to 7-year-old children because children in this age group become psychologically capable of viewing everyday objects in new, symbolic ways.

An important feature of social situations of development is that they result in “qualitative changes” in the child’s psychological processing that prompt children to outgrow their old relationships with adults at certain ages (Kravtsova, 2006, p. 16). For example, while most 3-year-old children need explicit adult support to act in imaginary situations (Karpov, 2020), 7-year-olds are usually capable of creating and enacting imaginary play scenarios independently whilst adults implicitly support such play from afar (e.g., by providing children with time, space, and objects for play) (Bergen & Fromberg, 2009). Social situations of development are thus crucial during childhood because they shape children’s personalities and propel them on new developmental trajectories supporting their successful participation in wider sociocultural contexts.

While the notion that certain social activities foster qualitative changes in children’s mental processing was strongly influenced by Marxist philosophy, the idea that such activities determine children’s developmental trajectories was informed by Gestalt psychology (Blunden, 2011). Originating in Germany in the early 1900s as a revised version of Freud’s (1905/1977) theory of psychoanalysis, Gestalt psychology rejects structuralist notions that human cognition (e.g., introspection) is unrelated to societal influences prevalent among cultural practices of a particular group of people.

Several influential 19th century German psychologists (e.g., Koffka, Köhler) were instrumental in developing Gestalt psychology. However, Vygotsky drew heavily on the work of German philosopher (and poet) Johann Wolfgang von Goethe to inform his notion of the social situation of development. Goethe (as cited in Naydler, 1996) established the foundations for Gestalt thinking in the early 1800s, a century prior to its philosophical evolution, by adopting a qualitative approach to the field of natural sciences and theorising that human consciousness was wholistically related to an individual's social experiences.

The term *wholistic* was used by Goethe to infer that an individual's behaviour can only be fully understood by considering key aspects of their personality (e.g., goals, motives, intellect, interactions) as a complex whole rather than as separate entities. This philosophical worldview was reflected in Goethe's translation of the German term *gestalt* to mean figure (as in humans are configured in complex, dynamic ways that are constantly changing) rather than shape or form.

Goethe's revised definition was revolutionary at the time because it opposed the quantitative-based approach to studying scientific phenomena popularised by Sir Isaac Newton in the early 1700s. Goethe thus prompted a profound shift in psychological thinking that human consciousness was generated externally rather than internally, giving rise to the notion that an individual's developmental trajectory was fundamentally influenced by sociocultural factors.

This thinking is reflected in Vygotsky's (1930–1931/1998c) assertion that the “environment determines the development of the child through experience of the environment” (p. 294). Social situations of development, therefore, essentially reflect a “microcosm of the whole society” (Blunden, 2011, p. 464) because they are created by adults who raise and educate children according to the customs, expectations, and value positions of wider society.

Vygotsky's (1933–1934/1998a) concept of the social situation of development is underpinned by Goethe's philosophical worldview because child development is viewed as a wholistic process during which children's sense of self manifests through (rather than isolated from) their relationships with others. Consciousness, social activities, and material arrangements thus

represent a mutually constituted, combined whole for supporting children's developmental trajectories during childhood through unique social situations of development that foster new central psychological formations (e.g., memory, critical thinking).

Social situations of development are considered unique because they are reflective of children's stage of development at certain ages and are thus not replicated at later stages. For example, while infants strive to make emotional connections with adults, this activity is not replicated at later stages as children become increasingly aware of their external surrounds and more focused on objects and/or peers. Social situations of development, therefore, regulate a child's social existence because they are essentially determined by the relationship between children and others (e.g., adults, peers) within their external surrounds.

The emergence of new central psychological formations during childhood is crucial because, when they appear in consciousness, children are psychologically ready for the next unique social situation of development. It is important to recognise, however, that while social situations of development generally correspond with a child's age and stage of development, this may differ for children who have experienced environmental deficits (e.g., social isolation) and/or are living with an intellectual disability.

A fundamental characteristic of social situations of development is that they are scaffolded by adults who raise and educate children. While such activities are intentionally designed to cater for children's age-related needs, motive orientations, and competences, they would not exist without a child's motive to act (Leontyev, 1944/2009). The notion of *motive* is thus instrumental to understanding how social situations of development are conceptualised in cultural-historical theory.

3.1.4 Motive

Children's motives for engaging in specific social situations of development emerge, evolve, and change depending on diverse sociocultural conditions and/or how they are positioned by adults to "actively engage and take up particular participation structures" (Fleer & Hedegaard, 2010, p.

151). Such motives are predominantly based on children's inclinations and incentives to act according to how they affectively relate to unique social situations of development (Karpov, 2020).

Children form affective relations toward social situations of development based on the dialectical unity between their existing (internal) competences (e.g., cognitive, social, emotional) and previous experience of, and/or peaked interest in, the sociocultural (external) environment scaffolding the activity (Bozhovich, 1968/2009). For example, many 8- to 12-year-old (school age) children are motivated to engage in object-centred learning activities with others because they are cognitively capable of doing so, have previously enjoyed these activities, and have access to a wide range of educational resources provided by adults (El'Konin, 1971/1999).

While children may be psychologically prepared for engaging in new social situations of development, their active participation is largely dependent on their motives for engaging in such activities. For example, school age children may be more highly motivated to engage in object-centered learning activities with friends compared to non-friends. Considering how children's internal (psychological) motives are met by the external (cultural conditions) created by adults who raise and educate them is thus core to understanding how children's cultural developmental is being supported, or otherwise restricted, in the societies in which they live.

Adults are instrumental in stimulating and satisfying children's motives for engaging in social situations of development. This may be a difficult process, however, because such activities do not have clearly defined structures (Kravtsova, 2006). For example, in rules-based games (e.g., basketball, board games) the activity structure remains the same (i.e., to play according to pre-determined rules of the game), so children's main motive for engaging in such activities is (usually) to win the game (Leontyev, 1944/2009). During sociodramatic play, however, the activity structure is based on children's co-constructed imaginary scenarios, so their motives for engaging in such play may vary. It is important, therefore, to examine why children are motivated to engage in social situations of development (such as acting in imaginary situations), because without motives to act, a child's developmental trajectory may be compromised.

Vygotsky (1931/1997a) argued that examining the cultural development of the child requires a specialised approach (or way) of research that accounts for the complex array of meaningful stimuli creating the external conditions for social situations of development. One such approach is the theoretical model framing this research – Hedegaard’s (2009) model of child learning and development through participation in institutionalised practice. Anchored in cultural-historical theory, this model provides a comprehensive framework for analysing the dynamic, homogenous links between the motive orientations of children and the institutional and societal influences creating the cultural conditions for social situations of development.

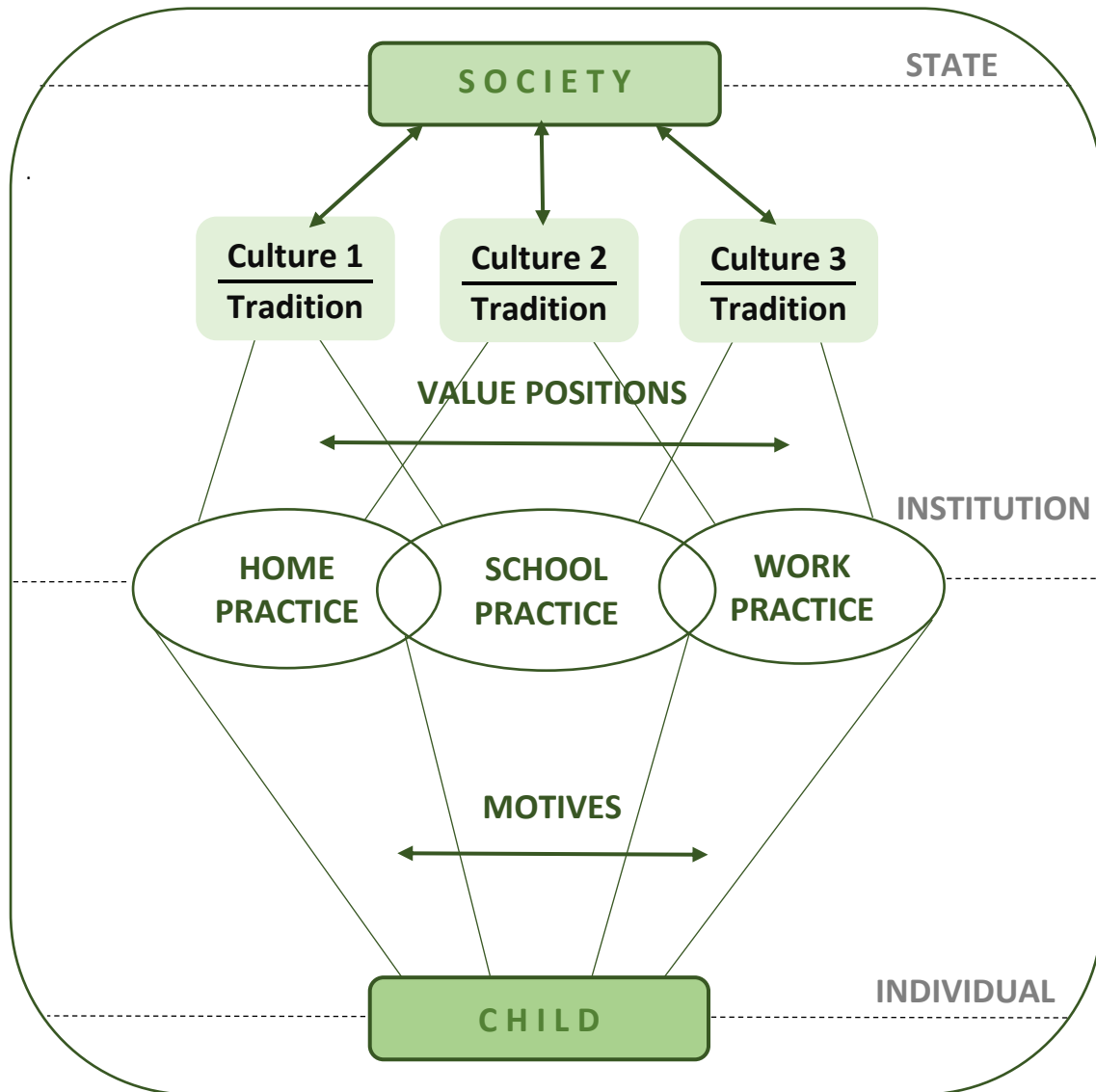
3.2 Hedegaard’s (2009) model of child learning and development through participation in institutionalised practice

The theoretical model framing this study was first conceptualised in 1976 when developmental psychologist, Professor Marianne Hedegaard, and a group of her tertiary students formed a weekly playgroup for preschoolers at Aarhus University in Denmark. The principal aim of the playgroup was to develop a theoretical tool for exploring how children’s motives for different social activities were influenced by the demands adults placed on them at playgroup (Hedegaard, 2020). The result was a wholistic framework for exploring how everyday adult practices in natural concrete settings reflect the cultural conditions for supporting, or otherwise restricting, an individual child’s development.

In alignment with cultural-historical theory, Hedegaard’s (2009) model of child learning and development through participation in institutionalised practice is wholistic because it frames psychological development in childhood as a dynamic, interactive process occurring when children participate in social activities within institutional settings, rather than a fixed, linear process (see Figure 3.1). Institutional settings are concrete, culturally based settings governed by societal traditions (e.g., social hierarchies, education systems), such as homes, schools, and playgroups, where children engage in meaningful social situations with adults (e.g., parents, grandparents, educators) and/or other children.

Figure 3.1

Hedegaard's (2009) Model of Child Learning and Development through Participation in Institutionalised Practice



Note. From “Children's Development from a Cultural-historical Approach: Children's Activity in Everyday Local Settings as Foundation for their Development,” by M. Hedegaard, 2009, *Mind, Culture, and Activity*, 16(1), p. 73 (<https://doi.org/10.1080/10749030802477374>). Copyright 2008 by Taylor and Francis.

3.2.1 Analytical planes of Hedegaard's (2009) cultural-historical model

Hedegaard's (2009) cultural-historical model of child development is framed using three related analytical planes. The three analytical planes reflect different perspectives that can only be understood by referencing the structure in its entirety. These perspectives are: 1) the state (or societal) perspective; 2) the institutional perspective; and 3) the individual perspective.

3.2.1.1 The state perspective

The state (or societal) perspective is situated within the upper tier of Figure 3.1. This perspective represents an historically situated context in which different culturally based traditions (e.g., education systems, laws, social hierarchies) reflect implied value positions about childhood. For example, the age at which children begin school within a particular society is largely determined by culturally based traditions about school readiness in that society.

At the state level, shared value positions among people living in the same society exert powerful influences on the way adults (e.g., caregivers, educators) act and interact with children to frame their active participation in institutional settings. This perspective thus suggests that children's developmental pathways are fundamentally anchored in how certain societies view what constitutes "good life" and/or a "good development" for children. Subsequently, explicating the state perspective is crucial to understanding how institutional practices support, or otherwise restrict, children's psychological development.

While this analytical plane is positioned within the upper tier of Hedegaard's (2009) theoretical model, it does not mean that adults' value positions are considered more important than children. On the contrary, children are viewed as playing an instrumental role in shaping their own developmental pathways through the jointly created activities in which they participate with adults. This thinking "actively pushes against a deficit conception of the child, and foregrounds the agency, rights, and capabilities of young children" (Colliver & Fleeer, 2016, p. 1563) and thus aligns strongly with the children's rights-based philosophy permeating this research.

Children's ability to act agentively to shape their own developmental pathways, however, is predominantly facilitated by adults who provide the external cultural conditions that regulate their everyday lives. For example, while most adults value children's active participation in a wide range of social activities, children's ability to make autonomous decisions about their participation in such activities are subject to the way adults conceptualise "good" child development in the societies in which they live.

This notion is reflected in a vignette from one of Hedegaard's (2009) earliest studies where a 5-year-old child resisted listening to a fairy tale read by his teacher at kindergarten because he feared that his father, who seemingly valued academic-focused activities in formal educational settings, may get angry. This vignette illuminates how adult worldviews might limit children's ability to access rich, learning experiences considering Vygotsky himself may have drawn on key elements of such tales to inform his revolutionary theory of child development (van der Veer & Valsiner, 1991). Subsequently, positioning the state perspective in the upper tier of Hedegaard's (2009) model serves to remind adults to consider more deeply the power imbalance that exists between themselves and children in everyday institutional settings.

3.2.1.2 The institutional perspective

The analytical plane situated in the middle tier of Hedegaard's (2009) model shown in Figure 3.1 represents the institutional perspective. This perspective reflects an everyday social situation (or arena of activity) enacted within an institutional setting that knots together long-held cultures, traditions, and inherent values permeating a certain society with an individual child's motives for engaging in specific social situations of development. Institutional settings also intersect as children move across (e.g., going from home to school) or are influenced by (e.g., parents' work commitments) such settings.

Hedegaard (2009) drew on the cultural-historical concepts of social situation of development and motive to inform this analytical plane. This is because, at the institutional level, children's motives for engaging in certain social situations of development within specific

institutional settings are recursively intertwined with the demands of adults who create the sociocultural conditions for these activities (Edwards et al., 2019). As most children are motivated to agentively respond to external demands placed on them by adults within institutional settings, social situations of development within such settings are thus fundamentally reliant on the everyday practices of adults.

In alignment with cultural-historical theory, Hedegaard (2020) believes that children start intentionally orienting themselves toward social interactions with others from birth. Subsequently, the way adults respond to such orientations create the social and cultural conditions that determine children's developmental pathways. For example, if conflicts arise between children's motive orientations (e.g., wanting to engage in online play with friends) and adult demands (e.g., restricting children's screen time), child development may be negatively impacted.

Within institutional settings, adult demands (e.g., household rules, routinised activities) are reflected in their everyday practices. Such practices, however, are "formed by the historical and dynamic society of which both the institution and child are a part" (Quinones & Adams, 2021, p. 10) meaning institutional settings are "not neutral spaces, they are where the demands in institutional practices meet the actions of those who inhabit the practices" (Edwards et al., 2019, p. 6). The institutional perspective, therefore, provides deep insight into how adult demands are dialectically related to children's motives for engaging in certain social activities to create the cultural conditions for optimising, or otherwise constraining, child development.

3.2.1.3 The individual perspective

The third analytical plane, the individual perspective, is situated in the lower tier of Figure 3.1 and represents children's perspectives reflective of their motive orientations for engaging in social situations of development. Hedegaard (2009) argued that children are expected to orient themselves toward the dominating motives of adults in different institutional settings. This can be problematic for child development, however, because adult motives may conflict with an individual child's motives. For example, children who are motivated to use networked devices for online play

opportunities with friends may be prevented from doing so because their caregivers view such devices as tools for learning, not play.

At the individual level of Hedegaard's (2009) model, cultural-historical understandings about the crises of age (Vygotsky, 1933–1934/1998a) provide the fundamental dynamics for children's personality development. This theoretical concept sees children entering critical developmental periods at certain ages that prompt them to internalise aspects of their external surrounds differently. These critical developmental periods are explained further in Section 3.5.1 of this chapter.

According to Hedegaard (2009, p. 67), critical developmental periods during childhood must be considered in terms of the external cultural demands placed on children at certain ages so adults can optimise their response to a child who has appropriated “a qualitative new orientation” toward a particular social situation of development. Most adults, however, have deeply embedded value systems about what constitutes a “good” childhood and thus may conceptualise these optimal conditions differently to children.

Within this analytical plane, adults are encouraged to refrain from “making judgements about children” (Fleer & Hedegaard, 2010, p. 150) by recognising that problematic behaviours reflective of a crisis of age are not mistakenly viewed as obstructive diseases of development that require medical and/or psychological intervention. While this can be challenging for adults, responding sensitively to children exhibiting problematic behaviours reflective of critical developmental periods result in more beneficial outcomes (e.g., heightening a child's self-esteem) rather than attempting to “fix” the child (Hedegaard, 2020, p. 2).

In alignment with cultural-historical theory, Hedegaard (2009) asserts that a dialectical relationship exists between children's everyday social activities in institutional settings and the practices of adults (e.g., caregivers, educators) who raise and educate them. This means adult demands (and support) in everyday settings are tied to children's experiences and actions within

such settings and these ultimately create the external conditions for an individual child's development and learning.

In recognising this dialectical relationship, the individual perspective shown in Figure 3.1 ensures children are viewed as active participants who co-create the realities of their everyday lives and make valuable contributions to institutional practices and wider societal conditions. For example, children with access to networked devices (provided by caregivers within the home) and multiplayer virtual worlds (provided by educators at their school) might independently initiate their participation in online sociodramatic play with each other (Caughey, 2021). This social activity then alters caregiver practices in the home and transforms how play is conceptualised in the societies in which these children live.

3.2.2 Dialectical origins

In Hedegaard's (2009) cultural-historical model shown in Figure 3.1, institutional practices and children's activities are considered flexible processes that dialectically influence each other to contribute to new activities that transform the societies in which they manifest. Recognising the dialectical origins of this theoretical model is thus critical to understanding how it was conceptualised.

For dialectical theories of human development, the thoughts, emotions, motives, and actions of specific groups of people (e.g., caregivers, children) are placed at the intersection between an individual and the fluctuating events (e.g., technological advancements) occurring within the societies in which they live. Riegel (1975) compares such theories to orchestral arrangements as both require a delicate balance of several essential co-ordinated components to create multifaceted, yet synchronous, deviations. This delicate balance is reflected in the three interrelated perspectives comprising Hedegaard's (2009) model shown in Figure 3.1.

Like Bronfenbrenner's informal interaction with Leontyev, Hedegaard's (2020) real-world encounter with prominent cultural-historical theorist, Vasilivitz Davydov, inspired her to consider more deeply how educators could provide rich play and learning activities that combined central

academic concepts with young children's natural inclinations, such as exploring their environmental surrounds. Unsurprisingly, therefore, Hedegaard's (2009) model of child development bears similarities to Bronfenbrenner's (1977, 1986) ecological systems model (including their cultural-historical influences). These two models differ, however, in how the notion of society is conceptualised.

While Hedegaard's (2009) theory aligns with fundamental dialectical principles, it ventures beyond traditional dialectical theories to consider how a model might represent an embodied *mode of action* for transforming the cultural conditions that optimise child development. According to Wartofsky (1979, p. 144), models representing modes of action are “radical and revolutionary in their effect” because they represent flexibly structured prototypes to summon creative inventiveness (or action) from those who respond to them.

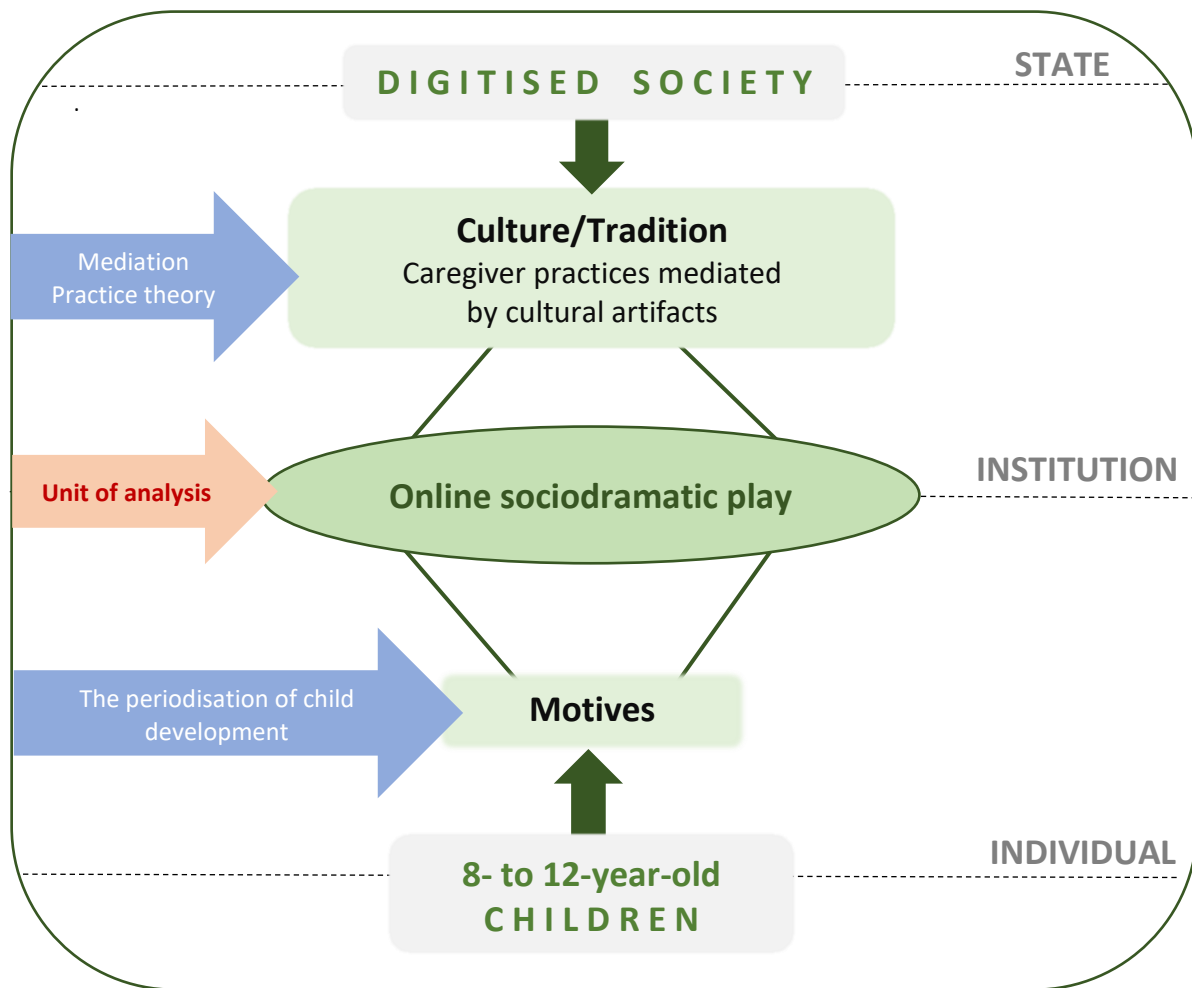
Researchers drawing on revolutionary models of child development, therefore, often adapt their structure to creatively envision how the developmental conditions for children might be optimised. For example, Hedegaard's (2009) theoretical model has been nuanced, shaped, and developed to inform studies in wide range of specialised contexts (see Edwards et al., 2019). In the research reported in this thesis, Hedegaard's (2009) model was thus used as a mode of action for optimising the cultural conditions in which the current generation of school age children are being raised. This was achieved by identifying how online sociodramatic play is constituted as an institution for 8- to 12-year-old children and their caregivers in the blended ecology of family homes in digitised societies.

3.2.3 Conceptualising online sociodramatic play as an institution

By adapting Hedegaard's (2009) theoretical model to conceptualise online sociodramatic play as an institution, an embodied mode of action was formed that creatively envisions how the cultural conditions that foster child development in the family home might be optimised for the current (and future) generation of 8- to 12-year-old children who enjoy engaging in online sociodramatic play (see Figure 3.2).

Figure 3.2

Adaptation from Hedegaard's (2009) Model of Child Learning and Development through Participation in Institutionalised Practice



In the adapted model shown in Figure 3.2, the state perspective (upper tier) is recognised as a digitised society because this term reflects the historically situated context in which the children participating in this research are being raised. At the state level, caregiver practices guiding children’s participation in online sociodramatic play within the blended ecology of the family home are thus co-constituted by societal norms, values, and discourses about what constitutes “good” child development in a digitised society. In this research, the cultural-historical concept of mediation (Section 3.3) and the scholarly field known as practice theory (Section 3.4) provided theoretical insight into the state perspective.

The institutional perspective shown in Figure 3.2 represents the unit of analysis in this study because it is where 8- to 12-year-old children's motives for engaging in online sociodramatic play meet caregiver demands (e.g., household rules) for such play in the blended ecology of the family home. Seeking insight into how the institution of online sociodramatic play (a previously unexplored, contemporary arena of activity) is constituted, therefore, revealed commonalities and tensions that can inform caregivers about optimising the cultural conditions for school age children's learning and development in homes located in digitised societies.

At the individual level, 8- to 12-year-old children's motives for engaging in online sociodramatic play (and their perspectives of caregiver practices guiding their participation in such play) are being profoundly influenced by their stage of psychological development. In alignment with Hedegaard's (2009) thinking about children's motive orientations during childhood, Vygotsky's (1933–1934/1998a) periodisation of child development, specifically his thinking about the crises of age, theoretically informed the individual perspective of Figure 3.2.

3.3 Mediation

According to Vygotsky (1930/1978), the process of mediation sees humans purposefully using cultural tools (e.g., maps, books, technologies) and signs (e.g., language, counting systems, mnemonic devices) so they can agentively adapt to, and make meaning from, their sociocultural surrounds. The concept of mediation thus rejects behaviorist notions that humans passively exist in the world by simply responding to, and being subjugated by, environmental stimuli and culturally based systems (Daniels, 2015). Rather, mediated activities enable humans to master (e.g., control, restructure, reorganise, recreate) their own thinking and behaviours by meaningfully applying the culturally produced tools and signs available to them in the societies in which they live.

3.3.1 Philosophical origins

In conceptualising the notion of mediation as a “complex, layered, dialectical view of human engagement with the world” (Daniels, 2015, p. 38), Vygotsky (1930/1978) was inspired by the thinking of 19th century German philosophers Karl Marx, Friedrich Engels, and Wilhelm von

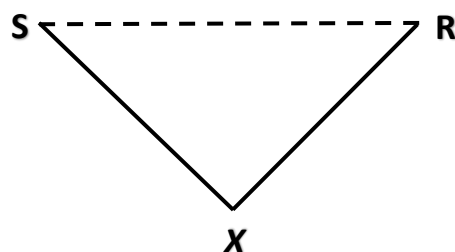
Humboldt, Marx (1867) and Engels (1883), who were close colleagues and friends, theorised that the productive use of material tools (e.g., machinery, human hands) resulted in transformative changes in the external environment and in human consciousness and behaviour. Humboldt (1812, as cited in Miyamoto, 2022) argued that language acted as a mediator that generated thought and enabled humans to master, control, and further develop their ability to relate to themselves, other people, and the world around them. Interestingly, Humboldt was a close friend of Goethe, whose philosophical thinking informed Vygotsky's (1933–1934/1998a) notion of the social situation of development.

Integrating the philosophical ideas that external tools (e.g., material objects) and internal signs (e.g., language) transformed human psychological processing, Vygotsky (1930/1978) and his close colleagues conducted a broad range of experimental studies to observe how children meaningfully interpreted external (e.g., visual aids) and internal (e.g., inner speech) stimuli to complete specific tasks. For example, children were asked to answer a series of questions according to set rules, such as not mentioning colours displayed on prompt cards.

This research inspired Vygotsky (1931/1997c) to assert that “the key to mastery of behaviour is mastery of stimuli ... thus, mastery of behaviour is a mediated process that is always accomplished through certain auxiliary stimuli” (p. 87), such as tools and signs. This basic principle was represented in schematic form via a triangular diagram (see Figure 3.3).

Figure 3.3

Vygotsky's (1930/1978) Mediation Diagram



Note. From *Mind in Society* by L. S. Vygotsky, 1930/1978, p. 40. Copyright 1978 by Harvard University Press.

In Figure 3.3, a neutral, arbitrary (or natural) connection exists between Point *S* (stimulus) and Point *R* (response) to illustrate the stimulus-response principle, a concept embraced by behaviourist researchers (such as Ivan Pavlov and John Watson) and described by Vygotsky (1930/1978) as being entirely characterised by “a quality of immediacy” (p. 39). When Point *S* evokes Point *X* (auxiliary stimuli) to establish a meaningful connection to Point *R*, a mediated system of activity occurs and eliminates the need for obsolete (or natural) stimulus-response processes. For example, a child using verbal self-talk (sign) and prompt cards (tool) constitutes a mediated activity supporting development of memory.

This revelatory work prompted Vygotsky (1931/1997c) to theorise that tools and signs mediate how people “master” their own mind and behaviours (p. 87). Importantly, a core tenet of this theory suggested that tools and signs are dialectically related because they represent “two aspects of the same phenomena” (Daniels, 2015, p. 37). As such, tools and signs accomplish different psychological functions because tools are directed externally (resulting in changes to the environment or the mediated activity itself) and signs are directed internally (resulting in qualitative changes to the individual).

A key characteristic of cultural tools and signs is that they transform over time and contribute to the ongoing formation of an individual’s psychological development (Yamagata-Lynch, 2010). For example, a young child’s ability to solve mathematical problems is mediated by signs (e.g., verbal self-talk) that become internalised as they get older (e.g., inner speech) and tools (e.g., base ten blocks) that become more sophisticated as they get older (e.g., calculator). For this reason, mediation plays a key role in fostering cognitive development during childhood.

3.3.2 Role in cognitive development

In cultural-historical theory, mediated systems of activity represent a “hallmark of human consciousness” (Wertsch, 2007, p. 178) because they radically reconstruct an individual’s lower (elementary) mental functions into higher (conscious) mental functions. While lower mental functions represent basic human biological needs (e.g., food, shelter, warmth) and require minimal

thinking, higher mental functions represent complex sociocultural needs (e.g., functional language, knowledge about the world, decision-making) that require self-regulated conceptual thinking (Karpov, 2020; Vasileva & Balyasnikova, 2019).

Although higher mental functions originate, operate, and are characterised differently to lower mental functions, they are interrelated because lower mental functions are qualitatively transformed into higher mental functions when humans engage in mediated activities. For example, infants might cry when they are cold, tired, hungry, and/or thirsty (lower mental functions) making it difficult for adults to attend to their needs. When the child later acquires speech (higher mental function) through mediated activities with adults, however, they can express their needs verbally.

In alignment with Marxist philosophy, sociocultural determinants play a crucial role in fostering these qualitative, transformative changes in human consciousness (Wertsch, 2007). This also means that higher mental functions appear twice in human psychological development, firstly on an interpersonal level (e.g., through social interactions) and secondly on an intrapersonal level (e.g., through inner speech). Importantly, higher mental functions do not develop alongside each other “like various branches of a single tree that are connected by a main trunk” (Vygotsky, 1930–1931/1998d, p. 85). Rather, they emerge separately at different stages of development (usually age-related) to represent a complex tiered system where existing mental functions (e.g., intellectualised perception, emotions) gradually subordinate to stronger, newly developing functions (e.g., memory, thinking) to completely restructure an individual’s psychological processing.

Vygotsky (1931/1997a, p. 55) argued that mediated activities represent “the basis of all human history” because they actively transform how an individual interacts with their external sociocultural surrounds and subject it to their control, much like a formless substance being shaped by a mould. Such interactions have a profound effect on the way humans regulate and master their own mind and behaviours ultimately leading to their cultural development. According to Daniels (2015, p. 34), the concept of mediation is “without doubt, one of the central pillars” of Vygotsky’s contribution to the social sciences.

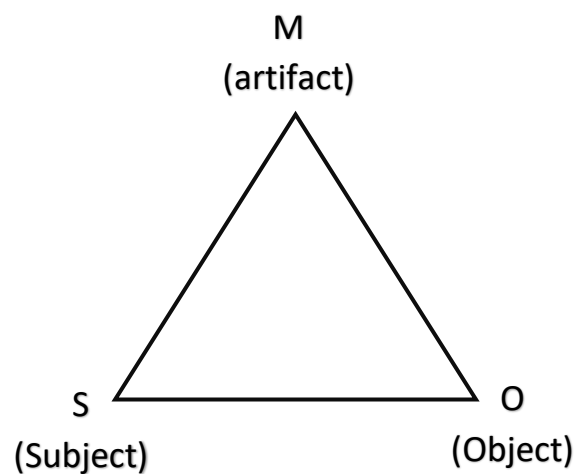
3.3.3 Scholarly significance

Like other revolutionary models, Vygotsky's (1930/1978) mediation triangle (shown in Figure 3.3) has been adapted by a wide range of multidisciplinary scholars to objectively examine non-deterministic accounts about how humans transform tools and signs to actively shape (and be shaped by) their purposeful engagement with the world. For example, Engeström (2014) expanded Vygotsky's (1930/1978) original triangular structure to innovatively reconceptualise mediation as a collectively constructed activity system which includes societal rules, the wider community, and the division of labour among a group of people.

Similarly, Cole (1996) inverted Vygotsky's (1930/1978) conceptual triangle to illustrate how the meaningful and purposeful use of signs and tools (collectively renamed as *artifacts*) constitute a mediated system of activity (see Figure 3.4).

Figure 3.4

Cole's (1996) Mediation Triangle



Note. From *Cultural Psychology: A Once and Future Discipline*, by M. Cole, 1996, p. 119.

Copyright 1996 by Harvard University Press.

In Figure 3.4, the subject (*S*) represents an individual (or individuals) who acts (or act) agentively in purposefully using (or transforming) mediating artifacts (*M*) to achieve the object (*O*) of a culturally based activity ultimately shaping its outcome. To draw on a previous example, a child (*S*) agentively uses verbal self-talk and visual stimuli (*M*) to guide their actions whilst

completing a set task (*O*). Importantly, because the purposeful use of cultural artifacts constitutes a mediated activity, the object (*O*) anchors the entire structure because it reflects the reason why a person (or group of people) intentionally participates in a specific activity (Yamagata-Lynch, 2010).

Cole (1996) reconceptualised cultural tools and signs as artifacts because they are “products of human history that are simultaneously ideal and material” (p. 118) and asserted that Wartofsky’s (1979) three distinct representations of artifacts can further elaborate on this scholarly term. These representations are *primary artifacts*, *secondary artifacts*, and *tertiary artifacts*. Primary artifacts represent functional tools or devices (e.g., writing implements, telecommunication networks, words) mediating the production and reproduction of culturally valued skills and activities (e.g., written and verbal communication systems).

Secondary artifacts represent external products of intentional human actions with primary artifacts (e.g., folklore, societal discourses, theories) that mediate how culturally valued skills and activities (e.g., routinised human practices) are preserved and transmitted among people living in a particular society. Such artifacts are essentially mimetic (e.g., habitually produced and reproduced) and based on the shared belief systems of a group of people (e.g., caregivers) who interact regularly to achieve similar goals (e.g., raising children).

Tertiary artifacts represent embodied expressions of human imaginative thought (e.g., scientific models, performance rituals, works of art) mediating new, spontaneous free play human activities. Such artifacts transcend the constraints of practical rules and conventions associated with pre-existing culturally valued skills and activities. The three representations of Wartofsky’s (1979) artifacts are illustrated in Figure 3.5.

Figure 3.5

Wartofsky's (1979) Representations of Artifacts



Just as Wartofsky's (1979) representations of artifacts mediate human activities in unique ways, Vygotsky (1931/1997b) argued that cultural tools and signs mediate a person's ability to achieve the "object" (p. 62) of their activity in different ways (e.g., either actively or passively). Wertsch (2007) conceptualises these different ways as *explicit* mediation and *implicit* mediation.

3.3.4 Explicit and implicit mediation

According to Wertsch (2007), explicit mediation occurs when obvious stimuli (i.e., new cultural artifacts) are deliberately introduced into pre-existing, ongoing streams of communicated social activities (or actions) to generate new ways of achieving goal-directed behaviours. For example, many teachers living in digitised societies use interactive smartboards (new cultural artifact) as a pedagogical resource to support children's learning in educational settings.

Implicit mediation, however, occurs as part of pre-existing streams of communicated social activities (or actions) that, over time, become integrated with goal-directed behaviours. A key characteristic of implicit mediation is the use of natural language that has evolved via a community of practice. For example, long-established cultural discourses, such as scientific terminology (Wertsch, 2007) and traditional theories of play (Edwards, 2016), implicitly mediate how educators support children's learning.

Such language, however, can be problematic when it is no longer fit for purpose. For example, the widespread use of touchscreen tablets by children required a scholarly shift in how the notion of “screen time” was conceptualised (see Ch. 2, p. 22). Moreover, the object (*O*) of implicitly mediated systems of activity may become closely associated with the mediating artifacts (*M*) over time. For example, traditional notions of a “natural” childhood may be closely associated with what constitutes “good” child development in digitised societies.

Daniels (2015) argued that “if we are to gain more control of our histories and ourselves, we need to develop better tools with which to scrutinise what will otherwise remain invisible” (p. 48). It is important, therefore, that people living in a particular society are open to consciously reflecting on, and scrutinising, how cultural artifacts implicitly mediate certain activities so new ways of thinking can be generated, and the objects of such activities can be achieved in more productive ways (Edwards, 2016). In this study, this reflective process informed the state perspective of Hedegaard’s (2009) adapted model shown in Figure 3.2.

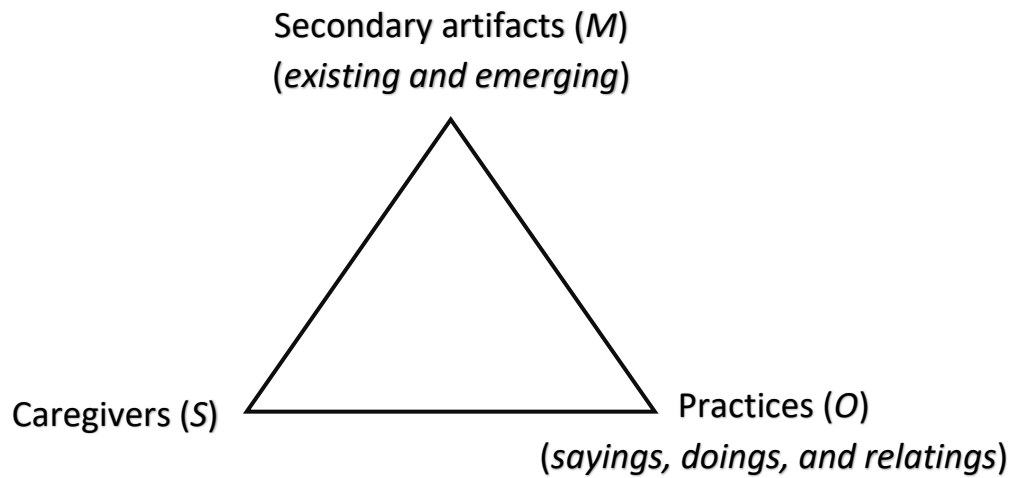
3.3.5 Analysing cultural artifacts at the state level

Adapting to new sociocultural conditions (such as a digitised society) sees humans using existing and emerging cultural artifacts flexibly, intuitively, and fluently so that new levels of understanding and expertise might be achieved (Wertsch, 2007). For example, caregiver practices guiding children’s participation in online sociodramatic play in the home may be implicitly mediated by long-established (existing) theories of social play and explicitly mediated by recently established (emerging) screen time guidelines.

In alignment with this thinking, this thesis suggests that existing and emerging secondary cultural artifacts are currently implicitly *and* explicitly mediating how caregivers guide children’s participation in online sociodramatic play in the blended ecology of the family home (see Figure 3.6).

Figure 3.6

Mediation Triangle Informing the State Perspective



In Figure 3.6, mediating artifacts (*M*) are considered secondary for two key reasons. First, they represent existing and emerging external products of intentional human actions that reflect implied value positions of a digitised society (e.g., child-centred philosophies, parenting websites). Second, they mediate how a group of people (*S*) (i.e., caregivers) with a similar goal (i.e., raising well-adjusted children) preserve and transmit routinised human practices (e.g., managing screen time for online play, monitoring online play) in a cultural setting (i.e., family home). Such practices (*O*) are comprised of what caregivers (*S*) say and do, and how they relate to children (and digital technologies), in the blended ecology of the family home as a direct outcome of their mediated use of cultural artifacts (*M*).

In this research, these secondary artifacts were critically analysed to provide theoretical insight into the state perspective of the adapted model shown in Figure 3.2. While analysing such artifacts was essential to informing the state perspective, it was equally important to understand the practices themselves because these are what fundamentally determine a child's developmental trajectory.

3.4 Practice theory

Practice theory draws on a diverse range of shared understandings to explain how the unique conditions of institutional organisations (e.g., societal discourses about childhood, mainstream media) and systemic, culturally based patterns (e.g., hierarchical relationships) exert powerful influences on human actions and interactions within a particular society (Ortner, 1984). From a practice-based perspective, humans are viewed as individual agents who combine physical movements (e.g., habitual behaviours using objects and/or texts) with mental functions (e.g., knowledge, understandings) to perform intentional actions that are regulated by the cultural conditions of the societies in which they live (Nicolini, 2012).

For this reason, practice theorists reject traditional societal dualisms, such as dichotomies between the social and the material, because human practices are viewed as supporting a collective meaning-making for a group of people through social interactions and bodily actions with tangible objects within concrete *culturally based organisations*. In practice theory, culturally based organisations represent everyday cultural settings (e.g., homes, schools, workplaces, clubs) where people enact specific practices for shared purposes. For example, family homes are culturally based organisations because caregivers enact specific practices for the shared purpose of raising children.

Human practices within such organisations, however, are often characterised by power relationships, such as hierarchical structures (e.g., adults are more knowledgeable than children) and traditional family constructs (e.g., caregivers know what constitutes a “good” childhood). The principal aim of practice theory, therefore, is to explore how humans work to innovatively create new practices or simply reproduce traditional practices within the constraints of powerful systemic influences (Ortner, 1984).

Practice theory thus aligns with Hedegaard’s (2009) assertion that societal influences and cultural traditions exert powerful influences over human practices within everyday institutional settings (e.g., culturally based organisations such as homes). Moreover, practice theorists view theoretical models as constructs “devised by science in order to account for practices” (Bourdieu,

1977, p. 27) and assert that “a theory of practice requires some sort of theory of motivation” (Ortner, 1984, p. 151). As Hedegaard’s (2009) theoretical model embodies both of these principles, practice theory conceptually aligns with the adapted model framing this study.

3.4.1 Philosophical origins

According to Schatzki (2012, p. 13), the “leading exponents” of practice theory were Pierre Bourdieu (a French anthropologist and sociologist) and Anthony Giddens (a British sociologist). In the 1970s, these two practice-based scholars developed analogous theories to explain how structured societal systems exert powerful influences over human practices. Bourdieu (1977, p. 20) asserted that the dynamic social and cultural domains of human practices can only be fully understood by critically examining “the degree of codification of the principles governing them”. Such principles (e.g., societal laws, rules, rituals, customary norms, shared values) reflect systems that regulate how people act and interact within a particular *habitus*.

A *habitus* represents the perceptual awareness shared among a group of people with similar values, behaviours, views, lifestyles, and modes of communication for enacting practices according to systemic rules governing the culturally based organisations in which they participate (Bourdieu, 1977). For example, caregivers who draw on screen time guidelines to manage the length of time children participate in online play each day share a similar *habitus*. Members of a certain *habitus* are thus intrinsically motivated to adhere to powerful systemic rules by “honouring the values the group honours” (Bourdieu, 1977, p. 22) which essentially explains why some habituses (e.g., religious, political, and economic systems) last longer than others.

While Giddens (1979) concurred with Bourdieu’s views about the power of systemic societal influences, he differed in his practice-based approach by conceptualising systems as *societal structures* and practices as *actions*. In Giddens’ (1979, p. 2) theory, societal structures and human actions represent a recursive duality (rather than independent phenomena) that always manifest through a “continuous flow of conduct”. This means, while human actions are regulated by societal structures, they also contribute to the creation of the structures themselves. Societal

structures, therefore, evolve and exist according to the actions of people who maintain them based on shared reasons, intentions, motives, and purposes for acting.

Bourdieu and Giddens made significant contributions to the scholarly field of practice theory and scaffolded an open-ended theoretical framework for exploring how powerful, structured, societal systems influence human practices. For example, key concepts drawn from the practice-based theories of Bourdieu and Giddens framed a study exploring how social elements (e.g., formal/informal interactions, everyday routines) and material elements (e.g., use of physical spaces) within two Australian schools significantly impacted pedagogical decisions enabling and constraining learning outcomes for 12- to 14-year-old children (Burrige, 2014).

Traditionally, practice theorists tended to explore extraordinary human practices to gain deep theoretical insight into how they were produced and reproduced within a particular society (Ortner, 1984). For example, Bourdieu (1977) explored how societal norms (e.g., rules of kinship) and cultural traditions (e.g., tribal customs) influenced unusual marriage practices within different cultures (e.g., those arranged by men within the same family). While the scholarly focus shifted during the mid-1980s to examine more ordinary everyday practices, all human practices are universal because, according to Schatzki (2012), they encompass fundamental similarities that are reflected in most practice-based theories

3.4.2 Similarities among practice-based theories

It is imperative that researchers drawing on practice theory to inform their studies understand the fundamental similarities, or “general commonalities”, among practice-based theories (Schatzki, 2012, p. 13). This is because failing to do so may result in vague, unreflective, and unarticulated conceptualisations of practices as simply human activities, without considering the powerful societal influences by which they are regulated. Such similarities relate to the way human practices are defined, understood, and enacted.

3.4.2.1 Defining practices

In this study, human practices are defined as abstract, open-ended, multidimensional social phenomena guiding intentional human actions and interactions within culturally based organisations at specific points in time (Nicolini, 2012; Schatzki, 2012). Human practices reflect social phenomena because they are determined by organised and embodied activities (e.g., caregiving, teaching) in different cultural and historical contexts.

Established by diverse networks of people in various fields, human practices result in social accomplishments through mutually dependent interpersonal relationships and shared capabilities. Such accomplishments are achieved via a vast range of purposeful activities (ranging from relatively basic to more sophisticated) that are organised, causally linked, and intentionally directed. Importantly, human practices are not predetermined and do not remain static because they evolve, change, and adapt to new and different circumstances as they arise. For example, caregiver practices within family homes in digitised societies have recently evolved, changed, and adapted in response to school age children's increasing participation in online play.

Nicolini (2012, p. 8) posits that a practice-based approach includes an “appreciation that objects and materials often bite back at us and resist our attempts to envelop them with our discourses”. This is particularly the case with digital technologies used by children (e.g., networked devices, multiplayer virtual worlds) because these contemporary objects are comprised of intertwined social and material (socio-material) dimensions that “affect the action forces” within human contexts (Lafton, 2021, p. 226).

Socio-materiality is a central aspect of postdigital thinking because it challenges the notion that humans and digital technologies are separate entities (Kucirkova, 2021). Rather, digital technologies are viewed as non-human actors that shape how human “activities and practices are organised and accomplished” within culturally based organisations (Aarsand & Sørensen, 2023, p. 646). For example, the mobility of touchscreen devices and/or content of multiplayer virtual worlds (e.g., violent themes) influence how some caregivers set household rules for children's participation

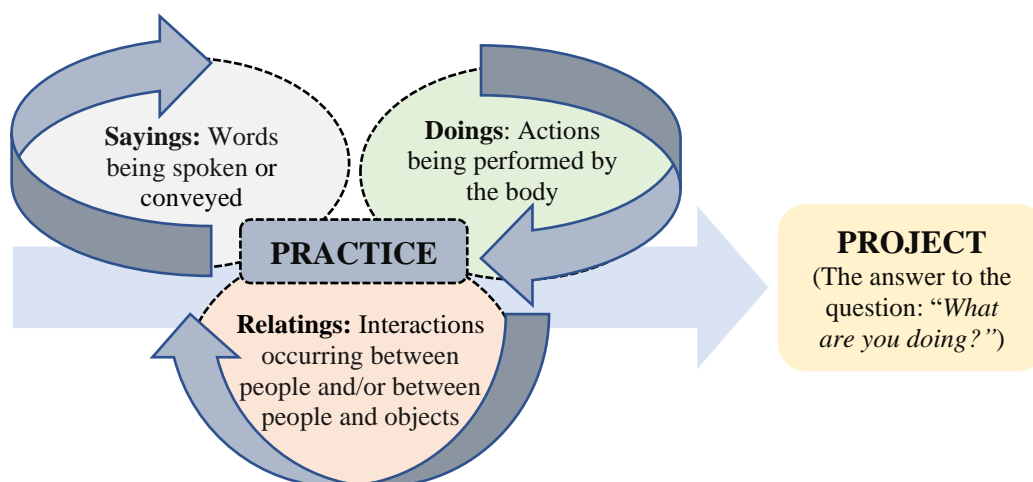
in online play (Balmford & Davies, 2020; Carter et al., 2020b; Navarro, 2021). It is feasible to suggest, therefore that digital technologies represent secondary artifacts mediating human practices in digitised societies.

According to Kemmis et al. (2014, pp. 31–32), practices are shaped and developed within a particular society when people act collectively to “bring them into being” through three interconnected elements: 1) sayings; 2) doings; and 3) relatings. Sayings refer to words that are spoken (e.g., instructions, statements, ideas, opinions) or conveyed (e.g., facial expressions, tone of voice) during a practice. Doings refer to meaningful bodily actions (e.g., swiping, pointing) performed during a practice. Relatings refer to interactions occurring between people (e.g., following rules, showing respect) and/or between people and objects (e.g., purposefully using technologies) during a practice.

In practice theory, these elements “hang together” to constitute a project that answers the question: “What are you doing?” (see Figure 3.7).

Figure 3.7

Elements of a Practice



Note. Adapted from *Changing Practices, Changing Education* by S. Kemmis, J. Wilkinson, C. Edwards-Groves, I. Hardy, P. Grootenboer, & L. Bristol (Eds.), 2014, p. 33. Copyright 2014 by Springer.

In Figure 3.7, the notion of “project” was informed by Schatzki’s (2012, p. 15) concept of *teleoaffective structures*. This concept is integral to how practices are conceptualised because teleoaffective structures describe how humans are affectively aware of why certain practices are valued or worthwhile. In Schatzki’s (2012) view, when affective awareness is omnipresent among a group of people, elements of a shared practice truly represent the societal influences governing them. For example, caregivers whose project is to manage children’s screen time might use sayings (e.g., “You have one hour for online play”), doings (e.g., setting a digital timer for one hour), and relatings (e.g., monitoring the digital timer) because they are affectively aware that governmental agencies advise setting screen time limits for children in the home.

3.4.2.2 Understanding practices

From a practice-based perspective, human practices can only be fully understood by examining how they are influenced by societal systems, such as external social phenomena (e.g., cultural traditions) and psychological phenomena (e.g., shared values about what constitutes “good” child development). Ortner (1984) draws on the philosophical origins of practice theory (such as Bourdieu’s concept of habitus) to describe societal systems as embodied, structured, organisational schemes (e.g., education systems, political systems) that govern culturally based organisations.

In practice theory, human practices and societal systems are recognised as a plurality because societal systems enable and constrain how humans act and interact in everyday culturally based organisations (Kemmis et al., 2014; Ortner, 1984). Societal systems, therefore, exert powerful influences over human practices because most people living in that society are inherently motivated to adhere to the principles governing the culturally based organisations in which they participate (Nicolini, 2012). In this research, practice-based notions of societal systems were reconceptualised as secondary artifacts because such artifacts influence (e.g., mediate) how everyday human practices are enacted in culturally based organisations.

3.4.2.3 Enacting practices

Practice theorists view human practices as enacted via bodily actions within specific culturally based organisations. This means human practices are fundamentally subjective and objective in nature because, while they are influenced by wider societal conditions (objective), they are enacted physically based on collective knowledge, understandings, and perspectives of a particular group of people (subjective). For this reason, culturally based organisations are considered “structured” because the human practices enacted within them are always comprised of temporal dimensions (when humans act and interact) and spatial dimensions (where human act and interact) that are anchored in similar material arrangements (how physical items are arranged in concrete settings). For example, caregivers might set screen time limits for children’s online play (temporal dimension) in main living areas only (spatial dimension) within their home (tangible spaces that are materially arranged in similar ways).

Temporal dimensions of practices co-exist simultaneously to constitute conditional circumstances relating to past, present, and future aspects depending on what “matters” in a specific situation (Schatzki, 2012, p. 19). For example, caregiver practices are simultaneously motivated and informed by past and present beliefs about what constitutes a “good” childhood and are thus enacted with the future aim of raising well-adjusted children.

Spatial dimensions of practices reflect how humans “sensitively proceed” (i.e., act and interact) in specific ways when using settings anchored in objective, stable material arrangements (Schatzki, 2012, p. 19). For example, material arrangements within formal educational settings prompt teachers to adopt specific pedagogical practices. The temporal/spatial dimensions and material arrangements of culturally based organisations are thus fundamentally connected to the human practices occurring within them.

Schatzki (2012, p. 20) uses the term *timespace* to describe how temporal and spatial dimensions of human practices are interweaved with material arrangements in culturally based organisations. For example, members of a particular group (e.g., caregivers) will employ specific

practices (e.g., managing screen time for online play, monitoring online play) for the same purpose (e.g., to minimise the potential for excessive use and negative in-world interactions) in a place anchored in similar material arrangements (e.g., family home). Importantly, timespaces are shared and accepted by members of a group because they represent key aspects of the social features of practices.

In sum, a core tenet of practice theory suggests human practices manifest according to what is valued by, and meaningful to, a group of people living in a particular society. Shared knowledge about specific human practices (e.g., managing children's screen time) is thus conceptualised predominantly as the mastery of social activities (e.g., interactional discourses between caregivers about what are considered "appropriate" screen time limits, relating emotionally to cater for children's interests and needs) and material activities (e.g., setting timers for children's online play sessions). In alignment with this thinking, the human practices under investigation in this research were critically analysed to inform the state perspective of Hedegaard's (2009) adapted model shown in Figure 3.2.

3.4.3 Analysing caregiver practices at the state level

According to Rogoff et al. (2018, p. 7), theories of practice "offer a way to integrate contextual and cultural aspects of life in the understanding of child development". Practice theory, therefore, provided a firm theoretical grounding for identifying caregiver practices guiding 8- to 12-year-old children's participation in online sociodramatic play in the home and illuminating further insight into the state perspective of Hedegaard's (2009) adapted model framing this research.

The process for identifying such practices involved a critical analysis of the practices themselves in terms of their defining elements (i.e., doings, saying, and relatings) (Kemmis et al., 2014), and timespaces (i.e., temporal and spatial dimensions) (Schatzki, 2012). Analysing the timespaces of caregiver practices aligned with research conducted in the late 1900s exploring "the ways in which the family television helped to organise the spatial and temporal routines of family life in Western societies" (Clark, 2011, p. 328).

In this research, identifying the practices under investigation was crucial for informing the state perspective of Figure 3.2 because, in alignment with cultural-historical theory, Hedegaard (2009) argued that it is imperative to examine children's external surrounds to optimise and support the trajectory of their development. Within the blended ecology of family homes located in digitised societies, caregiver practices (as mediated by cultural artifacts) represent the external surrounds supporting, or otherwise restricting, the developmental needs of children. Subsequently, if mediated practices in the home conflict with children's motives for engaging in certain social activities (e.g., online sociodramatic play), children's developmental trajectories may be negatively impacted.

Understanding whether caregiver practices align or conflict with children's motives for such activities, however, requires an informed understanding of the unique developmental needs of children at different ages. As such, Vygotsky's (1933–1934/1998a) periodisation of child development was used in this study to provide deep theoretical insight into the unique motive orientations of 8- to 12-year-old children. These insights, when combined with cultural-historical and practice-based understandings about caregiver practices in the home, enabled new knowledge to be gained about the commonalities and tensions constituting the institution of online sociodramatic play.

3.5 The periodisation of child development

Prior to his death in 1934, Vygotsky had been composing a “large book on child psychology” to theorise that children progress through distinct periods of mental development as they get older (El'Konin, 1971/1999, p. 13). These scholarly notes, however, were incomplete and difficult to interpret due to conceptual gaps in knowledge and the sporadic use of undefined scholarly terms (Blunden, 2008). Fortunately, Vygotsky's “personal network of scholars” (Yasnitsky, 2011, p. 422) protected his legacy by further explaining the complex dynamics of this revolutionary work and significant contribution to the field of child psychology – the periodisation of child development (Vygotsky, 1933–1934/1998a).

In the early 1900s, many pedologists adopted the quantitative-based view that children simply accumulated mental competences as they got older. For this reason, periodisations of child development were often theorised according to different stages of children’s phylogenetic features (e.g., physical growth, dentition, sexual maturation). Vygotsky (1933–1934/1998a, p. 189), however, argued that a genuine periodisation of child development should account for the “internal essence” of children’s unique personalities rather than focus on external, physical traits that essentially bore no meaningful connection to each other. For example, other than to signify a child’s age, deciduous (baby) teeth bear no significance to the eruption of the molars around age 6.

In contrast to phylogenetic attempts to periodise child development, Vygotsky’s (1933–1934/1998a) periodisation of child development theorised that children’s higher mental functions progressively build on each other throughout five distinct stages of childhood: 1) infancy (birth to 1 year); 2) early childhood (1 to 3 years); 3) preschool (3 to 7 years); 4) school age (8 to 12 years); and 5) adolescence (13 to 17 years). Here, 3- to 7-year-old children are referred to as “preschoolers” because the Russian preschool education system has been designed for children in this age group since the 1930s (Shiyan et al., 2018).

Importantly, children in the 8- to 12-year-old age group were referred to by Vygotsky as “school age” because these four years of schooling were made compulsory in 1931 as part of Stalin’s first *Five-Year Plan* to industrialise Russia (Fitzpatrick, 1978). This governmental initiative aimed to educate underprivileged children (e.g., those who were orphans, homeless, and/or from working-class backgrounds) to support their ability to become “productive” members of the new socialist society (Vasileva & Balyasnikova, 2019).

In many digitised societies (such as Australia), however, formal schooling is often compulsory for children aged 6 to 16 years. The theoretically based decision to retain Vygotsky’s use of “school age” to refer to 8- to 12-year-old children in this thesis, therefore, foregrounds its importance as a developmental stage during childhood when most children in this age group are engaging in object-centred learning activities with more knowledgeable others (e.g., adult

educators, more advanced peers) in formal educational settings. Recently, another study drawing on Vygotsky's thinking about child development also used the term "school age" to refer to children in the 8- to 12-year-old age group (Roth et al., 2024, p. 182).

According to Vygotsky (1933–1934/1998a), the five stages of childhood represent stable (or lytic) periods of development where children's unique personalities evolve smoothly and unremarkably over time according to age-related central psychological formations that arise during these periods (Kravtsova, 2006). Central psychological formations represent important higher mental functions (e.g., intellectualised perception, emotions, memory) that determine how children voluntarily orient themselves toward specific social activities within their external surrounds (Vygotsky, 1933–1934/1998a). For example, when intellectualised perception emerges in 1-year-old children, they become increasingly interested in experimenting with, and emotionally relating to, physical objects such as blocks and soft toys.

A key feature of central psychological formations is that they do not evolve and develop independently, they are fostered through unique social situations of development during stable developmental periods. Central psychological formations are thus key to shaping a child's personality because they are reorganised and restructured according to how children relate to themselves, the objective world, and others (particularly adults) in their external surrounds (Polivanova, 2015). Such functions characterise the essence of stable developmental periods because they reflect a dialectical unity between internal aspects (e.g., cognitive, personal) and external aspects (e.g., material, social) of a child's everyday lived experiences.

Vygotsky (1933–1934/1998a) theorised that new stable developmental periods begin when children's motive orientations for actively participating in the next unique social situation of development are heightened, and such activities foster development of new central psychological formations. The characteristics of stable developmental periods during childhood are detailed in Table 3.1.

Table 3.1*Characteristics of Stable Developmental Periods (Adapted from El’Konin, 1971/1999)*

Stable period of development	Motive orientation	Unique social situation of development	Evolving central psychological formation
Infancy (<i>Birth to 1 year</i>)	Relate to adults to satisfy physiological needs	Emotionally relating to adults (e.g., smiling, vocalising, crying)	Relating emotionally
Early childhood (<i>1 to 3 years</i>)	Engage in object-centred joint exploration with others	Experimenting with, and relating emotionally to, objects (e.g., blocks, teddies, dolls)	Intellectualised perception (mainly through speech)
Preschool (<i>3 to 7 years</i>)	Relate to peers to satisfy unrealised needs	Acting in imaginary situations (e.g., role-playing adult social behaviours)	Memory
School age (<i>8 to 12 years</i>)	Engage in object-centred collective theorising with more knowledgeable others	Collective theorising with more knowledgeable others (e.g., learning new skills)	Emotions
Adolescence (<i>13 to 17 years</i>)	Relate to peers to satisfy socio-emotional needs	Forming close bonds with peers (e.g., using social media)	Critical thinking

According to cultural-historical scholar, El’Konin (1971/1999), children’s motive orientations for unique social situations of development alternate throughout childhood. As illustrated in Table 3.1, infants, preschoolers, and adolescents (indicated in yellow) are predominately motivated to relate to others in ways that satisfy internal needs, whereas during early childhood and school age (indicated in green), children are predominantly motivated to engage in object-centred activities with others.

As children approach the end of a stable developmental period, their consciousness of the external environment changes significantly because the central psychological formation reflective of their age matures and the next central psychological formation begins to evolve. This prompts a qualitative change in the way children communicate with adults and gives rise to a new, unique social situation of development (Kravtsova, 2006). For example, when emotions (central psychological formation) emerge at the end of school age, adolescents become increasingly interested in forming close personal connections with peers.

When this occurs, children experience a shift in their consciousness that changes how they perceive their external surrounds and psychologically prepares them for the next social situation of development. While such changes are essential for cognitive progression, they foreshadow children's entry into a predicament that sees new, temporary motives appear in their consciousness. These new motives present specific (and often complex) challenges for children and may negatively affect their everyday interactions with adults. Vygotsky (1933–1934/1998a) frames this predicament as a *crisis of age*.

3.5.1 Crises of age

Vygotsky (1933–1934/1998a) argued that a complete periodisation of child development should include the dynamic transitions occurring as children pass through “one method of experiencing the environment to another” (p. 295) because a “principal unity” (p. 293) exists between children's external surrounds and the developmental trajectory of their personalities. To achieve this, Vygotsky drew on the work of Marxist paedologist Pavel Blonsky – who described the teenage years as “catastrophic – a period of severe crisis” (as cited in Danilchenko, 1993, p. 119) – to theorise that all stable periods of development end with an abrupt turning point known as a *crisis of age*.

In cultural-historical theory, a crisis of age emerges when children reach a certain stage of development and experience a profound shift in their existing social situation of development to a completely new one. This shift prompts the onset of a transitional, critical period of development from which children can only emancipate themselves by progressing psychologically (Blunden, 2008). According to Vygotsky (1933–1934/1998a), a crisis of age emerges at birth and around the ages of one, three, seven, thirteen, and seventeen when transitional psychological formations appear in a child's consciousness.

Transitional psychological formations (e.g., narcissism, despotism) are temporary mental constructs causing children's internal and external lives to become differentiated subsequently prompting them to view their actions in the world in new ways (Kravtsova, 2006). When

transitional psychological formations appear in children's consciousness, their personalities change dramatically because they begin deliberately experimenting with disruptive performative actions (or non-actions) that are "directed toward the adult" (Polivanova, 2015, p. 16). This differs significantly from stable developmental periods during which central psychological formations support children's ability to act in the world (mostly) independently of adults and changes to the child's personality are "microscopic" because it develops according to a "slow, evolutionary, or lytic flow" (Vygotsky, 1933–1934/1998a, p. 190).

While external conditions prompt different manifestations of the crises of age, Vygotsky (1933–1934/1998b) argued it is the internal process of development itself that is "responsible for the critical, disruptive periods in the life of the child" (p. 192). Subsequently, crises of age cannot be avoided by changing parenting or pedagogical practices (Polivanova, 2015) because each stable developmental period "assimilates crisis formation" (Kravtsova, 2006, p. 13) making critical periods unavoidable. Moreover, critical developmental periods lack set borders making it difficult to determine when a child's crisis of age has emerged and when it has passed.

According to Vygotsky (1933–1934/1998a), critical periods of development are comprised of three specific phases: 1) the pre-critical phase; 2) the critical phase; and 3) the post-critical phase. In the pre-critical phase, a transitional social situation of development arises. This situation presents a predicament for children because objective and subjective aspects of their existing social situation become conflicted and "destroy" how the child previously related to adults (Polivanova, 2015, p. 64). For example, when an infant starts to walk around age one, caregivers respond by limiting the child's movements to prevent injuries. Newly mobile infants, however, have not previously experienced this type of opposition from caregivers so they are faced with a predicament that prompts the crisis at age one and sees the transitional psychological formation of *strong will* begin to emerge. Blunden (2011, p. 464) aptly describes this predicament as an "uh-oh" moment for children, rather than an "ah-ha" moment.

The second phase, the critical phase, represents the pinnacle of the critical developmental period because children begin to exhibit new types of abrupt, disruptive, and impetuous behaviours that did not previously exist. Such behaviours are predominantly expressed as a negative attitude towards the demands of adults (Kravtsova, 2006) and differ from those observed during stable developmental periods because they involve destructive components caused by internal conflicts (e.g., frustration at mobility being restricted) and/or external conflicts (e.g., viewing adults as hindrances).

During the critical phase, destructive components impel children to oppose customary forms of social interactivity meaning they may lose certain accomplishments gained during stable periods of development (El'Konin, 1971/1999). For example, children might lose interest in activities they previously enjoyed and/or cease automatically adhering to household rules to which they usually complied, even questioning if such rules are worth following (Polivanova, 2015). While such behaviours often cause conflicts with others (mainly adults) and are more likely to manifest within the context of the family home, they scaffold positive outcomes for children by enriching and supporting their developmental trajectory. For example, the crisis at age one sees infants beginning to explore their environmental surrounds and acquiring new mobility and communication skills actively and independently.

In the post-critical phase, a new unique social situation of development emerges that resolves the crisis by constructively restoring harmony between previously conflicting subjective and objective elements of children's external surrounds. When this occurs, problematic transitional psychological formations are subjugated by newly developing central psychological formations. For example, after the crisis at age one, the rise of intellectualised perception (central psychological formation) prompts toddlers to seek object-centred joint explorations with adults so they become less impelled to exhibit strong will (transitional psychological formation).

When the post-critical phase begins, children's existing social activities become "endowed with new meaning" (Kravtsova, 2006, p. 16) so they become more capable of constructively

managing their spontaneous behaviours and start to experiment with reconstructing their place in the world (Polivanova, 2015). Destructive and constructive behavioural components of the critical development period thus constitute a dialectical whole because they are both equally necessary for children to transition to a qualitatively new developmental level.

This transformative process ultimately shapes children into functioning adults who are psychologically capable of “contributing to the production and reproduction of the culture and society” (Blunden, 2008, p. 18) in which they live. While critical developmental periods vary in length (ranging from several months to two years), they are all comprised of the same basic characteristics (see Table 3.2).

Table 3.2

Characteristics of Critical Developmental Periods (Adapted from Blunden, 2008)

Predicament arising at the end of a stable period of development	Newly developing transitional psychological formation	Critical period of development <i>(Destructive/constructive components)</i>
Child is physically separated from birth mother but remains biologically dependent on adults.	Reflexes diffuse from perception	NEWBORN CRISIS Child may be anxious but begins responding to social stimuli.
Child’s increasing mobility may be restricted by adults.	Strong will	CRISIS AT AGE 1 Child may become frustrated but starts independently exploring environmental surrounds.
Child’s growing autonomy may not be recognised by adults.	Despotism	CRISIS AT AGE 3 Child may act stubbornly and defiantly but unique personality traits begin to emerge.
Child is becoming more aware of how they are viewed by others.	Narcissism	CRISIS AT AGE 7 Child may become more self-centred but begins to develop affective awareness.
Child may begin rejecting external approval from adults.	Rebelliousness	CRISIS AT AGE 13 Child may adopt a critical stance toward own society but develops critical thinking skills.

Note. Information regarding the crisis at age 17 is omitted from Table 3.2 as this critical period of development has not yet been fully developed by post-Vygotskian scholars. This may be due, in

part, to this age period being regarded as “the first link in the chain of mature growth than as the final link in the chain of child development” (Zender & Zender, 1974, p. 40).

As shown in Table 3.2, a predicament (“uh-oh” moment) arising at the end of each stable period prompts a developmental crisis. Then, transitional psychological formations appear in the child’s consciousness causing destructive/constructive components to manifest internally (e.g., conflicted feelings) and externally (e.g., negative behaviours). According to Vygotsky (1933–1934/1998a), while all children experience internal conflicts reflective of the crises of age differently, those with difficult childhoods often feel such conflicts more intensely. Subsequently, children with relatively stable childhoods may not clearly exhibit problematic behaviours making it difficult for adults to respond sensitively to their needs.

El’Konin (1971/1999) provides some clarity, however, by suggesting that the intensity of children’s crises of age is predominantly based on how their *need-motivational sphere* aligns with the predicament in which they find themselves at the end of stable developmental periods. This means adults play a crucial role in responding sensitively to the needs and motives of children who are experiencing inceptive or maturing effects of a crisis of age to minimise the problematic behaviours reflective of these critical developmental periods and foster development of the child’s personality, particularly self-esteem and self-awareness (Kravtsova, 2006).

As stated previously, Vygotsky’s (1933–1934/1998a) periodisation of child development was composed during an historical era when the Stalin-led government was heavily invested in educating large numbers of 8- to 12-year-old children. As such, paedologists (like Vygotsky) were intensively focused on applying the basic laws of child development to these reshaped educational contexts (e.g., how underprivileged children might be “rehabilitated” in schools) (Vasileva & Balyasnikova, 2019).

Clearly, these societal conditions differ significantly from highly digitised societies where most adults have access to a range of cultural artifacts (e.g., parenting websites, child-centred philosophies, digital learning policies) mediating their ability to respond sensitively to the unique

developmental needs of children. Critical developmental periods for the current generation of children may thus manifest in a more subtle and/or gradual way compared to children from past generations, such as those living in Russia in the 1930s.

In this research, 8- to 12-year-old children's motives for engaging in online sociodramatic play informed the individual perspective of Hedegaard's (2009) adapted model of child development shown in Figure 3.2. As children in this age group are likely to be experiencing maturing effects of the crisis at age seven or inceptive effects of the crisis at age thirteen, it was important to understand key traits and characteristics of these critical developmental periods.

3.5.1.1 The crisis at age seven

According to Vygotsky (1933–1934/1998b), an essential trait of the crisis at age seven was the emergence of an inadequate differentiation between a child's internal life (e.g., motives, desires) and external life (e.g., behaviours, activities). This psychological predicament prompts children to become increasingly conscious of how they internalise external factors within their environmental surrounds, such as household rules and the way they relate to others.

Prior to the crisis at age seven, children generally hold a positive view of themselves because this internal/external differentiation does not exist. Its quiet emergence, however, sees intellectual factors introduced that heighten children's conscious awareness of how they are viewed by others. Vygotsky (1933–1934/1998b) likened this conscious awareness to the way humans perceive a clock or chessboard before and after their respective functions are made clear (i.e., to tell time or play a strategic game). In this sense, while the visual field remains the same, the perceptive field has altered significantly. So, for children experiencing the crisis at age seven, while the visual field of their external surrounds remain the same, the way a child perceives these external surrounds changes significantly.

Such changes prompt children in this age group to lose the "childlike directness" and naivety of their younger years (Vygotsky, 1933–1934/1998b, p. 289). Around age seven, children begin to develop an arbitrariness in their behavioural and cognitive activities making them more

impulsive, unpredictable, and difficult to raise than in previous years. They may also begin acting capriciously and/or frivolously making them less understandable to adults. For example, an 8-year-old experiencing maturing psychological effects of the crisis at age seven might exhibit “clownish” behaviours considered by adults as odd for a child this age but endearing in younger children.

The key reason for these changes is that the transitional psychological function of narcissism (self-love) appears in children’s consciousness making them more intellectually oriented toward their own life experiences (Blunden, 2008). Such experiences subsequently acquire new meaning (e.g., the child understands why certain behaviours are good or bad) and become generalised (e.g., good behaviours bring positive affirmations). When this occurs, children view themselves and their position in the world differently because they increasingly regard themselves as autonomous individuals who can independently act in the world and make their own decisions about what they like and dislike (Polivanova, 2015).

Like all critical developmental periods, internal changes around age seven prompt destructive and constructive components for children. Destructive components may manifest as children opposing parents’ authoritative position and asserting their own form of authority by questioning, violating, and/or disobeying household rules because they realise such rules are regulated by adults and not themselves. Moreover, children in this age group may exhibit narcissistic behaviours – such as self-centeredness, indifference to others’ needs, and a lack of empathy – significantly affecting how they relate to others (Kravtsova, 2006). Constructive components, however, see children becoming increasingly capable of identifying their feelings (e.g., they understand what it means to be sad, happy, or annoyed) fostering new emotional competences (e.g., identifying and managing their own and others’ affectivity).

El’Konin (1971/1999) suggests the need-motivational sphere for children experiencing the crisis at age seven manifests cognitively and socially. Firstly, cognitive motives prompt children in this age group to exhibit greater interest in acquiring new knowledge and skills within various social arenas (e.g., school, clubs) psychologically equipping them for the next social situation of

development – collective theorising with more knowledgeable others. Such motives also see children adopting a more positive orientation toward formal schooling by considering their role of “student” as enabling increased autonomy and independence. Around age seven, children also exhibit a heightened interest in rules-based games (Vygotsky, 1933/2016), which may explain the popularity of multiplayer virtual worlds embedded with such games among school age children (see Ch. 2, pp. 41–47).

Secondly, social motives prompt children experiencing psychological effects of the crisis at age seven to consciously establish and manage a social position among their peers. To achieve this, children in this age group begin to expand their radius of social activities beyond the family unit and attempt to gain increased control over their relationships with other, mainly peers (Blunden, 2008). Around age seven, children also start acting more strategically and tactfully to establish and maintain alliances (e.g., taking sides) with peers of their own choosing, such as those that share similar interests, rather than “friends” chosen for them by adults. For example, while caregivers usually organise playdates between preschool children, by age nine, children seek to autonomously “make decisions about what to do, where, and with whom” (McAuley et al., 2012, p. 465).

Moreover, Vygotsky (1933/2016) asserted that while children’s motives for engaging in sociodramatic play may appear to wane around age seven, internal processes occurring on a psychological level (e.g., development of inner speech and internalised emotions) means products of imagination do not disappear altogether but manifest inwardly. As a result, overt elements of school age children’s sociodramatic play often go “underground” and are subtly infused with everyday activities (Singer & Singer, 1990, p. 112). This was an important consideration in this research because it suggests that sociodramatic play between like-minded school age children becomes an “increasingly private matter” to which outsiders, particularly adults, are often excluded (Dunn, 2004, p. 46).

Of further consideration in this research was that scholarly insights into the nature of sociodramatic play during middle childhood (i.e., 8- to 12-years) are limited (Bergen & Fromberg,

2009) making it difficult for caregivers to support the developmental needs of children entering the crisis at age seven who enjoy engaging in this form of play. As such, existing and emerging cultural artifacts are unlikely to advise caregivers about how to guide school age children's participation in sociodramatic play in ways that support their newly evolving cognitive and social motives.

3.5.1.2 The crisis at age thirteen

Vygotsky (1930–1931/1998c) read extensively and wrote at length about the intense psychological changes occurring at, what he referred to as, *the transitional age* – the beginning of adolescence around age thirteen. Like all critical developmental periods, the crisis at age thirteen gives rise to a dramatic shift in the way children internalise (e.g., understand, deduce) the sociocultural conditions of their external surrounds. As a result of this new internal world, a qualitatively new external world arises for adolescents prompting them to view their everyday interactions with others (particularly adults in positions of authority) in completely different ways.

In the early 20th century, it was generally accepted that the biological effects caused by puberty indirectly influenced a child's personality development. For Vygotsky (1930–1931/1998c), however, the crisis at age thirteen also prompted profound changes on a psychological level resulting in the emergence of a self-reflective awareness that did not exist previously. This new awareness was described by Zender and Zender (1974) as eliciting “such disorientation in the child's external and internal relationships in which the individual and the world are more at odds than at any other time” (p. 36).

Vygotsky (1930–1931/1998c) theorised that the most significant driving force of behaviour for children entering adolescence was the weakening (or dying off) of old interests and the unfolding of new, specialised interests, such as the emergence of new, richly complex, secret fantasy worlds (e.g., daydreams, visual representations) that essentially replaced imaginary forms of play. Such interests prompt adolescents to increasingly gravitate toward creative fulfilment and productivity based on the emergence of new developmental needs (e.g., incentives, motives, internal desires, emotionality) that significantly change how they behave and think.

Interestingly, Vygotsky (1930–1931/1998c) compared this process to a butterfly emerging from its pupa because it assumes a curtailment of old interests and behaviours (demise of the pupa) and maturation of new interests and behaviours (birth of a butterfly). While interests, inclinations, and needs are tendencies that stimulate all human activity, Vygotsky (1930–1931/1998c) argued that such interests held stimulating power that formed the “base of all cultural and mental development of the adolescent” (p. 10). Naturally, an adolescent’s heightened engagement in new interests around age thirteen may prompt problematic behaviours that significantly affect how they interact with adults. For example, adolescents might exhibit a temporary decline in academic productivity and capacity for completing set tasks (such as homework and household chores) and/or demonstrate disruptive moods and protesting behaviours (such as opposing long-standing household rules for online play). This is because what may not have been obvious to the adolescent prior to the crisis at age thirteen, such as the dynamics of adult-child power relationships, now acquire new meaning.

Like all critical developmental periods, “a new sphere of life emerges” (El’Konin, 1971/1999, p. 25) around age thirteen and gives rise to strong motive orientations that direct the child’s behaviour. Specifically, children in this age group begin to increasingly compare themselves to adults and other adolescents and form close personal connections with peers who exhibit definite personal qualities. Such connections differ from previously established practical friendships and are extremely important to adolescents because they manifest as a “mutually shared, private, inner world” (El’Konin, 1971/1999, p. 25).

It is within this private world where an adolescent’s universal worldview is formed, such as how they view human relationships and their own future trajectories and personal values. The code of friendship established during adolescence manifests according to how children in this age group value communicative activity in relation to the traditions, societal norms, and cultures embedded in adult society. For this reason, El’Konin (1971/1999) posited that a leading motive for children in

this age group is “the activity of communication, the activity of building relations with friends” (p. 25) mediated by definitive ethical and moral norms to which members of the group adhere.

While these private friendship worlds constructively prepare adolescents for establishing personal and professional relationships in adulthood, they also destructively prompt children in this age group to distance themselves from societal truisms that are learnt in the family home (and at school) and adopt a critical stance toward their own cultural traditions and societal norms. Blunden (2008, p. 18) thus refers to the crisis at age thirteen as a “crisis of rebelliousness” because adolescents develop a capacity to critique and challenge cultural traditions and societal norms even when their arguments may be poorly informed.

It is important to reiterate here that the crisis at age thirteen is likely to manifest quite differently for children being raised in a digitised society compared to those living in Vygotsky’s era. For example, many Russian adolescents worked, rather than attend school, in the early 1930s (Fitzpatrick, 1978) whereas almost 80% of Australian adolescents now remain at school until age 18 (Australian Bureau of Statistics, 2024). Compulsory schooling and high retention rates thus represent social safety nets for adolescents who may have otherwise been forced to enter the workforce.

While these stark societal differences cannot be ignored, Hedegaard’s (2009) theoretical model draws attention to the way adults living in a particular society respond sensitively (or not) to the developmental needs of children experiencing a crisis of age. As such, although the cultural conditions for development differ significantly for the current generation of children compared to those living in 1930s Russia, the societal and institutional levels of Hedegaard’s (2009) theoretical model are inseparably tied to the individual level. This means children’s motive orientations are analysed according to the cultural conditions of the societies in which they are raised and educated, rather than the society in which Vygotsky (1933–1934/1998a) composed his periodisation of child development.

3.5.2 Analysing children's motives at the individual level

In Hedegaard's (2009) adapted model shown in Figure 3.2, the individual perspective (lower tier) represents 8- to 12-year-old children's motives for engaging in online sociodramatic play. In alignment with Hedegaard's (2009) cultural-historical thinking about children's changing motive orientations during childhood, particularly those arising during critical developmental periods, Vygotsky's (1933–1934/1998a) periodisation of child development informed this perspective. A core tenet of this theory suggests that children's leading motives during childhood manifest cognitively and socially. Subsequently, children's motive orientations for engaging in online sociodramatic play at the individual level were analysed according to whether they represented cognitive motives (e.g., to learn new things) or social motives (e.g., to interact with peers).

To provide further insight into this analytical plane, children's perspectives of caregiver practices guiding their participation in online sociodramatic play (as reflected in their household rules for such play) were also analysed. These perspectives were categorised according to three different age groups – 8- to 9-year-old children, 10-year-old children, and a 12-year-old child – to promote understanding of how maturing effects of the crisis at age seven or inceptive effects of the crisis at age thirteen influence why children might agree or disagree with certain household rules for online play.

This analytical process was crucial to informing the individual perspective of Figure 3.2 because Hedegaard (2009) argued that when adults respond sensitively to problematic behaviours reflective of critical developmental periods in institutional settings, child development is optimised. The urgency for exploring the consequences of potential tensions occurring within the institution of online sociodramatic play is particularly heightened given the internal/external differentiation appearing in children's consciousness around age seven and thirteen. For example, the crisis at age seven prompts children to seek private friendship experiences through imaginary play and question adult rules, and the crisis at age thirteen prompts children to form shared private fantasy worlds with peers and challenge cultural traditions and norms.

Conclusion

This chapter provided an overview of the theoretical framework conceptualising this research. First, the philosophical origins, dialectical underpinnings, and core concepts of cultural-historical theory were clarified. Then, Hedegaard's (2009) cultural-historical model of child development was explained in relation to how it provides a suitable analytical framework for exploring the unit of analysis in this research – the institution of online sociodramatic play. Following this, three key theories informing the state and individual perspectives of Hedegaard's (2009) adapted model framing this research (shown in Figure 3.2) were explained. The first key theory, mediation (Vygotsky, 1930/1978), was identified as informing the state perspective (upper tier) of Figure 3.2 by providing theoretical insight into how secondary artifacts (e.g., societal norms, values, and discourses) implicitly and/or explicitly mediate caregiver practices guiding school age children's participation in online play in the home.

Second, practice theory (Kemmis et al., 2014; Schatzki, 2012) was identified as further informing the state perspective of Figure 3.2 by enabling caregiver practices to be identified based on their defining elements (i.e., doings, sayings, relatings) and timespaces (i.e., temporal and spatial dimensions). The third key theory, Vygotsky's (1933–1934/1998a) periodisation of child development, was identified as informing the individual perspective (lower tier) of Figure 3.2 by providing a firm theoretical grounding for describing the motive orientations of school age children, particularly those experiencing maturing effects of the crisis at age seven and inceptive effects of the crisis at age thirteen. In the next chapter, the methodological approach guiding the data gathering and analysis procedures in this investigation is detailed.

Chapter 4: Methodology

Introduction

This research identifies commonalities and tensions occurring within the institution of online sociodramatic play so caregivers can be better informed about supporting the unique developmental needs of 8- to 12-year-old (school age) children. In this chapter, the methodological process guiding the research reported in this thesis is detailed. The main research question for the study is:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

The three sub-questions addressing the main research question are:

SQ1: How are caregiver practices mediated by cultural artifacts regarding children's participation in online sociodramatic play in the family home?

SQ2: What are children's motives for engaging in online sociodramatic play?

SQ3: What are children's perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home?

The chapter begins by exploring the philosophical assumptions of research paradigms, specifically those informing the qualitative research tradition of phenomenology. Then, the co-design approach guiding how data were gathered in this research is detailed and data analysis procedures are presented. To conclude the chapter, key ethical issues and factors contributing to the qualitative rigour and risks of this investigation are explained.

4.1 Paradigms in research

In a scientific study, the paradigm constitutes the researcher's abstract set of principles, ideas, and beliefs (or worldview) about how the investigative process will be conducted (Creswell & Poth, 2018). The term "paradigm" was initially conceptualised in the field of social sciences by American philosopher Thomas Kuhn (1962/2012) who argued that scientific pursuits could not solely rely on objectivity because a researcher's worldview (or "conditioning") always influenced

how they conducted their studies making such studies fundamentally subjective. Clarifying the paradigm underpinning a research study is crucial, therefore, because it ultimately shapes and determines “every decision made in the research process, including choice of methodology and methods” (Kivunja & Kuyini, 2017, p. 26).

Traditionally, research paradigms are comprised of four key philosophical assumptions that permeate all aspects of an inquiry and essentially encapsulate “how the world is ordered, what we may know about it, and how we may know it” (Hatch, 2002, p. 11). These philosophical assumptions are: 1) defining the nature and characteristics of reality (ontology); 2) explaining what constitutes knowledge, how it is acquired, and why it is valued by humans (epistemology); 3) clarifying the values and ethical considerations embedded in an inquiry (axiology); and 4) describing the logical process guiding data collection and analysis procedures (methodology).

The first philosophical assumption reflects a researcher’s ontological stance. Ontology is a branch of metaphysical philosophy that raises fundamental questions about what constitutes the nature of being (i.e., subjective/objective features of existence) and reality (Denzin & Lincoln, 2017). Clarifying an ontological stance is important because researchers often have deeply held beliefs about how reality exists and what can be discovered about it. Such beliefs will thus ultimately guide how data are analysed in a study.

The researcher’s epistemological stance represents the second philosophical assumption of a research paradigm. Etymologically derived from the Greek word *episteme* (meaning “to know and understand”), epistemology describes what constitutes knowledge (or truth) in the world and how it is acquired and communicated by humans (Kivunja & Kuyini, 2017). Epistemological assumptions thus reflect how researchers view the relationship between the inquirer (learner) and what is known (knowledge) in the societies in which they live (Denzin & Lincoln, 2017).

Clarifying an epistemological stance in a research study is important because it informs how researchers position themselves in different contexts to investigate what constitutes knowledge for a particular group of people. This means the researcher must deeply consider if the new knowledge

they seek can be gained objectively (e.g., via quantifiable methods that measure scientific data) and/or subjectively (e.g., via qualitative methods that interpret scientific data).

The third philosophical assumption reflects a researcher's axiological stance about the inherent values and ethical considerations embedded in an investigation. Axiological assumptions are important because they ultimately guide how researchers define, evaluate, and understand what constitutes ethical conduct when designing their studies, interacting with participants, analysing data, and disseminating findings (Creswell & Poth, 2018).

Adopting an ethically informed axiological standpoint is important in democratic societies. This is because researchers conducting studies in such societies are bound by strict ethical protocols that ensure the fundamental rights of human research participants, particularly those from vulnerable groups (e.g., children), are always prioritised. Such protocols ensure researchers are consciously aware of treating their human participants lawfully and ethically so they might be empowered to act agentively to inspire social change.

The methodological stance represents the fourth philosophical assumption of a research paradigm. Methodology is a broad term used to describe the logical flow of systematic, organised, pre-planned processes (e.g., recruitment strategies, methods) employed to address a research problem (Kivunja & Kuyini, 2017). Clarifying a methodological stance is important because researchers make deliberate, intentional decisions about employing the most effective strategies that enable them to produce the new knowledge they seek (Rossman & Rallis, 2017).

Research paradigms are a necessary and important inclusion in a study because they guide researchers with making important decisions during the investigative process based on the conceptual and philosophical lens through which they view the world (Kivunja & Kuyini, 2017). In this study, exploring the unique intricacies of the institution of online sociodramatic play saw scientific data interpreted rather than measured. The research paradigm underpinning this investigation was thus informed by a qualitative approach.

4.2 Qualitative inquiries

Qualitative inquiries seek to understand how people make sense of the complex circumstances of socially and culturally based phenomena (e.g., human relationships, behaviours, social activities) as they are lived and experienced (Polkinghorne, 2005). Transforming these understandings into new knowledge is the primary aim of qualitative researchers because such circumstances play a key role in the lives of different groups of people, particularly those (e.g., children) whose voices may have been silenced by powerful societal systems (Groundwater-Smith et al., 2015).

While quantitative inquiries seek to advance scientific knowledge by objectively measuring natural and/or social phenomena (e.g., through experimental designs or correlative patterns), qualitative inquiries explore the world of lived human experiences because this is “where individual belief and action intersect with culture” (Denzin & Lincoln, 2017, p. 8). Qualitative inquiries, therefore, are fundamentally interpretive (rather than measurable) because data are generated via human researchers who are required to enact external (e.g., interviews, observations) and internal (e.g., reflexive introspections) methodological tasks.

4.2.1 Philosophical origins

The philosophical origins of qualitative inquiries are rooted in empiricism – a worldview that considers knowledge as primarily acquired through human sensory experiences (Denzin & Lincoln, 2017). Historically, this worldview was popularised around 400 years before the common era (BCE) by ancient Greek philosophers, such as Aristotle and Plato, who attempted to describe how the intricate complexities of human mental reasoning about the world (e.g., activities, beings, cultural artifacts) were meaningfully constructed (e.g., organised, imbued, shaped) via direct visual, aural, and tactile experiences (Rossman & Rallis, 2017).

Tensions around the scholarly validity of this worldview emerged in the 17th century, however, when the quantitative-based work of natural scientists such as Galileo Galilei and Sir Isaac Newton became more widely recognised as standard for exploring physical scientific

phenomena (Denzin & Lincoln, 2017). Referred to as the *Age of Enlightenment*, this historical era saw logical reason-based inquiries (e.g., explaining general laws that governed natural phenomena) as key to understanding what constituted “truth” in the world.

While this philosophical thinking endured for decades, it shifted in the mid-19th century to address the problem of exploring the social world and gave rise to the notion of sociology – the scientific study of society – established by French philosopher Auguste Comte in 1838. As this new worldview gained scholarly traction, German philosopher Wilhelm Dilthey rose to prominence by asserting that understanding the social world was not possible through the logical research approaches lauded by natural scientists.

Instead, Dilthey (1883/1988) argued that normative generalisations could not be applied to human subjective experiences, so he advocated for a new approach to exploring the social sciences (as the term is understood today). This revolutionary thinking gave rise to *hermeneutics* – a branch of social science that focuses on interpreting, understanding, and explaining human experiences, particularly through historical texts (e.g., biblical scriptures). In hermeneutics, Dilthey (1883/1988) draws on the German term *Verstehen* to understand and empathise with the truth of a person’s lived experiences as they are shaped by wider historical and cultural conditions in the societies in which they live.

Dilthey’s approach was instrumental in advancing the philosophical view that qualitative methodologies could be used to understand social phenomena as an alternative to quantitatively explaining natural and/or social phenomena. A core tenet of this new approach was the idea that layers and characteristics of human experiences are not rigidly or logically ordered like mathematically based patterns found in nature, such as life cycles and bodily systems (Polkinghorne, 2005).

The Romanticism movement may also have influenced this philosophical shift as folktales of peasants (such as those written by the Brothers Grimm in Germany) became more popular in the mid-1800s, supporting the notion that qualitative inquiries often provide a voice for people whose

lives are constrained by overarching societal systems (Denzin & Lincoln, 2017; Liamputtong, 2019). In alignment with this thinking, qualitative researchers were, and continue to be, considered social scientists because their studies are fundamentally anchored in the notion that humans meaningfully interpret everyday social and cultural realities through what they see, feel, and hear and it is imperative that these realities are made visible to the outside world (Rossman & Rallis, 2017).

By doing so, new knowledge is gained that can inform everyday decision-making processes that might enhance and/or transform the social circumstances of a specific group of people. This notion was initially problematic in the early 1900s, however, when many early qualitative researchers focused on studying extraordinary cultural groups of the world (Denzin & Lincoln, 2017). These early studies served as metaphors for colonial knowledge, power, and truth because such groups were often positioned as “exotic others” who differed from, and impeded colonisation of, the European world.

It is crucial, therefore, that researchers conducting qualitative inquiries acknowledge the problematic historical origins of this research tradition when generating data from vulnerable groups, such as children, so the potential for methodological and/or ethical tensions to arise is minimised (Denzin & Lincoln, 2017). This means considering more deeply how their studies might contribute to upholding the values embedded within free, democratic societies.

Qualitative inquiries are always conducted according to their distinctly unique disciplinary histories, meaning one approach cannot be prioritised over another (Creswell & Poth, 2018). The research reported in this thesis explored how the institution of online sociodramatic play is constituted in the home based on the meaningful perspectives of children and caregivers who experience it. The qualitative research tradition of phenomenology was thus selected to inform the research paradigm.

4.3 Phenomenology

Phenomenologists seek to reliably encapsulate the essence (or true nature) of everyday, real-world phenomena (e.g., social activities, emotional states) as they are lived and experienced by humans (Heidegger, 1927/1978; Husserl, 1936/1970). In phenomenology, the reality of a phenomenon can only be understood by drawing exclusively from the first-person accounts of those who have directly experienced it, rather than how it might be logically conceptualised, artificially constructed, or categorised (Neubauer et al., 2019). For example, phenomenologists believe that human reflective awareness, empirical knowledge, and personal descriptions are reliable indicators of the essence of a specific phenomenon.

While most qualitative researchers seek to understand social phenomena, the “phenomenon” in a phenomenological study is unique because it always represents something that is subjectively perceived (i.e., it appears) in human consciousness and is brought into being (i.e., it manifests) in the world via everyday lived experiences (Vagle, 2018). For example, the institution of online sociodramatic play is a real-world, contemporary phenomenon that appears and manifests for many children and caregivers living in family homes located in digitised societies.

Importantly, phenomenologists understand that children’s everyday lived realities have “different experiential qualities” (van Manen, 1997, p. 101) to those of adults. The qualitative tradition of phenomenology is thus often used to explore child-related phenomena, such as children’s views of friendship (Carter, 2021), subjective wellbeing (Fattore et al., 2007; Newland et al., 2018), and global pandemics (Koller et al., 2023; O’Sullivan et al., 2021). These types of studies can deepen adult understandings about what it means to be a child, and lead to more reflective parenting and/or pedagogical practices (Briod et al., 2011).

4.3.1 Philosophical origins

As qualitative research approaches advocated by Dilthey gained prominence in Europe during the late 19th century, a young German scholar named Edmund Husserl was inspired to launch the phenomenological movement. Initially (and somewhat ironically) a mathematician,

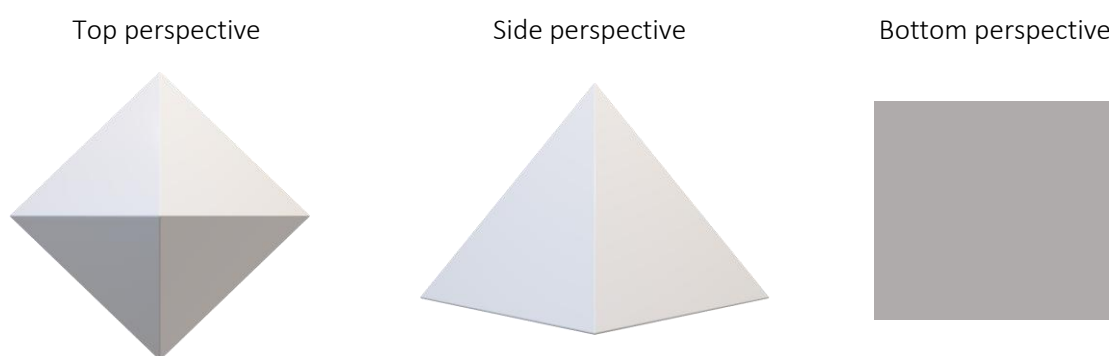
Husserl (1963/1970) shifted his focus to philosophy after being mentored by several prominent philosophers, such as Wilhelm Wundt (1863/2015) – a German psychologist who distinguished the field of psychology from biology and philosophy in the late 1800s.

Widely recognised as the “intellectual founder” (van Manen, 2016, p. 88) of the phenomenological movement, Husserl (1936/1970) questioned positivist notions that knowledge about the characteristics of independent natural phenomena (such as human emotions) could be acquired according to how they are objectively described, not subjectively perceived, by people. Instead, Husserl (1936/1970) argued that humans intentionally acquired knowledge about a specific phenomenon based on how they directly perceived and consciously experienced it (i.e., how it appeared in human consciousness).

In recognition of Husserl’s scholarly background in mathematics, this concept (known as *intentionality*) can be illustrated via a three-dimensional square pyramid. While the shape itself objectively constitutes the same whole, it appears subjectively from different perspectives (see Figure 4.1).

Figure 4.1

Viewing a Square Pyramid from Three Different Perspectives



Like different subjective human experiences of the same objective phenomenon, the three perspectives depicted in Figure 4.1 are unique in their own way because each derive from intentionally directing one’s gaze to the same whole differently. A core tenet of phenomenology,

therefore, is that a person's subjective perspectives of a phenomenon must be fully understood before the phenomenon itself can be understood (Vagle, 2018). Husserl (1936/1970) used the term *lifeworld* to conceptualise these subjective perspectives and argued that, by adopting a phenomenological stance, a person's lifeworld can be a "world for us all" (p. 99).

Although this "radical" scientific approach was widely criticised at the time, Husserl staunchly defended and extended his thinking to develop a "philosophic system rooted in subjective openness" (Moustakas, 1994, p. 25) that has "remained to this day a worldwide touchstone for phenomenological methodology" (Briod et al., 2011, p. 4). Like other prominent 1930s scholars (such as Vygotsky), Husserl's ability to expand on, and disseminate, his revolutionary work in the field of phenomenology was significantly hindered by political instability. Being from a Jewish family, Husserl was banished from the University of Freiburg in Germany where he had worked for several years as a professor when the Nazi party rose to power in 1933 (van Manen, 2016).

Prior to this scholarly suppression, Husserl's work had inspired one of his mentees, Martin Heidegger, to develop an alternative branch of phenomenological inquiry widely recognised as hermeneutic (or interpretive) phenomenology. Originally a theologian, Heidegger (1927/1978) was less concerned with how humans intentionally acquired knowledge about objective phenomena (like Husserl's epistemologically focused thinking) and more interested in the "fundamental ontology of 'being-in-the-world'" (Briod et al., 2011, p. 5).

As such, hermeneutic phenomenologists primarily seek to interpret how humans make meaning from their everyday experiences of acting in the world based on their personal histories and cultural circumstances. Like Husserl, Heidegger's work was also ultimately restricted by the Nazi party. The wholistic and interactive research tradition of phenomenology, however, prevailed and flourished to become one of the most adopted philosophical approaches underpinning qualitative inquiries because it emphasised the complexity of the qualitative nature of subjectively acquired human knowledge, experiences, and behaviours (Johansson et al., 2014; Liamputtong, 2019).

4.3.2 Philosophical assumptions

The phenomenological approach guiding this research focused centrally on hermeneutic phenomenology. This is because I have personal and scholarly insights into the institution of online sociodramatic play and this branch of phenomenology recognises that researchers (like their participants) cannot separate themselves from their own lived experiences of a phenomenon under investigation (Neubauer et al., 2019). The philosophical ways in which hermeneutic phenomenologists interpret and understand the world are thus guided by a research paradigm informed by specific ontological, epistemological, axiological, and methodological stances.

4.3.2.1 Ontological stance

Like most qualitative researchers, hermeneutic phenomenologists reject positivist notions of a single, fixed reality and adopt the ontological stance of relativism. Relativism assumes that humans are complex, unique beings who perceive, experience, and understand the same phenomenon differently (Kivunja & Kuyini, 2017). Subsequently, these diverse perceptions, experiences, and understandings manifest as multiple realities among a group of people.

In hermeneutic phenomenology, how one acts in the world is always viewed (and determined) differently by different people. The nature of being, therefore, is fundamentally determined by the way humans interpret their own lifeworlds (their “being-in-the-world”) based on how they understand themselves, their personal histories, and the world around them. Heidegger (1927/1978) used the term *Dasein* (a German term meaning “to be there”) to describe this ontological stance.

4.3.2.2 Epistemological stance

Adhering to a relativist ontological stance means a key epistemological assumption of hermeneutic phenomenology is that knowledge about the world is subjectively acquired. Researchers drawing on this branch of phenomenology thus adopt an epistemological stance of subjectivism and conduct their inquiries with human participants (usually in settings familiar to participants) because they believe this is the most effective way of gaining insight into their

subjective lived experiences. Like relativism, subjectivism rejects notions of a single, fixed objective reality or truth because the only unquestionable facts in particular social circumstances are the actual lived experiences of humans. Knowledge acquisition, therefore, is inseparably tied to the sociocultural contexts in which people live. This concept, known as *situated freedom*, means that while humans are free to make choices about what constitutes knowledge, such choices are circumscribed by external conditions (e.g., political systems, religious beliefs, power hierarchies) that regulate their everyday lives (Heidegger, 1927/1978).

Adopting a relativist/subjectivist standpoint reflects my own personal worldview as shaped by previous professional experiences as a primary school teacher, educational consultant, and researcher, and personal experiences as a mother of three children (one of whom has an intellectual disability). These experiences have contributed to my belief that human lifeworlds reflect multiple realities based on unique factors relating to their personalities, competencies, cultural background, and psychological stage of development.

4.3.2.3 Axiological stance

In studies underpinned by hermeneutic phenomenology, human subjectivity is empowered so that unexplored culturally based assumptions, beliefs, views, and theories about contemporary phenomena may be challenged (van Manen, 2016). Hermeneutic phenomenologists, therefore, adopt the axiological stance that every qualitative detail generated within a research study (e.g., human beliefs, memories, feelings) is equally and highly valued. This means highly valuing the participants' emic perspectives and the researcher's etic perspectives of the phenomenon under investigation.

Like most qualitative inquiries, studies underpinned by hermeneutic phenomenology are fundamentally value-laden because researchers bring their own deeply held value systems to the research setting and gather information from human participants who also have deeply held value systems. These types of studies are thus shaped by the uniquely diverse backgrounds of people involved in the research, including the researcher. Subsequently, hermeneutic phenomenologists

ensure their own knowledge, understandings, and perspectives of the phenomenon under investigation are made transparent throughout the research process.

4.3.2.4 Methodological stance

Just as historical texts are interpreted from the ancient languages used to compose them (as advocated by Dilthey), hermeneutic phenomenologists seek to authentically interpret the *lifeworld-sensitive texts* (e.g., narratives, images, anecdotes, vignettes) of human lives. According to van Manen (1997), lifeworld-sensitive texts document how people describe and interpret their everyday culturally based, subjective lived experiences of a specific phenomenon.

In hermeneutic phenomenology, reporting bias-free accounts of lifeworld-sensitive texts, however, is untenable because interpreting (e.g., empathising with, questioning, reflecting on) human lived experiences requires researchers to simultaneously interpret their own lived experiences of the phenomenon (Briod et al., 2011). For this reason, hermeneutic phenomenologists employ a methodological stance known as *reduction* which sees them deliberately acknowledging and incorporating their own sociocultural circumstances, inner funds of knowledge, and pre-conceptions of a phenomenon (particularly those that led them to consider it worthy of inquiry) into their reports (Polkinghorne, 2005; van Manen, 1997).

In child-centred studies, hermeneutic phenomenologists focus less on the essence of children's lifeworlds and more on recreating how child participants draw meaning from their everyday lived experiences of the phenomenon under investigation (Briod et al., 2011). This means researchers adhering to this qualitative tradition might reflect on their own childhood experiences of the phenomenon so insight might be gained into how it is similar and/or different to the sociocultural conditions in which they were raised and educated.

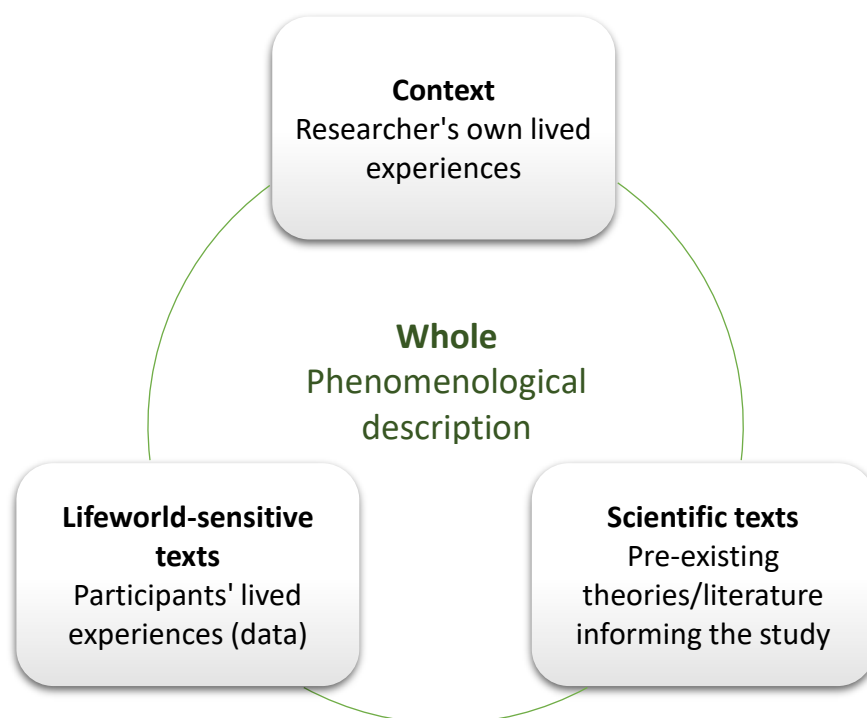
Importantly, the methodological stance of hermeneutic phenomenologists may include drawing on pre-existing scientific theories and/or literature that helped shape the research question(s) and/or focus the phenomenological inquiry (Neubauer et al., 2019). For example, the main research question and associated sub-questions guiding this study were shaped and informed

by Hedegaard’s (2009) theoretical model of child development and a previous study defining the nature of online sociodramatic play.

Interpretation in a study underpinned by hermeneutic phenomenology is thus always an ongoing act because researchers seek to understand the whole of a phenomenon by interpreting its individual parts (e.g., researcher’s experiences, pre-existing theories/literature, lifeworld-sensitive texts) and interpreting how these parts comprise the phenomenon itself (Neubauer et al., 2019; Vagle, 2018). This iterative and wholistic process, known as the *hermeneutic circle*, enables researchers to “craft” (Vagle, 2018) a creative, richly detailed phenomenological description (van Manen, 1997) that encapsulates how the phenomenon appears and manifests according to those who directly experience it (see example in Figure 4.2).

Figure 4.2

Example of a Hermeneutic Circle



The hermeneutic circle guides researchers to explore a phenomenon iteratively, interpretively, and wholistically. In this study, this process was methodologically framed as a phenomenological case study design.

4.3.2.4.1 Phenomenological case study design

Phenomenologists employ case study designs when they seek in-depth understandings of a real-life, contemporary phenomenon – a *case* – based on the first-person experiences, voices, and perspectives of their participants (Adams & Tan, 2023). In such studies, the case is always a bounded system meaning it can only be described (or defined) according to set variables that ensure the subject of the case (e.g., type of activity) is delimited within its specific context (e.g., the real-world setting in which it occurs) (Merriam & Tisdell, 2015). For example, the institution of online sociodramatic play (case) is delimited by a specific children’s play activity (online sociodramatic play) and caregiver practices (managing and monitoring such play) within a real-world setting (family home).

According to Yin (2018), case study research designs are typically inspired by relevant, contextually responsive “how” or “why” questions that seek integrated, wholistic insights into previously unexplored contemporary phenomena. This methodological thinking aligns with the nature of phenomenological questions which reflect a sense of wonder about the world and essentially aim to address unique, concrete human experiences (Adams & van Manen, 2017). The “how” main research question guiding this study represents an example of these types of questions.

In further alignment with phenomenological inquiries, case study designs aim to yield rich, descriptive, realistic knowledge about a case so readers of the final report can vicariously experience and understand a familiar phenomenon in new and interesting ways (Adams & Tan, 2023; Merriam & Tisdell, 2015). In such studies, the case is the unit (or phenomenon) of analysis (rather than the topic) because this is what essentially characterises the nature of the study. For this reason, case study designs are flexible and can be combined with other types of qualitative research approaches (e.g., narrative, phenomenology, ethnography) where overlaps in the unit of analysis are apparent and they align with the theoretical framework underpinning the study.

Recently, Rogoff et al. (2018) argued that “the study of childhood requires descriptive research that is necessary in all sciences, to examine the systems of meaning and practice in which

children participate across their everyday lives” (p. 10). Employing a phenomenological case study design to guide the methodological process underpinning the research reported in this thesis thus aligns with this thinking by providing a firm philosophical grounding for seeking insight into a contemporary, previously unexplored case – the institution of online sociodramatic play.

4.4 Methods

Researchers employ qualitative methods (e.g., interviews, observations, video recordings) to collect *language data* in natural research settings (Polkinghorne, 2005). Language data are complex, multidimensional discourses people use to communicate their experiences, knowledge, understandings, and/or perspectives of a phenomenon under investigation. Vagle (2018, p. 18) suggests phenomenologists gather (rather than collect) language data because the term “gather” holds ontological significance in that it invites researchers to “be” in the gathering of data rather than “do” the collecting (or taking) of data.

Many phenomenologists employ in-depth, individual interviews to gather language data because they enable rich, nuanced insight into the subjective lived experiences of human research participants (Bartholomew et al., 2021; Seidman, 2013). Studies have shown, however, that some children experience discomfort and/or offer minimal, unelaborated verbal responses (e.g., single word answers) during individual interviews with adult researchers (Johansson et al., 2014; Mascadri et al., 2021; McAuley et al., 2012; Rustad et al., 2024). Moreover, Clark (2005) has argued that the physical arrangements of the interview situation itself can reinforce the power imbalance that exists between adult researchers and child participants. For phenomenologists adhering to a children’s rights-based philosophy, it is thus crucial that child participants are viewed as equal co-constructors of empirically valued knowledge. In the phenomenological case study reported in this thesis, this important methodological consideration was addressed by positioning children as co-researchers.

4.4.1 Positioning children as co-researchers

The notion of positioning children as co-researchers gained scholarly traction in the 1990s because it fundamentally aligned with key ethical principles embedded in the Convention on the

Rights of the Child (CRC) (United Nations Commission on Human Rights, 1989). In this influential document, children are considered rights-holders in democratic societies meaning they are not just capable of acting agentively in a research study, they are “entitled to be engaged in this process” (Lundy & McEvoy, 2011, p. 129). These democratic principles are thus pre-conditions for all studies involving children.

Initially, researchers in Northern Ireland embraced the scholarly shift to consciously position children as co-researchers by supporting 10- to 12-year-old children to work alongside adult researchers in Children’s Research Advisory Groups (CRAGs) across various interdisciplinary studies (Lundy, 2007). In these studies, child co-researchers assisted adult researchers with various collaborative activities, such as developing online tools for children, assessing the services of after-school care providers, and interpreting research findings.

Children aged under 10 years have also been supported to adopt co-researcher roles. For example, 9-year-old Irish children participated in a Children’s Advisory Forum (CAF) to assess the suitability and effectiveness of quantitative and qualitative methodological techniques (Greene et al., 2010). In another example, 7- to 8-year-old children in New Zealand participated in a CRAG to offer feedback to adult researchers about the effectiveness, and ethical considerations, of interview schedules designed for children (Bourke & Loveridge, 2014). More recently, 5- to 7-year-old children adopted roles as co-researchers in a CRAG by collecting data from younger children about their perspectives of mobile applications (Rivera, 2020).

In alignment with these studies, children participating in the research reported in this thesis were positioned as co-researchers who collaborated with myself as the primary adult researcher leading the study in group sessions called the MineTime Kids’ Club (MKC). The term “MineTime” reflects a composite of the two software platforms (i.e., Minecraft and FaceTime) used to define online sociodramatic play (Caughey, 2021) and represents a child-friendly alternative for describing this contemporary form of play. The importance of such play being “time” that is “mine” to play with friends is central to this term.

The word “kids” was included to prioritise children as key informants in this research and subtly references a video chat software platform many children now use for online play, Messenger Kids. Adding the word “club” was inspired via two means. First, the expression “Kids’ Club” is familiar to many children as it is used globally to describe child-centred activities in holiday resorts. Second, the term “Webkinz Club” was used to describe the context of a study conducted in a school computer lab where a group of 5- to 8-year-old children engaged in virtual world gameplay using Webkinz (where users adopt and care for animals) (Wohlwend et al., 2011).

As this research explores how online sociodramatic play is constituted as an institution in the blended ecology of the family home, caregivers (e.g., parents, grandparents) of participating children were also positioned as co-researchers. Positioning children and caregivers as co-researchers aligned strongly with the philosophical assumptions underpinning this study. This is because phenomenologists naturally view research participants as co-researchers who are actively involved in the co-construction of new knowledge about the phenomenon under investigation (Moustakas, 1994).

4.4.2 Recruiting co-researchers

In this study, a purposive sampling strategy was employed to deliberately select co-researchers that met pre-defined criteria (Adams & Tan, 2023). A commonly used purposive sampling strategy is *convenience sampling*. This strategy sees people who are readily accessible to the researcher purposely selected because they are willing and available to participate in a research project (Creswell & Poth, 2018; Saumore & Given, 2008). Convenience sampling was combined with another purposive sampling strategy known as *snowball sampling*. Snowball sampling is a respondent-driven strategy where recruited participants ask people they know if they are also interested in participating in a research project (Liamputtong, 2019). The combined convenience/snowball sampling strategy was used to seek interest from 6- to 12-year-old children and their caregivers (e.g., parents, grandparents) with in-depth experiential knowledge about the institution of online sociodramatic play.

The 6- to 12-year-old age group was initially selected for three key reasons. First, children in this age group are likely to be experiencing a wide range of motive orientations for engaging in online sociodramatic play relative to their stage of psychological development. Second, children aged over 6 years are less likely to be influenced by their parents' views of technologies compared to younger children (Lauricella et al., 2015). Third, 6- to 12-year-old children are socially and cognitively capable of offering insights into their motives for engaging in online play (Marsh, 2011; Sarachan, 2013; Willett, 2017).

The convenience/snowball sampling strategy was initiated using a research advertisement (see Appendix A). Research advertisements are often used to recruit children who use multiplayer virtual worlds for recreational purposes (e.g., see Caughey, 2021; Mavoa et al., 2018; Sarachan, 2013). In the research advertisement, interest was sought from caregivers who guide 6- to 12-year-old children's participation in online play using Minecraft and FaceTime or Messenger Kids. Interested caregivers were invited to contact me via my university e-mail address.

This advertisement was disseminated via three processes. First, digitised copies were forwarded by Multimedia Messaging Service (MMS) to my personal network of friends and family living in the Australian state of Victoria. Second, digitised copies were e-mailed (with verbal permission) to the principals of several Catholic schools in the Victorian city of Ballarat (the city closest to my home) to post in their school's social media notices (e.g., SeeSaw, Facebook) and/or newsletters. Third, paper-based A4-sized copies of the research advertisement were pinned (with permission) to various community noticeboards around Ballarat in locations where families congregate (e.g., libraries, sporting clubs, children's party centres).

Caregivers who expressed interest through the research advertisement were sent a Participant Information letter, Parent Consent Form, and Child Assent Form via a pre-written recruitment script (see Appendices B–E) and invited to ask other families to participate. To further expand the recruitment process, face-to-face permission was also gained to distribute paper-based information letters and consent forms to children attending after-school programs at two Catholic

schools in Ballarat. Caregivers of these children were invited to express their interest or seek further information by contacting me (via phone or e-mail) or the after-school care co-ordinators.

While disseminating information about this research project via schools and community centres generated some interest from caregivers, none proceeded with the recruitment process. There are two possible reasons for this. First, caregivers living in Victoria had recently endured two consecutive years of repeated, strict lockdowns and may have thus been experiencing parental burnout – a condition contributing to overwhelming exhaustion in a parenting role that was reportedly exacerbated by the COVID-19 pandemic (Aguiar et al., 2021). This assertion is reflected in studies indicating that many Victorian mothers felt that ongoing lockdowns negatively affected their mental health (Price et al., 2023) and left them feeling particularly fatigued due to shouldering much of the responsibility for facilitating remote learning classes for school age children in the home (FitzPatrick et al., 2022).

Second, negative mental health experiences associated with ongoing Victorian lockdowns were found to be “substantial, and disproportionately affected families with children aged 5–11 years” (Price et al., 2023, p. 188). For example, many school age children living in Victoria were reportedly experiencing high levels of anxiety after returning to “COVID-normal” life when strict lockdowns were lifted in early 2022 (The Royal Children’s Hospital National Child Health Poll, 2022; 2023). As such, Victorian caregivers may have been hesitant to commit children in their care to participating in a research project in co-located settings during an uncertain and worrying time when they were adjusting to life after lockdowns and undoubtedly concerned about contracting (or spreading) coronavirus disease and risking the palpable feasibility of triggering more lockdowns.

Distributing the research advertisement via my personal network of friends and family members, however, resulted in the recruitment of 8 children (aged 8- to 12-years-old) and six caregivers (five parents and one grandparent) from four different families. These families were allocated to two co-researcher cohorts based on where they lived. Cohort One included Anna, and her granddaughters, 8-year-old Holly and 10-year-old Emily, both of whom use Minecraft with

FaceTime or Messenger Kids for online play (self-chosen pseudonyms by participants are used for all co-researchers). Anna was recruited because she was supervising Holly and Emily's participation in online play in her family home during the data gathering period. Through snowball sampling, Anna invited Tessie, the mother of 8-year-old Donut (Holly's classmate) and 10-year-old Angela (Emily's former classmate), to also participate in the study. Donut and Angela regularly use Minecraft with FaceTime or Messenger Kids for online play. All children in Cohort One personally owned iPads required for a government school BYOD (Bring Your Own Device) program.

Cohort Two included parents, Panda and Homer, and their three sons, 9-year-old Bart, 10-year-old Beavis, and 12-year-old Goose. Snowball sampling was again successful when Panda invited Peaches and Possum, the parents of 10-year-old Doofessor (Beavis's classmate), to also participate in the study. These four children use Minecraft: Education Edition and Messenger Kids for online play and personally own laptops (Chromebooks) required for a government school BYOD program. In this study, gathering languaged data from the two co-researcher cohorts was guided by a co-design research approach.

4.4.3 Co-design research approaches

Originating in Scandinavia in the 1960s, contemporary co-design approaches see researchers working collaboratively with their participants to address societal needs (e.g., improving human experiences and interactions) via a creative design process (Robertson & Simonsen, 2012; Sanders & Stappers, 2008). While people participating in such studies are generally considered co-designers, the term "co-researcher" was used in this thesis because it is more philosophically aligned with phenomenology (see Moustakas, 1994) and children's rights-based research approaches (such as those described in Section 4.4.1).

Researchers conducting co-designs work alongside their participants to "share, collect, interpret or create knowledge, ideas, and resources" (Aksela, 2019, p. 118) effectively dissolving the subject-object relationship that traditionally existed between researchers and the researched. For example, in this study, I worked alongside child- and caregiver co-researchers to interpret their

lived experiences of online sociodramatic play. Different groups of people participating in co-designs are thus recognised as experts in their own experiences who bring unique understandings and perspectives about important societal needs to a research setting.

In alignment with this methodological approach, co-researchers' self-selected pseudonyms (including monikers such as Donut, Possum, Panda, and Doofessor) were retained throughout this thesis. According to Allen and Wiles (2016), research participants demonstrate thought and care (and sometimes playfulness) when choosing their pseudonyms. Including self-selected pseudonyms in the final report, therefore, acknowledges each participant as “not simply another ‘Mary’ or ‘P3’, but someone who has participated in their naming and will know themselves in the works that their words have helped to produce” (p. 162).

Fundamentally, co-designs are grounded in the notion that vulnerable groups of people should be provided with a safe space to express their views about the societal-imposed constraints that dictate their everyday lives. A principal aim of co-designs, therefore, is to provide a voice for people who were “previously not even a part of the conversations” (Sanders & Stappers, 2008, p. 9). This aim aligns with key ethical-philosophical assumptions underpinning this study because a core truth of phenomenological inquiry is that unexamined culturally based beliefs and assumptions can be confronted and/or dislodged when the subjective experiences of humans living in a particular society are critically examined and reported (van Manen, 2016).

In co-designs, hierarchical notions that only qualified designers can engage in collective creativity are rejected, and the belief that all people (including children) can express creative initiative is valued and embraced (Sanders & Stappers, 2008). By recognising research participants in this way, co-designs have transformed how research studies are conducted with children and given rise to new methodological tools for generating data “with the child rather than from the child” (Waller, 2006, p. 79), such as participatory methods.

4.4.3.1 Participatory methods

Participatory research methods are flexible, innovative, visually based activities (e.g., drawing pictures, taking photos) that create inclusive and collaborative opportunities for children to be productively involved in, and confidently engaged with, the research process (Lundy, 2007; Marsh 2019; Mertala, 2020). In alignment with co-design approaches, participatory methodologies recognise children as competent, creative, articulate experts who bring unique competencies, skills, and experiential knowledge to a study.

According to Lundy and McEvoy (2011), the shift towards using participatory methods with children was strongly influenced by the emergence of Childhood Studies, an aforementioned scholarly field advocating for adults to support children's ability to exercise agency in the societies in which they live (see Ch. 2, pp. 53–54). By viewing children as capable co-constructors of empirically based knowledge, participatory methods reduce the potential for biased adult agendas to impact (or distort) children's ability to express their thoughts, ideas, and/or views in a research setting (Clavering & McLaughlin, 2010; Mannion, 2007). Such methods are thus suited to exploring the blended ecology of family homes in digitised societies because children's widespread participation in online play challenges traditional notions that adults "know" more than children about this contemporary form of play.

Researchers employing participatory methods aim to support children's ability to be active and agentive partners in their dialogues with adult researchers (Bergold & Thomas, 2012; Sommer et al., 2013). As such, children are actively involved in the joint production of new knowledge about child- and/or childhood-related phenomena and empowered to consider how a research project might hold meaning and relevance in their everyday lives (Groundwater-Smith et al., 2015).

Participatory methods are "coherent with the notion of being attentive to children's concerns" (Carter, 2021, p. 5) because child co-researchers are supported to describe their knowledge, understandings, and perspectives of a phenomenon in meaningful, age-appropriate, and familiar ways (Newland et al., 2018). Such methods also ensure that languaged data gathered from

children are “analysable” – an important methodological consideration for researchers conducting case study designs (Yin, 2018). In this study, participatory methods were conducted with child- and caregiver co-researchers via a systematically implemented co-design model.

4.4.3.2 Co-design model

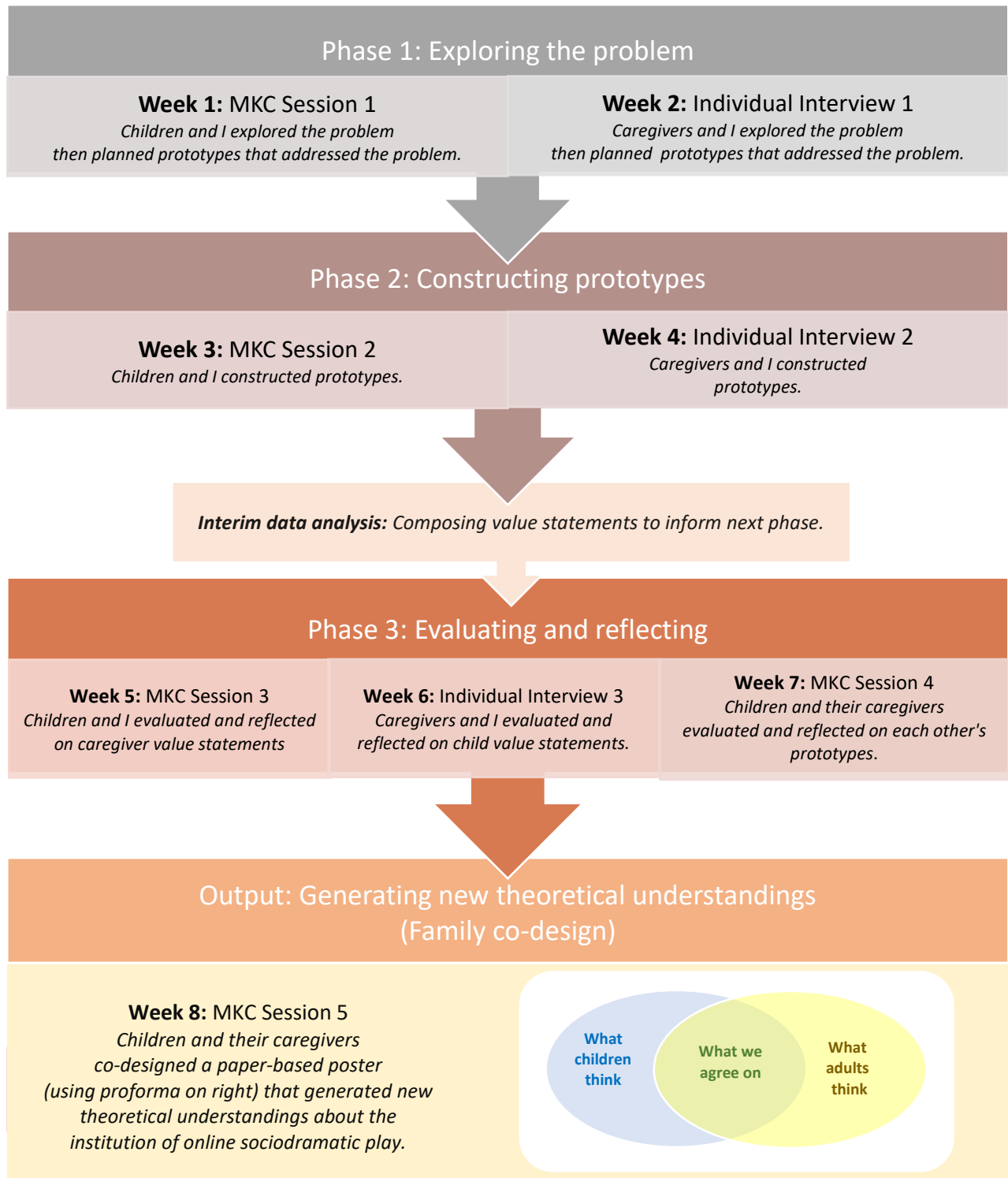
The co-design model framing data gathering procedures in this phenomenological case study was informed by design-based research principles. Such principles offer a flexible, yet systematic, framework for informing and/or transforming theoretical understandings and human practices via an interactive and collaborative process (Wang & Hannafin, 2005). Co-designs drawing on design-based principles enable researchers to seek innovative solutions to complex real-world problems and generate new theoretical understandings about previously unexplored phenomena (e.g., see Aksela, 2019; Rivera 2020).

The process for creating the co-design model framing data gathering procedures in this research was informed by a generic model for conducting design-based research developed by McKenney and Reeves (2018). This generic model guides researchers to co-design innovative and workable solutions to real-world problems through three core phases: 1) exploring the problem (as it is understood and situated in its specific context); 2) constructing prototypes that provide potential solutions to the problem; and 3) evaluating prototypes in terms of their effectiveness and critically reflecting on the techniques used to produce them.

The three core phases constitute a logical cycle of action for researchers and co-researchers to collaborate in real-world settings with the aim of producing two main outputs (McKenney & Reeves, 2018). The first output is represented by a practical, flexible maturing intervention that specifically addresses the diverse needs of the co-researchers. The second output manifests as new theoretical understandings that can be disseminated to inform practice. In this study, the three core phases and second output activity were systematically implemented via a co-design model to provide a methodological framework for guiding the use of participatory methods (see Figure 4.3). In this co-design model, the MineTime Kids’ Club is represented by its abbreviation – MKC.

Figure 4.3

Co-design Model Guiding Data Gathering Procedures (Adapted from McKenney & Reeves, 2018)



4.4.3.2.1 Phase 1

During Phase 1, the real-world problem relating to this research was identified as children and adults having different lived experiences and perspectives of online sociodramatic play. To formulate a workable solution, this problem was explored separately with child co-researchers during the first MineTime Kids' Club (MKC) session (Week 1) and caregiver co-researchers during individual interviews (Week 2).

For children, this process involved exploring how we might collaboratively co-design individual prototypes (e.g., posters, e-books) that answered the focus question: "What is MineTime and why do you, and your friends, like it?". For caregivers, this process involved exploring how we might collaboratively co-design individual prototypes (e.g., digitised documents) that answered two focus questions: "What are the rules for online play in your home?" and "What influences your beliefs, expectations, and rules for online play in the home?".

4.4.3.2.2 Phase 2

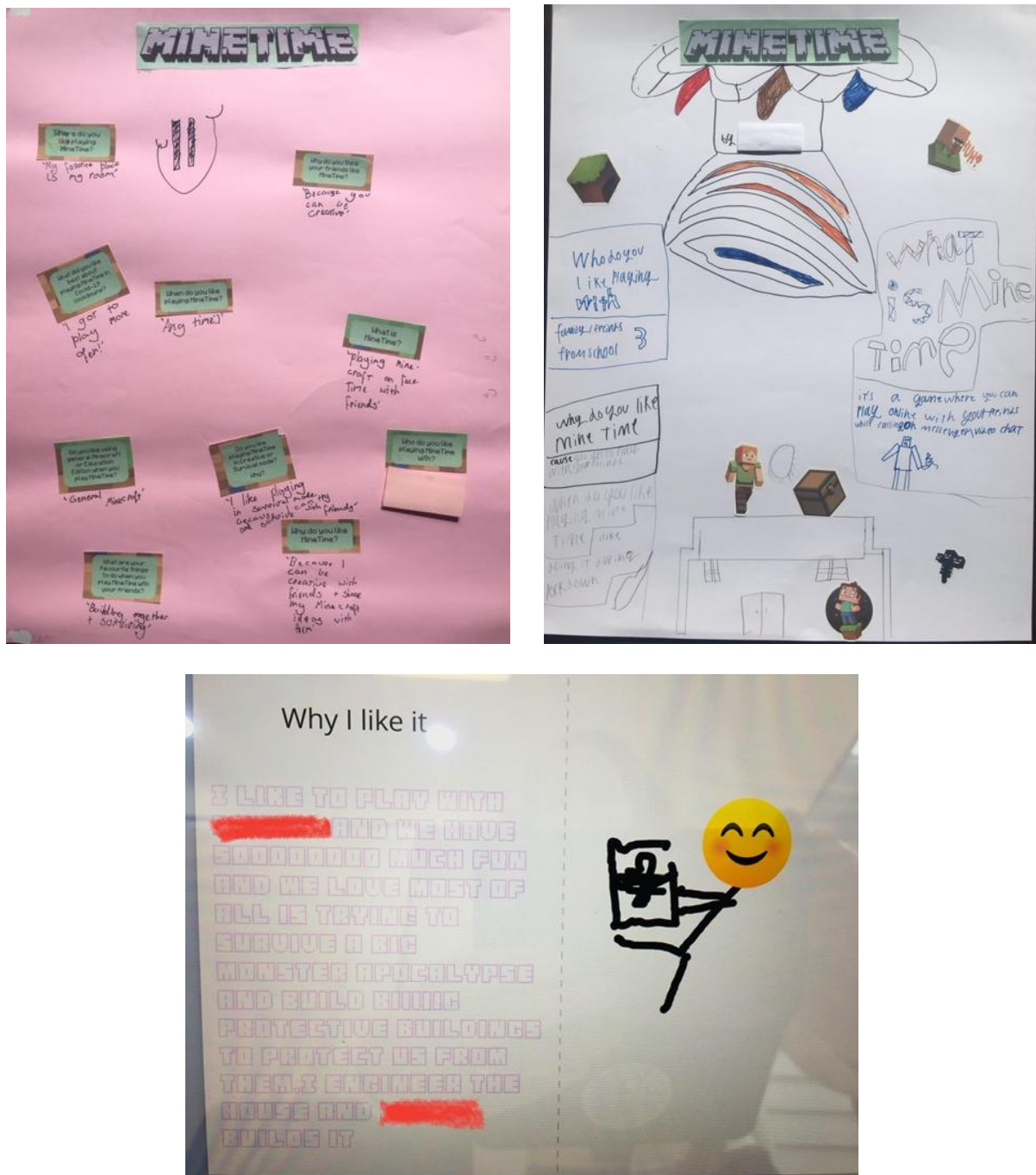
During Phase 2, I collaboratively co-designed prototypes representing potential solutions to the problem with child co-researchers during MKC Session 2 (Week 3) and caregiver co-researchers during individual interviews (Week 4). These prototypes manifested as *digital responses*. Digital responses are creative expressions composed via self-selected, multimodal processes using written, visual, and/or audio elements that document people's understandings and views of theoretical concepts (Edwards, 2012).

Using digital responses as prototypes for addressing the problem provided opportunities for languaged data (e.g., words, phrases, statements, drawings) to be gathered from children via e-books, slide shows, and paper-based posters (see examples in Figure 4.4). Children's digital responses described their motives for engaging in online sociodramatic play (i.e., MineTime) and enabled theoretical insight into the second sub-question:

SQ2: What are children's motives for engaging in online sociodramatic play?

Figure 4.4

Examples of Children's Digital Responses



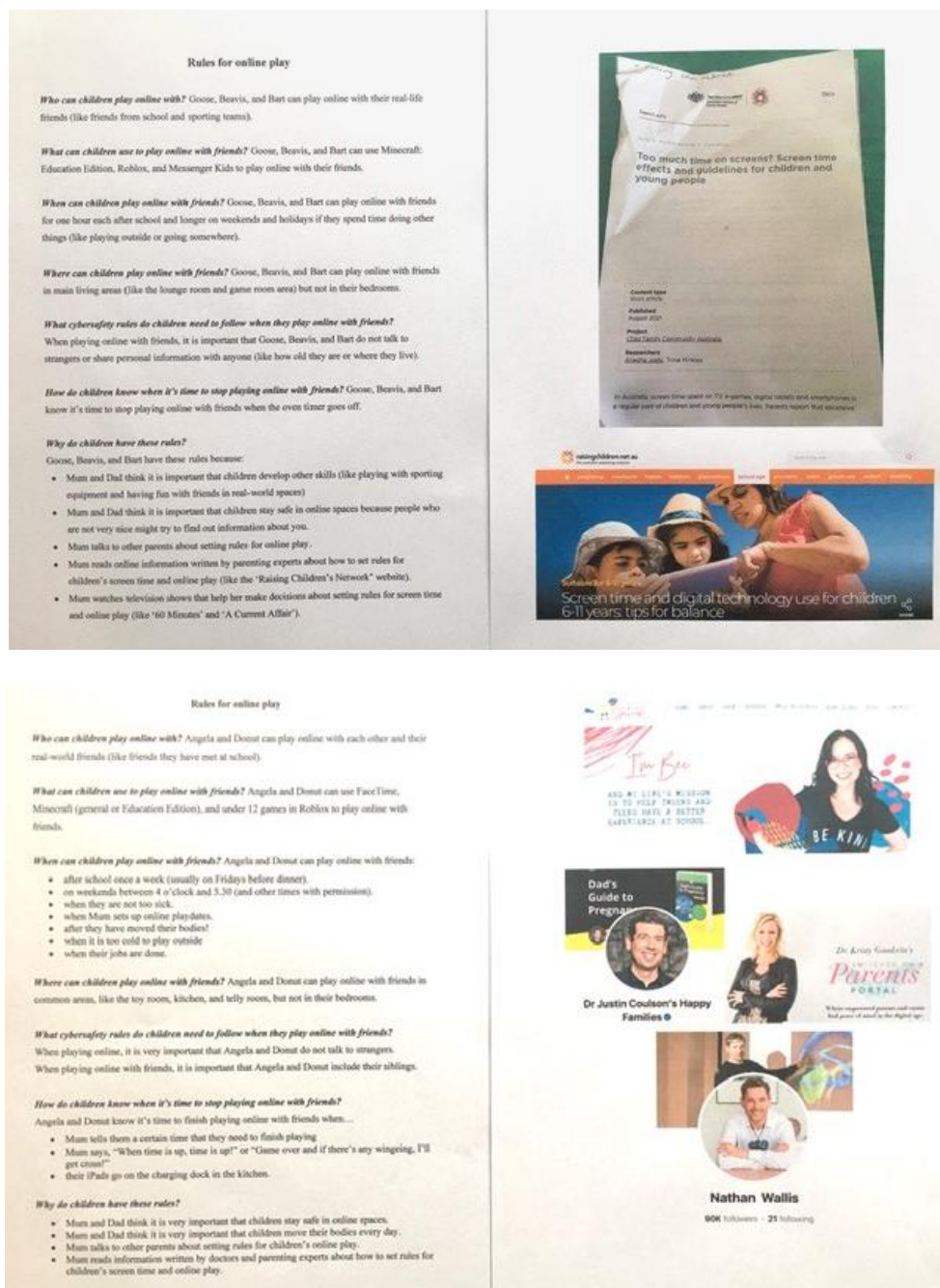
Digital responses also provided opportunities for languaged data (e.g., words, phrases, statements, photos, screenshots) to be gathered from caregivers via digitised documents constructed using Microsoft Word (see examples in Figure 4.5). These documents described caregivers'

household rules for online play and how these rules were influenced by cultural artifacts which enabled theoretical insight into the first sub-question:

SQ1: How are caregiver practices mediated by cultural artifacts regarding children’s participation in online sociodramatic play in the family home?

Figure 4.5

Examples of Caregivers’ Digital Responses



4.4.3.2.3 Interim data analysis

After Phase 2, I conducted interim data analysis using a clinical data-mining strategy (Epstein, 2009) to inform the next phase of the co-design model. This strategy involved retrieving, analysing, and codifying languaged data from children’s and caregivers’ digital responses to produce two sets of anonymised value statements. The first set of value statements described children’s motives for engaging in online sociodramatic play (MineTime) and the second set of value statements described caregiver demands (e.g., household rules) for such play (see Table 4.1).

Table 4.1

Strategy for Composing Value Statements

	Composing child value statements	Composing caregiver value statements
Retrieve	Data reflecting reasons why children enjoy MineTime were retrieved from their digital responses (e.g., <i>We have soooooo much fun!</i>).	Data reflecting caregivers’ rules for online play were retrieved from their digital responses (e.g., <i>My children are not allowed to play online in their bedrooms</i>).
Analyse	Retrieved data were analysed as children’s motives for playing MineTime (e.g., <i>Children enjoy having fun with their friends</i>).	Retrieved data were analysed as caregiver demands for online play in the home (e.g., <i>Some caregivers do not allow children to play online in bedrooms</i>).
Codify	Analysed data were codified as anonymised value statements written from children’s perspectives (e.g., <i>I like having fun with my friends when I play MineTime</i>).	Analysed data were codified as anonymised value statements written from caregivers’ perspectives (e.g., <i>Children should not play MineTime in their bedrooms</i>).

The interim data analysis strategy saw 10 child value statements composed for each co-researcher cohort (see Appendix F), 14 caregiver value statements composed for Cohort One, and 15 caregiver value statements composed for Cohort Two (see Appendix G).

4.4.3.2.4 Phase 3

In Phase 3, children and their caregivers evaluated and reflected on each other’s value statements and digital responses during three separate activities. Engaging in collective “reflection-in-action” activities was an important step in the co-design process because it enabled me to

“investigate, reflect upon, understand, establish, develop, and support mutual learning processes as they unfold between participants” (Robertson & Simonsen, 2012, p. 5).

In the first activity, children evaluated and reflected on their cohort-specific caregiver value statements during MKC Session 3 (Week 5) to provide insight into the third sub-question guiding this study:

SQ3: What are children’s perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home?

In the second activity, caregivers evaluated and reflected on the cohort-specific child value statements during individual interviews (Week 6). The purpose of this activity was to gain insight into how caregivers view children’s motives for engaging in MineTime. In the third activity during Phase 3, children and their caregivers evaluated and reflected on each other’s digital responses during MKC Session 4 (Week 7). This activity heightened children’s and caregivers’ awareness of each other’s different lived experiences and perspectives of online sociodramatic play.

In alignment with design-based research principles, I critically evaluated prototypes used to address the problem. After analysing children’s digital responses, I created two further task-oriented activity sheets to seek further insight into children’s motives for engaging in online sociodramatic play. The first task-oriented activity sheet, *Feelings About MineTime*, invited children to draw and/or describe how they feel whilst playing MineTime and choose a statement that best reflected what they enjoy most about MineTime: “talking to friends” or “learning new skills” (see Appendix H). These two statements were informed by El’Konin’s (1971/1999) theory that children’s motive orientations change as they get older (see Ch. 3, p. 101). The second task-oriented activity sheet, *MineTime Top Five*, saw children indicating their top five motives for playing MineTime. This activity sheet was informed by languaged data gathered with individual children and thus differed between the two cohorts (see Appendices I and J).

4.4.3.2.5 Output

In the final MKC session (Week 8), children and their caregivers co-designed a paper-based poster that displayed similarities and differences between their lived experiences and perspectives of online sociodramatic play. These posters ensured an informative output was produced that provided theoretical insight into the main research question guiding this study:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

The three core phases and output activity (shown in Figure 4.3) were implemented in different concrete settings with each co-researcher cohort during two separate 8-week data gathering periods conducted between July and November 2022. These settings were selected based on key philosophical assumptions underpinning the unique context of this research.

4.4.4 Research context

In qualitative inquiries, the context in which new knowledge is discovered positions researchers and their paradigm in specific concrete settings (Denzin & Lincoln, 2017). In this phenomenological case study, this meant establishing a research context that offered a safe, inviting space so children felt comfortable to discuss their lived experiences and meaningful perspectives to me, each other, and their caregivers (Bergold & Thomas, 2012; Groundwater-Smith et al., 2015; Merewether & Fleet, 2014).

In selecting safe, inviting spaces for gathering languaged data with children, I consciously avoided settings that resembled school classrooms. This was an important methodological decision because formal educational settings are often entrenched with unspoken discourses about what adults consider “good”, “acceptable”, and/or “expected” knowledge and these may influence the richness and depth of data gathered with children (Dockett et al., 2012).

Moreover, overarching epistemological assumptions in schools see some children striving to meet the expectations and approval of teachers (Mascadri et al., 2021). When this occurs, children’s ability to willingly contribute to dialogic interactions and/or express their personal opinions to

adults is significantly constrained. To heighten children's ability to view themselves as equally positioned, co-constructors of highly valued knowledge (and adopt co-researcher roles), two naturalised settings were selected for conducting MKC sessions: 1) a university meeting room; and 2) a family home.

4.4.4.1 University meeting room

For Cohort One, MKC sessions were conducted in a comfortably appointed meeting room located at Australian Catholic University (Ballarat campus). University spaces are often used to explore children's lived experiences of digital technologies, such as their motivations for engaging in online play (Sarachan, 2013), perceptions of online data tracking and privacy risks (Sun et al., 2021), and perspectives of mobile applications (Verenikina et al., 2016). Importantly, the university meeting room used for MKC sessions looked different to a school classroom because the physical arrangements within enabled children to work collaboratively with me, each other, and their caregivers around a large table surrounded by comfortable chairs (see Figure 4.6).

Figure 4.6

University Meeting Room



4.4.4.2 Family home

For Cohort Two, the five MKC sessions were conducted in Panda and Homer's family home. During these sessions, children worked collaboratively with me, each other, and their caregivers whilst sitting around a large rectangular dining table surrounded by six comfortable, padded chairs in an open-plan living space. Family homes have been used as research settings in several studies to explore children's lived experiences of multiplayer virtual worlds, such as Minecraft (Balmford & Davies, 2020; Caughey, 2021; Dezuanni, 2018).

Research has found, however, that some parents may attempt to interfere with and/or influence children's ability to freely express their thoughts, ideas, and opinions to researchers who visit their home (de Almeida et al., 2017). This can be highly problematic for researchers seeking insight into children's perspectives because it may reduce the richness and depth of children's responses. Fortunately, I was consciously aware that Panda and Homer adhere to a child-centred parenting approach. This informed knowledge minimised the potential for such dilemmas to arise whilst collaborating with, and gathering languaged data with, children from Cohort Two.

4.4.5 Data gathering procedures

Researchers who employ co-designs work as part of a collaborative team to guide creative expression and ideation in their co-researchers, whilst also providing suitable tools, techniques, and/or processes for fostering such activities (Sanders & Stappers, 2008). In alignment with this thinking, five participatory methods were used to gather languaged data in the two research settings: 1) child group sessions; 2) individual interviews; 3) family group sessions; 4) fieldnotes; and 5) reflective notes.

4.4.5.1 Child group sessions

In co-designs, group sessions provide opportunities for researchers and co-researchers to engage in guided, open conversations about shared topics in a safe, relaxed space (Bergold & Thomas, 2012). The presence of adults (such as parents), however, in a research setting may constrain children's ability to freely express their perspectives (Almeida et al., 2017; McCauley et

al., 2012). For this reason, the first three MKC group sessions were conducted with children only so they could feel safe to express their thoughts “beyond the constraints of adult views, interpretation, and agenda” (Waller, 2006, p. 78).

To heighten children’s familiarity with the organisational nature of all MKC sessions, they were structured according to three interrelated activities: 1) warm up activities; 2) main activities; and 3) concluding activities. Warm up activities were used to welcome co-researchers to the research setting and explain key concepts being explored in the session. Main activities were used to gather languaged data with co-researchers, and concluding activities were used to invite co-researchers to share personally significant aspects of what they had experienced during the session.

In the first child group session, warm up activities were used to clarify the term *MineTime* and reaffirm children’s understandings of the Child Assent Form. Children were then invited to adopt co-researcher roles so they could help me address the problem that most adults (including myself) do not know what it is like to play Minecraft online with friends. To heighten children’s ability to adopt co-researcher roles, I wore a specially designed MKC lanyard (see Figure 4.7) and offered each child their own personalised lanyard to wear.

Figure 4.7

MineTime Kids’ Club Lanyard



There were two main activities during the first child group session. For the first main activity, I displayed an A4-sized laminated poster of the focus question: “What is MineTime and why do you, and your friends, like it?” and children were invited to share their ideas about how they might answer this question via a digital response. The concept of a digital response was explained as a creative answer to a focus question (e.g., via a poster, e-book, or slide show). To assist children with planning their digital responses, they took turns rolling foam question dice (see Figure 4.8) to verbally generate open-ended questions (e.g., Where do you like playing MineTime? When do you like playing MineTime?). Open-ended questions can increase opportunities for children to formulate and express their ideas, opinions, judgements, and reasoning (Mascadri et al., 2021).

Figure 4.8

Foam Question Dice



For the second main activity, each child was offered a Researcher Pack comprising of a Minecraft document wallet, Minecraft-inspired graphite pencil, and three symbolic object activity sheets (see Appendix K). These activity sheets included: 1) Hotbar Strips (*hotbars* are horizontal grids used in Minecraft to store commonly used items such as building materials, tools, and weapons); 2) Skins Grids (skins are virtual clothing for an avatar); and 3) World iPads (worlds are stylised virtual environments). Task-oriented activity sheets are often used as a participatory method to generate visual and/or written data about children’s lived experiences (Fattore et al., 2007; McAuley et al., 2012).

Children were invited to complete one or more of the task-oriented activity sheets by drawing and/or describing their favourite symbolic objects used for MineTime. Concluding activities were then used to reaffirm children's roles as co-researchers by inviting them to gather data from each other using mini-clipboards and data gathering cards. These cards guided children to record the interviewed child's name and pseudonym and ask them why they liked MineTime.

In the second child session, warm up activities were used to invite children to share ideas about how they planned to design their digital responses. To initiate main activities, children were invited to open their Researcher Pack and locate ten focus questions (see Appendix L) inside a red envelope, referred to as a *Redstone Envelope*. Redstone is a symbolic item used in Minecraft that has been described by children as "kind of like electricity" (Dezuanni et al., 2015, p. 159) because it is used to activate other items (e.g., open doors, switch on lights). Drawing on this familiar concept, I explained that the questions may help activate their ideas for designing their digital responses.

Children were provided with physical materials (e.g., poster paper, glue, coloured markers) to design their digital responses. During this process, I sensitively reminded children to prioritise meaning over grammatical accuracy, assisted them with spelling when required, clarified focus questions, and helped them compose phrases/sentences without altering what they were aiming to convey. Concluding activities saw children invited to share their digital responses with each other.

In the third child session, languaged data reflecting children's perspectives of caregiver rules for online play were gathered. To assist children with forming and articulating reflective and detailed perspectives, they were provided with access to information, peers, and adult support (Lundy & McEvoy, 2011). These deliberate and intentional strategies are specifically designed to minimise the potential for children to draw on predetermined and/or adult-influenced responses whilst expressing their perspectives to adult researchers.

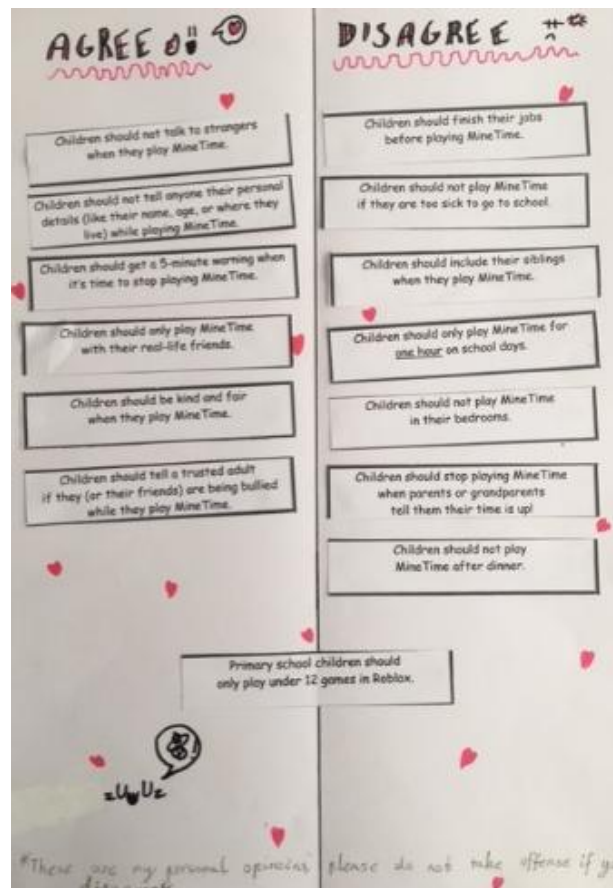
Warm up activities were used to provide children with information by displaying and explaining laminated A4 posters of each caregiver value statement generated via the clinical data-mining strategy (see Appendix G). Children also had access to paper-based strips of these value

statements inside Redstone Envelopes located in their Researcher Packs. Main activities were then used to provide children with access to peers by inviting them to verbally discuss with each other if they agreed or disagreed with each value statement. According to Lundy and McEvoy (2011), this strategy heightens children’s ability to synthesise, critique, and personally tailor their own perspectives because they are exposed to “authentic views in an authentic voice” (p. 137).

Children also had access to adult support during the main activities as I guided them with sorting each value statement according to whether they agreed or disagreed and pasting them onto their Perspectives Poster – an A3 poster divided into two columns (see example in Figure 4.9). If children were unsure about a specific value statement, they were invited to paste it in the middle of the columns.

Figure 4.9

Example of a Perspectives Poster



When children had finished designing their perspectives posters, they were invited to complete the *Feelings About MineTime* activity sheet (see Appendix H) and continue working on their symbolic object activity sheets (see Appendix K). For concluding activities, children verbally (and rather vociferously) expressed their perspectives once again as a laminated poster of each caregiver value statement was displayed. Children were also provided with an opportunity to voluntarily share their perspectives posters and activity sheets with each other.

4.4.5.2 Individual interviews

Interviews are a valued participatory method because researchers and co-researchers can co-construct new knowledge and shared understandings about situation-dependent phenomena that reflect wider societal discourses (Bergold & Thomas, 2012). Seidman (2013, p. 20) argues, however, that phenomenologists “tread on thin contextual ice” if they consider “one-shot” interviews as sufficiently enabling insight into human lived experiences. In alignment with this thinking, three separate individual interviews were conducted with caregivers from each family to establish a firm foundation and sense of focus for logically and skilfully unpacking their lived experiences and perspectives of online sociodramatic play.

In the first interview, the unique context of caregivers’ experiences was established by inviting them to plan digital responses that addressed open-ended focus questions carefully worded to minimise bias and explored the problem (i.e., that children and adults have different lived experiences and perspectives of online sociodramatic play). These focus questions were: 1) What are the rules for online play in your home? and 2) What influences your beliefs, expectations, and rules for online play in the home? An interview schedule detailing a diverse range of sub-focus questions and possible societal influences was used to facilitate this process (see Appendix M).

During the first individual interview with caregivers from Cohort One, the second focus question was used to explore the problem and establish context. For caregivers from Cohort Two, however, the first focus question was used during the first interview. The reason for this methodological change was that second interviews with caregivers from Cohort One ran for

approximately 40 minutes, twice the time limit indicated in the Participant Information Letters and consent forms. Reversing the focus questions thus minimised this ethical dilemma whilst conducting individual interviews with caregivers from Cohort Two.

During the second individual interview, caregivers collaborated with me to co-design their digital responses. For Cohort One, this meant verbally addressing the first focus question and, for Cohort Two, this meant verbally addressing the second focus question. Caregivers were highly receptive to answering the focus questions honestly and transparently whilst co-designing their digital responses with me and spoke openly about their household rules for online play and the societal factors influencing them.

Languaged data gathered during the second interview were combined with data from the first interview and digitally formatted as a Microsoft Word document for caregivers from each family. These documents were formatted using language, font, spacing, and images that heightened their readability for school age children (see example in Figure 4.10). Caregivers' digital responses were then printed onto A4-sized paper and placed into a display folder for each family.

Figure 4.10

Example of a Caregiver's Formatted Digital Response



During the third individual interview, caregivers were invited to validate their digital responses to ensure the information accurately reflected their everyday practices and the societal factors influencing them. They were also invited to evaluate and reflect on children's motives for

engaging in online sociodramatic play (MineTime) by classifying ten child value statements (generated via the clinical data-mining strategy) in order of importance. Whilst collaborating with caregivers, I aimed to “listen more, talk less” (Seidman, 2013, p. 81) so they felt comfortable to disclose their lived experiences to a receptive researcher who highly valued what they had to say.

While Seidman (2013, p. 23) suggests that phenomenologists need approximately 90 minutes “to accomplish the purpose of each of the three interviews”, he also acknowledges that this rather lengthy time duration may not always be appropriate. As caregivers participating in this study had recently experienced repeated pandemic lockdowns and may have been experiencing parental burnout (Aguiar et al., 2021), most individual interviews thus ran for 10 to 15 minutes.

To enable insight into valuable dimensions of languaged data gathered with caregivers, such as how they used pacing, emphasis, and/or intonation whilst reconstructing their lived experiences (Polkinghorne, 2005), I personally conducted and transcribed all interviews. Interviews with caregivers from Cohort One were conducted face-to-face in a comfortably appointed office space at Australian Catholic University (Ballarat campus) or via phone, and all interviews with caregivers from Cohort Two were conducted via phone.

4.4.5.3 Family group sessions

Researchers employing participatory methods often use family group sessions to positively influence, improve, and foster meaningful interactions between children and their caregivers (Mannion, 2007; Waller 2006). In this study, gaining theoretical insight into the “multi-perspectivity and multivocality” (Bergold & Thomas, 2012, p. 209) of online sociodramatic play saw caregivers invited to attend two family group sessions with their children/grandchildren.

Bringing children and their caregivers together in two family group sessions was an important methodological inclusion in this research. This is because Mannion (2007) argued that, when children, adults, and spaces for play come together, seeking only the child’s voice represents a narrow view of play and is not “a sufficient portrayal of the story” (p. 416). Moreover, in alignment

with Hedegaard's (2009) model of child development, a fundamental truth of this research is that intergenerational elements always influence how, when, why, and with whom children play.

In the first family group session, warm up activities were used to explain that children and caregivers had created digital responses that addressed different focus questions. These focus questions were displayed using laminated A4 posters. Main activities were then initiated by inviting members from the same family to share their digital responses with each other. Children shared their digital responses first to heighten their ability to freely express their views.

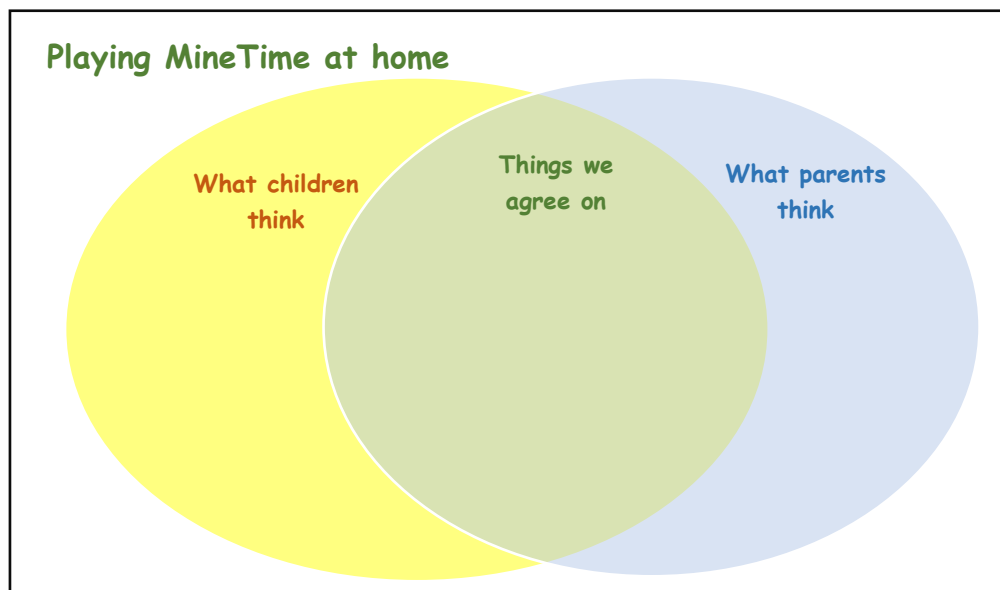
During these discussions, caregivers listened attentively to their children/grandchildren and offered positive feedback. While most children demonstrated interest in their caregivers' digital responses, some verbally expressed their disapproval of certain rules (e.g., not being allowed to play online in bedrooms). When this occurred, caregivers attempted to explain their reasons for such rules (e.g., advice from parenting websites), however, this was often met with defiance from children, particularly those in the 10- to 12-year-old age group.

Child co-researchers were then offered an opportunity to identify their leading motives for engaging in MineTime via the *MineTime Top Five* activity sheet located in their Researcher Packs. Caregivers expressed great interest in this activity and were observed asking children about their reasons for these motives. Concluding activities saw families voluntarily sharing their thoughts about what they had experienced during the session, and caregivers were invited to keep their digital responses.

During the second family group session, warm up activities were used to display an A3-sized template of a specially designed Venn diagram (see Figure 4.11) and invite members from the same family to co-design a paper-based poster that displayed similarities and differences between their lived experiences and perspectives of online sociodramatic play.

Figure 4.11

Example of a Venn Diagram Template



Main activities were then initiated by distributing a template to each family. Panda (from Cohort Two) received two templates, one for co-designing a poster with her 9- and 10-year-old children and the other for co-designing a poster with her 12-year-old child. This methodological decision enabled unique insight to be gained into how the institution of online sociodramatic play appeared and manifested for children in different age groups.

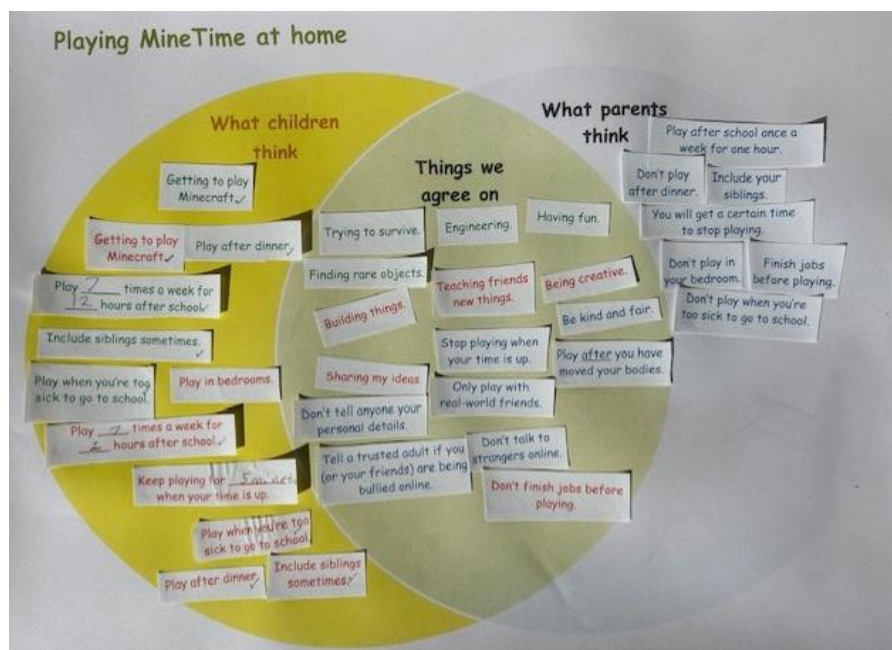
Children were then invited to locate personalised envelopes in their Researcher Packs. These envelopes contained information relating to their motives for engaging in MineTime as indicated in the *MineTime Top Five* activity sheet completed during the previous session. Caregivers then cut out each motive and pasted it onto the co-designed poster based on how they viewed them. For example, if caregivers valued the child's motive, they pasted it in the *Things we agree on* section, however, if they attributed little value to the motive, they pasted it in the *What children think* section. During this process, caregivers verbally explained to their children/grandchildren why they were pasting the motives in certain places. Different coloured fonts were used to discern between the different motives of siblings.

Next, children were invited to locate another personalised envelope in their Researcher Pack containing their perspectives of caregiver rules for online play as displayed on their perspectives posters. Some statements had gaps for children to enter data that suitably reflected their views (e.g., time-related details or descriptive information). Different coloured fonts were again used to discern between the different perspectives of siblings. Personalised Perspectives Envelopes were also distributed to caregivers. These envelopes contained each caregiver’s specific household rules for online play as described in their digital responses.

Members from the same family then pasted these statements onto the poster template in the appropriate sections (see example in Figure 4.12). For example, if children agreed with the caregiver rule “Don’t talk to strangers online” it was pasted in the *Things we agree on* section. If children disagreed with the caregiver rule “Don’t play in your bedroom” it was pasted in *What adults think* section and the child’s personalised perspective of this rule “Play in bedrooms” was pasted in the *What children think* section.

Figure 4.12

Example of a Family Co-design Poster



This activity generated much lively discussion about agreements and disagreements between children's and caregivers' perspectives. Children particularly enjoyed specifying their own screen time limits (much to the amusement of their caregivers) and verbalising their opposition to certain rules (e.g., one hour for online play after school). While caregivers remained firm in their convictions for setting certain rules, they provided opportunities for their children/grandchildren to express their thoughts, ideas, and perspectives and responded respectfully to problematic issues (e.g., not allowing online play in bedrooms). To conclude the session, families were invited to share their posters with each other and discuss their thoughts, experiences, and reflections about what they had experienced during the session.

4.4.5.4 Fieldnotes

As group activities involving children can sometimes get “messy” and make it difficult for researchers to keep track of meaningful context-based data (Verenikina et al., 2016), fieldnotes were recorded during all MKC group sessions. Fieldnotes are a commonly used qualitative research method because they offer a minimally disruptive and flexible means of recording data relating to how participants act (e.g., exhibited behaviours, use of material resources) and/or interact (e.g., verbal discourses, facial expressions) in a research setting (Polkinghorne, 2005).

For researchers adhering to a children's rights-based philosophy, fieldnotes are a particularly valuable tool because they offer a “powerful means of engaging with young children in ways that respect their independence, interests, and capacity to make choices” (Groundwater-Smith et al., 2015, p. 104). Fieldnotes also enable researchers to record context-based information that informs languaged data gathered from children. For example, children might be asked to describe a picture they have drawn or clarify words, phrases, and/or statements they have written.

During MKC group sessions, a white feather pen was used to record fieldnotes in a small, leatherbound notebook. These items were used because they resemble a book and quill – a symbolic item familiar to children participating in this research because it is used in Minecraft to record in-

world information during gameplay. Children were free to access the fieldnotes book at any time during group sessions to peruse recorded data pertinent to their cohort.

Whilst recording fieldnotes, I employed active listening strategies to ensure the information accurately and authentically represented children's thoughts, ideas, and/or opinions (Wu, 2019). To heighten the quality and accuracy of the fieldnotes, children's verbal expressions were recorded verbatim, and paraphrasing was avoided (Hatch, 2002). This process was particularly useful when children preferred to express their thoughts verbally rather than in written format via their digital responses. Fieldnotes included the date and focus of each MKC group session and were digitally transcribed within 48 hours.

4.4.5.5 Reflective notes

In addition to fieldnotes, reflective notes were recorded in the small leatherbound notebook after MKC group sessions had finished. Reflective notes are a valuable participatory method because they enable researchers to consciously reflect on how they sensitively responded to the co-researchers' needs during the collaborative process and critically evaluate the effectiveness of the research methods (Bergold & Thomas, 2012; Creswell & Poth, 2018).

Reflective notes were used in this study to reflect on the extent to which children's and caregivers' needs were met during MKC sessions (e.g., access to physical materials and amenities). Meaningful events and interactions occurring during MKC sessions that helped inform "later theme development" (Creswell & Poth, 2018, p. 170) were also recorded via reflective notes (e.g., children's vociferous responses to posters displaying caregiver rules for online play).

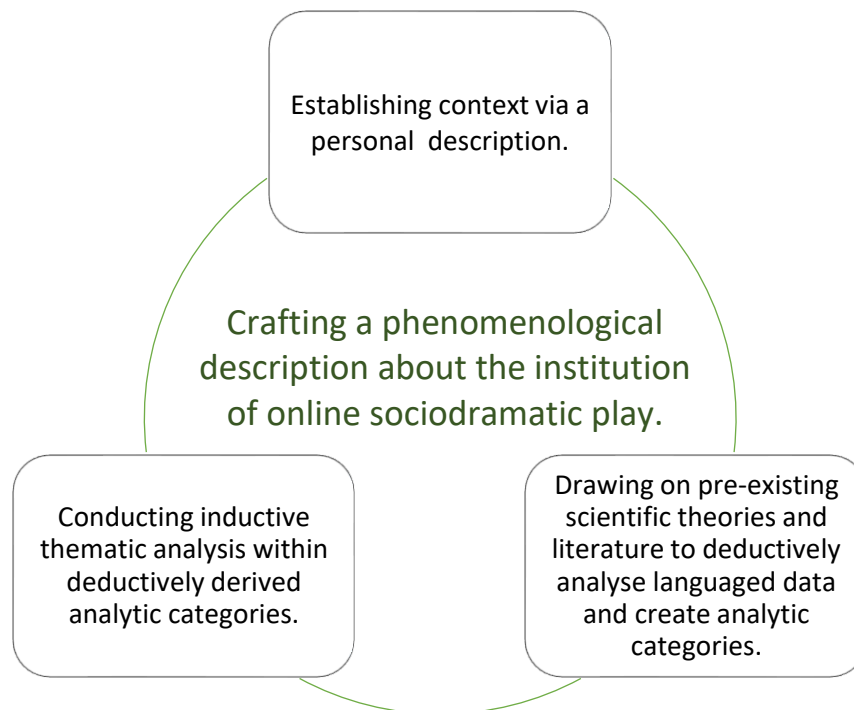
4.4.6 Data analysis procedures

As discussed earlier in the section on phenomenology, the hermeneutic circle (e.g., as shown in Figure 4.2) draws attention to the whole of a phenomenon by interpreting its individual parts (e.g., researcher experiences, pre-existing scientific theories/literature, lifeworld-sensitive data). In alignment with this methodological stance, data analysis involved four interconnected, interpretive processes: 1) establishing context via a personal description; 2) drawing on pre-existing scientific

theories and literature to deductively analyse languaged data and create analytic categories; 3) conducting inductive thematic analysis within deductively derived analytic categories; and 4) crafting a phenomenological description about the unit of analysis (see Figure 4.13).

Figure 4.13

Interpretive Data Analysis Process



4.4.6.1 Personal description

According to van Manen (1997), a researcher’s own lived experiences of a phenomenon gather hermeneutic significance when they (reflectively) give memory to them. Composing a personal description of these lived experiences, therefore, is an important step in a phenomenological case study because it orients the researcher towards exploring core dimensions of the phenomenon (Adams & Tan, 2023). Personal descriptions are also an effective means of revealing potential biases a researcher might have about a case, thus heightening their ability to gather and analyse languaged data fairly (Yin, 2018).

As detailed in Chapter 1 (Section 1.3), my lived experiences of online sociodramatic play derive from guiding my own children’s participation in such play in our family home during their

primary school years in the mid-2010s. An interesting attribute of this parental guidance, however, was that it evolved swiftly and rather urgently because my eldest child had independently initiated playing Minecraft online with friends via FaceTime without my knowledge (or permission).

In response to this unexpected situation, I first sought to establish the safety of this activity as my child was using the general, publicly accessible version of Minecraft. Drawing on emerging societal discourses about online safety at the time (e.g., news reports, school information sessions), I immediately spoke to my child about not disclosing any personal information and avoiding unknown avatars during in-world play. I also actively supervised this play activity (which often took place in a bedroom) from a distance by listening for audible signs of play, such as laughter and/or the disembodied voices of my child's separately located friends.

While screen time guidelines were being widely disseminated (e.g., via free-to-air media), I resisted limiting my child's online play for several reasons. First, one of my children has special needs and this unique family dynamic often constrained opportunities for my other children to play with their friends in co-located spaces (such as our family home). Second, I had learned about the cognitive benefits of play whilst studying to become a primary school teacher in the early 1990s and felt online play was thus a developmentally beneficial activity for my children. Third, I had greatly treasured unfettered social and imaginary play opportunities with my siblings (and cousins) during my own childhood.

While these experiences informed my screen time management practices, I also positively viewed the Minecraft gaming platform after watching my children co-playing this digital game with their father on our X-box gaming console. When my youngest child began playing Roblox online with friends around age 10, I sought information about its age-appropriateness via parenting websites (e.g., Common Sense Media). These websites generally recommended Roblox for older children (e.g., 12+), however, I allowed my child to continue playing after she agreed to notify me, or her father, if she encountered scary in-world content and/or worrisome encounters with avatars controlled by strangers.

Admittedly, my children's already flexible screen time limits were extended quite significantly when strict COVID-19 lockdowns were repeatedly enforced in Victoria for inordinate periods of time (e.g., one Victorian lockdown lasted for 111 days). It is also important to note in this personal description that I have deep scholarly insights about the cognitive benefits of online sociodramatic play as described in Chapter 1 (Section 1.2.1). As these scholarly insights may be considered academic biases, I refrained from mentioning them during group sessions and interviews so languaged data gathered from co-researchers were not inadvertently swayed.

4.4.6.2 Deductive analysis

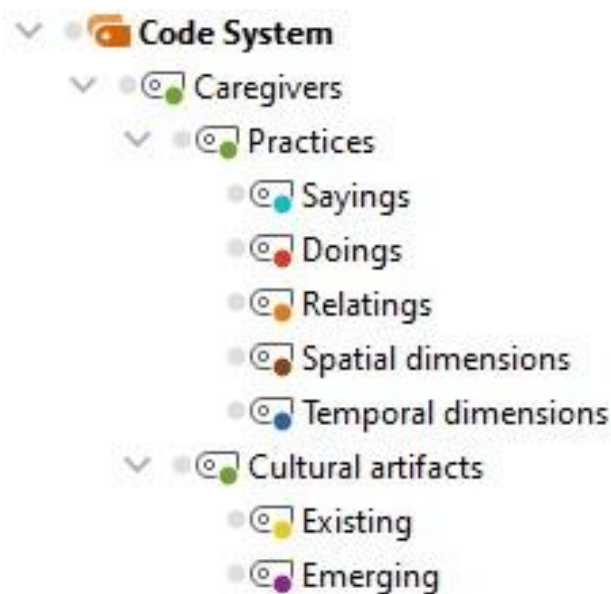
In Chapter 3 of this thesis, it was explained that Hedegaard's (2009) model of child development provided the background theory for exploring how online sociodramatic play is an institution constituted by children (the individual perspective) and their caregivers (the state perspective). Within this institution, the concept of mediation (Vygotsky, 1930/1978) and practice theory (Kemmis et al., 2014; Schatzki, 2012) enabled theoretical insight into caregivers' everyday culturally mediated practices, and the periodisation of child development (Vygotsky, 1933–1934/1998a) enabled theoretical insight into children's motives and perspectives. Languaged data gathered from children and caregivers, therefore, were analysed according to theoretically informed deductive codes.

Caregiver-related data (e.g., digital responses, interview transcripts) were deductively analysed using two sets of theoretical codes. The first set of codes was informed by practice theory, specifically the defining elements (Kemmis et al., 2014) and timespaces (Schatzki, 2012) of human practices. These codes were: 1) sayings (i.e., what caregivers say/convey to children); 2) doings (i.e., what bodily actions caregivers perform); 3) relatings (i.e., how caregivers relate to children and/or objects); 4) temporal dimensions (i.e., how caregivers' actions and interactions are temporally dispersed); and 5) spatial dimensions (i.e., how caregivers' actions and interactions are spatially dispersed).

The second set of codes was informed by Vygotsky's (1930/1978) concept of mediation. These codes were: 1) existing cultural artifacts (e.g., traditional theories of play); and 2) emerging cultural artifacts (e.g., parenting websites). The process for deductively analysing caregiver-related data to inform the state perspective of Hedegaard's (2009) adapted model shown in Figure 3.2 (see Ch. 3, p. 80) was digitally managed using MAXQDA data analysis software (see Figure 4.14).

Figure 4.14

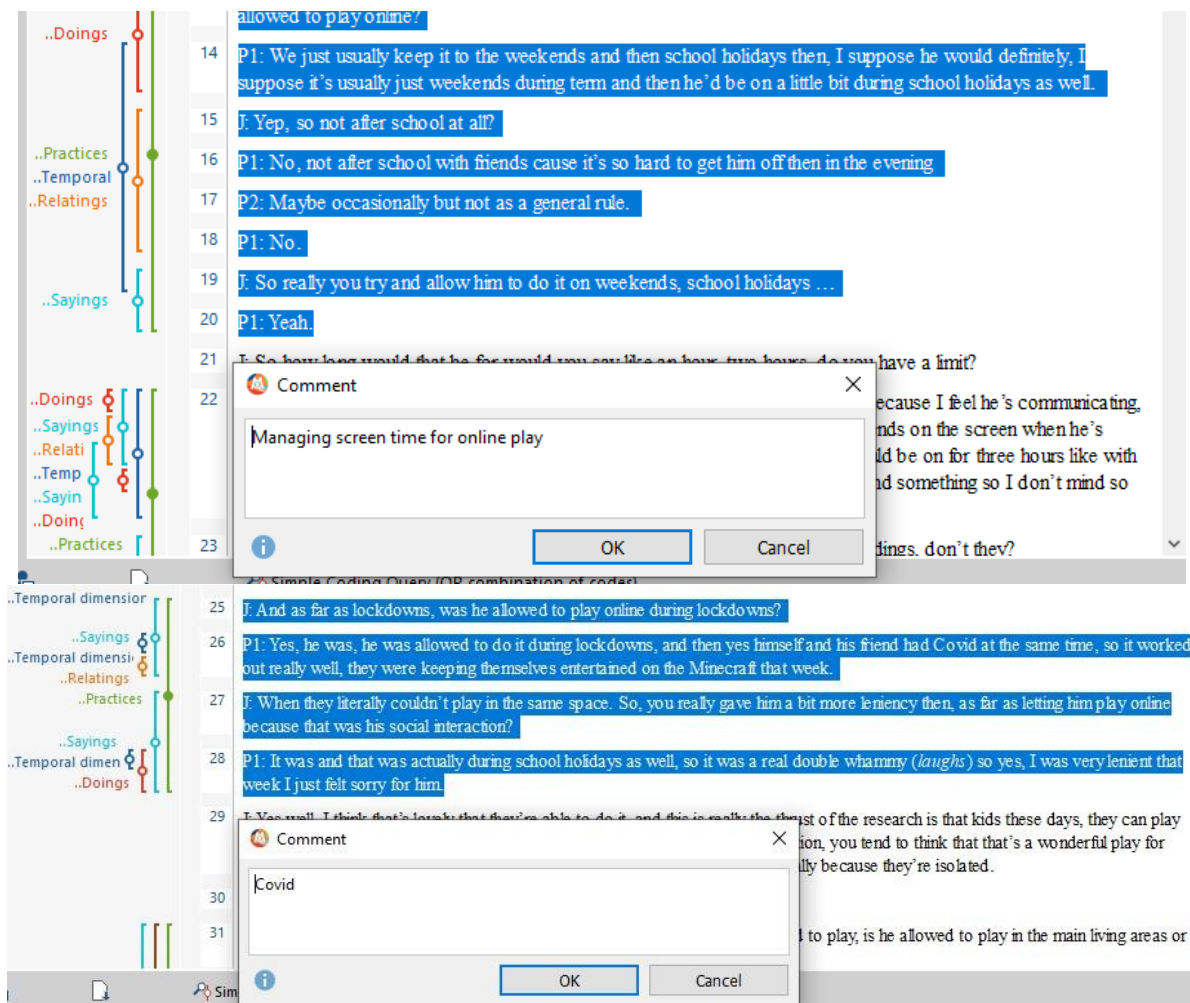
Deductive Coding Process for the State Perspective



When a cluster of defining elements and timespaces hung together to represent a specific practice, they were labelled according to analytic categories based on two deductive codes drawn from the scholarly literature reviewed in Chapter 2. These codes were: 1) managing screen time for online play; and 2) monitoring online play. For practices enacted during lockdowns, the word “Covid” was used to describe the analytic category. The process for labelling analytic categories was managed using the memo feature in MAXQDA which allows researchers to create and attach digital notes to specific coded segments (see example in Figure 4.15).

Figure 4.15

Labelling Analytic Categories for the State Perspective



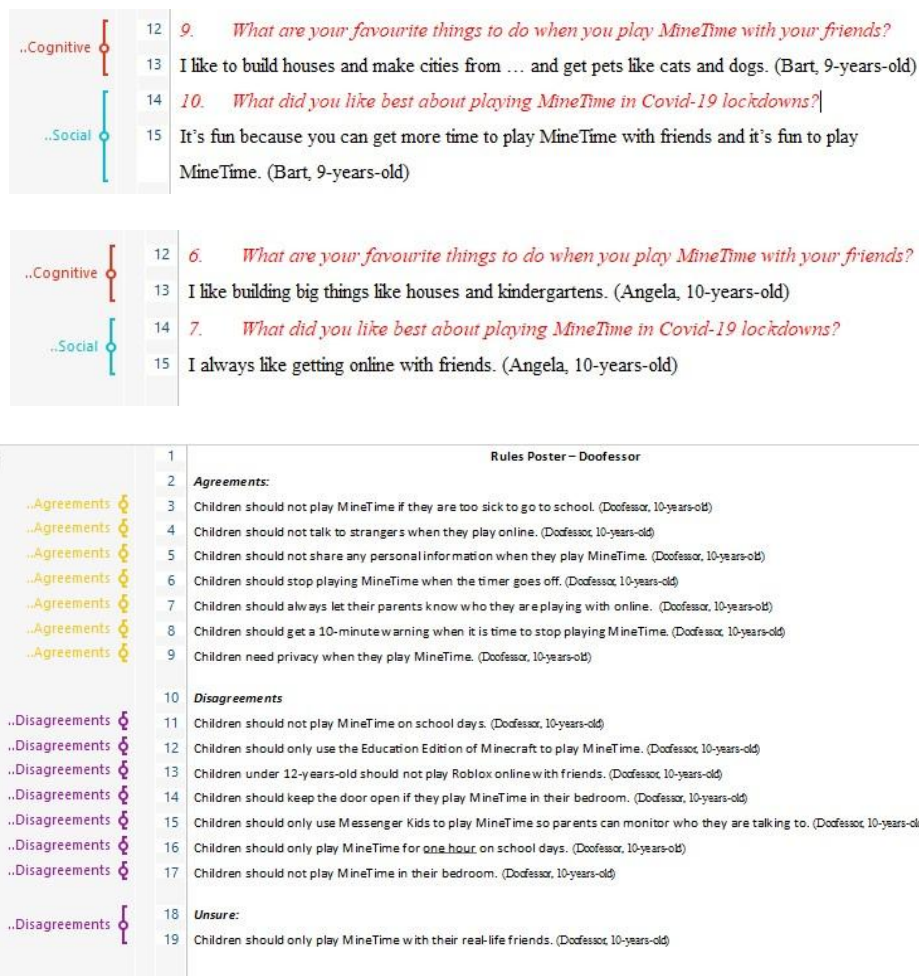
Child-related data (e.g., digital responses, activity sheets, perspectives posters) were also deductively analysed using two sets of theoretical codes, both of which were informed by Vygotsky's (1933–1934/1998a) thinking about the periodisation of child development. The first set of theoretical codes related to children's motive orientations for engaging in online sociodramatic play. These codes were: 1) cognitive motives (e.g., I like building things with friends); and 2) social motives (e.g., I like playing with my friends).

The second set of theoretical codes related to children's perspectives of household rules for online play. These codes were: 1) agreements; and 2) disagreements. As some children were unsure

about certain rules, these rules were coded as disagreements at this stage of analysis and clarified in the final report. Children’s ages were included with their corresponding data to ensure the perspectives of different age groups were accurately represented. The process for deductively coding child-related data to inform the individual perspective of Hedegaard’s (2009) adapted model shown in Figure 3.2 (see Ch. 3, p. 80) was digitally managed using MAXQDA (see Figure 4.16).

Figure 4.16

Deductive Coding Process for the Individual Perspective



4.4.6.3 Inductive thematic analysis

The interpretive process for identifying caregiver practices, cultural artifacts, and children’s motives and perspectives saw deductively coded segments in MAXQDA exported as individual Microsoft Word documents. These documents were digitally reformatted into broader, meaningful units of information and inductively labelled according to core themes (see example in Figure 4.17)

Figure 4.17

Example of Inductive Thematic Coding for Children’s Motives

Children’s motives		
Codes	Core themes	Examples from the data
Cognitive motives	Being creative with friends	When I play MineTime, I feel creative because I feel like I can make anything (Donut); marvelous or wondrous because I love adventure and being creative (Emily); really, really x 1,000,000,000 happy because I can make cool planes and other cool stuff (Doofessor). <i>I like MineTime because</i> (I can) engineer and it’s fun (Donut); she likes engineering (Holly); I can create stuff/(have) fun (Goose).
	Learning play-related skills	<i>When I play MineTime, I like to learn new skills that help me play Minecraft with my friends</i> (Holly, Angela, Emily, Bart).
Social motives	Interacting with friends	<i>When I play MineTime, I feel content because I am playing with my friends and not worrying</i> (Angela); happy when I play with my friends (Bart); happy because you can play with your best friends (Beavis). <i>I like MineTime because</i> I like seeing people (Emily); I can play with my friends (Bart); your mum doesn’t tell you what to do and you get to spend time with your friends (Doofessor).
	Sharing play-related ideas and knowledge with friends	<i>When I play MineTime, I like to talk to my friends about what we are doing in Minecraft</i> (Donut, Beavis, Doofessor, Goose, Angela, Emily, Bart). <i>I like MineTime because</i> it’s an opportunity to play with friends and to teach them things they don’t know yet (Angela).

According to van Manen (1997, p. 88), themes generated in studies underpinned by hermeneutic phenomenology give “shape to the shapeless” because they accurately make sense of human lived experiences and provide a meaningful structure for the phenomenon under investigation. At this stage of analysis, inductively generated core themes were used to answer the three sub-questions addressing the main research question guiding this study and provide theoretically informed insights into the state perspective and individual perspective of Hedegaard’s (2009) adapted model of child development shown in Figure 3.2 (see Ch. 3, p. 80).

4.4.6.4 Composing a phenomenological description

The bringing together of my own lived experiences, pre-existing theories and literature, and languaged data resulted in the crafting of a subjectively positioned phenomenological description about the case (phenomenon) under investigation – the institution of online sociodramatic play. This phenomenological description encapsulated how the institution of online sociodramatic play appears and manifests for families participating in this study. By providing a rich, thick description

of the case, new theoretical understandings about the institutional perspective of Hedegaard's (2009) adapted model framing this research were gained and subsequently used to answer the main research question.

4.5 Ethical considerations

This research (application number 2022-2554H) sought and received approval from the Australian Catholic University Human Research Ethics Committee (ACU HREC) (see Appendix N). Four key ethical principles prescribed by the National Health and Medical Research Council ([NHMRC], 2018) in Australia permeated all aspects of the methodological process. These principles are: 1) research merit and integrity; 2) justice; 3) beneficence; and 4) respect.

4.5.1 Research merit and integrity

The first principle, research merit and integrity, ensures researchers contribute new knowledge to their relevant fields through honest, ethical practices. To address this principle, a thorough review of the scholarly literature was conducted, and this process revealed a significant gap in knowledge regarding the institution of online sociodramatic play. Assuring the integrity of the research was heightened by always committing myself to honest, ethical research practices using practical skills, knowledge, and understandings that had been recently acquired, honed, and exhibited in a previous study (see Caughey, 2021).

While all qualitative inquiries encompass a researcher's philosophical assumptions and personal skills for generating languaged data (Denzin & Lincoln, 2017), researchers employing participatory methods with children are required to draw on a unique set of diverse skills whilst employing high levels of reflexivity and flexibility (Marsh, 2019). Further heightening the integrity of this study, therefore, was that I have over 30 years' experience as a primary school teacher and educational consultant. This pedagogical expertise ensured I was professionally equipped to plan and design engaging research activities for school age children that catered to their individual interests, strengths, and developmental capabilities (Carter, 2021; Lundy, 2007). Moreover, as the mother of three teenage children (one of whom has special needs), I have informed understandings

of recognising, and responding sensitively to, the diverse socio-emotional needs of children in the 8- to 12-year-old age group.

The recruitment strategy employed in this study meant several of the co-researchers were known to me prior to conducting the research. These included my friend, Anna, and my family members Panda (my sister-in-law), Homer (my brother-in-law), and their three sons (my nephews). Researchers face unavoidable, complex issues when recruiting friends and/or family members to participate in a study because they must separate their role of investigator from their usual role as friend or relative (Dezuanni, 2018). Addressing this ethical dilemma meant adhering to strict methodological guidelines that regulated data gathering procedures and ensured all research activities were strictly for investigative purposes only, not informal social occasions.

As family homes are private, valued spaces, approved access was sought from Panda (via text message) on the mornings of scheduled MKC group sessions and the needs of her individual family members were always respected. Prior to conducting MKC sessions in the home setting, a pre-written script (see Appendix O) was used to heighten my family members' awareness that they could decline to participate in the research at any time without negative consequences affecting our highly valued familial relationships.

4.5.2 Justice

The second ethical principle, justice, prioritises the equal, fair, and lawful treatment of human research participants. In this study, addressing the ethical principle of justice meant ensuring the co-researchers had access to material resources required for research activities free of charge (Bergold & Thomas, 2012). Subsequently, I provided all resources required for MKC sessions (e.g., poster paper, coloured markers, glue sticks, scissors) and individual interviews (e.g., laptop). Treating co-researchers equally also saw children invited to attend the same number of MKC sessions and caregivers invited to attend the same number of individual interviews and family MKC sessions. Children were also offered the same number of Minecraft-inspired stickers at the end of each MKC session to thank them for their participation. These processes were approved by the ACU HREC.

In qualitative inquiries, children are considered vulnerable participants because their maturity levels are still developing (Creswell & Poth, 2018) so caregivers were shown my Working with Children Check card prior to the first MKC session and made aware that they could always view and/or enter the research setting. Further acknowledging the vulnerability of children participating in this study saw *ethical symmetry* employed throughout the 8-week data gathering periods. According to Groundwater-Smith et al. (2015), researchers employ ethical symmetry by interacting with child participants in “morally principled ways” (p. 40) and always honouring a child’s lawful, democratic right to express views about matters affecting them.

During MKC sessions, ethical symmetry was employed in four specific ways. First, this research adheres to a children’s rights-based philosophy, so children were always supported to act with agency and recognised as knowledgeable experts about their lived experiences of online sociodramatic play. Second, positioning children as co-researchers ensured their individual knowledge, skills, strengths, and competencies were highly valued and reaffirmed that they were not expected to behave as they would in a classroom setting (e.g., raising a hand to speak, requesting permission to use personal devices).

The third way ethical symmetry was employed in this research involved the use of participatory methods. This methodological decision ensured I actively and attentively listened to what children had to say, prioritising their voices over my own (Fattore et al., 2007; Lundy & McEvoy, 2011; McAuley et al., 2012). This process fostered children’s ability to feel self-assured, respected, and confident whilst expressing their thoughts, ideas, and perspectives during MKC sessions (Dockett et al., 2012; Mascadri et al., 2021). I also consulted with children before documenting things they said and/or did in the research setting (Groundwater-Smith et al., 2015) and made them aware that they could approve all data recorded in the fieldnotes book.

Fourth, the use of convenience/snowball sampling meant children only collaborated with their siblings and/or friends during MKC sessions. This heightened ethical symmetry because collaborating with known peers supports children’s ability to feel more comfortable whilst

expressing their views to adult researchers (Adams, 2014). Moreover, as most children knew me prior to participating in this study, their ability to comfortably express their perspectives may have been further heightened. This assertion is supported by studies where researchers spend time familiarising themselves with child participants prior to seeking their perspectives (e.g., see Merewether & Fleet, 2014; Mertala, 2020).

4.5.3 Beneficence

Addressing the third ethical principle, beneficence, means minimising the risk of discomfort or harm for human participants so beneficial outcomes of a research project are maximised. In studies where participatory methods are used, interactions between researchers and co-researchers are “characterised by closeness, empathy, and emotional involvement” (Bergold & Thomas, 2012, p. 203). The wellbeing and comfort levels of children and their caregivers were thus always prioritised. This meant ensuring I responded sensitively and empathically to their diverse needs and remained consciously aware of verbal and/or non-verbal signs indicating they felt uncomfortable during MKC sessions or individual interviews (de Almeida et al., 2017; Wu, 2019).

While demonstrating beneficence means honouring an individual’s right to make decisions about participating in a study, children have limited understandings about the potential consequences of such participation. For this reason, informed consent was gained from children’s caregivers via consent forms before MKC sessions commenced. Supplementing this legal requirement also saw assent (or agreement) sought from each child via age-appropriate assent forms prior to the first MKC session. Dockett et al. (2012) argue that child assent forms introduce “another layer of decision-making where children’s choices can be respected” (p. 804).

Children’s ongoing assent to participate in each MKC session was affirmed via a sign-in sheet (see Appendix P). Sign-in sheets are useful tools for establishing an iterative, dialogic process for re-negotiating and/or affirming children’s authentic assent to participate in a research project (Groundwater-Smith et al., 2015; Rivera, 2020). The MKC sign-in sheets outlined (in age-appropriate language) research activities being conducted that day. The words “Today I can...”

(e.g., “Today I can make a creative response about MineTime”) were used to preface these activities to heighten children’s awareness that their participation was optional. Children affirmed their assent by writing their name on the sign-in sheet prior to each MKC session. Caregivers confirmed this assent by signing their name beside their child/grandchild’s name.

Ensuring the privacy and confidentiality of human participants is key to addressing the ethical principle of beneficence so any potential negative consequences that may result from participating in a research project are minimised. Addressing this principle saw all co-researchers selecting pseudonyms for themselves and caregivers asked to assign pseudonyms for non-participating children who attended family group sessions. Groundwater-Smith et al. (2015) argue that maintaining the privacy and anonymity of children heightens their ability to share personal information about their lived experiences. Moreover, using pseudonyms in phenomenological studies respects the unity of the participants’ collective consciousness in relation to their lived experiences of the phenomenon under investigation rather than using generic terms such as “Participant 1” (Bartholomew et al., 2021).

In the final report, pseudonyms were used to reference all data relating to co-researchers and non-participating children. Prior to taking them home, children’s personalised lanyards were stored in a private, secure location between MKC sessions. Upon completion of the final report, all identifying data were removed from raw data gathered in the research setting (e.g., digital responses, posters, activity sheets) and stored in a locked cabinet located at ACU along with physical copies of parent consent forms, child assent forms, and sign-in sheets. Audio data from interviews were deleted from recording devices and all digitised data (e.g., interview transcripts, photos of posters, digitised fieldnotes) were stored in a password-protected university hard drive.

4.5.4 Respect

The fourth ethical principle, respect, recognises the value of human participants and all others within the research setting. This principle is highly valued by researchers employing participatory methods because they intentionally seek to form ethical relationships with their co-

researchers that are fundamentally characterised by “trust, respect, and reciprocity” (Groundwater-Smith et al., 2015, p. 49). Demonstrating respect to co-researchers in this study meant ensuring they felt comfortable to be open and honest about their lived experiences without being judged in any way.

Prior to each 8-week data gathering period, co-researchers were made aware of the purpose of the research and the voluntary nature of their participation. When data gathering procedures commenced, I actively sought to establish and maintain a friendly, respectful, non-intrusive rapport with the participating families. This process may have helped minimise induced anxiety some children feel whilst engaging in research activities with an adult researcher (McAuley et al., 2012). During research activities, I also requested permission before taking photos of physical or digitised documents created by co-researchers.

Throughout the research process, I remained highly conscious of ensuring children were made aware (in meaningful, age-appropriate ways) that they could leave the research setting at any time and did not have to share information or participate in certain activities if they felt uncomfortable doing so. Caregivers from Cohort One were invited to stay in a comfortably appointed space adjacent to the university meeting room during child MKC sessions. This arrangement meant they could actively supervise children who needed to leave the meeting room for any reason (e.g., to use bathroom facilities).

During interviews, I strived to establish safe, open, trusting, and respectful relationships with caregivers (Polkinghorne, 2005). This meant being consciously aware that some adults find individual interviews socially and/or cognitively demanding (Seidman, 2013). I was also cognisant of their comfort levels during interviews and adjusted the duration when required, such as when a parent brought a non-participating child to a face-to-face interview. All research activities were conducted at mutually convenient times and caregivers were given my contact details and made aware that they could reschedule, cancel, or postpone their attendance at any time.

4.6 Qualitative rigour

According to Creswell and Poth (2018), qualitative inquiries are considered rigorous when the findings are valid (i.e., they are reported accurately), reliable (i.e., they consistently and dependably reflect generated data), and generalisable (i.e., they are applicable to wider populations). While studies underpinned by phenomenology are grounded in empirical qualitative research traditions, questions around what constitutes “rigour” manifest quite differently to evaluative criteria (e.g., credibility, transferability, dependability, confirmability) used by most qualitative researchers (Briod et al., 2011).

Fundamentally, phenomenologists seek insight into the subjective lived experiences of humans, so their studies cannot be validated according to pre-determined criteria. For this reason, Polkinghorne (1983) encouraged researchers conducting studies underpinned by phenomenology heighten the reliability and validity of their studies by encapsulating four artistic dimensions in the final report so readers can judge the accuracy – or power – of the findings for themselves. These four artistic dimensions are: 1) vividness; 2) accuracy; 3) richness; and 4) elegance.

The first dimension, *vividness*, describes the extent to which readers are drawn into the genuine reality of the co-researchers’ lived experiences. For example, a report describing children’s perspectives of household rules for online play might vividly resonate with readers who guide their own children’s participation in such play. The second dimension, *accuracy*, ensures the final report is believable in the sense that readers (via their own lived experiences or by vicariously imagining the phenomenon) can “see” the phenomenon as co-researchers experience it. For example, a report describing how household rules for online play are comprised of spatial (e.g., allocation of household areas) and temporal (e.g., use of timers) dimensions might assist readers to visualise caregivers’ everyday practices more clearly.

Heightening reliability and validity via the third dimension, *richness*, refers to the extent to which language used to articulate the co-researchers’ lived experiences has sensual-aesthetic depth so readers might emotionally connect to how the phenomenon appears and manifests in the world.

For example, a report describing caregiver concerns about children's online safety might prompt readers to affectively connect with these concerns. The fourth dimension, *elegance*, refers to the unification (or economical expression) used to explain the co-researchers' subjective experiences in a graceful, clear, and poignant way. For example, a report describing children's motives for engaging in online sociodramatic play in simple terms (e.g., "I like being creative with my friends") may inspire readers to reflect on their own play experiences during childhood (e.g., using tangible construction blocks with siblings) that evoked similar responses.

Further heightening the validity and reliability of languaged data gathered in this study was the use of participatory methods (Bergold & Thomas, 2012). These methods were purposely selected to align with the children's rights-based philosophy permeating this research and resulted in a swathe of physical (e.g., posters, activity sheets) and digitised (e.g., photos, audio files) lifeworld-sensitive texts that authentically reflected the co-researchers' lived experiences of online sociodramatic play.

4.7 Assessing risk

Researchers conducting qualitative inquiries must assess all foreseeable risks (e.g., discomforts, harms, inconveniences) a research project poses to their human participants and themselves (NHMRC, 2018). As the research reported in this thesis was conducted in co-located settings during the COVID-19 pandemic, a foreseeable risk to the co-researchers and me (as the primary researcher) was the transmission of coronavirus disease. To minimise this risk, five strict preventative measures were implemented prior to, and during, co-located research activities.

The first preventative measure was ensuring all adults entering co-located areas (including myself) were fully vaccinated against COVID-19. Second, my negative COVID-19 status was confirmed via a Rapid Antigen Test (RAT) on the morning of each co-located research activity. Families entering co-located research settings were also encouraged to confirm their negative COVID-19 status by administering RATs prior to attending. These tests were offered free of charge to co-researchers who required them.

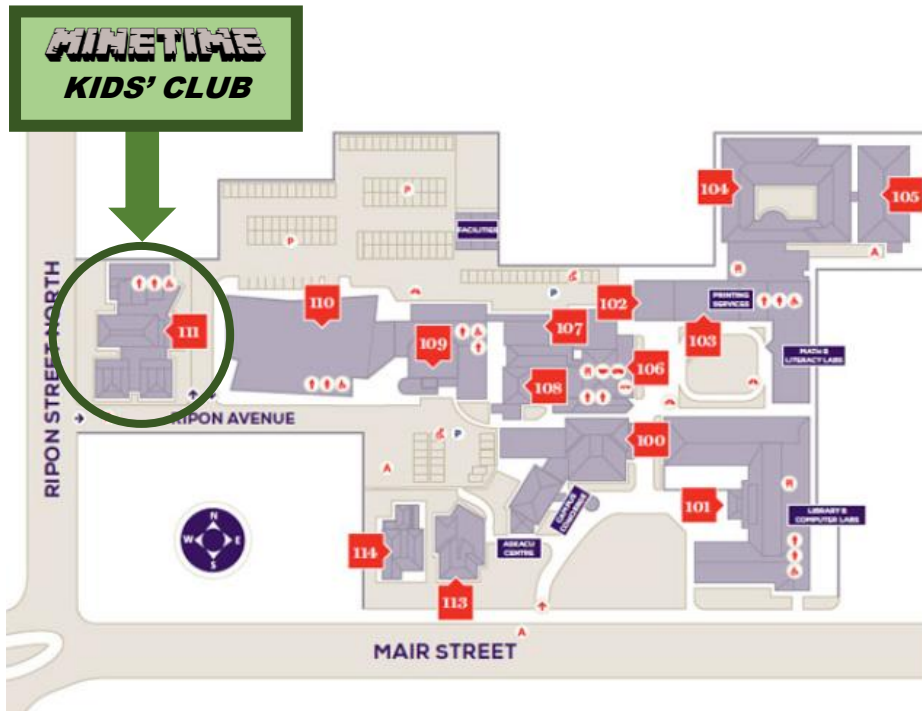
The third preventative measure for minimising the risk of COVID-19 transmission was selecting co-located research settings that allowed for 1.5 metres between people from different families. Unnecessary contact between Cohort One families and ACU staff and students was also minimised by selecting a meeting room that had a separate entrance to main university buildings. Fourth, surfaces in the ACU meeting room were disinfected prior to, and after, group sessions and wash areas were clearly signposted. Anti-bacterial wipes, tissues, and hand sanitiser were also readily accessible during MKC sessions. Fifth, co-researchers were monitored for signs of coronavirus infection (e.g., runny nose, coughing) during co-located research activities. Permission to use Zoom videoconferencing software for research activities was also sought via the Participant Information Letter and consent forms if governmental lockdowns were enforced during the data gathering period.

A further foreseeable low risk outcome for co-researchers was the potential for anxiety and/or embarrassment caused by negative interactions with peers and/or family members. To minimise this risk, I remained consciously aware of the sensitive intricacies of family and peer relationships and responded accordingly. When tensions arose (e.g., a child becoming annoyed when their sibling played music too loudly on a device), they were managed empathetically, and caregivers were informed.

A range of other low-risk outcomes specific to each co-researcher cohort were also identified. For Cohort One, the risk of induced anxiety from entering an unfamiliar university was minimised by greeting families in an open-plan area adjacent to the meeting room and implementing three navigational strategies. First, a map was sent via MMS to caregivers from Cohort One prior to the first MKC session (see Figure 4.18).

Figure 4.18

Navigational Map



Second, navigational posters were attached internally and externally around ACU university buildings directing Cohort One families to the meeting room (see example in Figure 4.19).

Figure 4.19

External Navigational Poster



The third navigational strategy saw artificial grass squares placed on the floor leading into the meeting room (see Figure 4.20). These grass squares symbolically reflected the top of the Grass Block icon used in Minecraft.

Figure 4.20

Grass Squares Leading into the Meeting Room



For Cohort Two, low-risk outcomes were addressed by a specific range of strategies approved by ACU HREC. As researchers entering private family homes face risks of physical injury (e.g., dangerous animals, trip hazards) and/or inconvenience (e.g., obstructed access, internet blackspots), these were minimised by selecting a family home that I had previously visited. As this home was located over 100 kilometres from my own home, the risk of physical injury from a car accident was minimised by driving my own reliable vehicle (fitted with safety airbags), having informed knowledge of the safest route, and always carrying a smartphone (and charging cable).

Further minimising risks to my personal safety whilst travelling saw me notifying the Principal Supervisor (via text message) when I left my home and arrived safely at Panda's family home. The Principal Supervisor was again notified when I left Panda's home and arrived safely at my home. This process also ensured home visits with family members were for research purposes only, not social events. There was a foreseeable risk that family members may have felt discomfort and/or inconvenienced by home visits, so they selected the research setting inside the home and scheduled group sessions according to their needs (reconfirmed on the day via text message).

Conclusion

This chapter detailed the methodological process guiding this research. First, the philosophical stances adopted by researchers conducting phenomenological studies were identified and explained. Second, the co-design approach framing the implementation of participatory methods was presented and the recruitment process and research context were clarified. Third, the process for analysing languaged data in this study was outlined. The chapter concluded with an overview of important ethical considerations and factors contributing to the rigour and risks of this study.

Chapter 5: Findings

Introduction

In this chapter, findings relating to the state perspective and individual perspective of Hedegaard's (2009) adapted model framing this study (see Figure 3.2 in Ch. 3, p. 80) are presented. These findings informed insight into the main research question:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

and answered the three sub-questions:

SQ1: How are caregiver practices mediated by cultural artifacts regarding children's participation in online sociodramatic play in the family home?

SQ2: What are children's motives for engaging in online sociodramatic play?

SQ3: What are children's perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home?

First, caregiver practices guiding children's participation in online play in the family home, and cultural artifacts mediating these practices, are identified (state perspective). Then, children's motives for engaging in online sociodramatic play are detailed, and their perspectives of caregiver practices (as identified in this research) are reported (individual perspective). The chapter concludes with a summary of overarching findings arising from this research.

5.1 Caregiver practices

In this section, caregiver practices guiding children's participation in online play are identified. During analysis, these practices were classified into two analytic categories informed by scholarly literature: 1) managing screen time for online play; and 2) monitoring online play. All data reported in this section were gathered from caregivers.

5.1.1 Managing screen time for online play

Two main practices encapsulated how caregivers manage children's screen time in relation to online play: 1) scheduling online play; and 2) signalling an end to online play.

5.1.1.1 Scheduling online play

The first practice, *scheduling online play*, manifested differently for each family but there were similarities in how such play was scheduled by caregivers on school days compared to weekends and school holidays. For example, Peaches and Possum (Cohort Two) do not allow their son (10-year-old Doofessor) to play online on school days because “it’s so hard to get him off in the evening” (*Interview 1*). On weekends and school holidays, however, online play is scheduled more flexibly in their family home, sometimes for up to three hours per day.

Similarly, while Tessie (Cohort One) schedules online play once a week after school, provided her children (8-year-old Donut and 10-year-old Angela) have finished their household chores (e.g., unpack school bags, tidy bedrooms), a more flexible approach is employed on weekends and school holidays.

Tessie: I would say that there’s a fair bit of iPad time on the weekends. It would probably be from like 4 till 5.30. I still try not to do it in the morning because I feel like once you open up the floodgates, it’s really hard to shut it down. It’s normally an after-lunch thing. Because on the holidays, we often do something in the morning rather than the afternoon. And it wouldn’t be every day. (*Interview 2*)

Later, Tessie explained how she usually schedules online play on Friday afternoons only because Donut and Angela are busy with after-school activities (e.g., organised sports) on the other weekdays. Interestingly, these online playdates are often organised by Donut and Angela.

Tessie: They’re more likely to meet up with people online on Friday because they might talk to someone at school and say, “We’ll meet you on the internet.” So, last Friday, for example, my friend dropped the boys home from school and she popped in for a cup of tea, and her daughter is the same age as Angela and they had a bit of a chat and then they went home, and they agreed to meet up online at home. So, it was just like a fly-in playdate of 15 to 20 minutes.

Researcher: So, it’s kind of like an extended playdate?

Tessie: Yep. (*Interview 2*)

For Panda and Homer (Cohort Two), one hour is scheduled on school days for their children (9-year-old Bart, 10-year-old Beavis, and 12-year-old Goose) to play online.

Panda: We try and limit their time online, so they're allowed to do an hour each a night on school days. We had to do that because we didn't do it for a start, and then we were finding that they were just on it all the time and we did notice their behaviour and their aggression was so much heightened when trying to get them off. It was just the language they used, the disrespect was just huge, so that was like, "Right, that's it."

Researcher: Was that when they were playing Minecraft?

Panda: More just anything, just YouTube, anything like that, just anything online with their laptops. (*Interview 1*)

On weekends and school holidays, however, Panda and Homer adopt a more flexible approach to scheduling their children's online play.

Panda: On the weekend, we're a little bit more obviously relaxed around time, but we try and just make sure that if they're on it in the morning, then they're not on it in the afternoon so that they're having some outside time or time away. (*Interview 1*)

Unsurprisingly, this flexible approach is often dependent on Panda and Homer's work schedules.

Panda: I would say during holidays they are on it more if we don't have anything planned, depending on what myself and Homer were working. So, I'd definitely say they were on it more on the holidays when I was working the holidays as well. Because I'm home now on the school holidays, they haven't been on it as much as what they would have been previously.

Researcher: Is that because you're doing things with the boys now you have holidays off?

Panda: Yeah, definitely. I probably monitor it more than Homer does because, if he works nights, then he just wants to sleep in the day. So, having them on the computer he knows they're quiet and he can sleep. (*Interview 1*)

Anna (Cohort One) also flexibly schedules online play for her grandchildren (8-year-old Holly and 10-year-old Emily) on weekends and school holidays, usually in the afternoons for “downtime” (*Interview 2*). On school days, however, online play is frequently limited to one hour.

Anna: So, we set aside probably up to an hour a day after [school], and I negotiate with them. Even today after school, I said, “Right, you’ve got to do half an hour piano” which they do use their iPads for, they’ve got an app that they use, and then you’ll have time to have maybe half an hour online before we have dinner and bath and whatnot. (*Interview 1*)

For Anna, scheduling online play was a new practice in her family home as her own (now adult) children did not play online during their childhood.

Anna: This is new thing for me because when my own children were young, we had the one computer in the household, in those days. (*Interview 1*)

As such, Anna’s rules for online play were predominantly based on those set by Holly and Emily’s parents (her son and daughter-in-law).

Anna: I am probably influenced by their parents’ rules. I often find myself saying, “Would your mum and dad...?” Emily is very responsible, and she says, “Yes.” And of course, their favourite thing in the world to do is to be online (*laughs*) and their iPads. We’re happy for them [to play online] and again I just check with [my son], and he will say sometimes, “Right. No screen time.” (*Interview 1*)

By the second interview, however, Anna was feeling more confident about scheduling her grandchildren’s online play.

Anna: It’s very flexible. We go with each day ‘cause I’m establishing a new [routine]. And I’ve sort of been holding back a bit, but last night I said, “Right, you can have screen time” and they were excited by that, and I said, “And that’s because we’ve got nothing on.” (*Interview 2*)

Interestingly, most caregivers shared the view that screen time for online play be strictly limited when children are too sick to go to school.

Tessie: If I feel like they're really pushing it for being ill, there's no screens at all, you've got to stare out the window. But if they are sick, they're too sick to play anyway. Like if you have a headache, you shouldn't be looking at a screen. (*Interview 1*)

Panda: They're not usually online, but they can play [digital games] for an hour and then maybe another hour but otherwise if they're home sick they'll watch a movie or something like that. If they're sick, they generally don't really want to play. (*Interview 1*)

Peaches: Well, [Doofessor's younger brother] is actually home sick today and we had the conversation with him this morning like that, "You cannot be on your screen all day, don't think you can." Because you think, "Are you sick, are you not sick?" So, he hasn't had any screens, he's actually asleep now. I actually think he is sick (*laughs*) you never really know. But that's it exactly, I do make that point of, "Yeah, okay, so you appear to be a bit sick but don't think you're spending the day on screens." (*Interview 1*)

Anna: When they were sick, the one thing [their father] did say was, "No screen time until 3.30." (*Interview 1*)

In relation to scheduling online play, these findings suggest that caregivers restrict screen time for online play on school days (including when children are too sick to go to school), but schedule time for online play more flexibly on weekends and school holidays.

5.1.1.1.1 Scheduling online play during lockdowns

As discussed in Chapter 4, families participating in this research recently experienced two years of repeated strict lockdowns due to the COVID-19 pandemic. As such, caregivers scheduled online play differently on school days during lockdowns compared to non-lockdown periods. For example, Panda and Homer extended their usual one-hour screen time limit on school days so their children could play online with friends.

Panda: There was nothing worse than COVID and not being able to see people, and that isolation, so definitely that was a way of them spending their time with their friends.

Researcher: And that's something you valued during that time?

Panda: Yeah, absolutely. They weren't annoying me when they're doing MineTime (*laughs*). We were doing our own thing. I suppose I was lucky enough that I still went to work, and they still went to school, so we were pretty lucky in that way. Our routine was pretty similar during that time. Yeah, but they would get on it in the afternoon to chat to the ones who weren't at school. (*Interview 3*)

Interestingly, Panda believes her youngest son, Bart, and Doofessor (Beavis's classmate) formed a close friendship during lockdowns due to their shared interest in Minecraft (*Interview 3*). Like Panda and Homer, Peaches and Possum also adapted their usual screen time management practice during lockdowns by allowing their son, Doofessor, to play online on school days.

Researcher: Did you find the online play was something that helped you get through the COVID lockdowns?

Peaches: Yeah, absolutely, yes it did, definitely. They were getting the social interaction, and I suppose it was something for them to look forward to, especially after doing the remote learning, you know, "We're going to get this, this, and this done, and then you can have some screen time." I suppose it was a bargaining tool. (*Interview 2*)

In her previous interview, Peaches explained how she also scheduled online play differently during school holidays when Doofessor contracted COVID-19.

Peaches: Himself and his friend had COVID at the same time, so it worked out really well. They were keeping themselves entertained on the Minecraft that week. And that was actually during school holidays as well, so it was a real double whammy (*laughs*). So, yes, I was very lenient that week. I just felt sorry for him. (*Interview 1*)

For Tessie, lockdowns were "hugely" influential in prompting her to extend screen time limits for her children's online play on school days and recalibrate how she managed this process.

Tessie: In lockdown, our rules had changed slightly. It was, "Have you done your schoolwork?" So, we'd be finished by lunchtime most days. The trickiest part with that was that there were lots of kids that didn't have the rule of "Have you done your schoolwork?"

and you'd get the messages. So, maybe they were unsupervised because their parents were working or whatever and Angela's iPad would be pinging, "Do you want to play? Do you want to play?" and it would be 10 past 9 in the morning! It was ridiculous. And sometimes Angela's iPad would be pinging until like 9 o'clock at night and you'd think, "What are you doing?"

Researcher: And these are Grade 3s, her friends at school?

Tessie: Yep. So, she was in a group chat which is never, never a good idea. And then she'd look the next morning when she'd go to her Google Meet or whatever and she'd be like, "I've got 117 messages!" (*laughs*)

Researcher: So, they went online and played most days, would you say?

Tessie: Oh, nearly every day, depending on if playgrounds were open or not, we'd "accidentally" bump into someone in the park. (*Interview 2*)

Tessie also appreciated that online play provided opportunities for her children (Donut and Angela) to "talk to someone, like they're just sitting next to each other kind of conversation" during lockdowns, particularly as Angela often sat back and stayed quiet during remote schooling lessons (*Interview 1*). Interestingly, Tessie fondly recounted how Donut and Angela had thoroughly enjoyed embarking on in-world "quests" during lockdowns with their classmates, including Holly and Emily.

Tessie: During COVID, they'd all go on quests together. That was hilarious to listen to during lockdown. They'd find an Ender Dragon or something. And during those lockdowns they really got into the quests. (*Interview 1*)

While Anna's granddaughters (Holly and Emily) were unable to visit her during most lockdowns due to strict governmental mandates, they occasionally engaged in remote learning in her family home when their parents were working. During this time, Anna recalled gaining insight into the everyday practice of scheduling online play.

Anna: They'd sit up with their iPads [for remote learning] and at the end of that they used to talk to their friends. I can remember I'd say, "Right. It's after school time."

Researcher: And that was when they'd FaceTime friends and play Minecraft?

Anna: Yes, at the very end. But that was only occasional days so, really, it's quite new.

(Interview 1)

These findings indicate that caregivers scheduled online play more frequently and for longer periods of time on school days during COVID-19 lockdowns compared to non-lockdown periods.

5.1.1.2 Signalling an end to online play

The second screen time management practice identified in this research was *signalling an end to online play*. Caregivers reportedly utilise a range of verbal techniques and/or digital timers to signal to children that online play is ending. For example, Panda encourages her children to independently set a digital oven timer to signal that the one-hour time limit scheduled for online play after school has ended.

Panda: So, they'll put it on themselves for an hour each on there. And when the timer goes off, they know they have to switch people or that's it, their time's over. So, they'll have an hour and then they'll wait, and the alarm will go off and then it's the next person's turn to jump online or whatever. *(Interview 1)*

Researcher: When they have their own hour, do the other ones watch them while they play?

Panda: Occasionally. Most of the time they'll go off and do their own thing. And then they'll put a timer on the oven and then they'll know that it's the other person's turn. They usually hear it, and they'll say, "It's your turn now."

Researcher: That's a good little system there.

Panda: Yeah, sometimes it works *(laughs)*. *(Interview 2)*

For Peaches and Possum, a combination of digital timers (set on their smartphones or by their son, Doofessor, on his personal iPad) and verbal techniques are utilised to signal an end to online play.

Possum: If you cut it off straight away, then the tantrum starts. You've got to make them feel like they're getting extra time. We usually give [Doofessor] that advanced notice as well, like he can see that you've got 10 minutes left on his timer, so you go and tell them and he's then alert to, "Oh yeah, I'm gonna have to finish up soon" and it's not one big upset.

Peaches: We still have to go down though and say, "Right. The timer has gone off."

Possum: Save your game, save your game!

Peaches: It can be a bit of a drama getting him off. (*Interview 1*)

In Tessie's family home, a combination of digital timers (set by her children, Donut and Angela, on their personal iPads) and verbal techniques (e.g., "You've got until 5pm" or "You have 10 more minutes") is also utilised to signal that online play is ending. Tessie likened this practice to how she signals an end to her children's co-located playdates.

Tessie: It's kind of like when you manage your playdates, and you know that the mum's coming to pick them up in 10 minutes so that it's not a shock. (*Interview 2*)

Interestingly, Tessie explained that her children can request extra time for online play occasionally, but they are not to complain if these requests are declined. This is made clear by Tessie via further verbal techniques (e.g., "When time is up, time is up"; "Game over and if there's any whingeing, I'll get cross") (*Interview 2*). These techniques, however, elicit mixed reactions from her children.

Tessie: It goes right over Angela's head, but Donut is like, "Okay, mum!" (*Interview 2*)

Anna also utilises verbal techniques (e.g., "Right, dinner's ready in 5 minutes"; "You've got 5 more minutes") to signal to her grandchildren that online play is ending, repeatedly if required.

Anna: I've realised they can't just stop, they need that warning, they need the time, and I give it a couple of goes. I'm pretty flexible on the time. (*Interview 2*)

In some family homes, signalling an end to online play is confirmed when children physically place their networked devices on chargers in main living areas (e.g., living room, kitchen, lounge room).

Panda explained, however, that her children sometimes breach this rule.

Panda: A few times we've gone into their rooms and found something under their pillow. So, we'll take it and then they don't get it for a week, so they're not keen on that. So, they do try to, and then, if they do, they know that there are consequences, and they don't have it for a week or longer. (*Interview 2*)

In relation to signalling an end to online play, these reported findings suggest that caregivers utilise a combination of verbal techniques (e.g., "You've got 5 minutes"), digital timers (e.g., iPad, smartphone, or oven timers), and routinised actions (e.g., placing devices on chargers) to signal to children that online play is ending, or has ended.

5.1.2 Monitoring online play

Three practices encapsulated how caregivers monitor children's participation in online play:

- 1) specifying software platforms for online play;
- 2) allocating household spaces for online play; and
- 3) safeguarding online play.

5.1.2.1 Specifying software platforms for online play

All caregivers explained how they specify multiplayer virtual world and/or video chat software platforms for children to use for online play. For example, Panda and Homer allow their children to only use Minecraft: Education Edition, Roblox, and Messenger Kids for online play (*Interview 1*). Interestingly, Panda explained how lockdowns prompted her to set up Messenger Kids accounts for her children so they could interact with their friends.

Panda: We found [during lockdowns] they were more wanting that like social interaction with their friends.

Researcher: Is that when you set up Messenger Kids for them? In lockdown?

Panda: Yeah, I did. I think a few of their friends were on it as well and they had asked me about it, so I put it on our iPad and on my phone so that I could see what they're saying on there. (*Interview 2*)

Similarly, Peaches and Possum specify Minecraft (Education Edition and general version) and Messenger Kids for Doofessor's online play. Peaches provided insight into why Messenger Kids is specified for video chat.

Researcher: Messenger Kids, that can be monitored, can't it?

Peaches: Yes, it can, absolutely. Yes, you know who they've sent a friend request to, and it's definitely monitored.

Researcher: So that's more reassuring as a parent?

Peaches: Absolutely. (*Interview 2*)

In Tessie's family home, Minecraft (Education Edition and general version) and FaceTime are specified for online play (*Digital Response*). Tessie's eldest child, 10-year-old Angela, is also allowed to play under 12-games in Roblox online with her friends. For Tessie, allowing her children to use the general, publicly accessible version of Minecraft was prompted by Angela recently moving from a government school to an independent school.

Tessie: Now that Angela's not at [government school], she doesn't have a login to Education, so we're all in general. I think Donut goes back into Education if he's playing with one of his buddies, but if it's Angela, 'cause we play with Emily and Holly and then there's another family that we play with. So, they're the same age as Angela and Donut, and if they all play together, then we play in the general Minecraft. Yes, so Angela's involved.

Flash: (*Tessie's 6-year-old son*) And me!

Tessie: And you! (*Interview 1*)

Anna specifies software platforms for online play in accordance with rules set by her grandchildren's parents (*Interview 1*). These platforms include Minecraft (Education Edition and general version), Roblox, FaceTime, and Messenger Kids (*Digital Response*). Initially, Anna was unsure about whether her grandchildren were allowed to play Roblox.

Researcher: Are they playing Roblox as well?

Anna: Yes, I think so and see this is where I should probably ask a few more questions
(*laughs*). They tell me, I did ask. (*Interview 1*)

By the second interview, however, Anna was confident that Roblox was allowed for online play.

Anna: It seems to be the thing of the moment with them. Last night I went in, and I said, “Oh what are you playing?” Because they had this longer time and they were lying back on the old couches and they said, “We’re playing Roblox.” They were playing together.

(*Interview 2*)

In relation to specifying software platforms for online play, findings reported in this research indicate that caregivers specify multiplayer virtual world software platforms to heighten children’s ability to interact with their friends and/or siblings. Some caregivers also specify video chat software platforms for online play so they can monitor children’s online interactions more closely.

5.1.2.2 Allocating household spaces for online play

Caregivers enact the second monitoring practice, allocating household spaces for online play, quite differently in their family homes. For example, Panda and Tessie allocate only main living areas (e.g., loungeroom, toy/games room, kitchen) for online play, not bedrooms.

Panda: I’m not a fan of them doing that [playing online in bedrooms], they just don’t have their computers in their rooms, I just don’t like it. Sometimes they will watch videos in their room on them and I’m okay with that, but if they’re doing interactive things with their computers, then I prefer them to be in a communal area. (*Interview 3*)

Tessie: I don’t think they should be in a room by themselves. I think there’s no secrecy. (*Interview 3*)

For Anna and Peaches, however, bedrooms represent household spaces allocated for children’s online play when required.

Anna: Emily will, if she’s talking to a friend, disappear into a bedroom. They’re allowed to, sometimes if they’re talking. Not very often though, if she needs the quiet. She tells me though. She always asks me if she goes. (*Interview 2*)

Peaches: When [Doofessor's] on Minecraft with his friends, he's definitely in his room because, in our house, he can be quite loud. He does like to have the door closed but I can still hear him, I can still hear what's happening, I'd be hovering around and pop in and check and I might leave the door open for a while, but he is a bit cheeky, and he closes the door. (*Interview 1*)

Peaches also explained how Doofessor often plays online with his 11-year-old brother whilst they are physically located in their own separate bedrooms.

Peaches: He also actually plays with his brother so he could be in his bedroom and Doofessor could be in his room, they're different rooms, but they'll be in the same world. And then maybe Beavis [Panda's son] might join occasionally with them. (*Interview 1*)

These findings suggest that some caregivers allocate only main living areas in the home for online play, whereas others allocate bedrooms for online play provided children have permission and/or keep the bedroom door open.

5.1.2.3 Safeguarding online play

The third monitoring practice, *safeguarding online play*, sees caregivers reminding children to adhere to online safety rules during in-world play. For example, in their digital responses, all caregivers made it clear that children should only interact with their real-world friends during online play, not strangers. Panda provided insight into why she believes this is an important rule.

Panda: I'm not a fan of them playing [online] games [with strangers] as yet. I still think they're too young with people they don't know because they just don't have those cyber safety skills as yet. I think definitely that will change as their friends start playing different games as well.

Researcher: So, [12-year-old] Goose is not playing with strangers online?

Panda: No, he doesn't really understand that either yet and he's very easily influenced, so I would be concerned about what Goose would reveal over the online space. (*Interview 2*)

Interestingly, in Tessie's family home, this online safety rule prompted 10-year-old Angela to safeguard her own in-world play.

Researcher: If they get approached by another avatar, are they taught how to handle it?

Tessie: I'm pretty sure Angela creates a world and then you only invite people, so it's an invite-only world. The rule is "no strangers". (*Interview 1*)

Panda and Homer also encourage their children to let them know who they are playing with online and remind them to not disclose personal information during online play.

Panda: We have talked about how they have to let us know who's on there first, and not talk about personal information with anyone. Like not tell them how old you are or anything like that. And that sometimes people online are trying to get information about you because they're not nice people. (*Interview 1*)

Similar online safety rules are reflected in the way Tessie's safeguards her children's online play.

Tessie: Often, I'll know who they're playing with before they've got the iPad because they'll say, "Can I play the iPad because I want to see [friend's name]?"

Researcher: Any other cyber safety rules?

Tessie: When you're making up a handle, choose a random handle, so don't choose the dog's name, don't choose your name. But to be honest, I oversee all of that anyway because I set the passwords otherwise who knows what they'll have (*laughs*), because they don't have an e-mail address either, so it has to all go through me. (*Interview 2*)

For Anna, safeguarding her grandchildren's online play means encouraging them to inform her (or their grandfather) if they see (or experience) online bullying and/or inappropriate content.

Anna: I've had the chat about bullying and inappropriate sites and all that, with Emily in particular. Holly will sometimes say, "Oma, Emily's playing...", often YouTube.

YouTube's the worry. And I'll say, "Right. No." (*Interview 2*)

The worrisome nature of YouTube was also raised by Peaches and Possum who highlighted its negative impact on their youngest child's behaviour compared to playing Minecraft.

Peaches: We've had to stop [Doofessor's younger brother], who's 7, from going on YouTube, his behaviour was turning wild.

Possum: He was watching scary stuff.

Peaches: And his attitude and language was just dreadful and so actually we got him into Minecraft now so he's better, we've noticed an improvement in his behaviour.

(Interview 1)

While YouTube is not used for online play, Peaches explained how Doofessor has consulted instructional YouTube videos to learn Minecraft-related skills.

Peaches: I do find that he looks for things on YouTube to help him. Well, he has in the past, I think he's kind of stopped that now, but he definitely looked. He went actively searching like, "How do I do this?" on YouTube. *(Interview 3)*

Tessie's son, Donut, may have also consulted these types of videos.

Researcher: Donut loves engineering [a term he used in his digital response], has he learnt that term from somewhere?

Tessie: I'm guessing he must have watched a YouTube clip in the past that would say engineering. *(Interview 3)*

For Tessie, safeguarding online play also means setting behavioural rules such as "be kind and fair" and "include your siblings" so her children's enjoyment of, and access to, in-world play is heightened (*Digital Response*). For example, the "include your siblings" rule was set by Tessie because few of Donut's friends play Minecraft online despite them having access to Minecraft: Education Edition at school. Tessie speculated that this may be due to children in Donut's class (Year 2) having difficulty reading the instructional material embedded in the Minecraft game design. Tessie's eldest daughter (Angela), however, sometimes resists adhering to this rule.

Tessie: Sometimes Angela and her friends are mean to Donut, and they kick him out and I'm like, "If you kick him out, that's the end!" *(Interview 2)*

Tessie: Angela doesn't love Donut being in the adventures as much because it kind of holds them back, because it's not as cool to have her younger brother playing with her peer group. She's more of a teacher with him. (*Interview 3*)

Tessie provided further insight into why she sets behavioural rules for online play.

Tessie: The other thing about our rules is that they do reflect the rules in the house like, "Do you want to watch television? Well, have you gone outside?" You know, you have to be kind to your brother. You have to take it in turns to choose the show. Even going out, like if we're going out for a bike ride or whatever and they pester us, "We're not doing that until you put away all of your washing!" There's always little hoops that you have to jump through to get what you want (*laughs*) and it might not be the same hoop every time.

(*Interview 2*)

Regarding the third monitoring practice, caregivers reportedly safeguard children's online play by setting online safety rules (e.g., do not interact with strangers or disclose personal information, tell a trusted adult about bullying and/or inappropriate content) and behavioural rules (e.g., be kind and fair, include siblings).

Summary

This section detailed five caregiver practices guiding children's participation in online play in the blended ecology of the family home. These practices were: 1) scheduling online play (e.g., setting strict screen time limits on school days); 2) signalling an end to online play (e.g., using verbal techniques and/or digital timers); 3) specifying software platforms for online play (e.g., those facilitating online play with friends); 4) allocating household spaces for online play (e.g., disallowing online play in bedrooms); and 5) safeguarding online play (e.g., setting online safety and behavioural rules for in-world play).

5.2 Cultural artifacts

In this section, cultural artifacts mediating the five caregiver practices detailed in Section 5.1 are explored via two analytic categories based on the way Wertsch (2007) conceptualises

Vygotsky's (1930/1978) transformative process of mediation. These categories are: 1) existing cultural artifacts; and 2) emerging cultural artifacts. All reported data relating to existing and emerging cultural artifacts were gathered from caregivers.

5.2.1 Existing cultural artifacts

In this study, existing cultural artifacts represent long-established societal norms, values, and discourses implicitly mediating caregiver practices guiding children's participation in online play. For clarity, the term "long-established" refers to an historical period prior to 2010 when most software platforms children currently use for online play (e.g., Minecraft, FaceTime, Messenger Kids) were unavailable. During analysis, four existing cultural artifacts were identified: 1) child-centred philosophies; 2) academic socialisation; 3) traditional theories of play; and 4) family norms.

5.2.1.1 Child-centred philosophies

Child-centred philosophies recognise children as autonomous beings who are capable of participating agentively in the societies in which they live. Such philosophies were found to implicitly mediate all five caregiver practices identified in Section 5.1. For example, the practice of scheduling online play is potentially being mediated by child-centred parenting approaches when caregivers recognise and/or respect children's enjoyment of online play.

Panda: They're on my back all the time to play games and be online so I do feel like I'm like the police for the online with timing and all that sort of stuff. (*Interview 2*)

Peaches: I suppose [my children] would influence me in some of the decisions because they could drive me nuts and they could just go on screens. (*Interview 2*)

Anna: I just think they need time every day and it's me being a bit fair with them, it's sort of a negotiation. Even the other night when it was late because we had lots of things on, I thought, "Right well they deserve to have a bit of time" because otherwise they go to bed thinking, "I've missed out." (*Interview 3*)

For Anna, adopting a child-centered approach to scheduling online play in her family home was particularly important because her grandchildren (8-year-old Holly and 10-year-old Emily) were

experiencing a highly distressing time in their lives. In Anna's view, playing online was giving them something positive to think about at bedtime (*Interview 3*) and helping them feel calmer (*Cohort One Fieldnotes*). Here, Anna's previous career as a special education teacher may have informed her view about the capacity for digital technologies to support children with complex emotional needs.

Anna: I remember this one little boy, he used to talk about Minecraft, so that was my introduction to Minecraft. I had worked with him as a little Prep, 5-year-old and he didn't have a lot of language ... and when he was heading towards a meltdown or anything, I'd talk Minecraft with him and that would distract him, it was a sort of diversion or calming. That was his thing. (*Interview 2*)

Importantly, Anna reported that Holly and Emily were also enjoying attending the MineTime Kids' Club sessions.

Anna: They absolutely adore your sessions. All they want is a [MineTime Kids' Club] week, so it's been lovely for them. (*Interview 3*)

Philosophical notions of child agency (see Ch. 2, pp. 53–55) may also mediate why some caregivers schedule online play. For example, Panda rated "I like playing MineTime because your mum's not telling you what to do" as the fourth most important child value statement and agreed that online play enables autonomous play opportunities for her children by providing opportunities for them to act agentively through play (*Interview 3*). Similarly, Peaches believes it is important for children (like adults) to agentively choose restorative activities in the home.

Peaches: I definitely get uncomfortable if they're on the screens too long but at the same time I do understand that they do need to rest, they can't be going all the time. That's the same with myself, I like to sit down and watch TV for a little while and then I understand that they kind of want to go on screens and I understand they need a balance. (*Interview 2*)

The practice of signalling an end to online play is also mediated by notions of child agency. For example, all participating parents encourage their children to agentively set their own digital timers

for online play (see Section 5.1.1.2). Moreover, Tessie provides opportunities for her children to request extra time for online play after the timer has sounded.

There is evidence to suggest that the caregiver practice of specifying software platforms for online play is being mediated by child-centred parenting approaches. For example, Tessie agreed to allow her children to use the general version of Minecraft so her eldest daughter, Angela, could continue playing online with her former classmates when she moved schools (see Section 5.1.2.1). A child-centred parenting approach may have also influenced Tessie's decision to allow Angela to play Roblox online with her friends.

Researcher: Do you let your children influence your decisions, “Oh mum I want to play this...”

Tessie: Oh, yes, yes! (*laughs*) I feel like we almost have a pact within the friendship group, particularly with the [family of Angela's close friend]. So, I finally caved, and the kids like to play Roblox as well but the rule is that it has to be shut right down and so they agreed. So, if they only access the under 12-games, then there's no fights and they're quite happy to play. But then other parents that have it are a free-for-all, and that makes it really tricky.

Researcher: So, do you just let Angela play with this other child?

Tessie: I tell her that she can play with the other ones but I'm not going to unlock it, so the annoying thing is, even when you have it locked down, you don't get a different home screen, it still has all the worlds available. So, she's like, “I can't play this one, I can't play this one” and so I'm like, “Well you can go through, and you can find something that you can play with your friends”. (*Interview 1*)

Philosophical notions of child agency also mediate how some caregivers allocate household spaces for online play, evidenced by Anna and Peaches allowing children to play online in bedrooms when they need a quiet space for play (see Section 5.1.2.2). Peaches provided further insight into this finding whilst rating the child value statement “I like playing MineTime in my bedroom” as the third most important child value statement.

Peaches: I know [Doofessor] likes playing in his room. I suppose I probably would prefer if he was playing up in the living room where I could keep a close eye on him, but I know he likes playing in his room. I know he's in a safe place, so I don't mind as such when he's in his room. And I suppose I do understand that there's a lot going on up in the living room and I suppose he feels he can't get into the whole zone of the Minecraft with everybody else kind of watching him, so I do understand that. (*Interview 3*)

In relation to safeguarding online play, child-centred philosophies (e.g., those promoting self-regulation and inclusivity) likely mediated Tessie's decision to stipulate "be kind and fair" and "include your siblings" as behavioural rules for online play. For example, Tessie explained how the "be kind and fair" rule reflected other household rules fostering her children's ability to self-regulate their behaviours and the "include your siblings" rule was designed to provide inclusive online play opportunities for her son (Donut) as few of his friends play Minecraft online.

In sum, child-centred philosophies represent an existing cultural artifact in this research because they implicitly mediate how caregivers schedule online play (e.g., by recognising children's enjoyment of such play), signal an end to online play (e.g., by encouraging children to independently set digital timers), specify software platforms for online play (e.g., by acting on children's requests for multiplayer virtual worlds), allocate household spaces for online play (e.g., by allowing online play in bedrooms when children need a quiet space for play), and safeguard online play (e.g., by helping children feel included during online play sessions).

5.2.1.2 Academic socialisation

The term *academic socialisation* encompasses long-established beliefs held by caregivers about equipping children with school-based competencies and social skills they require for future success (Taylor et al., 2004). Academic socialisation implicitly mediates why some caregivers schedule online play. For example, Panda believes online play equips her children with digital skills they require for future success.

Panda: Obviously we're a digital world now so I feel like if they're not [using technologies], they're left behind for their futures, for their understanding of the digital world when they get older for jobs and things like that.

Researcher: So, they're getting the digital skills they need?

Panda: Yeah, the digital skills they'll need for the future. If we don't allow them to participate now and have healthy respect for it and how they use the resources. Obviously, they'll use it in school for resourcing and research and all those sorts of things so it's not something you can stop. (*Interview 2*)

Panda elaborated on this thinking whilst rating the child value statement "I like learning new skills when I play MineTime".

Panda: I think the "new skills", 'cause obviously it's a very digital world so I think they are learning these skills around computers and design and all those sorts of things. And I think more and more, we're going to be on our computers in a digital world.

Researcher: So, those skills are important?

Panda: Yeah, I think they're very important for future jobs and those sorts of things. (*Interview 3*)

Similarly, academic socialisation implicitly mediates why Peaches schedules online play more flexibly on weekends and school holidays.

Peaches: If [Doofessor's] on with friends, I tend to give him a little bit more time, because I feel he's communicating, you know, they're problem solving. I'm not overly worried about the time he spends on the screen when he's interacting with his friends. So, I usually give him a little bit longer, he could be on for three hours with his friends and I can hear him problem solve and trying to build something and find something, so I don't mind so much.

Researcher: And that's the thing with Minecraft, they often take a while to construct their buildings, don't they?

Peaches: Yes, yes, exactly, certainly, it does take time to play the game. (*Interview 1*)

In addition to problem-solving skills, Peaches also believes that online play supports Doofessor's ability to resolve conflicts with his peers.

Peaches: Sometimes it gets quite heated. I mean if it gets quite heated then you know they're friends again the next day because they know each other so well, it's not an issue as such in a way. (*Interview 3*)

According to Tessie, online play fosters patience and empathy in her eldest child, Angela.

Tessie: I like this one here about "I can teach my friends things they don't know" because I think that it's often Angela teaching Donut, but I think it's nice to see her, instead of getting cross that someone can't do something, take a step back and be patient and maybe have a little bit of empathy. (*Interview 3*)

Academic socialisation also implicitly mediates why caregivers specify Minecraft for online play.

For example, Panda rated "I like being creative with my friends when I play MineTime" as the most important child value statement because she believes her children are being "innovative when they're playing" and can "set things up how they want" (*Interview 3*). Similarly, Anna rated child value statements reflecting creative thinking skills (e.g., being creative, building things) highly. Such decisions may have been informed by a recent experience where she and her husband – a retired school principal – watched their granddaughter, Emily, playing Minecraft during one of Holly's gymnastics lessons.

Anna: As we're sitting there, 'cause it's an hour of watching Holly upside down, Emily was educating us because we were actually sitting there with her and [my husband] came, she sat and showed him Minecraft. And we had tours of the house and [my husband] was saying, "Oh my God, this is amazing!" (*Interview 2*)

Like Panda, Tessie also rated "I like being creative with my friends when I play MineTime" as the most important child value statement. This choice, however, was informed by Tessie's belief that Minecraft equips her children with mathematical skills.

Tessie: I think maybe the first one, “I like being creative with my friends” just because I think that’s the biggest benefit we see that translates into their maths skills, the “being creative”, and their spatial awareness because both Angela and Donut are 6 to 12 months ahead with maths. They play a lot of Lego, but I wonder how much of it is in Minecraft because I see Donut, he can just look at something and he can draw it, a three-dimensional shape as a two-dimensional shape, like I can’t do that! But I think that’s from Minecraft because you start from the foundation and then you build it up, and so you have to figure out what shape the foundation is to then go up the sides. I can’t do that as an adult! Yeah, so, for me I feel like the creativity then translates into general maths skills. (*Interview 3*)

Here, Tessie’s understandings about specific mathematical concepts embedded in the Minecraft game design may have been shaped by her children’s willingness to show her their in-world creations.

Tessie: The kids show me, Donut is like, “Let me take you on a tour” and it’s a 20-minute tour of this world that he’s built. He builds above and below ground now. And he’s into secret rooms. It’s pretty crazy, I mean Angela’s been playing Minecraft since late 2018, like there’s not that many games that you can play and grow with you. (*Interview 1*)

Interestingly, Tessie explained that Donut is more inclined to share his in-world creations with her compared to Angela.

Tessie: I do love that they’ll often bring their iPad to me and say, “Come and see what I’ve made!” and they show me, and I’ll say, “You’ve got 4-minutes!” cause Donut could show me his for four hours, cause his world’s huge. I’m like, “Pick your one thing!” (*laughs*). He loves to show his father and I, and [his younger brother] Flash too, he’ll show him as well.

Researcher: Is Angela like that too?

Tessie: Yes, not so much anymore.

Researcher: Is she more wanting to show peers what she’s done?

Tessie: Yes, whereas previously she was very much, “Look at what I’ve done.” Although she is like that with you, “Come and look at my kingdom.” (*Interview 3*)

Collectively, these findings indicate that academic socialisation implicitly mediates why caregivers schedule online play (e.g., because they believe such play supports the development of digital skills, problem-solving skills, conflict resolution skills, empathy, and patience) and specify software platforms for online play (e.g., because they believe the Minecraft game design fosters creative thinking skills and mathematical skills).

5.2.1.3 Traditional theories of play

Traditional theories of play refer to long-established societal values about the developmental benefits children reap through play. Such theories, particularly those relating to social play, implicitly mediate why caregivers schedule online play in the home. This was clearly evidenced when caregivers from all participating families rated child value statements relating to social aspects of online play in their top three most important reasons for engaging in such play.

Tessie: “I like having fun with my friends”, I think that one’s important. I feel like external noise, or the people doing the gaming-making noise, rather than sitting in silence, so they’re talking and there’s laughing, and it is real play, it’s just online rather than sitting in silence shooting people. I like the noise. (*Interview 3*)

Anna: I believe when kids are happy, they learn and relax, and emotionally and academically and everything happens, because that’s relaxation if they’re having fun. (*Interview 3*)

Peaches: I’ve left the number one as “Spending time with friends” and then number two, I’ve chosen the “best friends” one, yeah, like his close friends. (*Interview 3*)

Panda: If they weren’t having fun, they wouldn’t be playing it. They’re having fun with their friends and they’re chatting to their friends but still in their own environment. (*Interview 3*)

Interestingly, Panda and Tessie expressed an appreciation for online play as providing social play opportunities for their children without the need to host co-located playdates.

Panda: Sometimes you just don't want anyone else in your house (*laughs*). And especially a work night, a weeknight, you come home from work and then just to have another child, like I don't mind it occasionally but when there's already three and you add another boy in the mix, it gets pretty loud. (*Interview 2*)

Tessie: Let's go number five "It's an opportunity to play with my friends" ... without me having to have lots of kids in the house (*laughs*). Sometimes it's nice to have a playdate without the mess. (*Interview 3*)

Conversely, traditional theories promoting the developmental benefits of outdoor and/or construction play mediate why caregivers set screen time limits for online play. For example, Tessie encourages her children to "move their bodies" (preferably outdoors) before playing online. Similarly, Panda (an early childhood educator) values outdoor play as providing a range of developmental benefits for her children.

Panda: I do think there just has to be a balance, like with children, they still need that outdoor gross motor play. Just for those balance skills, and all those things they get from learning outside, like vestibular growth and sensory perception. You don't get that taste, touch, and smell of things through online play. (*Interview 2*)

In Peaches' family home, outdoor and/or construction play is encouraged over screen-based play during her children's co-located playdates.

Peaches: I definitely get uncomfortable if they're on the screens too long, so I definitely want them to play with their Lego or go outside. I get a bit tetchy if they're on them too long. Obviously, I don't mind them playing on the Minecraft with each other at their respective houses and then I suppose when kids come over for a play and of course they want to go on the screens straight away, but I always say, "No, you're not allowed to go on the screens yet. You need to play with something or go outside and then maybe in a little

while you can watch YouTube or you can go on the screens, but you know you have to do something first.” (*Interview 1*)

In sum, traditional theories of social play implicitly mediate why caregivers schedule time for online play (e.g., because they believe it is important for children to have fun with their friends) and traditional theories of outdoor and construction play implicitly mediate how caregivers schedule time for online play (e.g., by encouraging children to play outdoors before playing online).

5.2.1.4 Family norms

Family norms refer to long-established patterns of behaviour guiding how members of the same family act and interact with each other. For some caregivers, family norms implicitly mediate why time for online play is scheduled in their home. This finding was strongly evidenced by Tessie who explained that her adult siblings’ enjoyment of digital games influenced her decision to schedule online play for her children.

Tessie: Probably my [main influences] are my brother and sisters, because they do a fair bit of online gaming as well. [My children] love going to [my brother’s] house because he’s got the big screen and the computer and the chairs and it’s an immersive experience. He’s full on into it. So, playing with the aunties and uncles, that’s where most of our game ideas come from. We might go to [my brother’s] house for someone’s birthday and then, as soon as lunch is over, they’re at [my brother], “Let’s go and play, let’s go and play.” So, [my brother] will be there and then my sister will often pop in and have a go. And [my brother] will say, “I play this game with my friends.” (*Interview 2*)

During her own childhood, Tessie had enjoyed playing Super Nintendo video games with her siblings and cousins. She explained how her mother had keenly supported their participation in this activity.

Tessie: Mum used to bring home the magazines from work that had all the cheats in it – it was like New Idea [magazine] – and they had like a cheat gaming [section]. She worked at a nursing home, so they were in the waiting room, so she’d take them home and it’d be like

“Green up, left, right, Z” and then you’d get it to go into a new portal. I don’t know how we found out about them or if she found out about them first, but she’d bring them home when they’d done their time in the waiting room. (*Interview 1*)

Family norms may have also implicitly mediated why Tessie set the “include your siblings” behavioural rule to heighten Donut’s enjoyment of online play.

Like Tessie, family norms also implicitly mediate why Panda and Homer schedule online play in their home as they both enjoyed playing digital games (e.g., Frogger, Space Invaders) during childhood and Homer continues to do so as an adult (*Interview 2*). Homer’s love of gaming, however, sometimes makes it difficult for Panda to set screen time limits for their children.

Panda: Look, Homer is a gamer, and he would be on there all the time so it’s actually me who’s really firm with him as well. I know it sounds silly (*laughs*).

Researcher: So, you set the rules for him?

Panda: Yeah, otherwise he and the boys would just be sitting there, and I suppose that’s their way of interacting together too sometimes, but otherwise they could sit there all day playing games together.

Researcher: Has Homer always been a gamer?

Panda: Yes, he has. He says to me he’s a bit socially awkward and as a kid he used to be into video games all the time. (*Interview 2*)

While Peaches and Anna did not play digital games during childhood, they have observed family members enjoying such play. For example, Peaches recalled observing her younger siblings enjoy playing car racing games with each other using a PlayStation gaming console (*Interview 2*) and Anna explained how her (now adult) children enjoyed playing Nintendo Game Boy handheld consoles when they were growing up.

Anna: They did have a Game Boy each. And I wouldn’t have supervised it one little bit (*laughs*) just given them the Game Boy. Didn’t do anything. Because I was busy then, I was

working, you know with kids, I'd just give it to them. There probably were rules, I just don't remember. (*Interview 2*)

Regarding existing cultural artifacts, family norms implicitly mediate why caregivers schedule time for online play (e.g., because digital games are viewed positively among family members) and safeguard online play (e.g., because digital games provide inclusive play opportunities for siblings).

5.2.2 Emerging cultural artifacts

In this research, emerging cultural artifacts represent recently established societal norms, values, and discourses explicitly mediating caregiver practices guiding children's participation in online play. For clarity, the term "recently established" refers to an era after 2010 when software platforms children use for online play (e.g., Minecraft, FaceTime, Messenger Kids) were available. During analysis, four emerging cultural artifacts were identified: 1) digital learning policies; 2) parental discourses; 3) parenting websites; and 4) mainstream media programs.

5.2.2.1 Digital learning policies

In Victorian government schools (such as those attended by most children participating in this research), digital learning policies represent recently established policies mandating educators to implement safe and responsible digital learning programs (e.g., BYOD) and communicate information about these programs to families (Department of Education, Employment and Workplace Relations [DEEWR], 2024). Such policies explicitly mediate why some caregivers specify Minecraft: Education Edition for online play. For example, Tessie appreciates this version of Minecraft as providing a safe online play space for her children.

Tessie: I remember in Prep [the first year of formal schooling in Australia], I was talking to Angela's teacher because she'd just started playing Minecraft, and I said, "What options are there?" and she was like, "Well, there is the Minecraft Education, once you get the password, she can play safely online within the school community." So, she didn't dip her toe into it until the end of Grade 1 because they don't give away the password easily.

Researcher: So, that influenced your decision to let Angela play online with Emily?

Tessie: Yes. Well, I think even knowing that there was a safe option, because I feel like at the same time my brother-in-law, he's a bit of a tech-head, he was building his own server for his older child to play safely online and I'm like, that's so much work! I don't know how to do it. I could outsource it all to him and he'd be cross with me. (*Interview 2*)

Peaches expressed a similar view.

Researcher: With Education Edition, do you see it as a valuable activity for children because the school has endorsed it?

Peaches: Yes, I do. I would definitely have questioned the boys about it as well, but there's nobody else there, like you're not chatting to anybody, you know you're in your own [space]. I definitely would have had a look at it and just be sure that it was alright and they weren't chatting to anybody. That's my concern that somebody would get on and be chatting to them. (*Interview 2*)

Digital learning policies also explicitly mediate how caregivers safeguard online play. For example, Possum (Doofessor's father) recalled that an information night about online safety run for parents at his children's school was "very informative" (*Interview 1*) and Tessie explained how her online safety rules reflect those her children are learning at school.

Tessie: I think it's helped that the school has done online safety, so it's not just me saying, "You can't do this", they get it from school. So, they know when you pick your username, you don't use your name, you don't put your age in, you don't put your street or where you're from. (*Interview 1*)

Regarding emerging cultural artifacts, digital learning policies explicitly mediate how caregivers specify software platforms for online play (e.g., by recognising Minecraft: Education Edition as a safe online game for children) and safeguard online play (e.g., by setting similar online safety rules to those advised by educators).

5.2.2.2 Parental discourses

In this study, parental discourses refer to recently established discussions between parents from different families about children's participation in online play. Such discourses explicitly mediate how some caregivers schedule online play in the home as explained by Tessie who occasionally schedules online play by contacting the parents of her children's friends.

Tessie: Angela [daughter] would disagree, but I feel like I do it in quite a subtle way. 'Cause often if she is pestering as well, I will call [other parents] and say, "What are you doing this afternoon, can the kids meet up online?" So that was particularly during COVID but sometimes on the holidays as well.

Researcher: So, you'd ring them up or text them?

Tessie: Yes, 'cause Angela might be messaging saying "Can you play?" and then there's no answer because their iPads are locked away. 'Cause sometimes Angela will bring up her iPad and there will be texts from Emily saying, "Can you play?" but because I don't let her look at the texts she doesn't know until the next time. And it is interesting that you play online but because no one has a home phone you can't call your friends and ask to play like you used to.

Researcher: That is a really interesting point. I would have never thought of that.

Tessie: Thanks, I've got children that spend a lot of time on the internet. (*Interview 2*)

Parental discourses also explicitly mediate how Peaches schedules online play in her home, particularly in relation to how she views "balanced" screen time limits for children.

Researcher: What about with other parents? Do you get some kind of influence from them?

Peaches: Yes, I suppose they'll be in the same boat really, the parents I would engage with, yes, they would definitely let their kids on screens but then some more than others. Some people let them on and in your own head you kinda go, "Oh that's a bit much." One of my friends mentioned that one of her friends let her children on the screens all during the holidays, just let them go for it, and I thought, "Oh, God – no I wouldn't be able to do that."

Like, yes it would be nice and peaceful, but I would just feel too guilty that they were on them all the time. I kind of feel that we all use it as maybe a rest for the parent and the child and then we see that they need a break, usually we try and balance it out. (*Interview 2*)

For Panda, discussions with parents of young children who attend the early childhood education centre where she works about the difficulty of getting children “off” devices may have explicitly mediated why she decided to signal an end to her own children’s online play using an oven timer (*Interview 2*).

Parental discourses also explicitly mediated why Tessie specified under 12-games for her daughter, Angela, to play Roblox online with friends (see Section 5.2.1.1) and why Panda downloaded Messenger Kids for her children to video chat their friends during COVID-19 lockdowns. Here, it is important to note that caregivers must be Facebook “friends” themselves before they can approve their children’s friend requests via Messenger Kids. This communicative process means that caregivers must tacitly engage in parental discourses via Facebook to mutually approve their children’s use of Messenger Kids.

Collectively, these findings suggest that parental discourses explicitly mediate how caregivers schedule online play (e.g., by discussing what are considered “balanced” screen time limits), signal an end to online play (e.g., by discussing how to get children “off” devices), and specify software platforms for online play (e.g., by discussing age-appropriate uses of Roblox and Messenger Kids).

5.2.2.3 Parenting websites

Parenting websites disseminate recently published online articles, reviews, and/or seminars for caregivers, including information about managing and/or monitoring children’s use of networked devices in the home. Such websites explicitly mediate how some caregivers schedule online play in the home via screen time guidelines. For example, Peaches and Panda explained how they often read online articles published by the Raising Children Network (a parenting website

funded by the Australian government) to inform how they set screen time limits for children in their respective homes.

Peaches: The Raising Children Network – I definitely would use that platform. I find that quite informative ... with screen time, with everything really. (*Interview 2*)

Panda: One of the websites I had looked at was the Raising Children Network. They have [screen time advice] from two years of age on there and recommend how many hours for different age groups. (*Interview 2*)

The article read by Panda, *Screen time and digital technology use of children 6–11 years: tips for balance* (Mantilla, 2022), advises caregivers of 6- to 11-year-old children to balance screen time with physical activities (e.g., playing outside), aim for short screen time sessions (e.g., using timers), and equip children with online safety skills (e.g., letting adults know if they come across inappropriate digital content). These “tips” may have thus explicitly mediated why Panda schedules screen time around outdoor play (as reported on p. 182), uses an oven timer to signal an end to online play (as reported on p. 187), and safeguard online play by setting online safety rules (as reported on pp. 192–193).

During COVID-19 lockdowns, Panda described how she also consulted the Australian Institute of Family Studies (AIFS) website to inform how she set screen time limits for her children.

Panda: There was an article around screen time. I put that in the search engine during COVID, that was around the effects of screen time and then it brought up guidelines and what’s recommended and stuff like that. (*Interview 2*)

In this article, entitled *Too much time on screens? Screen time effects and guidelines for children and young people* (Joshi & Hinkley, 2021), caregivers are advised to avoid scheduling excessive screen time limits (defined in the article as more than two hours per day) for 5- to 17-year-old children to minimise adverse developmental outcomes (e.g., weight gain, increased anxiety) and provide opportunities for children to autonomously self-regulate their own screen time limits. Once again, this information may have explicitly mediated why Panda sets strict screen time limits in her

home on school days (as reported on pp. 181–182) and encourages her children to independently set the oven timer to signal an end to their online play (as reported on p. 187).

Parenting websites also explicitly mediate how some caregivers specify software platforms for online play. For example, Tessie explained how she often reads online game reviews published on the Common Sense Media website with her children.

Researcher: Do you look up game reviews?

Tessie: Common Sense Media, we're good friends. It's great. It's so good.

Researcher: Do you look at it together?

Tessie: Yes, because Angela [daughter] needs to see evidence so it's not just me making it up. (*Interview 1*)

Tessie also regularly reads online articles written by a range of parenting experts (e.g., Rebecca Sparrow, Dr Kristy Goodwin, Dr Justin Coulson, Nathan Wallis) whose websites offer research-informed advice about managing and monitoring children's use of networked devices. Such articles often appear as links on the home page of Tessie's personal Facebook social media account.

Tessie: They're mainly on Facebook. It'll pop up and then I'll go and read the article on their website. So, there's one in particular [Rebecca Sparrow], I've subscribed to her newsletters because she's a really good general tween advisor. One of them has kids about the same age as mine, and she talks about the Roblox battle that she has with them and then there's a doctor, Dr Kristy, and she's specifically social media, internet, and kids. So, that's probably the biggest thing for me and then I'll also read the comments as well, 'cause I live in an echo chamber and it's always really nice to see a hundred people say, "I agree."

(*Interview 1*)

Notably, Tessie provided two examples illustrating how parenting experts informed her everyday practices in relation to online play. In the first example, she explained how an online seminar by Rebecca Sparrow prompted her to consider facilitating Angela's ability to play online with a friend from her new school.

Researcher: Does Angela play online with anyone from her new school?

Tessie: No, so she has a playdate with one of her friends who plays Minecraft online but only with her big brothers. I keep on saying to Angela, I need to talk to her parents to see if you can play with her because I think you'd like it. Rebecca Sparrow – who's one of the people I mentioned as following for these ideas – she did an online seminar about making new friends and moving schools and the take home was, that you only really make friends in one-on-one situations, like you're not going to make a friend in a big group. (*Interview 2*)

In the second example, Tessie described how parenting experts advise that it is “not a good idea to let children play online in their bedrooms” when Angela questioned the “no bedrooms” rule whilst sharing their digital responses with each other during the first family group session (*Cohort One Fieldnotes*). A close review of the parenting websites accessed by Tessie strongly support this claim because Dr Kristy Goodwin (2018a) advises parents to allocate bedrooms as “tech-free zones”, Nathan Wallis (2020) suggests the best place to establish a “device-free zone” in the home is often the child's bedroom, and Dr Justin Coulson (2018, para 2.) asserts that “having screens in bedrooms is one of the most well-established risk factors for our children's positive development”.

Several of these parenting websites also warn caregivers about the dangers of children interacting with strangers in online spaces. For example, an online article by Rebecca Sparrow (2017, para 1.) advises parents, tweens (defined in the article as children aged 8 to 12 years), and teens to avoid chatting to “randoms” online (even those who “seem” like children) because gaming apps are “stalked by adult predators looking for children to groom”. In another example, an article by Dr Kristy Goodwin (2018b) advises caregivers to closely monitor children's use of Fortnite to ensure they are not being harassed or groomed by online strangers. These websites may have thus explicitly mediated why Tessie set the “no strangers” rule to safeguard her children's online play.

Findings reported in this section suggest that parenting websites explicitly mediate how caregivers schedule online play (e.g., via screen time guidelines), signal an end to online play (e.g., via advice about encouraging children to autonomously set timers), specify software platforms for

online play (e.g., via digital game reviews), allocate household spaces for online play (e.g., via advice about “safe” household spaces for online play), and safeguard online play (e.g., by warning caregivers about the potential for online predators to groom children).

5.2.2.4 Mainstream media programs

In this thesis, mainstream media programs refer to recently produced television or radio episodes broadcast via free-to-air networks regarding children’s use of digital technologies. Such programs may be explicitly mediating why Panda sets strict screen time limits (i.e., one hour) for online play on school days in her family home.

Panda: Look more than anything it’s probably like on the news occasionally, like 60 Minutes [Australia] or A Current Affair [news program], and they’ve done those news stories on screen time and then they might have families whose children are on it 12 hours a day and they can’t get them off and their behaviours and things like that. (*Interview 2*)

In one 60 Minutes Australia program viewed by Panda entitled *Won’t Stop, Can’t Stop* (Brown, 2018), two 13- to 14-year-old boys (from different families) are referred to as being “addicted” to online gaming and filmed playing online games (e.g., Fortnite) in their respective bedrooms whilst being interviewed by a visibly reproachful reporter. Interestingly, the mothers of these boys (both of whom had recently experienced incredibly difficult life events) explained how their sons had feigned illness on school days so they could stay at home to play online.

It is possible, therefore, that mainstream media programs such as these explicitly mediate why some caregivers disallow children to use digital devices when they are too sick to go to school, specify Minecraft for online play (rather than first-person shooting games like Fortnite), and/or allocate only main living areas for online play (to avoid children becoming “addicted” to gaming in their bedrooms). Conversely, Peaches seem to draw on such programs to explicitly mediate how she can utilise digital technologies to promote her children’s learning in online spaces.

Peaches: The news reports or A Current Affair program, if I noticed anything was coming up about online learning, my ears would prick up and I would definitely try and watch it.

(Interview 2)

For Anna, mainstream media programs about children's use of digital technologies produced by the government-funded Australian Broadcasting Corporation (ABC) often spark her interest and may thus be explicitly mediating how she guides her grandchildren's participation in online play in her family home.

Anna: I'm an ABC girl. I'm a radio head and ... often there's a lot [about children's use of digital technologies]. And I follow ABC news, they have a lot of good articles. *(Interview 2)*





These findings indicate that mainstream media programs are likely to be explicitly mediating how some caregivers make decisions about scheduling online play (e.g., setting strict screen time limits to prevent children from becoming "addicted" to gaming, disallowing online play on sick days, encouraging cognitively beneficial online play activities), specifying software platforms for online play (e.g., disallowing online games embedded with violent themes), and/or allocating household spaces for online play (e.g., disallowing online play in bedrooms to prevent gaming "addiction").

Summary

In this section, existing and emerging cultural artifacts mediating caregiver practices guiding children's participation in online play in the blended ecology of the family home were identified. Existing cultural artifacts included child-centred philosophies, academic socialisation, traditional theories of play, and family norms. These four existing artifacts were found to implicitly mediate caregiver practices in a variety of ways (see Table 5.1).

Table 5.1





Existing Artifacts Implicitly Mediating Caregiver Practices

Existing artifacts	<i>implicitly mediate</i>	Caregiver practices
Child-centred philosophies		<ul style="list-style-type: none"> • Scheduling online play (e.g., negotiating screen time limits with children) • Signalling an end to online play (e.g., encouraging children to set digital timers) • Specifying software platforms for online play (e.g., listening to children’s requests for online games) • Allocating household spaces for online play (e.g., recognising children’s need for a quiet space for online play in bedrooms) • Safeguarding online play (e.g., setting inclusive behavioural rules for children’s online play)
Academic socialisation		<ul style="list-style-type: none"> • Scheduling online play (e.g., supporting children’s social skills via online play) • Specifying software platforms for online play (e.g., fostering children’s cognitive skills via online play using Minecraft)
Traditional theories of play		<ul style="list-style-type: none"> • Scheduling online play (e.g., providing social play opportunities for children in online spaces, setting screen time limits around outdoor and/or construction play)
Family norms		<ul style="list-style-type: none"> • Scheduling online play (e.g., making time for online play because it is viewed as an enjoyable family activity) • Safeguarding online play (e.g., encouraging siblings to play online together)

Emerging cultural artifacts included digital learning policies, parental discourses, parenting websites, and mainstream media programs. These four emerging cultural artifacts are likely to be explicitly mediating caregiver practices in specific ways (see Table 5.2).

Table 5.2

Emerging Artifacts Explicitly Mediating Caregiver Practices

Emerging artifacts	<i>explicitly mediate</i>	Caregiver practices
<p>Digital learning policies</p> 		<ul style="list-style-type: none"> • Specifying software platforms for online play (e.g., valuing Minecraft: Education Edition as a safe online play space) • Safeguarding online play (e.g., drawing on online safety advice from educators)
<p>Parental discourses</p> 		<ul style="list-style-type: none"> • Scheduling online play (e.g., discussing “appropriate” screen time limits for children) • Signalling an end to online play (e.g., sharing strategies to get children “off” devices) • Specifying software platforms for online play (e.g., tacitly agreeing to allow children to connect via Messenger Kids)
<p>Parenting websites</p> 		<ul style="list-style-type: none"> • Scheduling online play (e.g., drawing on screen time guidelines) • Signalling an end to online play (e.g., heeding advice about using digital timers to end screen time) • Specifying software platforms for online play (e.g., seeking advice about age-appropriate online games) • Allocating household spaces for online play (e.g., following advice about where children “should” play online in the home) • Safeguarding online play (e.g., valuing advice about the potential risks of children interacting with strangers in online spaces)
<p>Mainstream media programs</p> 		<ul style="list-style-type: none"> • Scheduling online play (e.g., setting screen time limits to minimise gaming “addiction”) • Specifying software platforms for online play (e.g., disallowing online games embedded with violent themes) • Allocating household spaces for online play (e.g., disallowing online play in bedrooms to minimise the risk of gaming “addiction”)

Information displayed in Table 5.1 and Table 5.2 inform the state perspective (upper tier) of Hedegaard's (2009) adapted model of child development conceptualising this study (see Figure 3.2 in Ch. 3, p. 80). In the next section of this chapter, findings relating to the individual perspective (lower tier) of this theoretical model are reported.

5.3 Children's motives

Informing the individual perspective of Figure 3.2 means understanding why 8- to 12-year-old children are motivated to engage in online sociodramatic play. Subsequently, children's leading motives for engaging in such play are detailed in this section and, in alignment with the child-centred methodological approach employed in this study, online sociodramatic play is referred to as "MineTime". During analysis, children's motives for engaging in MineTime were classified into two analytic categories informed by Vygotsky's (1933–1934/1998a) periodisation of child development. These analytic categories were: 1) cognitive motives; and 2) social motives. All data reported in this section were gathered from child co-researchers only.

5.3.1 Cognitive motives

Two leading cognitive motives were identified as driving 8- to 12-year-old children to engage in MineTime: 1) being creative with friends; and 2) learning play-related skills.

5.3.1.1 Being creative with friends

The first cognitive motive, *being creative with friends*, was strongly evidenced in data where children were asked to list their top five reasons for enjoying MineTime using the *MineTime Top Five* activity sheet. Within these reasons, all children included words and/or phrases relating to creative expression (e.g., being creative, building things, making cool stuff, engineering). All participating children ($N = 8$) also included these types of words/phrases in their written and/or verbal responses to focus questions about why they enjoy MineTime.

8-year-old Holly: I like building. (*Digital Response*) I like engineering. (*Peer interview*)

8-year-old Donut: I like engineering and it's fun. (*Peer interview*)

9-year-old Bart: I like to build houses and make cities. (*Digital Response*)

10-year-old Emily: Because I can be creative with friends and share my Minecraft ideas with them. (*Digital response*)

10-year-old Angela: I like building big things like houses and kindergartens. (*Digital Response*)

10-year-old Beavis: I like making cool stuff like soccer stadiums and tennis courts. (*Cohort Two Fieldnotes*)

10-year-old Doofessor: I like making cool stuff like tunnels and soccer stadiums. (*Cohort Two Fieldnotes*)

12-year-old Goose: I like creating stuff. (*Peer interview*) I like building stuff like airports in Minecraft. (*Cohort Two Fieldnotes*)

Most children ($n = 5$) also indicated a preference for playing MineTime in Creative mode, particularly as this game design feature enables unfettered opportunities for them to express their creativity during in-world play.

Holly: I mostly like Creative. (*Digital Response*)

Bart: I like Creative mode because I can build stuff without losing my materials. (*Cohort Two Fieldnotes*)

Angela: I like Creative mode because possibilities are endless. (*Digital Response*)

Doofessor: I like Creative mode because I can get all my materials and not lose them and if I'm building a skyscraper I might fall off. (*Cohort Two Fieldnotes*)

Goose: I like playing in Creative mode. (*Digital Response*)

Several children ($n = 3$) also expressed their enjoyment of being creative during MineTime whilst completing the sentence "When I play MineTime, I feel..." (see Figures 5.1 to 5.3).

Figure 5.1

How Donut Feels Whilst Playing MineTime



“I feel creative because I feel like I can make anything.”

Figure 5.2

How Emily Feels Whilst Playing MineTime



“I feel marvellous or wondrous because I love adventure and being creative.”

Figure 5.3

How Doofessor Feels Whilst Playing MineTime

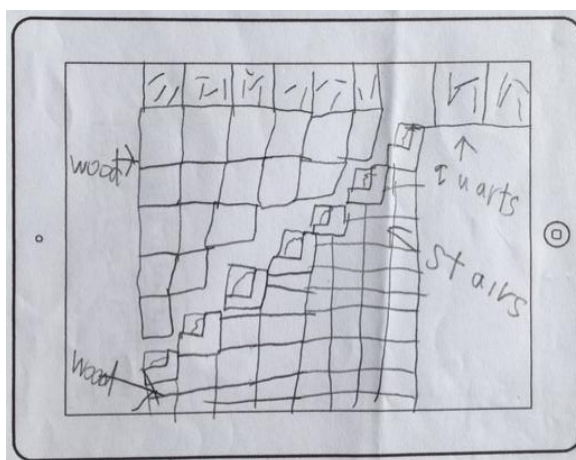


"I feel really, really x 1,000,000,000 happy because I can make cool planes and other cool stuff."

Languaged data from the World iPads (where children were invited to draw their favourite Minecraft world on a paper-based iPad screen and write about what they enjoy doing in this world) and photos (taken with children's permission) provided unique insight into the types of structures children enjoy co-creating with their friends during MineTime (see Figures 5.4 to 5.10).

Figure 5.4

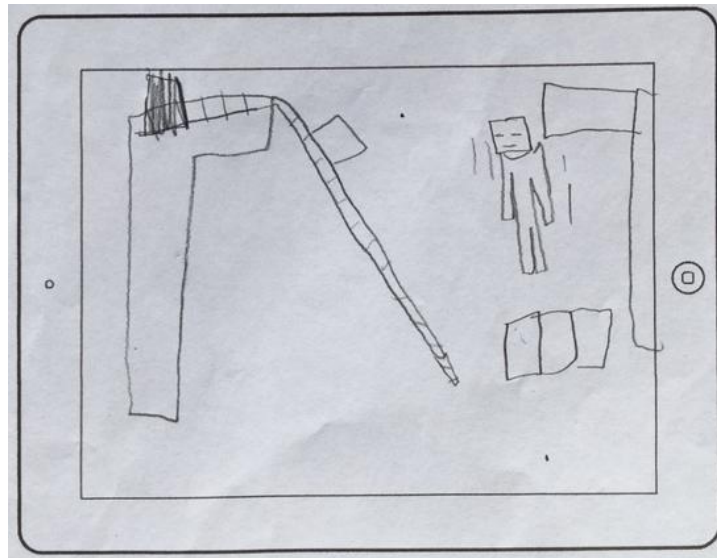
Donut's Worlds



"A house made of wood and quartz and a mini house on a laser cloud."

Figure 5.5

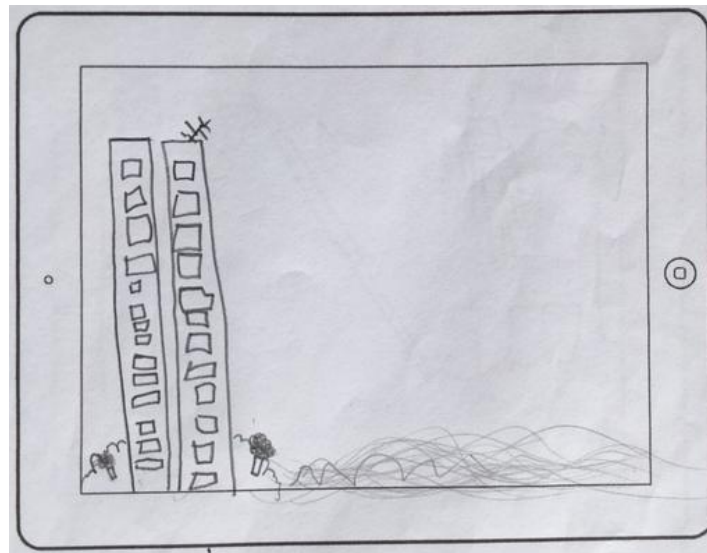
Holly's World



“A theme park. In this world I like to do the big drop.”

Figure 5.6

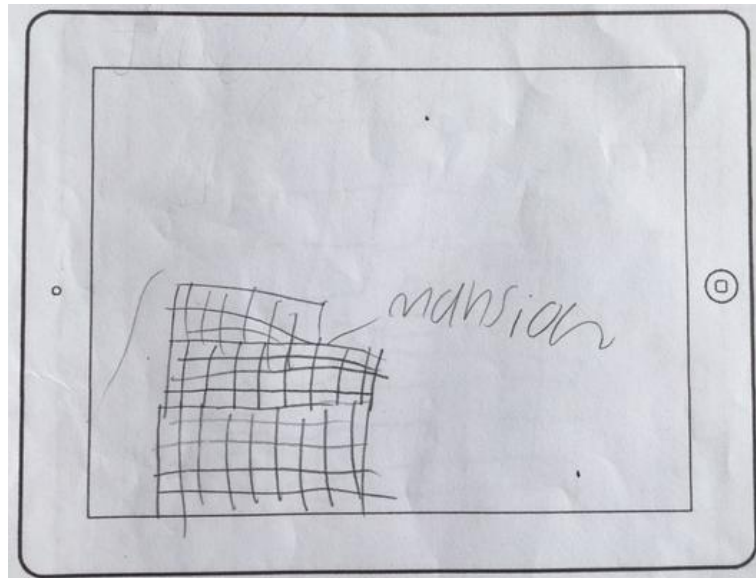
Bart's World



“A skyscraper. In this world I like to decorate with furniture.”

Figure 5.7

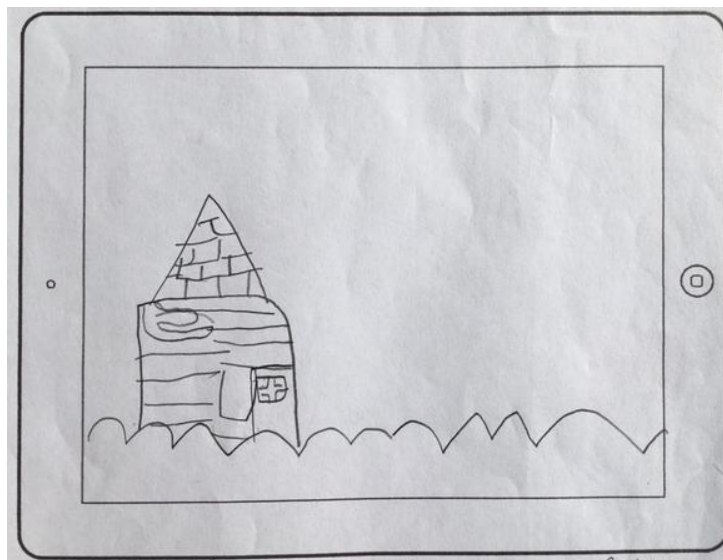
Beavis's World



"A mega-mansion. In this world I like to make it bigger."

Figure 5.8

Doofessor's World



"A cloud world and buildings. In this world I like to build."

Figure 5.9

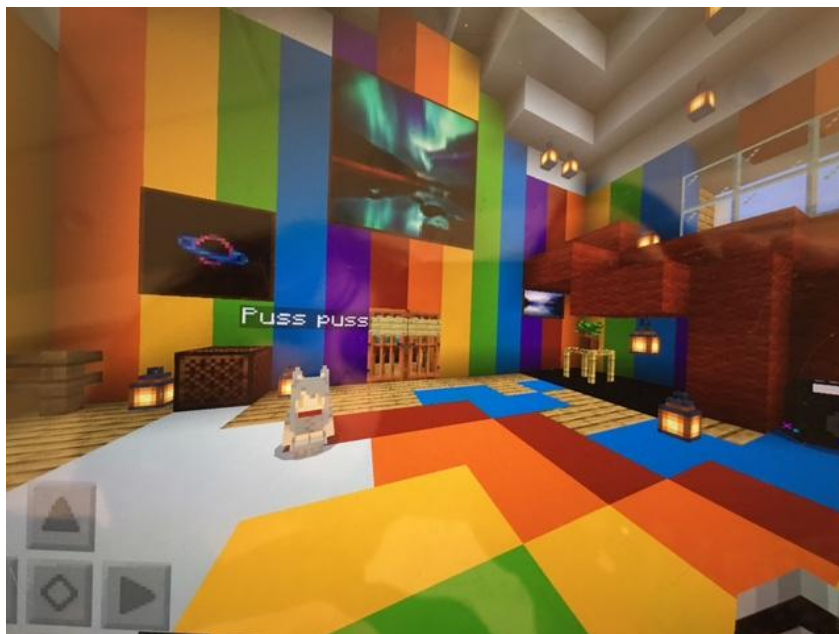
Angela's World



“An epic jungle. In this world I like to search for rare axolotls and build treehouses connecting to each other.”

Figure 5.10

Emily and Angela's World

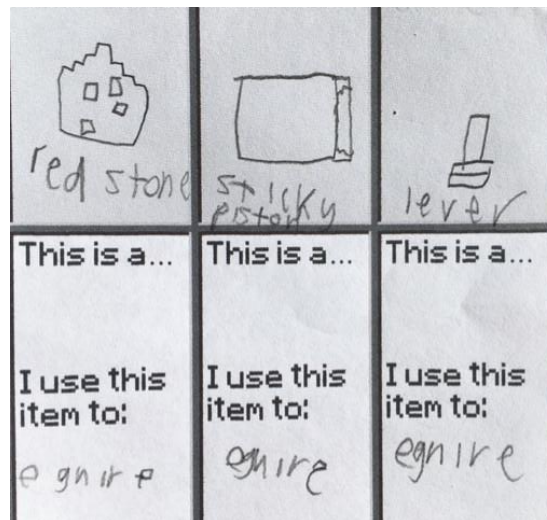


“A kindergarten.”

The Hotbar Strips (where children were asked to draw their favourite symbolic objects in Minecraft) enabled specific insight into the types of tools and/or materials children enjoy using to create their in-world structures during MineTime (see Figures 5.11 and 5.12).

Figure 5.11

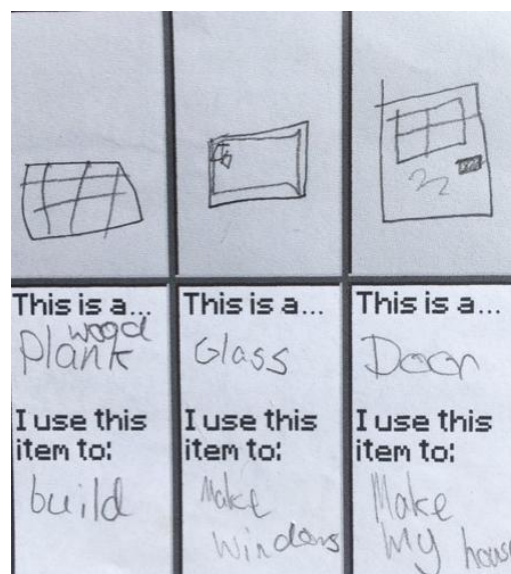
Symbolic Objects Used by Donut to Create In-world Structures



“Redstone, sticky pistons, and levers for engineering.”

Figure 5.12

Symbolic Objects Used by Emily to Create In-world Structures

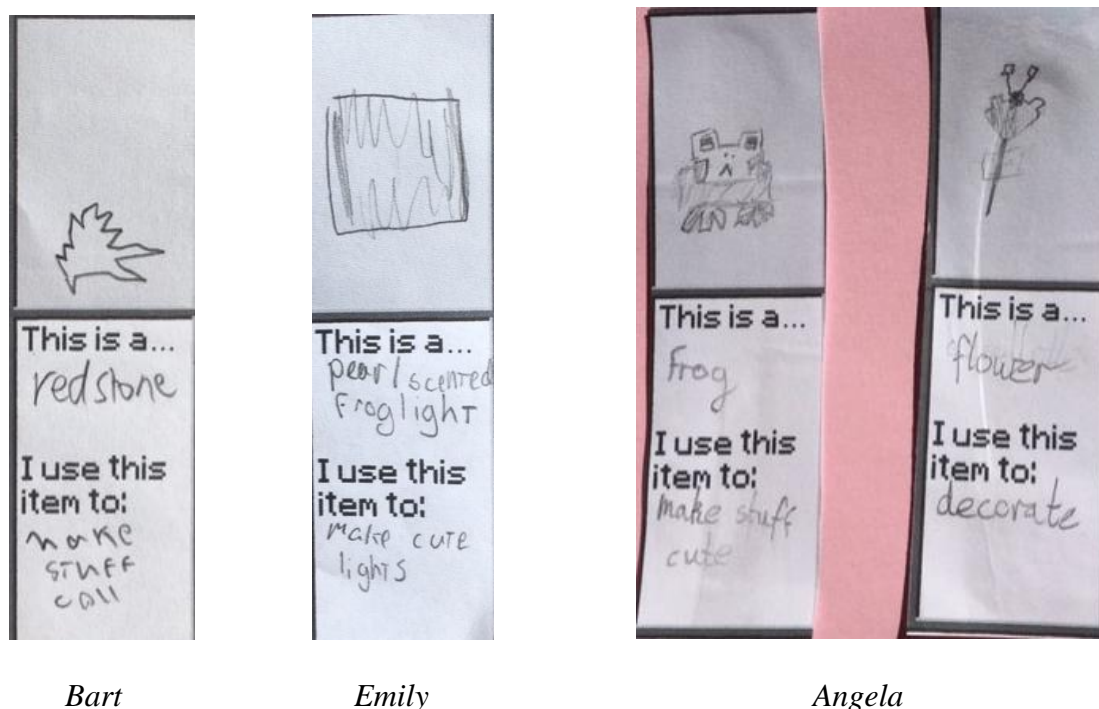


“Wood planks for building, glass to make windows, and doors to make my house.”

Interestingly, some children also used the Hotbar Strips to illustrate Minecraft symbolic objects they enjoy using to creatively enhance in-world environments during MineTime. For example, Bart uses redstone to “make stuff cool”, Emily uses pearlescent frog lights to “make cute lights”, and Angela uses flowers to “decorate” and frogs to “make stuff cute” (see Figure 5.13).

Figure 5.13

Symbolic Objects Used by Children for Creative Enhancements



Some children also used the Skins Grids (where they could draw and/or write about their favourite avatar skins) to illustrate how they express their creativity by dressing their avatar during MineTime. For example, Angela drew her “favourite” avatar skin that she “uses for everything” (created using a Skin Creator mobile application), Beavis drew a skin he uses for “fun” and another for “looks”, and Donut drew different skins he uses for “eating cookies” and “engineering” (see Figure 5.14).

Figure 5.14

Skins used by Children for Creative Expression



Angela



Beavis



Donut

Regarding the first cognitive motive, being creative with friends, findings indicate that 8- to 12-year-old children enjoy using a range of symbolic objects (e.g., tools, materials, skins) to express their creativity (e.g., by building structures/worlds, enhancing in-world environments, and/or dressing their avatar) during MineTime.

5.3.1.2 Learning play-related skills

The second cognitive motive prompting children to engage in MineTime, *learning play-related skills*, was predominantly evidenced in languaged data elicited from the task-oriented activity sheets. For example, on the *Feelings About MineTime* activity sheet, four children (Holly, Bart, Angela, and Emily) ticked the box next to the statement: “When I play MineTime, I like to learn new skills that help me play MineTime with my friends”. In another example, the *MineTime Top Five* activity sheet was used by two more children (Beavis and Goose) to indicate that “learning new Minecraft skills” was one of their top five reasons for playing MineTime.

Within this finding, most children expressed being cognitively motivated to learn play-related skills that heightened their ability to overcome hostile threats (e.g., zombies, monsters) whilst using Minecraft in Survival mode during online play. For example, five children (Holly, Donut, Emily, Doofessor, and Goose) rated “trying to survive” as one of their top five reasons for enjoying MineTime on the *MineTime Top Five* activity sheet. Moreover, two children indicated a preference for playing Minecraft in Survival mode.

Beavis: I like Survival mode because we need to find resources to build stuff and beat the Ender Dragon. (*Cohort Two Fieldnotes*)

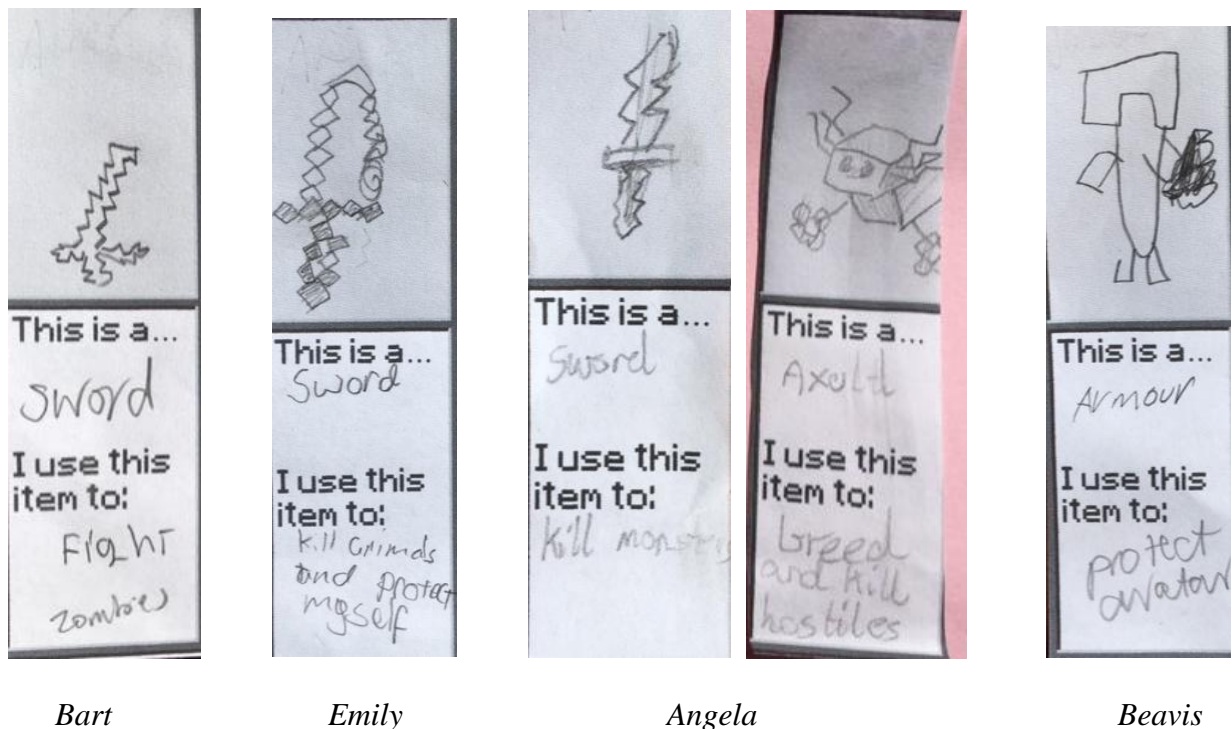
Emily: I like playing in Survival mode because I can try and survive with friends. (*Digital Response*)

While playing Minecraft in Survival mode is not a defining feature of online sociodramatic play (see Ch 1, pp. 9–10), these findings provide relevant insight into why some school age children may be cognitively motivated to use Minecraft for online play with friends.

Some children also used the Hotbar Strips to illustrate symbolic items they use to overcome hostile threats whilst playing Minecraft in Survival mode. For example, swords are used by several children to “fight zombies” (Bart), “kill animals and protect myself” (Emily), “kill monsters” (Angela), axolotls are used by Angela to “breed and kill hostiles”, and armour is used by Beavis to “protect my avatar” (see Figure 5.15).

Figure 5.15

Symbolic Objects Used by Children to Overcome Hostile Threats



Findings reported in this section indicate that 8- to 12-year-old children are cognitively motivated to engage in MineTime because they enjoy learning play-related skills supporting their ability to play Minecraft (in Creative mode and Survival mode) online with their friends.

5.3.2 Social motives

The two leading social motives driving children to engage in MineTime were: 1) interacting with friends; and 2) sharing play-related ideas and knowledge with friends.

5.3.2.1 Interacting with friends

The first social motive, *interacting with friends*, was strongly evidenced in the dataset of 8-year-old Holly who created two digital responses, a paper-based poster and a digitised poster. Both posters reflected Holly's enjoyment of interacting with her best friend (a non-participating classmate) during MineTime and whilst playing Minecraft in Survival mode.

Holly: Minecraft is so fun because I can play with friends like [non-participating classmate]. She is my best friend. We really have fun engineering and building. (*Paper-based poster*)

Holly: I like to play with [non-participating classmate], and we have soooooo much fun and we love most of all is trying to survive a big monster apocalypse and build biiiiig protective buildings to protect us from them. I engineer the house, and she builds it. (*Digitised poster*).

Holly's enjoyment of playing MineTime with her "best friend" is clearly illustrated in self-portraits shown on her digitised poster (see Figure 5.16) and *Feelings about MineTime* activity sheet (see Figure 5.17).

Figure 5.16

Holly's Digitised Poster



Figure 5.17

How Holly Feels Whilst Playing MineTime



“When I play MineTime, I feel happy gitti no!

[referencing the ‘Happy’ song by Pharrell Williams] because I am cool.”

In addition to Holly, most children indicated that they enjoy interacting with their friends during MineTime whilst responding to the focus question: “Why do you like MineTime?”

Bart: Because I can play with my friends. *(Peer Interview)*

Emily: Because I like seeing people. *(Peer Interview)*

Angela: Because it’s an opportunity to play with friends. *(Peer Interview)*

Doofessor: Because your mum doesn’t tell you what to do and you get to spend time with your friends. *(Peer Interview)*

Beavis: ‘Cause you get to play with your friends. *(Digital Response)*

Because it’s very fun and has good worlds. *(Peer Interview)*

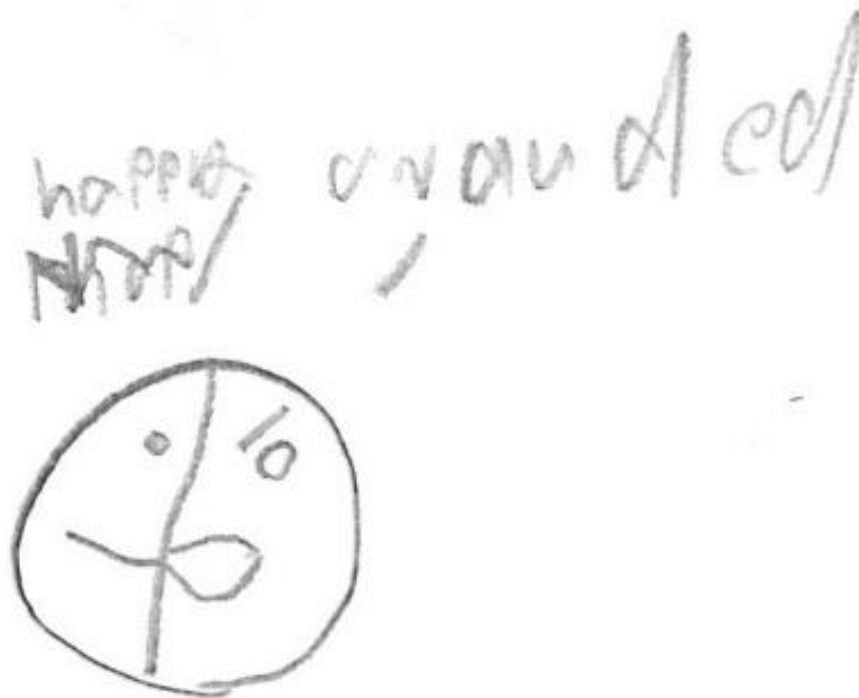
Interestingly, three of these children (Bart, Beavis, and Doofessor) described how they often play MineTime together on Saturdays with another (non-participating) classmate (*Cohort Two Fieldnotes*). Six children (Holly, Donut, Bart, Doofessor, Beavis, and Emily) also included words

and/or phrases relating to “friends” or “fun” (e.g., seeing friends, playing with friends, spending time with friends, talking to friends, having fun) in their top five reasons for enjoying MineTime. During one MKC session, Beavis verbally expressed a clear preference for using Minecraft: Education Edition for online play “because you can play with friends and it’s easier” (*Cohort Two Fieldnotes*).

Children’s enjoyment of interacting with their friends during MineTime was further illustrated by Bart, Beavis, and Angela on their *Feelings About MineTime* activity sheet (see Figures 5.18 to 5.20).

Figure 5.18

How Bart Feels Whilst Playing MineTime



“When I play MineTime, I feel happy and annoyed because I get annoyed when I die.

I feel happy when I play with my friends.”

Figure 5.19

How Beavis Feels Whilst Playing MineTime



“When I play MineTime, I feel happy because you can play with your best friends.”

Figure 5.20

How Angela Feels Whilst Playing MineTime



“When I play MineTime, I feel content because I am playing with my friends and not worrying.”

Two children also included the word “friends” in their responses to the focus question:

“What is MineTime?”

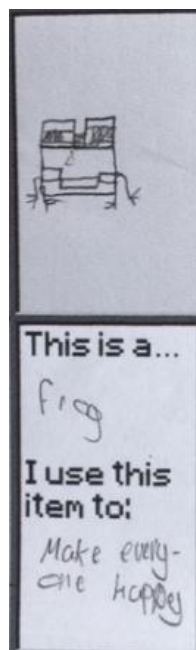
Emily: Playing Minecraft on FaceTime with friends. (*Digital Response*)

Beavis: It’s a game where you can play online with your friends while calling on Messenger/video chat. (*Digital Response*)

Interestingly, Emily used the Hotbar Strips to indicate that she enjoys using symbolic items (e.g., frogs) to create enjoyable in-world play experiences for her friends during MineTime (see Figure 5.21).

Figure 5.21

Emily’s Frog that Makes Everyone Happy



Importantly, it was clearly evident that children were highly motivated to engage in MineTime during COVID-19 lockdowns so they could socially interact with their friends. These social motives are reflected in children’s responses to a focus question about what they liked best about playing MineTime during lockdowns.

Bart: It's fun because you can get more time to play MineTime with friends and it's fun to play MineTime. (*Digital Response*)

Emily: I got to play more often! (*Digital Response*)

Angela: I always like getting online with friends. (*Digital Response*)

Beavis: I like doing it during lockdown. (*Digital Response*). You get to play with your friends more and not go to school. (*Cohort Two Fieldnotes*)

Goose: When COVID-19 hit, I played Minecraft more and I played with my friends. (*Digital Response*)

Collectively, reported findings in this section suggest that 8- to 12-year-old children are socially motivated to engage in MineTime because they enjoy interacting with their friends (particularly during COVID-19 lockdowns) and creating enjoyable play experiences for their friends.

5.3.2.2 Sharing play-related ideas and knowledge with friends

The second social motive prompting children to engage in MineTime, *sharing play-related ideas and knowledge with friends*, was predominantly supported by data gathered from children in the 10-year-old age group. For example, former classmates, Emily and Angela, indicated their enjoyment of sharing play-related ideas and/or knowledge with friends (likely each other) whilst responding to a focus question asking why they enjoyed MineTime.

Emily: Because I can be creative with friends and share my Minecraft ideas with them. (*Digital Response*)

Angela: Because it's an opportunity to teach friends things they don't know yet. (*Peer Interview*).

Angela also included the phrases "teaching my friends new things" and "sharing my ideas" as two of her top five reasons for playing MineTime using the *MineTime Top Five* activity sheet. Another 10-year-old child, Doofessor, explained how he had recently enjoyed teaching his friend (and classmate), Beavis, how to pick up a symbolic block without putting it in the Minecraft inventory during MineTime (*Cohort Two Fieldnotes*).

Further data illustrating children's enjoyment of sharing play-related ideas and knowledge with friends during MineTime was reflected on the *Feelings About MineTime* activity sheet where all participating children ($N = 8$) ticked the box next to the statement, "When I play MineTime, I like to talk to my friends about what we are doing in Minecraft". Collectively, these reported findings suggest that school age children (particularly those aged 10 years) enjoy sharing their ideas (e.g., discussing in-world activities) and Minecraft-specific knowledge (e.g., how to perform in-world actions) with their friends during MineTime.

Summary

In this section, the leading cognitive and social motives prompting 8- to 12-year-old children to engage in MineTime were identified. Cognitive motives included being creative with friends (e.g., building complex in-world Minecraft structures together) and learning play-related skills (e.g., those supporting their ability to play Minecraft online with friends). Social motives included interacting with friends (e.g., having fun together in the Minecraft virtual environment) and sharing play-related ideas and knowledge with friends (e.g., teaching each other Minecraft-related skills).

While these motive orientations provide important theoretically based insights into the individual perspective of Hedegaard's (2009) adapted model framing this research (see Figure 3.2 in Ch. 3, p. 80), this analytical plane was further informed by gaining deep insight into how 8- to 12-year-old children view caregiver practices guiding their participation in MineTime.

5.4 Children's perspectives

In this section, children's perspectives of the five caregiver practices identified in Section 5.2 are detailed. During analysis, these perspectives were classified according to three different age groups based on Vygotsky's (1933–1934/1998b; 1930–1931/1998c) thinking about the crises of age. These age groups were: 1) 8- to 9-year-old children (i.e., children experiencing maturing effects of the crisis at age seven); 2) 10-year-old children (i.e., children who may be experiencing inceptive effects of the crisis at age thirteen); and 3) a 12-year-old child (i.e., a child likely to be

entering the crisis at age thirteen). Reported data in this section were predominantly gathered from children's perspectives posters unless otherwise indicated.

5.4.1 Perspectives of 8- to 9-year-old children

Children representing the 8- to 9-year-old age group were 8-year-olds Holly and Donut (Cohort One) and 9-year-old Bart (Cohort Two). In relation to the caregiver practice of scheduling online play, all children in this age group disagreed that online play be scheduled for one hour (or less) on school days. Instead, Bart would prefer more than one hour on school days (*Cohort Two Fieldnotes*), Holly suggested four hours after school (*Family Co-design Poster*) and Donut suggested 12 hours on school days (*Family Co-design Poster*).

Interestingly, these three children also disagreed that children should not play online when they are too sick to go to school. Holly and Donut justified this perspective by stating that playing MineTime when they are too sick to go to school would help make them feel better (*Cohort One Fieldnotes*). Donut agreed, however, with the Cohort One rule set by his mother, Tessie, that children should finish their household chores before playing online. In relation to signalling an end to online play, all children in this age group agreed that they should stop playing MineTime when their time is up. While Bart and Donut also agreed that children need a 5- or 10-minute warning to stop playing online, Holly disagreed with this rule and would prefer a 60-minute warning instead (*Family Co-design Poster*).

Regarding the caregiver practice of specifying software platforms for online play, Holly, Donut, and Bart all disagreed that primary school age children should not play Roblox or be restricted to playing under 12-games only in Roblox. Bart agreed, however, with his parents' rule that only Minecraft: Education Edition and Messenger Kids be used for online play, possibly due to his deep fondness of the Minecraft game design. Notably, Bart also indicated that he "likes" the rules his parents (Panda and Homer) set for online play (*Cohort Two Fieldnotes*) and that he mostly liked playing MineTime when he "can" play (*Digital Response*).

In relation to allocating household spaces for online play, both Bart and Donut agreed that children should not play online in their bedrooms. Naturally, however, Holly disagreed with this rule as she is allowed to play online in her bedroom at her grandparents' house. Moreover, while Bart agreed with the Cohort Two rule that children need privacy when they play MineTime, he indicated that his favourite place to play MineTime is at the kitchen table (*Digital Response*).

For the caregiver practice of safeguarding online play, all children agreed that they should adhere to online safety rules (e.g., not interact with strangers or disclose personal information) whilst playing online. Whilst completing his Perspectives Poster, Donut explained how he always leaves the game if he encounters avatars controlled by strangers that seem “shady” whilst using the general version of Minecraft (*Cohort One Fieldnotes*). The term “shady” was later clarified by 10-year-old Emily who explained that this colloquial term describes a stranger in an online game who asks them for personal details, such as their name, age, and/or where they live (*Cohort One Fieldnotes*).

Holly and Donut also agreed with the Cohort One behavioural rule about always being kind and fair during online play. Interestingly, while Holly agreed with the Cohort One behavioural rule that children should always include their siblings during online play, Donut disagreed with this rule (set by his mother, Tessie) because he feels that siblings should only be included “sometimes” (*Family Co-design Poster*).

5.4.2 Perspectives of 10-year-old children

Children representing the 10-year-old age group were Emily and Angela (Cohort One) and Beavis and Doofessor (Cohort Two). Like their younger counterparts, all children in this age group disagreed that online play should be scheduled for one hour (or less) on school days. Instead, Emily suggested online play be scheduled for “as long as it takes/as long as you want” on school days (*Cohort One Fieldnotes*), such as up to five hours (*Family Co-design Poster*). For Angela, who asserted that she “needs more time for playing MineTime” whilst completing her Perspectives

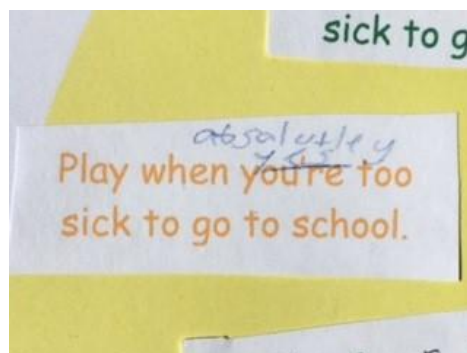
Poster (*Cohort One Fieldnotes*), two hours on school days is a preferable time limit (*Family Co-design Poster*).

While Beavis would also prefer two hours for online play on school days (*Family Co-design Poster*), he explained that he “likes” the screen time rules set by his parents (Panda and Homer) because he believes that children “need to go outside” (*Cohort Two Fieldnotes*). According to Doofessor (who is not allowed to play online on school days), however, online play should be scheduled twice a week for five hours after school (*Family Co-design Poster*).

Interestingly, while Doofessor and Beavis agreed with the rule that children should not play online when they are too sick to go to school, Emily and Angela vehemently disagreed. Emily justified her stance by asserting that, when children play MineTime, they use their “minds” not their “bodies” and that staying home when she is too sick to go to school is “boring” (*Cohort One Fieldnotes*). During the first family group session, Emily made her opinion about his rule abundantly clear by writing “absolutely yes” above the pre-prepared paper strip “Play MineTime when you are too sick to go to school” pasted in the “What children think” section of the family co-design poster (see Figure 5.22).

Figure 5.22

Emily’s Firm Perspective About No MineTime on Sick Days



Emily agreed, however, with the Cohort One rule that children should finish their household chores before playing online because it means she is “free to play” (*Cohort One Fieldnotes*) but Angela disagreed with this rule because she would prefer to do “no jobs” (*Cohort One Fieldnotes*).

In relation to signalling an end to online play, all four children in the 10-year-old age group agreed that children should get a 5- or 10-minute warning when it is time to stop playing MineTime. Emily and Doofessor also agreed that children should stop playing MineTime when their time is up, however, Angela and Beavis disagreed with this rule and would prefer to keep playing for five more minutes.

Regarding the practice of specifying software platforms for online play, all 10-year-old children (like those in the 8- to 9-year-old age group) disagreed that primary school age children should not play Roblox or be restricted to playing under 12-games only in Roblox. Angela (who is only allowed to play under 12-games in Roblox) did express concern, however, that horror themes in 12+ Roblox games might scare younger children (*Cohort One Fieldnotes*). Interestingly, Beavis and Doofessor also disagreed with the Cohort Two rule that children should only use Minecraft: Education Edition and Messenger Kids for online play because they both enjoy using the general version of Minecraft and would much prefer to use the “normal” version of Messenger rather than Messenger Kids (*Family Co-design Posters*).

For the caregiver practice of allocating household spaces for online play, all 10-year-old children disagreed that they should not be allowed to play online in their bedrooms. According to Emily (who is allowed to play online in bedrooms at her grandparents’ house), her bedroom in her own family home is her “favourite” place to play MineTime (*Digital Response*) because she enjoys the privacy of this household space (*Cohort One Fieldnotes*). Similarly, Doofessor (who is also allowed to play online in bedrooms) appreciates that his bedroom offers him privacy during MineTime.

Interestingly, Doofessor explained that (despite household rules to the contrary) he prefers keeping his door closed whilst playing MineTime in his bedroom because he can be (self-admittedly) quite loud and his older brother often asks him to shut the door (*Cohort Two Fieldnotes*). Naturally, therefore, Doofessor agreed with the Cohort Two rule that children need privacy when they play MineTime and disagreed that children should keep the door open if they

play online in bedrooms. Beavis (who is not allowed to play online in his bedroom) expressed similar views to these and believes that children should be allowed to play online in their bedrooms.

While Angela (who is not allowed to play online in her bedroom) indicated that she enjoys playing MineTime “on her own in a room with a TV (most likely the TV room)” (*Digital Response*), she explained that she would much prefer to play online in her bedroom so that she can have more “peace” (*Cohort One Fieldnotes*). As the elder sister of three younger siblings, it may be that Angela’s ability to enjoy a quiet space to play Minecraft (or Roblox) online with her friends may be logistically difficult within the main living areas of her home.

In relation to safeguarding online play, all 10-year-old children overwhelmingly agreed that they should not disclose personal details whilst playing online. Children in this age group also agreed with letting their caregivers know who they are playing with online and if they experience online bullying. While Angela, Doofessor, and Emily agreed that children should not talk to strangers during online play, Beavis disagreed with this rule because he thinks it is okay for children to talk to strangers during online play if they are “people that you know” in real-life (e.g., from a sporting team) but are not considered friends (*Cohort Two Fieldnotes*).

Notably, while Angela and Beavis agreed that children should only play online with their real-life friends, Emily disagreed with, and Doofessor was unsure about, this online safety rule. When asked why she disagreed with this rule, Emily explained how she sometimes plays online with avatars controlled by people she doesn’t know but if they seem “creepy” or “shady” (e.g., they start to ask for personal information) she reports them and immediately leaves the game (*Cohort One Fieldnotes*). Regarding Cohort One behavioural rules, both Emily and Angela agreed that children should always be kind and fair during online play, however, they disagreed with the “include your siblings” rule. When asked about this viewpoint, Angela expressed the belief that “sometimes people want their own time with friends” and Emily stated that it “sometimes depends on the day and how you’re feeling” (*Cohort One Fieldnotes*).

5.4.3 Perspectives of a 12-year-old child

The child representing the 12-year-old age group in this research was Goose (Cohort Two). In relation to scheduling online play, Goose strongly disagreed with a one-hour time limit for online play on school days and would prefer to have “no time limit” instead (*Cohort Two Fieldnotes*). Goose also disagreed that children should not play online when they are too sick to go to school. For signalling an end to online play, Goose disagreed that children need a 10-minute warning when it is time to finish playing online and that children should stop playing online when their time is up. Instead, Goose would prefer to keep playing “longer” when the oven timer goes off (*Family Co-design Poster*).

Regarding the caregiver practice of specifying software platforms for online play, Goose disagreed that children should only use Minecraft: Education Edition and Messenger Kids for online play. In justifying this perspective, Goose explained how he sometimes finds Minecraft “boring” and prefers playing Battlefield V online with his best friend from school instead (*Cohort Two Fieldnotes*). Battlefield V is a multiplayer, first-person shooting game (with an in-built voice chat feature) where users work together in squads to defeat opposing teams. Naturally, Goose also disagreed that primary school age children should not use Roblox for online play as he and his younger brothers (Bart and Beavis) are allowed to play Roblox.

In relation to allocating household spaces for online play, Goose (who is not allowed to play online in his bedroom) disagreed that children should not play online in their bedrooms or keep the door open if they do play online in bedrooms. Unsurprisingly, Goose thus agreed that children need privacy when they play online and indicated that his favourite place to play online with friends is his bedroom (*Digital Response*) despite household rules to the contrary.

Regarding the practice of safeguarding online play, Goose agreed that children should not reveal personal information in online spaces. He disagreed, however, that children should only play online with their real-life friends and always let their parents know who they are playing with online. Moreover, Goose disagreed that children should not talk to strangers during online play

because he and his best friend have played with, and talked to, people they don't know whilst playing Battlefield V. Notably, Goose explained that he can tell if these players are children because of their "voices" (*Cohort Two Fieldnotes*). As Goose was describing this strategy, however, Doofessor stated that people can sometimes use voice changing technology to make them "sound like a kid".

Whilst co-designing their Family Poster, Goose explained to his mother (Panda) that he only talks to strangers whilst playing Battlefield V if they are "working with" him (*Cohort Two Fieldnotes*). It is also worth noting that Goose expressed strong disapproval of his parents' rules for online play verbally (e.g., making booing and retching sounds) and non-verbally (e.g., thumbs down hand gestures) whilst Panda shared her Digital Response with him during the first family group session (*Cohort Two Fieldnotes*).

Summary

In this section, children's perspectives of the five caregiver practices identified in Section 5.1 were explored. In relation to scheduling online play, most 8- to 12-year-old children strongly disagreed with strict screen time limits (e.g., one hour or less) for online play on school days, including when they are too sick to go to school. Instead, children's preferred screen time limits for MineTime on school days (as indicated on their family co-design posters) are shown in Table 5.3.

Table 5.3

Children's Preferred Screen Time Limits for MineTime on School Days

Children's current screen time limits for MineTime on school days	Children's preferred screen time limits for MineTime on school days
1 hour per day <i>(scheduled by Anna)</i>	<ul style="list-style-type: none"> Holly (8-years-old): 4 hours Emily (10-years-old): As long as it takes/as long as you want (e.g., up to 5 hours)
1 ½ hours (on Fridays only) <i>(scheduled by Tessie)</i>	<ul style="list-style-type: none"> Donut (8-years-old): 12 hours Angela (10-years-old): 'needs' 2 hours
1 hour per day <i>(scheduled by Panda & Homer)</i>	<ul style="list-style-type: none"> Bart (9-years-old): more than 1 hour Beavis (10-years-old): 2 hours Goose (12-years-old): unlimited hours
0 hours <i>(scheduled by Peaches & Possum)</i>	<ul style="list-style-type: none"> Doofessor (10-years-old): twice a week for 5 hours

In contrast, however, children appreciated extended screen time limits for MineTime on school days during COVID-19 lockdowns. Similarly, most children agreed with verbal warnings and/or the use of digital timers to signal an end to online play, although 12-year-old Goose expressed clear disapproval of this practice. While most children agreed with the caregiver practice of specifying Minecraft for online play, some 10- to 12-year-olds disagreed with the use of Messenger Kids and expressed a preference for “normal” Messenger. Most children also disagreed that Roblox should not be used for online play.

The caregiver practice of allocating household spaces for online play elicited mixed results. For example, 8- to 9-year-old children who are only allowed to play online in main living areas agreed with this rule, however, 10- to 12-year-old children overwhelmingly disagreed that children should play online in main living areas only. Instead, all children in the 10- to 12-year-old age group would prefer to play online in their bedrooms. Naturally, therefore, children who are allowed to use bedrooms for online play agreed with how their caregivers enact the practice of allocating household spaces for online play.

In relation to safeguarding online play, all children generally agreed with adhering to online safety rules (e.g., not disclosing personal information, reporting negative experiences) and behavioural rules (e.g., being kind and fair) during online play. Some 10- to 12-year-olds, however, disagreed that children should only play online with their real-life friends and always include siblings during online play.

Children’s perspectives reported in this section, together with their cognitive and social motives for engaging in MineTime (detailed in Section 5.4), represent the individual perspective (lower tier) of Hedegaard’s (2009) adapted model framing this research (see Figure 3.2 in Ch. 3, p. 80) and inform a variety of notable commonalities and tensions occurring within the institution of online sociodramatic play (see Table 5.4).

Table 5.4

Children’s Motives and Perspectives Informing Commonalities and Tensions

Caregiver Practice	8- to 12-year-old children’s motives and perspectives	Resulting commonality (in green) or tension (in red)
<i>Scheduling online play</i>	<ul style="list-style-type: none"> Children enjoyed extended screen time limits during COVID-19 lockdowns. Children disagreed with strict time limits on school days (including sick days). 	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #90EE90; border-radius: 15px; padding: 10px; text-align: center;">Extending screen time limits for online play during lockdowns</div> <div style="background-color: #FF0000; border-radius: 15px; padding: 10px; text-align: center;">Limiting (or disallowing) screen time for online play on school days</div> </div> <div style="display: flex; justify-content: flex-end; margin-top: 10px;"> <div style="background-color: #FF0000; border-radius: 15px; padding: 10px; text-align: center;">Limiting (or disallowing) screen time for online play on sick days</div> </div>
<i>Signalling an end to online play</i>	<ul style="list-style-type: none"> Most children agreed with the use of timed reminders (e.g., verbal warnings, digital timers). 	<div style="display: flex; justify-content: center; align-items: center;"> <div style="background-color: #90EE90; border-radius: 15px; padding: 10px; text-align: center;">Using timed reminders to end online play</div> </div>
<i>Specifying software platforms for online play</i>	<ul style="list-style-type: none"> Children expressed a clear enjoyment of using Minecraft for online play. Some 10- to 12-year-old children disagreed with using Messenger Kids for online play. 	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #90EE90; border-radius: 15px; padding: 10px; text-align: center;">Using Minecraft for online play</div> <div style="background-color: #FF0000; border-radius: 15px; padding: 10px; text-align: center;">Using Messenger Kids for online play (10- to 12-year-olds)</div> </div>
<i>Allocating household spaces for online play</i>	<ul style="list-style-type: none"> Most 8- to 9-year-olds agreed with using main living areas for online play but all 10- to 12-year-olds disagreed. All children (who are allowed) agreed with using bedrooms for online play. 	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #90EE90; border-radius: 15px; padding: 10px; text-align: center;">Using main living areas for online play (8- to 9-year-olds)</div> <div style="background-color: #FF0000; border-radius: 15px; padding: 10px; text-align: center;">Using main living areas for online play (10- to 12-year-olds)</div> </div> <div style="display: flex; justify-content: center; margin-top: 10px;"> <div style="background-color: #90EE90; border-radius: 15px; padding: 10px; text-align: center;">Using bedrooms for online play</div> </div>
<i>Safeguarding online play</i>	<ul style="list-style-type: none"> Children agreed with adhering to online safety & behavioural rules during online play. Some 10- to 12-year-olds disagreed with the “no strangers” rule. Most children disagreed with the “include siblings” rule. 	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #90EE90; border-radius: 15px; padding: 10px; text-align: center;">Adhering to safety and behavioural rules during online play</div> <div style="background-color: #FF0000; border-radius: 15px; padding: 10px; text-align: center;">Playing online with avatars controlled by strangers (10- to 12-year-olds)</div> </div> <div style="display: flex; justify-content: flex-end; margin-top: 10px;"> <div style="background-color: #FF0000; border-radius: 15px; padding: 10px; text-align: center;">Including siblings during online play</div> </div>

Conclusion

In this chapter, findings relating to the upper and lower tiers of Hedegaard's (2009) theoretical model conceptualising this investigation were presented. In the first section, five caregiver practices guiding children's participation in online play in the blended ecology of the family home were identified. These practices included scheduling online play, signalling an end to online play, specifying software platforms for online play, allocating household spaces for online play, and safeguarding online play. In the second section, existing and emerging cultural artifacts mediating these five practices were identified. Existing artifacts included child-centred philosophies, academic socialisation, traditional theories of play, and family norms. Emerging artifacts included digital learning policies, parental discourses, parenting websites, and mainstream media programs. The five caregiver practices, and their mediating artifacts, were presented on two tables (Tables 5.1 and 5.2) which answered the first sub-question guiding this study:

SQ1: How are caregiver practices mediated by cultural artifacts regarding children's participation in online sociodramatic play in the family home?

In the third section of this chapter, 8- to 12-year-old children's cognitive and social motives for engaging in online sociodramatic play were detailed. Cognitive motives included being creative with friends and learning play-related skills. Social motives included interacting with friends and sharing play-related ideas and knowledge with friends. These findings answered the second sub-question guiding this investigation:

SQ2: What are children's motives for engaging in online sociodramatic play?

Finally, the fourth section of this chapter detailed children's perspectives of caregiver practices guiding their participation in online play in the family home. These findings highlighted similarities and differences between the perspectives of 8- to 9-year-old children, 10-year-old children, and a 12-year-old child and answered the third sub-question guiding this research:

SQ3: What are children's perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home?

Caregiver practices (reported in Section 5.1) mediated by cultural artifacts (reported in Section 5.2) together with children's motives (reported in Section 5.3) and perspectives (reported in Section 5.4) were then combined to inform commonalities and tensions constituting the institution of online sociodramatic play (see Table 5.4). In the next chapter, these commonalities and tensions will be explored further to answer the main research question driving this investigation.

Chapter 6: Discussion

Introduction

In this chapter, the main research question guiding this investigation will be answered:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

Answering the main research question will be achieved by discussing notable points of commonality and tension occurring when 8- to 12-year-old children's motives for engaging in online sociodramatic play align or conflict with caregiver practices (as mediated by cultural artifacts) guiding their participation in such play in the blended ecology of the family home. In alignment with the theoretical framework conceptualising this research, Vygotsky's (1933–1934/1998a; 1933–1934/1998b; 1930–1931/1998c) periodisation of child development and crises of age theory is used to provide theoretical insight into why these points of commonality and tension may be occurring.

These insights will then inform a nuanced description about how online sociodramatic play is constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers. Following this, cultural artifacts mediating caregiver practices in ways that potentially support or restrict the developmental pathways of school age children will be critically examined.

6.1 Commonalities

At the institutional level of Hedegaard's (2009) adapted model framing this study (see Figure 3.2 in Ch. 3, p. 80), points of commonality occur when caregiver demands for online sociodramatic play (as reflected in their mediated practices) align with 8- to 12-year-old children's motives for engaging in such play in the home. Findings reported in Chapter 5 suggest six notable commonalities occur within the institution of online sociodramatic play: 1) extending screen time limits for online play during lockdowns; 2) using timed reminders to end online play; 3) using Minecraft for online play; 4) playing online in main living areas (8- to 9-year-old children); 5)

playing online in bedrooms (with permission); and 6) adhering to safety and behavioural rules during online play.

6.1.1 Extending screen time limits for online play during lockdowns

The first notable commonality relates to the finding that caregivers (mainly parents) extended their usual screen time limits for online play on school days during COVID-19 lockdowns. This commonality is evidenced by children's enjoyment of these extended screen time limits because they were able to play online with their friends for longer periods of time on school days compared to non-lockdown periods.

For caregivers, the "new" practice of scheduling extended screen time limits for online play during lockdowns was primarily enacted so children could socially interact with their friends. For example, Tessie appreciated online play as enabling her children to have "conversations" with their friends during lockdowns "like they're just sitting next to each other". In another example, Panda believed there was "nothing worse than COVID and not being able to see people, and that isolation" so she highly valued online play as enabling her children to spend time with friends they could not see at school.

It is important to consider that the caregiver practice of scheduling extended screen time limits for online play on school days during lockdowns may have also been enacted to alleviate elevated stress levels reportedly experienced by many parents (e.g., see Aguiar et al., 2021; McArthur et al., 2021). For example, Panda appreciated that her children "weren't annoying" her whilst they played online during lockdowns. Interestingly, this type of parental appreciation for online play may also exist during non-lockdown periods. For example, Tessie (a mother of four) appreciates online play as an opportunity for her older two children to play with their friends without her "having to have lots of kids in the house" because "sometimes it's nice to have a playdate without the mess".

Similarly, Panda (a mother of three) appreciates online play opportunities for her children because "sometimes you just don't want anyone else in your house" (especially on a work night)

because “when there’s already three and you add another boy in the mix, it gets pretty loud”. In another example, Peaches (a mother of three) believes that a “balanced” amount of screen time (e.g., for online play) facilitates a “rest for the parent and the child”.

In relation to the COVID-19 pandemic, the practice of extending screen time limits for children’s online play during lockdowns was shared among many caregivers globally (Cowan et al., 2021; Navarro, 2021; Rideout & Robb, 2021; Salway et al., 2023). An interesting insight into this lockdown-specific practice was highlighted by Peaches and Possum who explained how they leveraged these extended screen time limits as a “bargaining tool” to give their son (Doofessor) “something to look forward to” after completing his remote learning tasks.

Children clearly approved of extended screen time limits for online play during lockdowns. This approval was evidenced by four children’s use of the word “more” in their responses to a focus question about what they enjoyed most about playing MineTime during lockdowns: “It’s fun because you can get more time to play MineTime with friends” (Bart); “I got to play more often!” (Emily); “I like doing it during lockdown, you get to play with your friends more and not go to school” (Beavis); “When COVID-19 hit, I played Minecraft more and I played with my friends” (Goose). These responses indicate that extended screen time limits for online sociodramatic play on school days during lockdowns aligned with one of children’s leading social motives for engaging in such play, interacting with friends.

In Vygotsky’s (1933–1934/1998a; 1933–1934/1998b; 1930–1931/1998c) crises of age theory, social interactions with friends are extremely important to 8- to 12-year-old (school age) children. This is because 8- to 9-year-old children experiencing maturing effects of the crisis at age seven consciously aim to establish and maintain friendships with self-selected peers who share similar interests (e.g., Minecraft) and 10- to 12-year-old children experiencing inceptive effects of the crisis at age thirteen strive to build close friendships with peers who share personal qualities (e.g., creativity). The provision of “more” time for online sociodramatic play on school days during lockdowns, therefore, would have supported the social developmental needs of 8- to 12-year-old

children experiencing maturing or inceptive psychological effects of these critical developmental periods.

Furthermore, cultural-historical theorist El’Konin (1971/1999) argued that school age children voluntarily orient themselves towards object-centred social activities with more knowledgeable others (e.g., adults, more advanced peers). Extended screen time limits for online play on school days during lockdowns may have thus supported children’s participation in such activities when they could not do so in co-located spaces (e.g., at school). For example, Tessie explained how her son, Donut, and his classmate, Holly, embarked on “hilarious” in-world Minecraft “quests” with their older siblings (Angela and Emily) during lockdowns and Panda explained how her son, Bart, played Minecraft online (and formed a new friendship) with his older brother’s classmate (Doofessor) during lockdowns.

Several recent studies report that children who could not socially interact with their friends during lockdowns felt sad (Koller et al., 2023; Salway et al., 2023), bored (Díaz et al., 2023), and/or lonely (Holt & Murray, 2022; O’Sullivan et al., 2021). Those who engaged in online play with friends (e.g., using Minecraft and/or Roblox), however, felt happy when they did so (Cleave & Geijsman, 2020; Cowan et al., 2021; Rideout & Robb, 2021; UNICEF, 2024). Such findings suggest that online play offered “countless” social benefits to children, such as co-operative and collaborative play opportunities (Navarro, 2021), and were crucial in “maintaining social connections across distance and supporting wellbeing during periods of physical distancing” (Cowan et al., 2021, p. 12).

The notion of online sociodramatic play supporting children’s wellbeing is also reflected strongly in this research. For example, Angela (age 10) feels “content” during MineTime because she is playing with her friends and “not worrying”. In another example, Anna explained how playing online with friends was helping her grandchildren (Holly and Emily) feel “calmer” during a highly distressing time in their lives. Similar findings were reflected in a recent Australian survey where almost a quarter (24%) of 1,799 participating children (aged 8 to 17) selected “To help me

feel better if I'm feeling bad" when responding to the question, "Why do you play video games online?" (eSafety Commissioner, 2024a, p. 23).

Collectively, these insights support Squire's (2022) argument that socially interactive online play experiences during lockdowns may have been instrumental in providing emotional comfort to isolated children during a stressful global crisis. It is probable, therefore, that the commonality explored in this section occurred because extended screen time limits for online sociodramatic play on school days during lockdowns supported school age children's social (and/or emotional) developmental need to interact with friends when they could not do so in co-located spaces.

6.1.2 Using timed reminders to end online play

The second notable commonality occurring within the institution of online sociodramatic play relates to the caregiver practice of using timed reminders (e.g., verbal warnings, digital timers) to signal to children that online play is ending or has ended. This commonality was reflected in data indicating that most children are generally amenable to finishing their online sociodramatic play sessions in accordance with timed reminders utilised by their caregivers.

As reported findings suggest, some caregivers use timed reminders to end children's online play sessions so that family conflicts are minimised. For example, Peaches and Possum give their son (Doofessor) plenty of "advanced notice" to finish playing online because it can be "a bit of a drama getting him off" and if they "cut it off straight away, then the tantrum starts". In another example, Tessie uses timed reminders to end her children's online play sessions because this practice reflects how she manages their co-located playdates so that it's "not a shock" when it's time to finish playing with their friends.

Some caregivers recognise children's "need" for timed reminders to finish playing online with their friends. For example, Anna utilises repeated verbal reminders to signal an end to her granddaughters' online play sessions because she understands that they "can't just stop, they need that warning, they need the time" to finish playing online. As reported findings indicate, most children concurred with this view by agreeing that they need a 5- or 10-minute warning to stop

playing online. Using timed reminders to end online sociodramatic play may thus align with one of children's leading social motives for engaging in such play, sharing play-related ideas and knowledge with friends.

According to Vygotsky (1933–1934/1998a; 1933–1934/1998b; 1930–1931/1998c), the crisis at age seven sees children attempting to gain increased control over their relationships with peers and the crisis at age thirteen sees children prioritising communicative activities with close friends. Using timed reminders to end online play thus likely supports the developmental needs of children experiencing psychological effects of these critical developmental periods because their ability to autonomously “control” or “communicate” how they exchange play-related ideas and knowledge about ending their online play sessions is significantly heightened.

It is also likely that children's ability to control and/or communicate how they end their online play sessions is further heightened when caregivers provide opportunities for them to self-manage their screen time limits (e.g., by independently setting digital timers). This practice enables children to see and/or hear when their online play sessions need to end (or have ended) meaning they can autonomously share play-related ideas and knowledge about finalising their in-world activities with friends without getting a “shock” when time is up.

An interesting insight into how some caregivers signal an end to online play was reflected in the way Tessie occasionally provides opportunities for her children (Donut and Angela) to request extra time for online play after their screen time limits have elapsed. While this child-centred parenting approach occasionally sees Angela (age 10) ignoring Tessie if such requests are denied (possibly due to inceptive effects of the “rebellious” crisis at age thirteen), it is likely to be highly valued by school age children. This is because research suggests that engaging in “verbal negotiations” with caregivers supports children's ability to pursue their own autonomous interests and goals (Kuczynski et al., 2018) and expands their sense of space, agency, and decision-making capabilities in digital contexts (Rustad et al., 2024).

The commonality explored in this section is thus likely to occur because caregiver use of timed reminders to signal an end to online play supports school age children's social developmental need to autonomously control and/or communicate how they share play-related ideas and knowledge whilst concluding their online play sessions with friends.

6.1.3 Using Minecraft for online play

Within the institution of online sociodramatic play, the third notable commonality is drawn from the finding that caregivers specify the Minecraft software platform (e.g., Minecraft: Education Edition and/or the general version of Minecraft) for children's online play. This commonality is reflected in data indicating that most children participating in this study enjoy using Minecraft for online sociodramatic play sessions with friends.

Some caregivers specify Minecraft for online play because they believe its open-ended game design fosters children's creative thinking skills, a finding reflected in several other studies (e.g., see Balmford & Davies, 2020; Caughey, 2021; Mavoia et al., 2018; Twining et al., 2017). In this research, children's enjoyment of expressing their creativity whilst using Minecraft for online sociodramatic play was undeniable. For example, children used a vast range of words and/or phrases relating to creative expression when describing why they enjoy MineTime, including an insightful acknowledgment by Angela (age 10) that the "possibilities" for expressing one's creativity in Minecraft are "endless".

Similar positive views about the capacity for Minecraft to support creative expression have been widely expressed by school age children in studies conducted over the past decade (e.g., see Dezuanni & O'Mara, 2017; Petry, 2018; Slattery et al., 2023b; Trček, 2014). Such findings indicate that using Minecraft for online sociodramatic play strongly aligns with one of children's leading cognitive motives for engaging in such play, being creative with friends.

Vygotsky (1933–1934/1998a; 1933–1934/1998b, 1930–1931/1998c) argued that children experiencing the crisis at age seven begin to exhibit greater interest in acquiring new skills (e.g., creative thinking skills) within various social arenas (e.g., online play environments) and children

experiencing the crisis at age thirteen increasingly gravitate toward creative fulfillment. Using Minecraft for online play would thus satisfy cognitive motives relating to creative expression that may be manifesting on a psychological level for school age children who are experiencing maturing or inceptive effects of these critical developmental periods. This developmental shift may also explain why Peaches and Possum noticed an “improvement” in the behaviour of their 7-year-old (non-participating) son when they “got him into Minecraft” instead of watching “scary” YouTube videos.

It is also likely that using Minecraft for online sociodramatic play supports the cognitive developmental needs of school age children who are predominantly motivated to engage in object-centered activities with more knowledgeable others (as theorised by El’Konin, 1971/1999). This is because the vast array of virtual resources available in Minecraft provides increased opportunities for children to express their creativity via object-centred activities in a virtual environment compared to real-world environments where physical resources are considerably more limited (Slattery et al., 2023b).

Furthermore, while access to physical “loose parts” resources (e.g., ropes, tyres, wood planks) in outdoor school spaces supports children’s ability to engage in multidimensional sociodramatic play scenarios with their peers (Mackley et al., 2022), such resources are limited in many Australian primary schools. This is because most outdoor play spaces in Australian schools largely consist of sporting areas (e.g., basketball courts, football ovals) and structured playground equipment, thus reducing creative play opportunities for children (Hyndman, 2017).

In Minecraft, however, the ever-increasing assortment of virtual resources on offer facilitates seemingly limitless opportunities for creative expression. For example, children in this study explained (via words and drawings) that they utilise a wide range of Minecraft-specific objects to express their creativity during online sociodramatic play whilst building, engineering, and/or enhancing real-world or imaginary in-world structures (e.g., cities, cloud worlds, mega-mansions, kindergartens, soccer stadiums, airports, theme parks, skyscrapers, epic jungles).

It is probable, therefore, that the commonality explored in this section occurs because the vast array of symbolic objects and open-ended game design available in Minecraft (played in Creative mode) supports school age children's cognitive developmental need to be creative with friends during online sociodramatic play.

6.1.4 Playing online in main living areas (8- to 9-year-old children)

The fourth notable commonality relates to the finding that some caregivers allocate only main living areas (e.g., loungerooms, toy/games rooms, kitchens) for online play, not bedrooms. This commonality is reflected in data suggesting that children in the 8- to 9-year-old age group are amenable to playing online with their friends in main living areas of the home.

Caregivers who allocate only main living areas for online play predominantly enact this practice so they can supervise children's online activities and interactions more closely. Understandably, this monitoring practice is shared by many caregivers globally (e.g., see Balmford & Davies, 2020; eSafety Commissioner, 2024a; Martin et al., 2021). Reported findings in this study indicated that Donut (age 8) and Bart (age 9) both agreed that children should only play MineTime in main living areas of the home. Their older siblings, however, strongly disagreed with this household rule so this tension will be explored later in this chapter (in Section 6.2.4).

While Donut and Bart reported that they enjoy engineering and/or building in-world structures during MineTime, their ability to acquire the complex skills required to achieve these play-related goals may be limited. For example, Donut has few opportunities to play Minecraft online with his friends and Bart likes playing MineTime whenever he "can", suggesting the availability of such play is subject to screen time rules. As some school age children face difficulties learning how to use the vast array of virtual resources in Minecraft (Dezuanni et al., 2015; Wernholm, 2021), it is possible that engaging in online sociodramatic play in main living areas of the home aligns with one of 8- to 9-year-old children's leading cognitive motives for such play, learning play-related skills.

In Vygotsky's (1933–1934/1998b) crises of age theory, there are three psychological effects prompted by the crisis at age seven supporting the notion that playing Minecraft online in main living areas aligns with 8- to 9-year-old children's cognitive motive to learn play-related skills. First, this critical developmental period sees children exhibiting more interest in acquiring new knowledge and skills that enable them to actively participate in various social arenas (Vygotsky, 1933–1934/1998b). Children who are experiencing maturing effects of the crisis at age seven may thus value any opportunity to acquire new Minecraft skills that support their participation in online sociodramatic play, even if this means playing online in main living areas of the home.

According to several studies, acquiring impressive in-world skills is particularly important to 8- to 9-year-old children who enjoy playing online games because such skills equate to high social capital among their peers (Dezuanni & O'Mara, 2017; Dezuanni et al., 2015; Scholes et al., 2022). An example of one such skill is reflected in data indicating that both Donut and Bart enjoy using "redstone" during MineTime. Redstone is a particularly complex Minecraft-specific object used to create awe-inspiring virtual structures such as roller coasters and sophisticated electrified circuits and/or machines (Dezuanni et al., 2015; Petry, 2018; Squire, 2022) making the in-world creative process not just more interesting (Trček, 2014) but significantly more time-consuming (Squire & Steinkuehler, 2017).

Second, Vygotsky (1933–1934/1998b) argued that the critical developmental period prompted by the crisis at age seven sees children in this age group embracing their role as "student" because they realise this role leads to increased autonomy and independence. Subsequently, 8- to 9-year-old children who use school-based software platforms (e.g., Minecraft: Education Edition) and devices (e.g., iPads, Chromebooks) for online play (such as Donut and Bart) may enjoy using these digital resources in main household areas so they can readily demonstrate their rather important role of "student" (e.g., by acquiring and exhibiting Minecraft skills) to a wider audience. An example of this enjoyment is reflected in Bart's statement that his "favourite" place to play MineTime is at the kitchen table.

Third, core to Vygotsky's (1933–1934/1998b) crisis of age theory is that children experiencing psychological effects of the crisis at age seven become more consciously aware of how they are viewed by others. It is possible, therefore, that 8- to 9-year-old children appreciate main living areas as convenient locations for showcasing newly acquired Minecraft skills to family members who are nearby (or passing through the area). This supposition is supported by Donut's eagerness to take his parents and younger brother on lengthy "tours" of "huge" Minecraft worlds he has created whereas his older sister, Angela (age 10), now prefers to share her in-world creations with her friends only (and the occasional adult researcher).

Other studies have reported 8- to 9-year-old children's enjoyment of sharing their in-world Minecraft creations with family members (e.g., see Cowan et al., 2021; Zaman et al., 2016). According to Fattore et al. (2007), receiving positive feedback from family members for demonstrating valued competencies is developmentally beneficial for children because it promotes a "positive sense of self, knowing in yourself that you are good at something – competent" (p. 20) and leads to a heightened sense of enjoyment of activities in which they have exhibited such competencies.

Playing online in main living areas may thus be viewed by 8- to 9-year-old children as an effective way to proudly demonstrate in-world competencies to family members who appreciate (and enjoy engaging in) digital and/or online forms of play (such as Donut's mother, Tessie, and Bart's father, Homer). Moreover, these types of common household areas undoubtedly provide increased opportunities for children in this age group to seek skills-based assistance from more knowledgeable others (such as older siblings they consider Minecraft "experts") who may be in the vicinity. For example, playing Minecraft in Survival mode at the kitchen table may expedite Bart's ability to seek advice from his older brothers about how to keep his avatar alive to prevent him from feeling "annoyed" when it "dies".

The commonality explored in this section may thus occur because engaging in online sociodramatic play in main living areas supports 8- to 9-year-old children's cognitive

developmental need to learn play-related skills in Minecraft whilst also providing them with opportunities to exhibit impressive in-world achievements to family members and/or seek assistance from older siblings who are knowledgeable Minecraft players.

6.1.5 Playing online in bedrooms (with permission)

The fifth notable commonality within the institution of online sociodramatic play relates to the finding that some caregivers allocate bedrooms for online play provided children have sought permission to use these private household spaces. This commonality is reflected in data suggesting that children who are allowed to play online in their bedrooms vehemently agree with this household rule.

For some caregivers, allocating bedrooms for online play facilitates children's ability to interact with their friends in a private, peaceful environment. For example, Anna explained that while her granddaughters (Holly and Emily) usually play Minecraft (or Roblox) online in the front living area of her home (whilst lying back on "old couches"), they are allowed to move to a bedroom if they "need" a quiet space to talk to their friends, a practice reflected in another recent study (Lafton et al., 2024). In another example, Peaches understands that her son, Doofessor, much prefers playing online in his bedroom because "there's a lot going on up in the living room" and he "feels he can't get into the whole zone of the Minecraft with everybody else watching him".

Caregivers who allocate bedrooms for online play also appreciate these household spaces as minimising disturbances to other family members. For example, Peaches and Possum explained that their son, Doofessor, can be "quite loud" whilst playing Minecraft online with his friends, so he is allowed to play in his bedroom with the door open. Interestingly, however, Doofessor often closes his bedroom door during online play when his older brother tells him he is being "too loud".

While Peaches tolerates this "cheeky" breach of household rules (because she understands that Doofessor prefers to keep his bedroom door closed), she will often "hover" around outside his bedroom so she can still "hear what's happening". This monitoring practice reflects *deference* – a strategy described by Zaman et al. (2016) as occurring when caregivers "make the deliberate choice

not to intervene and grant trust and autonomy to their children, expecting them to act responsibly” (p. 13) whilst staying informed by remaining nearby and frequently checking their digital and/or online activities.

The audible nature of online sociodramatic play may thus prompt some caregivers to allow children to engage in such play in their bedrooms. This key characteristic may also explain why some caregivers positively view children’s participation in such play. For example, Tessie explained that she “likes the noise” of her children’s engagement in online sociodramatic play because “they’re talking and there’s laughing, and it is real play, it’s just online rather than sitting in silence shooting people”.

The caregiver practice of allocating bedrooms for online play means these private household spaces have become “negotiated sites of play” (Balmford & Davies, 2020, p. 11) in some family homes. Such negotiations are clearly appreciated by Emily (age 10) and Doofessor (age 10) who both enjoy the “privacy” of their bedrooms for playing online with their friends. These perspectives give rise to the notion that engaging in online sociodramatic play in bedrooms aligns with one of children’s leading social motives for engaging in such play, sharing play-related ideas and knowledge with friends.

According to Vygotsky (1933–1934/1998a; 1933–1934/1998b; 1930–1931/1998c), the crisis at age seven sees children becoming more consciously aware of how they are viewed by others and the crisis at age thirteen sees children becoming more interested in sharing richly complex, private “fantasy” worlds with their close friends. Children experiencing maturing or inceptive psychological effects of these critical developmental periods may thus prefer to share play-related ideas and knowledge with their friends in a private household space (such as a bedroom) to minimise the risk of adults (or older children) deeming their co-constructed play scenarios as “babyish” and/or placing culturally based expectations on them to “act their age” (Manning, 2006, p. 23).

Importantly, Vygotsky (1933/2016) theorised that sociodramatic play between school age children manifests inwardly, so their imaginary play scenarios become more reflective of real-life events and situations. As a result of this developmental process, children in the 8- to 12-year-old age group tend to “seek privacy from adults” (Bergen & Fromberg, 2009, p. 429) whilst engaging in sociodramatic play because overt elements of such play (e.g., the necessary verbal exchange of play-related ideas and knowledge) are increasingly based on their personal lived experiences. As such, sociodramatic play between older children often becomes a “venue for self-disclosure and the sharing of confidences, especially among close friends” (Rubin, 2001, p. 1732). This assertion is supported by findings from a recent study where 8- to 16-year-old children described “engaging in conversations that extend beyond in-game activities or actions, discussing various topics related to their daily lives” during online play with friends (Rustad et al., 2024, p. 302).

It is likely, therefore, that the commonality explored in this section occurs because engaging in online sociodramatic play in bedrooms supports school age children’s social developmental need to share play-related ideas and knowledge freely and openly with friends (that are likely based on personal life experiences) in a private household space.

6.1.6 Adhering to online safety and behavioural rules during in-world play

The sixth notable commonality is drawn from the finding that caregivers safeguard online play by reminding children to adhere to online safety rules and behavioural rules. This commonality was reflected in data indicating that most children agree with adhering to online safety and behavioural rules during online sociodramatic play.

For caregivers, online safety rules help minimise children’s exposure to potential risks during in-world play. For example, Panda and Tessie encourage their children to withhold personal information and avoid strangers during online play so people they do not know in the real-world cannot communicate with, or contact, them. In another example, Anna encourages her grandchildren to always let her know who they are playing with online and if they see (or experience) online bullying so their enjoyment of online play is heightened. Similar online safety

rules to these are set by caregivers globally (e.g., see eSafety Commissioner, 2024a; Ofcom, 2023; 2024; Willett, 2017). Within the practice of safeguarding online play, Tessie also aims to heighten her children's enjoyment of, and access to, in-world play experiences by reminding them to adhere to behavioural rules, such as "be kind and fair" and "include your siblings".

All children participating in this research agreed that they should not reveal personal information to strangers during online play. Most 8- to 10-year-olds also agreed that children should only play online with their real-world friends (not strangers) and always let their caregivers know who they are playing with online and/or if they witness (or experience) online bullying. Some children in the 10- to 12-year-old age group, however, disagreed with (or questioned) the online safety rule relating to only playing online with real-world friends so this tension will be explored later in this chapter (in Section 6.2.5).

In relation to the behavioural rules set by Tessie, all children from Cohort One agreed with the cohort-specific rule about always being kind and fair during online play. Most children in this cohort, however, disagreed that children should always include their siblings during online play and this tension will also be explored later in this chapter (in Section 6.2.6).

Interestingly, children's willingness to adhere to online safety rules may prompt them to make intentional decisions about minimising potential risks to themselves (and their friends) during online play. For example, Tessie explained how her "no strangers" rule prompted her daughter, Angela, to create an "invitation-only" world for her friends in the general version of Minecraft, likely via a monetised private realm (see Ch 2, p. 41 for more information). Moreover, the "withhold personal information" rule may have prompted Donut (age 8) and Emily (age 10) to report "shady" avatars who ask for personal details during online play and immediately leave the game.

These types of proactive strategies, together with being kind and fair, undoubtedly heighten children's ability to engage in safe, positive interactions with their friends during online sociodramatic play. This assertion is evidenced by most children participating in this study

describing MineTime as a “fun” activity that makes them feel “happy”, “content”, “marvellous”, and/or “wondrous”. The commonality explored in this section may thus occur because adhering to online safety and behavioural rules during online sociodramatic play aligns with one of children’s leading social motives for engaging in such play, interacting with friends.

In Vygotsky’s (1933–1934/1998a) periodisation of child development, play activities that facilitate safe, positive social interactions with friends are extremely important to school age children. This is because maturing effects of the crisis at age seven prompt children in this age group to act more strategically and tactfully to establish and maintain alliances with their close friends (Blunden, 2008). Subsequently, if adhering to online safety and behavioural rules during online play enables school age children to engage in safe, positive interactions with their friends, these types of alliances can be successfully established and/or maintained.

For children experiencing inceptive effects of the crisis at age thirteen, Vygotsky (1930–1931/1998c) argued that their driving force of behaviour is the emergence of new specialised interests which prompt them to actively seek close personal connections with peers who exhibit similar interests. Essentially, this means older school age children are socially motivated to build relationships with friends via a code of friendship that is defined by ethical and moral norms to which they subscribe (El’Konin, 1971/1999). Children experiencing early psychological effects of this critical developmental period may thus be strongly motivated to adhere to online safety and behavioural rules because these societal norms ultimately support their ability to interact with friends who share a similar interest in playing online games.

The finding that most school age children are willing to adhere to online safety and behavioural rules during online play is reflected in several other studies. For example, children in the 8- to 12-year-old age group reportedly understand the importance of not sharing their personal information (e.g., home address, usernames, passwords) in online spaces (eSafety Commissioner, 2024a; Sun et al., 2021; Rustad et al., 2024) and acting kindly and fairly to achieve shared play-related goals in Minecraft (Dezuanni, 2018; Wernholm, 2021).

An interesting dimension of the commonality explored in this section relates to children's willingness to adhere to online safety rules so they can gain access to online games previously disallowed by caregivers. For example, Tessie explained how she "finally caved" and allowed her daughter, Angela, to play Roblox online with her friends provided they played under 12-games only. While Angela expressed a desire to play over-12 Roblox games, she adheres to this household rule because it means she can interact with friends who also enjoy playing Roblox.

It is worth noting here that, despite Roblox being rated 13+ on Common Sense Media (due to problematic content such as users exchanging inappropriate messages and violent games) and 12+ in the Apple App Store (due to mild violence), all children participating in this study (many of whom are allowed to play Roblox) disagreed that primary school aged children should not play Roblox or be restricted to playing under 12- games only. This tension may be explored in future studies given recent research indicating that Roblox potentially supports open-ended play opportunities for children (Livingstone & Pothong, 2021; Sayuno, 2021).

It is feasible to suggest, therefore, that the commonality explored in this section occurs because adhering to online safety and behavioural rules during online sociodramatic play supports school age children's social developmental need to interact with friends with whom they have formed close personal connections and/or share similar interests.

Summary

As discussed in this section, reported findings in this research indicate six points of commonality occur when caregiver demands (as reflected in their mediated practices) for online sociodramatic play align with 8- to 12-year-old children's motives for engaging in such play in the blended ecology of the family home. These commonalities are thus likely to be supporting school age children's cognitive and social developmental needs within the institution of online sociodramatic play (see Figure 6.1).

Figure 6.1

Children’s Developmental Needs being Supported Within the Institution

Caregiver practices		Commonalities		Children’s developmental needs being supported
Scheduling online play	➔	Extending screen time limits for online play during lockdowns	➔	Interacting with friends <i>(social motive)</i>
Signalling an end to online play	➔	Using timed reminders to end online play	➔	Sharing play-related ideas and knowledge with friends <i>(social motive)</i>
Specifying software platforms for online play	➔	Using Minecraft for online play	➔	Being creative with friends <i>(cognitive motive)</i>
Allocating household spaces for online play	➔	Playing online in main living areas (8- to 9-year-olds)	➔	Learning play-related skills <i>(cognitive motive)</i>
	➔	Playing online in bedrooms (with permission)	➔	Sharing play-related ideas and knowledge with friends <i>(social motive)</i>
Safeguarding online play	➔	Adhering to online safety and behavioural rules during online play	➔	Interacting with friends <i>(social motive)</i>

As shown in Figure 6.1, children’s social developmental needs are potentially being supported by twice as many commonalities compared to their cognitive developmental needs. This theoretically based insight holds particular significance for children in the 10- to 12-year-old age group whose cognitive developmental needs are seemingly only being supported by one commonality within the institution. Later in this chapter, therefore, cultural artifacts mediating caregiver practices contributing to the commonalities shown in Figure 6.1 will be critically examined.

6.2 Tensions

In the theoretical model framing this research (see Figure 3.2 in Ch. 3, p. 80), points of tension at the institutional level occur when caregiver demands (as reflected in their mediated practices) for online sociodramatic play conflict with 8- to 12-year-old children’s motives for engaging in such play in the blended ecology of the family home. Reported findings in this study suggest six notable tensions occur within the institution of online sociodramatic play: 1) limiting (or disallowing) screen time for online play after school; 2) limiting (or disallowing) screen time for

online play on sick days; 3) using Messenger Kids for online play; 4) playing online in main living areas (10- to 12-year-olds); 5) playing online with avatars controlled by strangers (10- to 12-year-olds); and 6) including siblings during online play.

6.2.1 Limiting (or disallowing) screen time for online play after school

The first notable tension is drawn from the finding that many caregivers schedule stricter screen time limits (e.g., one hour) for, or disallow, online play on school days compared to weekends and school holidays (e.g., up to three hours per day). This tension was reflected in reported data indicating that all children participating in this research strongly disagreed with a one-hour screen time limit for online play after school.

For caregivers, the practice of scheduling strict screen time limits (or disallowing) online play after school is enacted for various reasons. For example, Tessie schedules online play on Friday afternoons only (for about an hour and a half) because her children (Donut and Angela) are busy with organised after-school activities (e.g., swimming lessons) on the other weekdays. In another example, Peaches and Possum made the decision to disallow online play after school because they were finding it difficult to get their son, Doofessor, “off devices” in the evenings.

Similarly, Panda and Homer decided to set a strict one-hour time limit for online play after school when they noticed their children’s behaviour and aggression (e.g., using disrespectful language) was “so much heightened when trying to get them off” devices they had been using “all the time” after school (e.g., to watch YouTube videos). Unsurprisingly, the practice of scheduling stricter screen time limits for children’s digital and/or online play after school compared to weekends and school holidays is shared among many caregivers globally (e.g., see Chaudron et al., 2019; Heaselgrave, 2023; UNICEF, 2019).

Children participating in this study, however, strongly disagreed that screen time for online sociodramatic play be limited to one-hour (or less) on school days as reflected in their preferred after-school screen time limits (e.g., 2 hours, 4 hours, 12 hours, unlimited hours) shown in Table 5.3 (see Ch. 5, p. 241). This table suggests a clear “generational gap of opinion” (Albarello et al., 2021,

p. 303) exists between 8- to 12-year-old children and their caregivers in relation to screen time limits for online sociodramatic play on school days.

As caregivers are ultimately responsible for setting screen time limits in the home (not children), it is important to explore more deeply why this tension may be arising within the institution of online sociodramatic play. The urgency for this exploration is further heightened given that many caregivers “find themselves succumbing to the seemingly simple public expectation that they should limit or ‘police’ their children’s screen time” (Livingstone & Blum-Ross, 2020, p. 33) and/or are grappling with a guilt-inducing “mainstream rhetoric of restriction, regulation, and constraint” around screen time limits (Squire & Steinkuehler, 2017, p. 4). Examples of these scholarly assertions are reflected in the way Panda “feels like the police for the online” in her home and Peaches acknowledges that she would feel “too guilty” if her children were using screen-based devices “all the time” regardless of how “nice and peaceful” this situation might be.

As discussed in Section 6.1.3, school age children enjoy expressing their creativity during online sociodramatic play by utilising a vast array of symbolic objects to build and/or enhance sophisticated in-world structures with their online play partners. As such, it is highly probable that strictly limiting (or disallowing) screen time for online sociodramatic play after school conflicts with one of children’s leading cognitive motives for engaging in such play, being creative with friends.

A core aspect of Vygotsky’s (1933–1934/1998a) periodisation of child development theorised that school age children are cognitively motivated to engage in object-centred activities (e.g., co-building impressive in-world Minecraft structures) with more knowledgeable others, such as more advanced peers (El’Konin, 1971/1999). As Minecraft in-world structures often take considerable amounts of time to collaboratively plan and build (Dezuanni, 2018; Petry, 2018), school age children may find a one-hour time limit for online sociodramatic play after school cognitively frustrating. This is particularly the case for children who are in the early stages of developing Minecraft-related skills (Dezuanni et al., 2015), which may explain why the two

youngest children participating this study (Holly and Donut) suggested rather lengthy time limits be scheduled for MineTime after school (i.e., 4 and 12 hours respectively).

According to Singer and Singer (1990, p. 4), an “essential ingredient” for supporting children’s ability to explore creative possibilities during imaginary play is unstructured, open-ended time. This thinking is echoed by Monighan Nourot (2006, p. 96) who advises adults (e.g., educators, parents) to provide children with “ample time” for sociodramatic play so they can successfully co-construct meaning, frame stories, and make sense of their imaginary worlds in ways that enrich development. While these assertions specifically relate to co-located sociodramatic play, research has found that 7- to 8-year-old children’s ability to create and enact sophisticated imaginary play scenarios during online sociodramatic play also takes a considerable amount of time to evolve and unfold (Caughey, 2021).

Interestingly, some caregivers are cognisant of the potential for online sociodramatic play to be a time-consuming activity. For example, Tessie has realised that “once you open up the (MineTime) floodgates, it’s really hard to shut it down” and Peaches recognises that “it does take time to play the game”. While astute observations such as these reflect informed understandings about the complex nature of online sociodramatic play, it is important to note that the time children spend playing Minecraft together in online spaces may be significantly less than is readily observable by adults.

This assertion is evidenced by research indicating that technical difficulties (e.g., software issues) can delay and/or disrupt children’s ability to connect to the same Minecraft: Education Edition in-world environment prior to the commencement of online sociodramatic play (Caughey, 2021). Further insight into this temporal dilemma was succinctly provided by a school age child participating in another recent study exploring children’s use of Minecraft: Education Edition in a school classroom (Slattery et al., 2023b, p. 9).

Our laptops are a bit old ... sometimes it [the laptop] just randomly kicked you out.

Sometimes it would take us 20 minutes to get into the world. And even if we had an hour,

then we'd only have half an hour to actually do things, because it would take us a half hour to get in, so it wasn't the best, the laptops. (*Ann, Sixth class student*)

Similar occurrences of technical difficulties disrupting online play (e.g., multiplayer virtual worlds lagging, crashing, freezing and/or preventing child users from joining the same in-world environment) have been reported in several other studies (e.g., see Sayuno, 2021; Trček, 2014; Wernholm & Vigmo, 2015).

It is also important to consider that children's recent enjoyment of extended time limits for online play on school days during lockdowns (as described in Section 6.1.1) may be contributing to their high levels of dissatisfaction with strict screen time limits after school. For example, children who collectively embarked on prolonged Minecraft quests during lockdowns (such as children from Cohort One) or were allowed increased screen time limits for online play on school days (such as children from Cohort Two) may find it difficult to recalibrate their online play sessions to one-hour after school.

There is a high likelihood, therefore, that the tension explored in this section occurs because strictly limiting (or disallowing) screen time for online sociodramatic play after school restricts children's cognitive developmental need to be creative with friends whilst co-constructing complex in-world structures and/or creating and enacting sophisticated imaginary play scenarios.

6.2.2 Limiting (or disallowing) time for online play on sick days

Within the institution of online sociodramatic play, the second notable tension relates to the finding that caregivers strictly limit (or disallow) online play (and the use of screen-based devices in general) when children are too sick to go to school. This tension is reflected in data suggesting that most children participating in this study believe that children should be allowed to play MineTime when they cannot attend school due to illness.

For caregivers, the practice of limiting (or disallowing) online play when children are too sick to go to school is enacted for reasons that are undoubtedly familiar to parents and/or grandparents of school age children. For example, Tessie and Peaches are concerned that children

might feign illness so they can stay home and play online (or use screen-based devices), and Anna is guided by her son (Holly and Emily's father) to disallow screen time when her granddaughters are too sick to go to school. Moreover, Tessie rightly argued that children who are experiencing headaches "shouldn't be looking at a screen anyway" and Panda logically stated that children who are too sick to go to school "generally don't really want to play".

According to Emily (age 10), however, staying home when she is too sick to go to school is "boring". For this reason, Emily strongly believes that children should be allowed to play MineTime when they are too sick to go to school because they use their "minds" for such play, not their "bodies". These insightful perspectives suggest that limiting (or disallowing) time for online sociodramatic play when children are too sick to go to school may conflict with one of their leading cognitive motives for engaging in such play, learning play-related skills.

Vygotsky (1933–1934/1998b) theorised that the crisis at age seven prompts a psychological shift in children that strongly motivates them to exhibit greater interest in participating in object-centred activities enabling them to learn new skills from more knowledgeable others. In a digitised society, these more knowledgeable others may include the adult game designers of Minecraft because children can acquire new skills (e.g., learning to build functional in-world structures based on set criteria) within the game itself that support their ability to engage in online sociodramatic play with friends (Caughey, 2021).

As such, it is possible that school age children who are too sick to go to school (but still well enough to use screen-based devices) may prefer to utilise this otherwise unproductive time to acquire, refine, and/or practise play-related skills supporting their ability to play Minecraft online with friends at a later time (given their friends are likely to be at school and thus unable to play online). For children participating in this study, Minecraft skills facilitate creative expression (e.g., building and/or enhancing complex in-world structures) in Creative mode and protective dexterity (e.g., defeating hostile threats) in Survival mode. Acquiring and/or exhibiting Minecraft skills, however, is considerably difficult for some school age children (Wernholm, 2021). Time to play

Minecraft on sick days may thus be particularly appealing to children in this age group who are in the process of refining their in-world skills.

Another possible reason for the tension explored in this section is that some school age children may view online sociodramatic play as a panacea for when they are feeling unwell. For example, 8-year-olds Holly and Donut believe that playing MineTime when they are too sick to go to school would help make them feel “better”. The notion of online sociodramatic play helping children feel better when they are unwell was reflected in Peaches’ statement that such play kept her son, Doofessor (age 10), and one of his friends “entertained” when they both contracted COVID-19 at the same time.

It is possible, therefore, that the tension explored in this section occurs because limiting (or disallowing) time for online play (or playing Minecraft) when children are too sick to go to school (but well enough to use screen-based devices) restricts their cognitive developmental need to learn play-related skills that support their later participation in such play whilst also distracting them from negative emotions associated with feeling unwell (e.g., boredom, malaise, isolation).

6.2.3 Using Messenger Kids for online play (10- to 12-year-old children)

The third notable tension is drawn from the finding that some caregivers specify Messenger Kids as the video chat software platform for children to use during online play. This tension is reflected in reported data indicating that 10- to 12-year-old children from Cohort Two disagreed with this cohort-specific rule and would prefer to use the “normal” version of Messenger for online play instead.

For Cohort Two caregivers, Messenger Kids is specified for online play because this software platform enables them to monitor their children’s online interactions (e.g., friend requests, text messages) more closely. As discussed in Chapter 5 (p. 208), a key safety feature of Messenger Kids is that caregivers need to be “Facebook friends” themselves before children can communicate via this software platform. Another safety feature of Messenger Kids is that caregivers control the days and times this software platform can be used. Naturally, this means children’s video chat

sessions with friends during online play may be terminated by their caregivers at any time without warning.

For Panda, the decision to specify Messenger Kids for online play was prompted by the knowledge that many of her children's friends were using this software platform during COVID-19 lockdowns to communicate with each other. This caregiver practice was reflected in another recent study (Quinones & Adams, 2021) and perhaps explains why Messenger Kids "pole vaulted" to the top of the download charts during the first wave of pandemic lockdowns (Brown, 2020).

Older school age children, however, prefer to self-manage their own recreational playdates with friends via autonomous actions and decisions that are not based on adult expectations (Fattore et al., 2007; McAuley et al., 2012). An example of this autonomy was evidenced by Doofessor (age 10) who enjoys engaging in online sociodramatic play because "your mum doesn't tell you what to do and you get to spend time with your friends". Given that access to Messenger Kids is predominantly controlled by caregivers, it is feasible to suggest that using this software platform for online sociodramatic play conflicts with one of 10- to 12-year-old children's social motives for engaging in such play, interacting with friends.

A core tenet of Vygotsky's (1933–1934/1998a) periodisation of child development suggests that children progressively emancipate themselves from adult-imposed constraints that regulate their everyday lives. The embedded adult-controlled safety features of Messenger Kids, therefore, may constrain 10- to 12-year-old children's ability to autonomously control how, when, and who they interact with during online sociodramatic play. Such constraints are particularly disempowering considering children already face difficulties trying to self-manage their online playdates with friends. This dilemma was shrewdly highlighted by Tessie who explained that she sometimes contacts the parents of her children's friends to help organise their online playdates because their friends' iPads are "locked away" (meaning children cannot contact each other) and "no one has a home phone so you can't call your friends and ask to play like you used to".

It is also possible that children in the 10- to 12-year-old age group consider the strict monitoring features of Messenger Kids as limiting their ability to form new friendships with potential online play partners they meet in out-of-school spaces (e.g., sporting clubs). For example, Beavis (age 10) enjoys playing online with children he knows in the real-world (e.g., from his soccer team) but are not yet considered “friends”. Children seeking to socially interact with non-school acquaintances during online play may thus face difficulties convincing their caregivers to “friend” the caregivers of children they barely know via Facebook. This process may be particularly constraining for children experiencing inceptive effects of the crisis at age thirteen who are highly motivated to form close personal friendships with peers who exhibit similar interests (Vygotsky, 1930–1931/1998c).

It is also important to consider that children experiencing psychological effects of the crisis at age thirteen begin to develop a higher level of self-reflective awareness that did not exist previously (Vygotsky, 1930–1931/1998c). For this reason, 10- to 12-year-old children who are experiencing early effects of this critical developmental period may view Messenger Kids as a software platform that is more suited to younger children given that it is embedded with features such as Fun Filters (e.g., cartoon-style reactions, sound effects) and Creative Convos (e.g., stickers, animated images, emojis, drawing tools).

Children entering the crisis at age thirteen may also begin to adopt a critical stance toward societal norms (Vygotsky, 1930–1931/1998c). As such, older school age children may rebuke the claim by Meta (the company that owns and operates Facebook) that a heavily monitored social media platform, such as Messenger Kids, is “specifically targeted” to 9- to 12-year-olds. This assertion is reflected in recent research suggesting that older school age children want greater privacy from their parents in digital environments (Third & Moody, 2021) compared to younger children who are generally amenable to openly sharing their online activities with caregivers (Sun et al., 2021). Such findings were evidenced in data indicating that Bart (age 9) “likes” the rules his parents set for online play, whereas his older brothers, Beavis (age 10) and Goose (age 12), disagree

with rules relating to online privacy (e.g., using Messenger Kids for online play, playing online in main living areas only). Similarly, Donut (age 8) is happy to play online in main living areas whereas his older sister, Angela (age 10), prefers playing online in a room “on her own”.

It is also possible that some children in the 10- to 12-year-old age group negatively view Messenger Kids because they are consciously aware that Meta collects and stores their personal information (e.g., name, contact list, in-app activity). This supposition is based on findings from a recent study suggesting that 10-year-old children are more likely than younger children to be concerned that mobile applications collecting personal user data (such as Messenger Kids) might lead to privacy breaches or being “hacked” (Sun et al., 2021, p. 10).

It is likely, therefore, that the tension explored in this section occurs because using Messenger Kids for online play restricts 10- to 12-year-old children’s social developmental need to interact with friends in ways that support their growing need for autonomy, positive peer-informed self-image, and privacy in online environments.

6.2.4 Playing online in main living areas (10- to 12-year-old children)

The fourth notable tension occurring within the institution of online sociodramatic play relates to the finding that some caregivers allocate only main living areas (e.g., kitchens, lounge rooms, toy rooms) for online play, not bedrooms. This tension was strongly evidenced in data indicating that all 10- to 12-year-old children who are only allowed to play online in main living areas would much prefer to play MineTime in their bedrooms.

As previously discussed in Section 6.1.4, caregivers who allocate only main living areas for online play predominantly enact this practice to facilitate their ability to supervise children’s online activities and interactions more closely. Main living areas, however, may not offer 10- to 12-year-old children the “peace” or “privacy” they need for engaging in online sociodramatic play. For example, 10-year-old Angela (an older sister to three younger siblings) believes her bedroom would be a more “peaceful” household space to play MineTime compared to the TV room where she usually plays.

Similarly, brothers Beavis (age 10) and Goose (age 12), expressed the strong belief that children need “privacy” to play MineTime and should thus be allowed to engage in this activity in their bedroom with the door closed. Collectively, these perspectives suggest that using main living areas for online sociodramatic play conflicts with one of 10- to 12-year-old children’s social motives for engaging in such play, sharing play-related ideas and knowledge with friends.

While the potential for bedrooms to heighten school age children’s ability to share play-related ideas and knowledge with friends during online sociodramatic play was explored earlier in this chapter (in Section 6.1.5), the peace and privacy offered by these household spaces may be particularly appealing to 10- to 12-year-olds. This is because children experiencing early effects of the crisis at age thirteen may prefer to socially interact with their close friends in private spaces away from the supervisory gaze of adults, particularly parents (Vygotsky, 1930–1931/1998c).

Furthermore, older school age children experiencing inceptive psychological effects of this critical developmental period are highly motivated to engage in communicative activities with close friends that are fundamentally defined by ethical and moral norms to which all members of the friendship group adhere (El’Konin, 1971/1999). Subsequently, if these intragenerational norms misalign with (or contradict) those espoused by caregivers in the home (or older siblings), bedrooms would heighten children’s ability to irrepressibly share play-related ideas and knowledge compared to main living areas.

Reported findings in this research make it clear that 10- to 12-year-old children’s need for privacy during online sociodramatic play is undeniable. For example, all children in this age group disagreed that children should not be allowed to play online in their bedrooms, and some (such as 10-year-old Angela) expressed a strong preference for playing “on their own” in private household spaces. These perspectives reflect findings from earlier research suggesting that, around age nine, children increasingly want to make autonomous decisions about where their playdates with friends “should” take place (McAuley et al., 2012).

Recently, Carter et al. (2020a) argued that multiplayer virtual worlds (such as Fortnite) play “an important role in the social development and cohesion desired among children as they age and, in most Western contexts, become less dependent upon parents and family members” (p. 458). It is unsurprising, therefore, that older school age children are seeking play spaces in the home that “push the boundaries in their move towards greater autonomy” (Willett, 2016, p. 473). Undoubtedly, this cultural phenomenon has been exacerbated by the portability of networked devices (e.g., iPads, laptops) enabling children “greater agency in where and how they play” (Balmford & Davies, 2020, p. 12), compared to having one fixed desktop computer in the home (such as the one shared by Anna and her children in the 1990s).

A further reason why older school age children may prefer playing MineTime in their bedrooms is because younger siblings can sometimes disrupt online sociodramatic play sessions taking place in main household areas (see Caughey, 2021). It is probable, therefore, that the tension explored in this section occurs because playing online in main living areas restricts 10- to 12-year-old children’s social developmental need to freely share play-related ideas and knowledge with friends in a private household space where they are less likely to be closely supervised, potentially judged, and/or disturbed by family members (e.g., younger siblings).

6.2.5 Playing online with avatars controlled by strangers (10- to 12-year-old children)

The fifth notable tension relates to the finding that caregivers remind children to only play online with their real-life friends, not strangers. This tension is reflected in data suggesting that some 10- to 12-year-old children disagree with (or are questioning) this rule and have previously played with avatars controlled by strangers in multiplayer virtual worlds.

For caregivers participating in this research, reminding children to only play online with their real-life friends minimises the risk of online privacy breaches. For example, Panda is concerned that her children (especially 12-year-old Goose) might reveal personal details to strangers in online gaming platforms and Tessie worries that strangers who are “not nice people” might try and elicit identifying information from her children during online play. While similar

concerns are widely reported (e.g., see Carter et al., 2020a; Martin et al., 2021; Ofcom, 2023), Ofcom (2024) recently suggested that they have significantly increased since 2010, the year that portable, child-friendly networked devices (i.e., Apple iPads) facilitating “highly private modes of engagement” (Balmford & Davies, 2020, p. 18) were introduced into digitised societies.

Some children in the 10- to 12-year-old age group, however, disagree that children should only play online with their real-life friends. For example (despite household rules to the contrary), Emily (age 10) sometimes plays online with avatars controlled by strangers who are not “creepy” or “shady” (i.e., they do not ask for personal details) and Goose (age 12) occasionally plays online with avatars controlled by strangers who are “working with him” to defeat an opposing squad in *Battlefield V* provided they “sound like a kid”. These findings reflect those reported in recent studies suggesting that school age children regularly interact with avatars controlled by strangers in online gaming platforms (e.g., see eSafety Commissioner, 2024a; Navarro, 2021; Petry, 2018; Wernholm, 2019).

Interestingly, older school age children have been found to seek interactions with avatars controlled by strangers who can help them locate symbolic objects (Twining et al., 2017), improve their in-world skills (Ofcom, 2023), play games (Marsh, 2011; Sarachan, 2013), and/or defeat opposing teams (Albarello et al., 2021; Carter et al., 2020a) in multiplayer virtual worlds. It is possible, therefore, that asking 10- to 12-year-old children to only play online with their real-life friends during online sociodramatic play (and other forms of online play) may conflict with one of their cognitive motives for engaging in such play, learning play-related skills.

According to cultural-historical theory, school age children are primarily cognitively motivated to engage in object-centred learning activities with more knowledgeable others (El’Konin, 1971/1999). In online gaming communities (which are essentially comprised of object-centred activities), it is thus possible that 10- to 12-year-old children view avatars controlled by strangers who exhibit (or offer) desirable game-related skills as more knowledgeable others (unless they are deemed “shady” or don’t “sound like a kid”) who can enhance their own repertoire of in-

world expertise. This proposition is reflected in research indicating that school age children orient themselves toward more knowledgeable players in Minecraft because they consciously strive to refine their in-world skills and achieve play-related goals that heighten their participatory power in Minecraft gaming communities (Wernholm, 2019; 2021).

The notion of older school age children playing online with avatars controlled by strangers to acquire play-related skills may be indicative of early psychological effects of the crisis at age thirteen. This is because Vygotsky (1930–1931/1998c) theorised that children entering this critical developmental period begin to increasingly compare themselves to their peers. For this reason, some 10- to 12-year-old children may seek to acquire highly valued play-related skills from avatars controlled by strangers because such skills increase their status and/or reputation among their friends and wider peer group who also enjoy playing Minecraft online (Wernholm, 2019).

This thinking is reflected in several other studies where in-world skills have been recognised as equipping school age children with “cultural capital within peer networks” (Willett, 2016, p. 472), “social currency and knowledge valued by friends” (Dezuanni & O’Mara, 2017, p. 37), and a “sense of belonging, identity, and social positioning” (Scholes et al., 2022, p. 172). For 12-year-old Goose, however, these highly valued play-related skills seem to have transferred from Minecraft (a game he now sometimes finds “boring”) to Battlefield V (a game he enjoys playing online with his best friend and avatars controlled by strangers who are working “with” him).

Goose’s recent transition from Minecraft to Battlefield V reflects Vygotsky’s (1930–1931/1998c) argument that children entering adolescence often lose interest in activities they previously enjoyed and start to develop new specialised interests. A similar transition was evidenced in a recent study where an 11-year-old Austrian girl explained how she had lost interest in playing digital games she had previously enjoyed because she now found them “boring” and a “waste of time” (Rustad et al., 2024, p. 305).

It can also be assumed that Goose’s visible and audible disapproval of his parents’ household rules for online play (e.g., thumbs down gestures and retching sounds exhibited during

the first family group session) adds further weight to the argument that he is experiencing early psychological effects of the crisis at age thirteen. This is because Vygotsky (1930–1931/1998c) argued that “protesting behaviours” are a predominant feature of this critical developmental period.

These types of protesting behaviours may also manifest as *covert transgressions* which see 9- to 13-year-old children exhibiting expressions of autonomy outside the surveillance of their caregivers, such as secretly using portable gaming consoles under their covers at bedtime (Kuczynski et al., 2018). Such transgressions undoubtedly resonate with caregivers whose school age children use portable devices for play, such as Panda who occasionally finds her children’s devices hidden “under their pillow” after bedtime. Other examples of covert transgressions are highlighted in studies where school age children have interacted with avatars controlled by strangers and/or played disallowed online games (e.g., Fortnite) without their parents’ knowledge or permission (e.g., see Carter et al., 2020b; eSafety Commissioner, 2024a; Lafton et al., 2024; Livingstone & Blum-Ross, 2020; Willett, 2016). Interestingly, Roth et al. (2024) suggest these types of transgressions (e.g., overcoming screen time rules set by caregivers in the home) seem “important for children to be part of their peer culture” (p. 193).

Goose’s shift in interest from Minecraft to Battlefield V reflects findings from other studies indicating that older school age children (particularly boys) lose interest in Minecraft (Mavoa et al., 2018) and gravitate toward team-based online games (e.g., Fortnite) because such games highlight a “transition away from parental control and forming of own taste, and a development of more sophisticated modes of play” (Carter et al., 2020a, p. 462). As such, the team-based (and sophisticated) nature of Battlefield V may have prompted Goose to gravitate towards this gaming platform for online play compared to Minecraft: Education Edition, a software platform endorsed by his parents and educators at the primary school he attends.

Another interesting dimension of the tension explored in this section is that while Emily and Doofessor disagreed with (or questioned) the household rule stipulating that children should only play online with their real-life friends, they both agreed that children should not “talk” to strangers

during online play. These perspectives suggest that some school age children view “playing with” and “talking to” avatars controlled by strangers as in-world activities that carry different online safety risks. An example of this unique standpoint was reflected in another study where a school age child who enjoyed playing online games “felt that his parents would not have a problem with him playing with, but not chatting to, strangers online” (Twining et al., 2017, p. 96). The notion of older school age children seeking interactions with avatars controlled by strangers so they can “play” with them (rather than “talk” to them) suggests these types of online interactions in Minecraft are cognitively motivated (e.g., to learn new skills) rather than socially motivated (e.g., to make new friends).

This assertion is reflected in several studies indicating that older school age children are unlikely to be motivated to socially interact with avatars controlled by strangers (Livingstone et al., 2017; Rustad et al., 2024; Sarachan, 2013) and often refer to them as “random” users (Carter et al., 2020a; Lips et al., 2017; Willett, 2016) or “randos” (according to my teenage daughter). For Goose, however, playing with and talking to avatars controlled by random players (provided they are “working with” him and “sound like a kid”) may be an important part of the immersive experience in team-based gaming platforms, such as Battlefield V.

It is possible, therefore, that the tension explored in this section occurs because asking 10- to 12-year-old children to only play online with their real-life friends may restrict their cognitive developmental need to learn play-related skills from (non-shady) avatars controlled by strangers who can help them acquire or refine in-world skills that are highly valued among their peer group.

6.2.6 Including siblings during online play

Within the institution of online sociodramatic play, the sixth notable tension is drawn from the finding that caregivers might ask children to always include their siblings in their online play sessions with friends. This tension was reflected in data suggesting that most children from Cohort One disagreed with this cohort-specific rule and would prefer to only include their siblings sometimes.

As reported, Tessie encourages Angela (her eldest daughter) to always include her younger brother (Donut) in her online play sessions with friends because few of Donut's classmates play Minecraft online (an activity he thoroughly enjoys). Despite this inclusive parenting approach, however, Angela and Donut both disagreed with this behavioural rule because they believe that siblings should only be included "sometimes". In Angela's view, "sometimes people want their own time with friends", a perspective suggesting this rule conflicts with one of children's leading social motives for engaging in online sociodramatic play, interacting with friends.

According to Vygotsky (1933–1934/1998b; 1930–1931/1998c), the crisis at age seven sees children consciously striving to maintain friendships with like-minded peers and the crisis at age thirteen sees children striving to build close, private friendship worlds with peers based on shared beliefs, personal qualities, and interests. As such, children experiencing maturing or inceptive psychological effects of these critical developmental periods may be reluctant to always include siblings in their online play sessions because they are becoming increasingly motivated to socially interact with peers with whom they have developed (or are developing) close personal friendships.

This reluctance may be more pronounced in older school age children (such as 10-year-old Angela) because Vygotsky (1930–1931/1998c) theorised that the crisis at age thirteen prompts a new self-reflective awareness that did not exist previously. This means children experiencing early effects of this critical developmental period may begin to exhibit protesting behaviours driven by the strong inclination to assimilate into their peer group. An example of such behaviours is reflected in Tessie's vignette about Angela occasionally "kicking Donut out" of her online play sessions with friends because she feels it is "not as cool" having her younger brother playing with her peer group.

Tessie's statement that "Angela doesn't love Donut being in the adventures as much because it kind of holds them back" further indicates that Donut may be acutely aware that Angela (and her friends) prefer him to not always participate in their undoubtedly highly sophisticated online play sessions (given that Angela has been playing Minecraft for several years and recently enjoyed extended screen time limits for online play during repeated lockdowns). Such awareness is common

in 8-year-old children because maturing effects of the crisis age seven prompt them to become increasingly aware of how they are viewed by others (Vygotsky, 1933–1934/1998b).

All is not lost in this close sibling relationship, however, as Tessie explained that Angela still enjoys teaching Donut new Minecraft skills. This family bonding activity builds on existing research suggesting that older children enjoy mentoring their younger siblings in digital gaming communities (Dezuanni & O’Mara, 2017; Petry, 2018; Willett, 2018) and vice versa (Wernholm, 2019). Moreover, Angela’s belief that siblings should be included “sometimes” also indicates that she is still willing (and eager) to play Minecraft online with her younger brother, Donut.

Siblings’ enjoyment of engaging in online play together was apparent in other families participating in this study. For example, Anna explained how her granddaughters (Holly and Emily) enjoy playing Roblox together whilst “lying back on old couches” in the front room of her family home and Peaches explained how her son (Doofessor) often plays Minecraft online “in the same world” with his older brother (age 11) whilst they are physically located in their own (separate) bedrooms.

Further insight into the tension explored in this section was offered by 10-year-old Emily, who disagreed that children should always include their siblings in online play because such decisions “depend on the day and how you’re feeling”. This astute perspective undoubtedly resonates with most children (and adults) with siblings and reflects research suggesting that sibling relationships between school age children are often fraught with complex, emotional dynamics that fluctuate from day to day (Dunn, 2004; McCauley et al., 2012).

According to Monighan Nourot (2006), sociodramatic play acts as a “therapeutic tool for working through childhood fears and unconscious emotions” (p. 87). Subsequently, children who are facing significant life challenges (such as moving schools, lockdowns, or distressing family situations) may wish to process such experiences with their close friends during online play, rather than siblings. This assertion is supported by research suggesting that school age children use digital

technologies (e.g., texting) to share feeling of sadness with their friends when they do not want their family members (e.g., parents) to know (Newland et al., 2018).

It is thus likely that the tension explored in this section occurs because asking children to always include their siblings during online sociodramatic play restricts their social developmental need to interact with friends with whom they have formed close friendship bonds and are removed from the emotionality of sibling relationships.

Summary

Reported findings in this research suggest six points of tension occur when caregiver demands (as reflected in their mediated practices) for online sociodramatic play conflict with 8- to 12-year-old children’s motives for engaging in such play in the blended ecology of the family home. These tensions, therefore, may be restricting school age children’s cognitive and social developmental needs within the institution of online sociodramatic play (see Figure 6.2).

Figure 6.2

Children’s Developmental Needs being Restricted within the Institution

Caregiver practices		Tensions		Children’s developmental needs being restricted
Scheduling online play	→	Limiting (or disallowing) screen time for online play after school	→	Being creative with friends (cognitive motive)
	→	Limiting (or disallowing) screen time for online play on sick days	→	Learning play-related skills (cognitive motive)
Specifying software platforms for online play	→	Using Messenger Kids for online play (10- to 12-year-olds)	→	Interacting with friends (social motive)
Allocating household spaces for online play	→	Playing online in main living areas (10- to 12-year-olds)	→	Sharing play-related ideas and knowledge with friends (social motive)
Safeguarding online play	→	Playing online with avatars controlled by strangers (10- to 12-year-olds)	→	Learning play-related skills (cognitive motive)
	→	Including siblings during online play	→	Interacting with friends (social motive)

In Figure 6.2, it is clearly evident that 10- to 12-year-old children’s cognitive and social developmental needs are being restricted by twice as many tensions compared to children in the 8-

to 9-year-old age group. It is important to consider, however, that tensions shown in Figure 6.2 may be occurring because school age children's lived experiences of online sociodramatic play differ considerably from those of caregivers, whose decisions about such play are being mediated by cultural artifacts rather than informed by their own childhood experiences.

As most cultural artifacts rarely account for children's critical developmental periods (as theorised by Vygotsky), mediated practices in the blended ecology of the family home tend to focus more on managing and monitoring online play rather than connecting with new motive orientations and/or problematic behaviours that arise during school age children's critical developmental periods. Later in this chapter, therefore, cultural artifacts mediating caregiver practices contributing to the tensions shown in Figure 6.2 will be critically examined.

6.3 The institution of online sociodramatic play

The purpose of this section is to provide a comprehensive, theoretically informed answer to the main research question guiding this investigation:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

First, Hedegaard's (2009) model of child development will be used to exemplify how online sociodramatic play is constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers. This model is informed by the commonalities and tensions occurring within the institution (as detailed in this chapter), together with reported findings relating to caregiver practices, cultural artifacts, and children's motives (as identified in the previous chapter).

Second, cultural artifacts mediating caregiver practices in ways that may be contributing to commonalities and tensions occurring within the institution of online sociodramatic play will be critically examined in terms of how they may be supporting, or otherwise restricting, the developmental pathways of school age children being raised in a digitised society.

6.3.1 Constituting online sociodramatic play as an institution

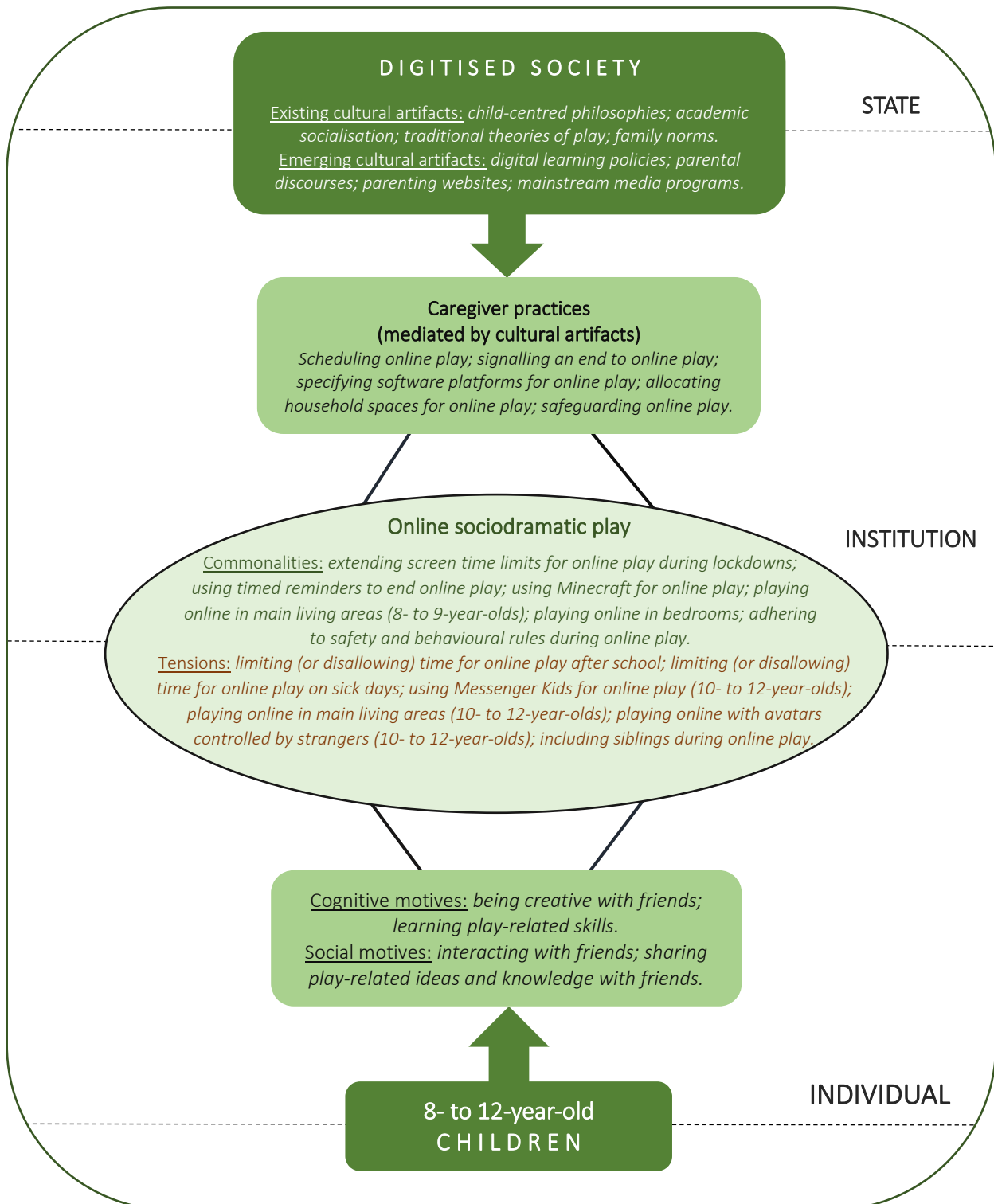
In this research, Hedegaard's (2009) adapted model of child development (see Figure 3.2 in Ch. 3, p. 80) was used to conceptualise online sociodramatic play as an institution. Reported findings can now be used to inform this theoretical model so insight can be gained into how online sociodramatic play is constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers (see Figure 6.3).

The three related analytical perspectives shown in Figure 6.3 typify the current external cultural conditions for learning and development in the blended ecology of the family home for school age children who enjoy engaging in online sociodramatic play. These perspectives are: 1) the state perspective; 2) the institutional perspective; and 3) the individual perspective. The state perspective (upper tier) represents existing and emerging cultural artifacts that may be implicitly and/or explicitly mediating caregiver practices guiding school age children's participation in online sociodramatic play.

The individual perspective (lower tier) represents 8- to 12-year-old children's cognitive and social motives for engaging in online sociodramatic play. The institutional level (middle tier) represents the arena of activity typifying the institution of online sociodramatic play. This institution is constituted by commonalities and tensions occurring between caregiver demands for online sociodramatic play (as reflected in their mediated practices) and 8- to 12-year-old children's motives for engaging in such play in the blended ecology of the family home.

Figure 6.3

The Institution of Online Sociodramatic Play



In accordance with Hedegaard's (2009) theoretical vision, the model shown in Figure 6.3 is not fixed because it represents an embodied mode of action that can be used to optimise the cultural conditions for child development. In this research, these conditions are profoundly shaped by cultural artifacts mediating how caregivers make decisions about guiding school age children's participation in online sociodramatic play. It is important, therefore, to critically examine how these mediated practices might be supporting, or otherwise restricting, the developmental pathways of 8- to 12-year-old children who are cognitively and/or socially motivated to engage in online sociodramatic play.

6.3.2 Mediated practices supporting child development

Mediated practices supporting the developmental pathways of 8- to 12-year-old children are reflected in the six commonalities occurring within the institution of online sociodramatic play (as detailed in Figures 6.1 and 6.3). The first commonality, extending screen time limits for online play during lockdowns, saw caregivers scheduling online play (practice) in ways that aligned with children's developmental need to interact with friends (social motive) via online sociodramatic play when they could not play together in co-located spaces.

There are four existing cultural artifacts possibly mediating why caregivers scheduled extended screen time limits for online play during lockdowns: 1) child-centred philosophies advocating for the provision of agentic and autonomous social play opportunities for children; 2) academic socialisation prioritising activities that foster social skills; 3) traditional theories of play espousing the developmental benefits of social play; and 4) family norms where digital and/or online forms of play are viewed as facilitating enjoyable socially interactive activities. In this study, these four existing cultural artifacts are recognised as implicitly mediating caregiver practices in ways that supported children's social development within the institution of online sociodramatic play during COVID-19 lockdowns.

It is important to note here that one caregiver (Panda) consulted an online article about screen time via a parenting website (emerging cultural artifact) during lockdowns. This article,

however, advises caregivers to minimise “excessive” screen time wherever possible and did not promote extended screen time limits for online play during lockdowns. For this reason, parenting websites have not been included as a cultural artifact explicitly mediating why caregivers scheduled extended screen time limits for online play during lockdowns.

In Figures 6.1 and 6.3, the second commonality, using timed reminders to end online play, sees caregivers signalling an end to online play (practice) in ways that align with school age children’s developmental need to share play-related ideas and knowledge with friends (social motive) during online sociodramatic play. This practice is likely being implicitly and explicitly mediated by three cultural artifacts: 1) child-centred philosophies (existing cultural artifact) advocating for child agency (e.g., understanding that children need time to end their online play sessions); 2) parental discourses (emerging cultural artifact) about utilising strategies for getting children “off devices” effectively; and 3) parenting websites (emerging cultural artifact) advising caregivers to provide opportunities for children to autonomously self-manage their online play sessions by independently setting digital timers. These three cultural artifacts are thus recognised in this research as mediating caregiver practices in ways that support children’s social development within the institution of online sociodramatic play.

The third commonality, using Minecraft for online play, sees caregivers specifying software platforms for online play (practice) in ways that align with children’s developmental need to be creative with friends (cognitive motive). There are two cultural artifacts likely mediating this practice: 1) academic socialisation (existing cultural artifact) prioritising play activities that foster children’s cognitive skills (e.g., creativity) and social skills (e.g., empathy); and 2) digital learning policies (emerging cultural artifact) promoting Minecraft: Education Edition as a cognitively beneficial software platform for children. In this research, these two artifacts are identified as implicitly and explicitly mediating caregiver practices in ways that support children’s cognitive development within the institution of online sociodramatic play.

The fourth commonality, playing online in main living areas, sees caregivers allocating household spaces for online play (practice) in ways that align with 8- to 9-year-old children's developmental need to learn play-related skills (cognitive motive) during online sociodramatic play. Reported findings suggest that parenting websites and mainstream media programs explicitly mediate this practice because these emerging cultural artifacts convey the notion that using networked devices (or playing online games) in bedrooms may negatively impact child development. These two artifacts are thus recognised in this study as explicitly mediating caregiver practices in ways that support 8- to 9-year-old children's cognitive development within the institution of online sociodramatic play.

The fifth commonality, playing online in bedrooms (with permission), sees caregivers allocating household spaces for online play (practice) in ways that align with 8- to 12-year-old children's developmental need to share play-related ideas and knowledge with friends (social motive). Findings indicate that child-centred philosophies advocating for the provision of autonomous and agentic social play activities for children implicitly mediate this practice. This existing cultural artifact, therefore, is viewed in this research as implicitly mediating caregiver practices in ways that support children's social development within the institution of online sociodramatic play.

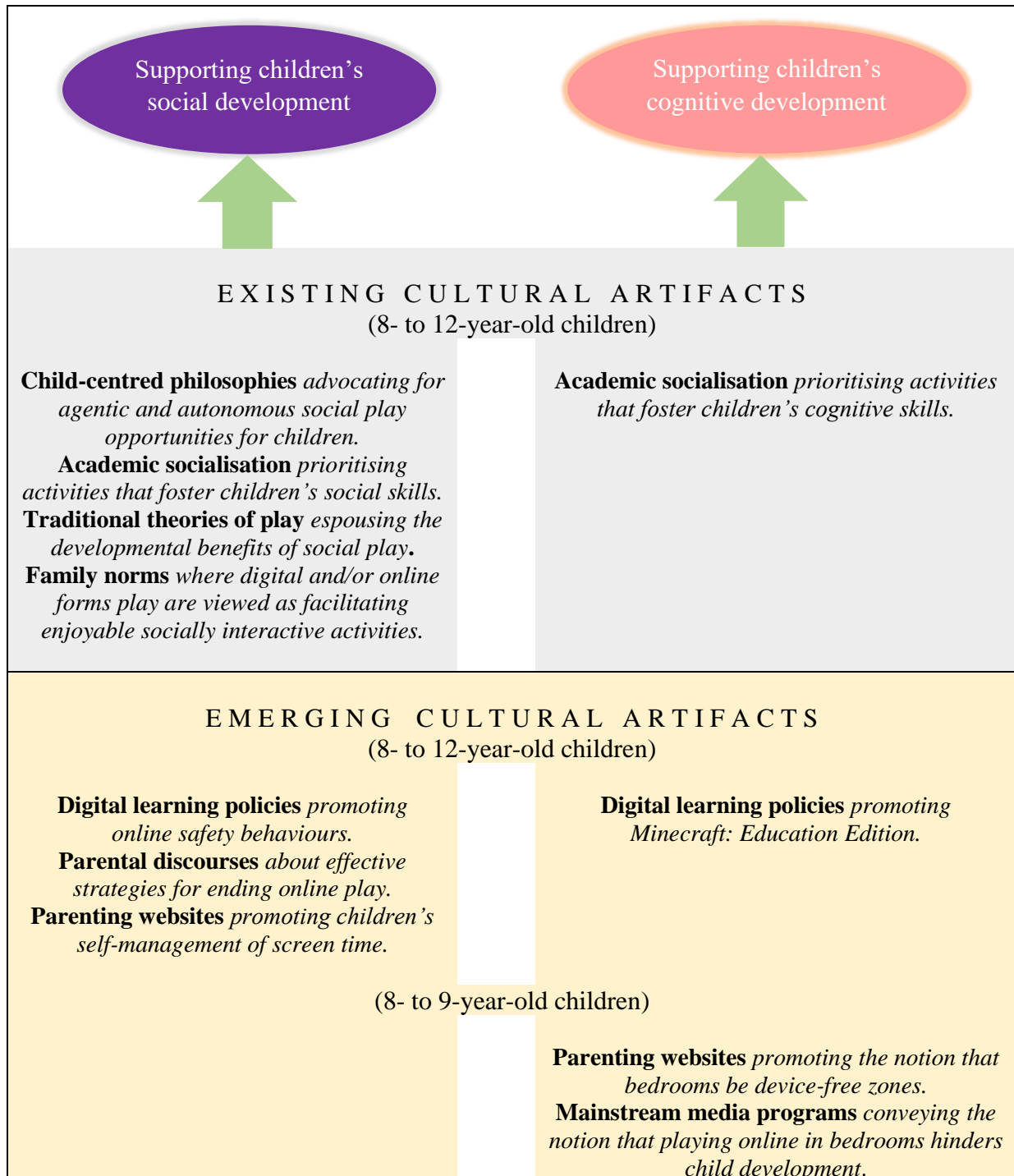
The sixth commonality, adhering to safety and behavioural rules during online play, sees caregivers safeguarding online play (practice) in ways that align with children's developmental need to interact with friends (social motive) during online sociodramatic play. There are two cultural artifacts likely mediating this practice: 1) child-centered philosophies (existing cultural artifact) advocating for supporting children's ability to self-regulate their own behaviours by playing kindly and fairly during online play; 2) digital learning policies (emerging cultural artifact) promoting the importance of setting online safety rules for children. In this research, these artifacts are recognised as implicitly and explicitly mediating caregiver practices in ways that support children's social development within the institution of online sociodramatic play.

Summary

Collectively, existing and emerging cultural artifacts identified in this section mediate caregiver practices in ways that support the developmental pathways of 8- to 12-year-old children within the institution of online sociodramatic play. These artifacts are summarised in Figure 6.4.

Figure 6.4

Cultural Artifacts Supporting Child Development within the Institution



In Figure 6.4, it is made clear that children's social development within the institution of online sociodramatic play is potentially being supported by a wider range of existing and emerging cultural artifacts compared to their cognitive development (particularly for those in the 10- to 12-year-old age group). This phenomenon is also reflected in Figure 6.1 where children's social motives for engaging in online sociodramatic play were found to align more strongly with caregiver demands (as reflected in their mediated practices) for such play compared to their cognitive motives. This overarching finding suggests an urgent need for new cultural artifacts to be developed that specifically focus on disseminating the notion that online sociodramatic play potentially supports the cognitive developmental pathways of school age children.

6.3.3 Mediated practices restricting child development

In accordance with the theoretical model shown in Figure 6.3, mediated practices restricting child development are reflected in the six tensions occurring within the institution of online sociodramatic play. The first tension, limiting (or disallowing) screen time for online play after school, sees caregivers scheduling online play (practice) in ways that conflict with children's developmental need to be creative with friends (cognitive motive) during online sociodramatic play. There are three emerging cultural artifacts that may be explicitly mediating this practice: 1) parental discourses about what are considered "appropriate" screen time limits for school age children; 2) parenting websites promoting the notion that children's screen time be strictly limited; and 3) mainstream media programs conveying the notion that strict screen time limits may prevent children from becoming "addicted" to gaming. These artifacts are thus recognised in this study as mediating caregiver practices in ways that restrict children's cognitive development within the institution of online sociodramatic play.

The second tension, limiting (or disallowing) time for online play on sick days, sees caregivers scheduling online play (practice) in ways that conflict with children's developmental need to learn play-related skills (cognitive motive) supporting their ability to competently engage in online sociodramatic play with friends. It is possible that two cultural artifacts mediate this practice:

1) traditional theories of play (existing cultural artifact) where virtual world game designers are not recognised as more knowledgeable others who can assist children to learn play-related skills; and 2) mainstream media programs (emerging cultural artifact) conveying the notion that children might feign illness so they can stay home to play digital and/or online games rather than go to school. In this research, these artifacts are identified as implicitly and explicitly mediating caregiver practices in ways that restrict children's cognitive development within the institution of online sociodramatic play.

The third tension, using Messenger Kids for online play, sees caregivers specifying software platforms for online play (practice) in ways that conflict with 10- to 12-year-old children's developmental need to autonomously interact with friends (social motive) during online sociodramatic play. It is likely that parental discourses (emerging cultural artifact) explicitly mediate this practice because caregivers need to communicate via their personal Facebook social media accounts before children can use Messenger Kids. This artifact, therefore, is viewed in this research as explicitly mediating caregiver practices in ways that restrict 10- to 12-year-old children's social development within the institution of online sociodramatic play.

The fourth tension, playing online in main living areas, sees caregivers allocating household spaces for online play (practice) in ways that conflict with 10- to 12-year-old children's developmental need to freely share play-related ideas and knowledge with friends (social motive) during online sociodramatic play. As explained previously, parenting websites and/or mainstream media programs (emerging cultural artifacts) explicitly mediate why some caregivers allocate only main living areas for online play. These artifacts are thus recognised in this study as explicitly mediating caregiver practices in ways that restrict 10- to 12-year-old children's social development within the institution of online sociodramatic play.

The fifth tension, playing online with avatars controlled by strangers, sees caregivers safeguarding online play (practice) in ways that conflict with 10- to 12-year-old children's developmental need to learn play-related skills (cognitive motive) supporting their ability to engage

in online sociodramatic play with friends. This practice is potentially being explicitly mediated by parenting websites (emerging cultural artifact) warning caregivers about the inherent dangers of children interacting with strangers in online spaces. This artifact, therefore, is viewed in this research as explicitly mediating caregiver practices in ways that restrict 10- to 12-year-old children's cognitive development within the institution of online sociodramatic play.

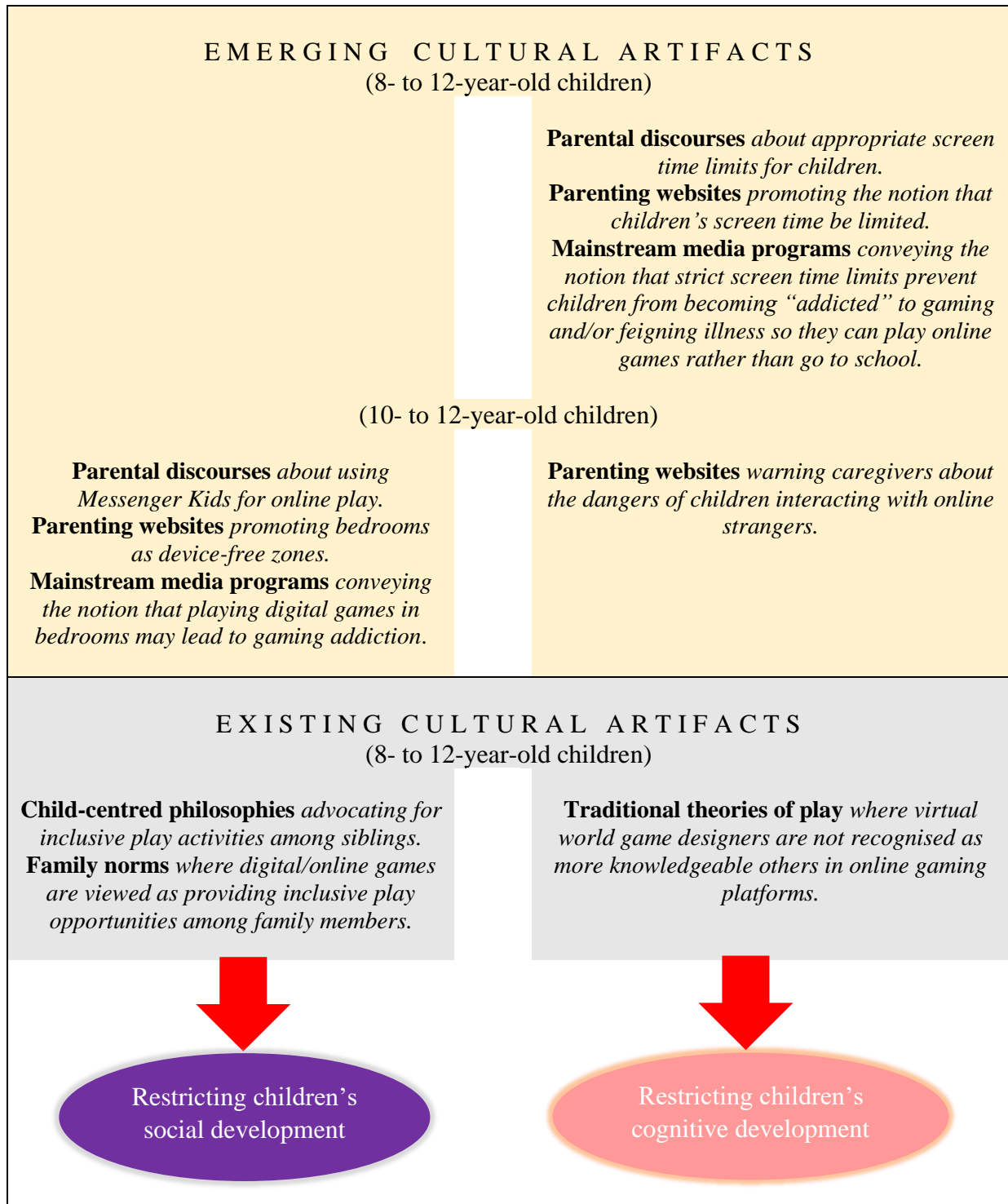
The sixth tension, including siblings during online play, sees caregivers safeguarding online play (practice) in ways that conflict with children's developmental need to interact with friends (social motive) during online sociodramatic play. This practice is likely being implicitly mediated by two existing cultural artifacts: 1) child-centred philosophies advocating for inclusive play activities among siblings; and 2) family norms where digital and/or online games are viewed as providing inclusive play opportunities for members of the same family. These artifacts are thus identified in this study as implicitly mediating caregiver practices in ways that restrict children's social development within the institution of online sociodramatic play.

Summary

In this section, a range of existing and emerging cultural artifacts were recognised as implicitly and explicitly mediating caregiver practices in ways that potentially restrict the developmental pathways of 8- to 12-year-old children within the institution of online sociodramatic play. These artifacts are summarised in Figure 6.5.

Figure 6.5

Cultural Artifacts Restricting Child Development within the Institution



In Figure 6.5, it is abundantly clear that children's cognitive development within the institution of online sociodramatic play is potentially being restricted by considerably more emerging cultural artifacts compared to existing cultural artifacts. This theoretically based insight supports the overarching finding discussed in the previous section adding further weight to the argument that new emerging artifacts be urgently developed so the cultural conditions for school age children's cognitive development within the institution of online sociodramatic play are optimised.

It is also starkly apparent in Figure 6.5 that 10- to 12-year-old children's social development within the institution is possibly being restricted by considerably more emerging cultural artifacts compared to 8- to 9-year-old children. This phenomenon is also reflected in Figure 6.2 where 10- to 12-year-old children's social motives for engaging in online sociodramatic play were found to be restricted by twice as many tensions compared to the social motives of children in the 8- to 9-year-old age group. It is important, therefore, that new cultural artifacts also be developed to optimise the cultural conditions for 10- to 12-year-old children's social development within the institution of online sociodramatic play.

Conclusion

In this chapter, the main research question guiding this investigation was answered by describing how online sociodramatic play is constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers. First, points of commonality and tension occurring within the institution were detailed based on how caregiver demands for online sociodramatic play (as reflected in their mediated practices) align or conflict with 8- to 12-year-old children's motives for engaging in such play in the family home. An overview of this analytical process is summarised in Figure 6.6. Importantly, these commonalities and tensions were identified as comprising the institution of online sociodramatic play because they are variously informed by motives and mediated practices (as per the theoretical model conceptualising this study).

Figure 6.6

Commonalities, Tensions, and Children's Motives

COMMONALITIES			
Using Minecraft for online play	Playing online in main living areas (8- to 9-year-olds)	Extending screen time limits for online play during lockdowns	Using timed reminders to end online play
		Adhering to safety and behavioural rules during online play	Playing online in bedrooms (with permission)
Being creative with friends <i>(cognitive motive)</i>	Learning play-related skills <i>(cognitive motive)</i>	Interacting with friends <i>(social motive)</i>	Sharing play-related ideas and knowledge with friends <i>(social motive)</i>
Limiting (or disallowing) screen time for online play after school	Limiting (or disallowing) screen time for online play on sick days	Using Messenger Kids for online play (10- to 12-year-olds)	Playing online in main living areas (10- to 12-year-olds)
	Playing online with avatars controlled by strangers (10- to 12-year-olds)	Including siblings during online play	
TENSIONS			

Then, cultural artifacts mediating caregiver practices in ways that contribute to the commonalities and tensions were critically examined to consider how they might be supporting or restricting the developmental pathways of school age children who enjoy engaging in online sociodramatic play. A summarised overview of this analytical process is illustrated in Figure 6.7.

Figure 6.7

Cultural Artifacts Supporting or Restricting Child Development within the Institution

CULTURAL ARTIFACTS supporting child development within the institution	
<p style="text-align: center;"> Academic socialisation (regarding cognitive skills) Digital learning policies (promoting Minecraft: Education Edition) <i>8- to 9-year-old children</i> Parenting websites (advising “no bedrooms” rule) Mainstream media programs (showing “addicted” children gaming in bedrooms) </p>	<p style="text-align: center;"> Child-centred philosophies (promoting agentic play) Academic socialisation (regarding social skills) Traditional theories of social play (espousing benefits of social play) Family norms (where co-play is viewed positively) Digital learning policies (promoting online safety) Parental discourses (about ending online play) Parenting websites (advising self-managed screen time) </p>
<p style="text-align: center;"> COGNITIVE MOTIVES <i>Being creative with friends</i> <i>Learning play-related skills</i> </p>	<p style="text-align: center;"> SOCIAL MOTIVES <i>Interacting with friends</i> <i>Sharing play-related ideas and knowledge with friends</i> </p>
<p style="text-align: center;"> Traditional theories of play (not recognising game designers as more knowledgeable others) Parental discourses (about limiting screen time) Parenting websites (about limiting screen time) Mainstream media programs (about how excessive screen time in bedrooms may lead to gaming addiction and/or children feigning illness) <i>10- to 12-year-old children</i> Parenting websites (advising “no strangers” rule) </p>	<p style="text-align: center;"> Child-centred philosophies (promoting inclusive sibling co-play) Family norms (prioritising sibling co-play) <i>10- to 12-year-old children</i> Parental discourses (about Messenger Kids) Parenting websites (advising “no bedrooms”) Mainstream media programs (showing “addicted” children gaming in bedrooms) </p>
CULTURAL ARTIFACTS restricting child development within the institution	

As shown in Figures 6.6 and 6.7, it is likely that school age children's cognitive development is being restricted within the institution of online sociodramatic play, particularly for children in the 10- to 12-year-old age group. It is also possible that the social development of 10- to 12-year-old children is being restricted within the institution. These overarching findings are significant because they provide nuanced insight into the problem being addressed in this research which is to explore how children's lived experiences and perspectives of online sociodramatic play differ from those of caregivers who did not engage in such play during childhood. In the next and final chapter of this thesis, these findings regarding the institution of online sociodramatic play will be discussed relative to the establishment of new cultural artifacts that aim to optimise the cultural conditions for child development in the blended ecology of family homes located in digitised societies.

Chapter 7: Conclusion

Introduction

Findings reported in this research identified commonalities and tensions occurring in the blended ecology of the family home between 8- to 12-year-old children and their caregivers within the institution of online sociodramatic play. In this chapter, an overview will be provided explaining how the aim of this investigation was addressed, and the main research question (and associated sub-questions) were answered. Then, the significance of the overarching findings will be considered in terms of how they might be used to optimise the cultural conditions for child development within the blended ecology of family homes in digitised societies. The chapter concludes by detailing the limitations of this study and recommendations for future research that could provide further insight into the institution of online sociodramatic play.

7.1 Addressing the aim of the research

In this study, the institution of online sociodramatic play was described as being constituted by a specific range of commonalities and tensions occurring between 8- to 12-year-old (school age) children and their caregivers (see Figure 6.3 in Ch. 6, p. 284). Identifying these commonalities and tensions was important because a comprehensive review of the scholarly literature suggested that children are highly motivated to engage in online play with their friends whereas caregivers enact practices to minimise the potential risks of such play (e.g., excessive screen time, interactions with strangers).

Subsequently, the aim of this research was to gain nuanced insight into how caregiver practices (as mediated by cultural artifacts) align or conflict with 8- to 12-year-old children's motives for engaging in online sociodramatic play in the blended ecology of the family home. To address the aim of this research, Hedegaard's (2009) model of child learning and development through participation in institutionalised practice was adapted to conceptualise online sociodramatic play as an institution (see Figure 3.2 in Ch. 3, p. 80).

The state perspective (upper tier) of this adapted model was informed by the concept of mediation (Vygotsky, 1930/1978) and practice theory (Kemmis et al., 2014; Schatzki, 2012) and the individual perspective (lower tier) was informed by Vygotsky's (1933–1934/1998a) periodisation of child development. The institutional level (middle tier) of Figure 3.2 was identified as the unit of analysis in this study – the institution of online sociodramatic play. The process of adapting Hedegaard's (2009) model to theoretically frame this study subsequently informed the main research question:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

In alignment with the distinctive three-tiered structure of Hedegaard's (2009) adapted model, the main research question was addressed using three sub-questions:

SQ1: How are caregiver practices mediated by cultural artifacts regarding children's participation in online sociodramatic play in the family home?

SQ2: What are children's motives for engaging in online sociodramatic play?

SQ3: What are children's perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home?

The first sub-question related to the state perspective (upper tier) of Hedegaard's (2009) adapted model shown in Figure 3.2 and the second and third sub-questions related to the individual perspective of this theoretical model (lower tier).

7.2 Answering the research questions

Guided by the qualitative research tradition of hermeneutic phenomenology, this investigation was methodologically framed using a case study design. This meant that in-depth understandings about the case (unit of analysis) were drawn from the first-person lived experiences (and perspectives) of school age children who enjoy engaging in online sociodramatic play and their caregivers who guide these children's participation in such play in the blended ecology of the family home.

Importantly, the institution of online sociodramatic play was identified as the “case” in this research because this unit of analysis represented a bounded system that could only be defined by fixed variables. These fixed variables included a specific children’s play activity (online sociodramatic play) and distinct adult practices (those of caregivers guiding children’s participation in online play) occurring within a real-world setting (family home).

In alignment with the philosophical assumptions underpinning hermeneutic phenomenology, a co-design research approach was selected to inform the methodological process. This approach meant that children and caregivers participating in this study were positioned as co-researchers who engaged in collaborative, creative data gathering activities with me (as the primary researcher conducting this investigation) in comfortably appointed university or household spaces. These activities (e.g., group sessions, individual interviews) enabled a broad range of languaged data to be gathered (e.g., digital responses, posters, activity sheets, fieldnotes) which were subsequently used to answer the three sub-questions addressing the main research question guiding this study.

The first sub-question was answered via a three-step analytical process. First, languaged data gathered with caregivers (e.g., digital responses, interview transcripts, fieldnotes) were deductively analysed according to five theoretical codes informed by Practice theory (Kemmis et al., 2014; Schatzki, 2012). These theoretical codes were: 1) sayings (i.e., what caregivers say/convey to children); 2) doings (i.e., what bodily actions caregivers perform); 3) relatings (i.e., how caregivers relate to children and/or physical objects); 4) temporal dimensions (i.e., how caregivers’ actions and interactions are temporally dispersed); and 5) spatial dimensions (i.e., how caregivers’ actions and interactions are spatially dispersed).

This initial analytical step enabled five caregiver practices guiding children’s participation in online sociodramatic play to be identified. These practices were: 1) scheduling online play; 2) signalling an end to online play; 3) specifying software platforms for online play; 4) allocating household spaces for online play; and 5) safeguarding online play. These practices were then labelled according to analytic categories drawn from two deductive codes informed by the scholarly

literature (e.g., eSafety Commissioner, 2018; Graham & Sahlberg, 2021; Ofcom, 2022). These codes were: 1) managing screen time for online play; and 2) monitoring online play.

The second analytical step saw caregiver-related data deductively re-analysed to identify the different types of cultural artifacts mediating the five caregiver practices identified in the previous step. Two theoretical codes informed by Vygotsky's (1930/1978) concept of mediation were used to label these artifacts. These codes were: 1) existing cultural artifacts; and 2) emerging cultural artifacts. As a result of this second analytical step, four existing cultural artifacts and four emerging cultural artifacts were identified. The four existing cultural artifacts were: 1) child-centred philosophies; 2) academic socialisation; 3) traditional theories of play; and 4) family norms. The four emerging cultural artifacts were: 1) digital learning policies; 2) parental discourses; 3) parenting websites; and 4) mainstream media programs.

The final analytical step for answering the first sub-question involved the creation of two illustrative tables. The first illustrative table displayed how caregiver practices guiding children's participation in online sociodramatic play in the family home are implicitly mediated by existing cultural artifacts (see Table 5.1 in Ch. 5, p. 214). The second illustrative table displayed how such practices are explicitly mediated by emerging cultural artifacts (see Table 5.2 in Ch. 5, p. 215). Collectively, information displayed in these two illustrative tables represented a visual response to the first sub-question guiding this study:

SQ1: How are caregiver practices mediated by cultural artifacts regarding children's participation in online sociodramatic play in the family home?

The visual response suggested that caregiver practices guiding children's participation in online sociodramatic play in the blended ecology of the family home are being implicitly and explicitly mediated by a range of existing and emerging cultural artifacts. Interestingly, the visual response indicated that all five caregiver practices identified in this study are simultaneously being implicitly mediated by child-centred philosophies and explicitly mediated by parenting websites.

The process for answering the second sub-question saw language data gathered with children (e.g., digital responses, perspectives posters, activity sheets, peer interviews, fieldnotes) deductively analysed via a two-step process. First, children's leading motives for engaging in online sociodramatic play were analysed using two deductive codes informed by Vygotsky's (1933–1934/1998a) periodisation of child development. These theoretical codes were: 1) cognitive motives; and 2) social motives.

This analytical process saw two cognitive motives and two social motives identified. Children's cognitive motives for engaging in online sociodramatic play were: 1) being creative with friends; and 2) learning play-related skills. Children's social motives for engaging in online sociodramatic play were: 1) interacting with friends; and 2) sharing play-related ideas and knowledge with friends. Collectively, these four motives provided a clear answer to the second sub-question guiding this research:

SQ2: What are children's motives for engaging in online sociodramatic play?

To answer the third sub-question, child-related data was deductively re-analysed to determine whether children agreed or disagreed with caregiver practices guiding their participation in online sociodramatic play in the home. During this analytical process, agreements and disagreements were categorised according to three different age groups so insight could be gained into the unique perspectives of children experiencing maturing effects of the crisis at age seven (Vygotsky, 1933–1934/1998b) or inceptive effects of the crisis at age thirteen (Vygotsky, 1930–1931/1998c). These age groups were: 1) 8- to 9-year-old children; 2) 10-year-old children; and 3) a 12-year-old child. As a result of this analytic process, a variety of insightful answers were elicited that collectively answered the third sub-question informing this study:

SQ3: What are children's perspectives of caregiver practices guiding their participation in online sociodramatic play in the family home?

Once the three sub-questions were addressed, the main research question was answered. First, children's perspectives of caregiver practices (along with relevant data relating to their

leading motives for engaging in online sociodramatic play) were summarised via an illustrative table (see Table 5.4 in Ch. 5, p. 243). Within this illustrative table, notable points of commonality and tension occurring between 8- to 12-year-old children and their caregivers in relation to online sociodramatic play in the blended ecology of the family home were clearly identifiable.

There were six points of commonality identified in the illustrative table: 1) extending screen time limits for online play during lockdowns; 2) using timed reminders to end online play; 3) using Minecraft for online play; 4) playing online in main living areas (8- to 9-year-olds); 5) playing online in bedrooms; and 6) adhering to safety and behavioural rules during online play. There were also six points of tension identified in the illustrative table: 1) limiting (or disallowing) time for online play after school; 2) limiting (or disallowing) time for online play on sick days; 3) using Messenger Kids for online play (10- to 12-year-olds); 4) playing online in main living areas (10- to 12-year-olds); 5) playing online with avatars controlled by strangers (10- to 12-year-olds); and 6) including siblings during online play.

Jointly, these notable points of commonality and tension were recognised as constituting the institution of online sociodramatic play as it currently stands for 8- to 12-year-old children and their caregivers in the blended ecology of family homes in digitised societies. Importantly, these commonalities and tensions provided a comprehensive answer to the main research question driving this investigation:

How is online sociodramatic play constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers?

The next step was to explore possible reasons why each point of commonality and tension was occurring within the institution of online sociodramatic play. This interpretive process was crucial because, in this study, Hedegaard's (2009) adapted model of child development represented a "mode of action" (Wartofsky, 1979, p. 202) for optimising the external cultural conditions for child development in the family home.

This quest for understanding saw cultural-historical perspectives of child development and sociodramatic play (e.g., Blunden, 2008; El’Konin, 1971/1999; Vygotsky, 1930/1978; 1933–1934/1998a; 1933–1934/1998b; 1930–1931/1998c) used to interpret why school age children’s motives for engaging in online sociodramatic play might be aligning, or conflicting, with caregiver practices (as mediated by cultural artifacts) guiding their participation in such play in the home. Insights from the scholarly literature about children’s use of Minecraft for online play (e.g., Caughey, 2021; Dezuanni & O’Mara, 2017; Wernholm, 2019; 2021) and the nature of school age children’s sociodramatic play (e.g., Bergen & Fromberg, 2009; Rubin, 2001) and were also used to inform this interpretive process.

Exploring why commonalities and tensions might be occurring between school age children and their caregivers within the institution of online sociodramatic play resulted in two overarching findings emerging from this research. The first overarching finding suggested that school age children’s cognitive development is possibly being restricted within the institution of online sociodramatic play, particularly for 10- to 12-year-old children. The second overarching finding indicated that the social developmental needs of 10- to 12-year-old children are also potentially being restricted within the institution of online sociodramatic play.

7.3 Significance of the overarching findings

The overarching findings reported in this study are significant because they indicate that existing and emerging cultural artifacts are simultaneously mediating how caregivers make decisions about guiding 8- to 12-year-old children’s participation in online sociodramatic play in ways that may be restricting child development. It is feasible to suggest, therefore, that this dilemma occurs because some existing and emerging artifacts offer conflicting advice. For example, child-centred philosophies (existing cultural artifact) advocate for supporting child agency in play whereas online parenting websites (emerging cultural artifact) advise caregivers to closely monitor children’s participation in online play.

There is a need, therefore, to develop even newer cultural artifacts that could help address the problem of how this conflicting advice may be restricting the cognitive and/or social developmental needs of school age children within the institution of online sociodramatic play. There are two theoretically based propositions that could guide the creation of such artifacts: 1) promoting online sociodramatic play as a creative after-school activity; and 2) linking online sociodramatic play to the crisis at age thirteen (Vygotsky, 1930–1931/1998c). In this section, examples of these new cultural artifacts (e.g., infographics, tip sheets, explainer videos) are presented. These artifacts were designed by me and would thus require professional formatting by graphic designers and/or digital content producers prior to future dissemination.

7.3.1 From restricting the cognitive developmental needs of 8- to 12-year-old children to promoting online sociodramatic play as a creative after-school activity

In this research, the first overarching finding suggesting that school age children’s cognitive development is possibly being restricted within the institution of online sociodramatic play was predominantly based on three notable tensions. The first tension, limiting (or disallowing) screen time for online play after school, was identified as likely conflicting with children’s cognitive motive to be creative with friends whilst co-constructing complex in-world structures and/or enacting sophisticated imaginary play scenarios in Minecraft (Creative mode) during online sociodramatic play.

The second tension, limiting (or disallowing) screen time for online play on sick days, was recognised as potentially conflicting with children’s cognitive motive to learn play-related Minecraft skills that support their later participation in online sociodramatic play whilst also distracting them from negative emotions associated with feeling unwell (e.g., boredom). The third tension, playing online with avatars controlled by strangers, was identified as possibly conflicting with 10- to 12-year-old children’s cognitive motive to learn play-related skills from avatars controlled by strangers who do not ask for personal information and can help them acquire and/or refine in-world Minecraft skills that are highly valued among their real-world peer group.

To minimise these tensions, new cultural artifacts promoting online sociodramatic play as a creative after-school activity could be deliberately introduced to caregivers via organisations that seek to support families with optimising child development, such as Raising Children Network, Netmums, and Healthy Children. Such artifacts might include cultural-historical understandings about the strong cognitive motive of school age children to engage in object-centered activities with others (e.g., creative co-play in Minecraft) and the new cognitive motives arising around age seven (e.g., seeking to acquire new skills) and age thirteen (e.g., gravitating toward creative fulfillment) (Vygotsky, 1933–1934/1998a; 1933–1934/1998b; 1930–1931/1998c).

These artifacts, while employing cultural-historical understandings of child development, would need to embed the relevant concepts in ways that are clearly communicated (rather than explicitly stated) as theoretical concepts may be somewhat inaccessible to some caregivers. The conversion of these theoretical concepts to caregivers might thus advise three practices that align more closely with 8- to 12-year-old children's cognitive motives for engaging in online sociodramatic play.

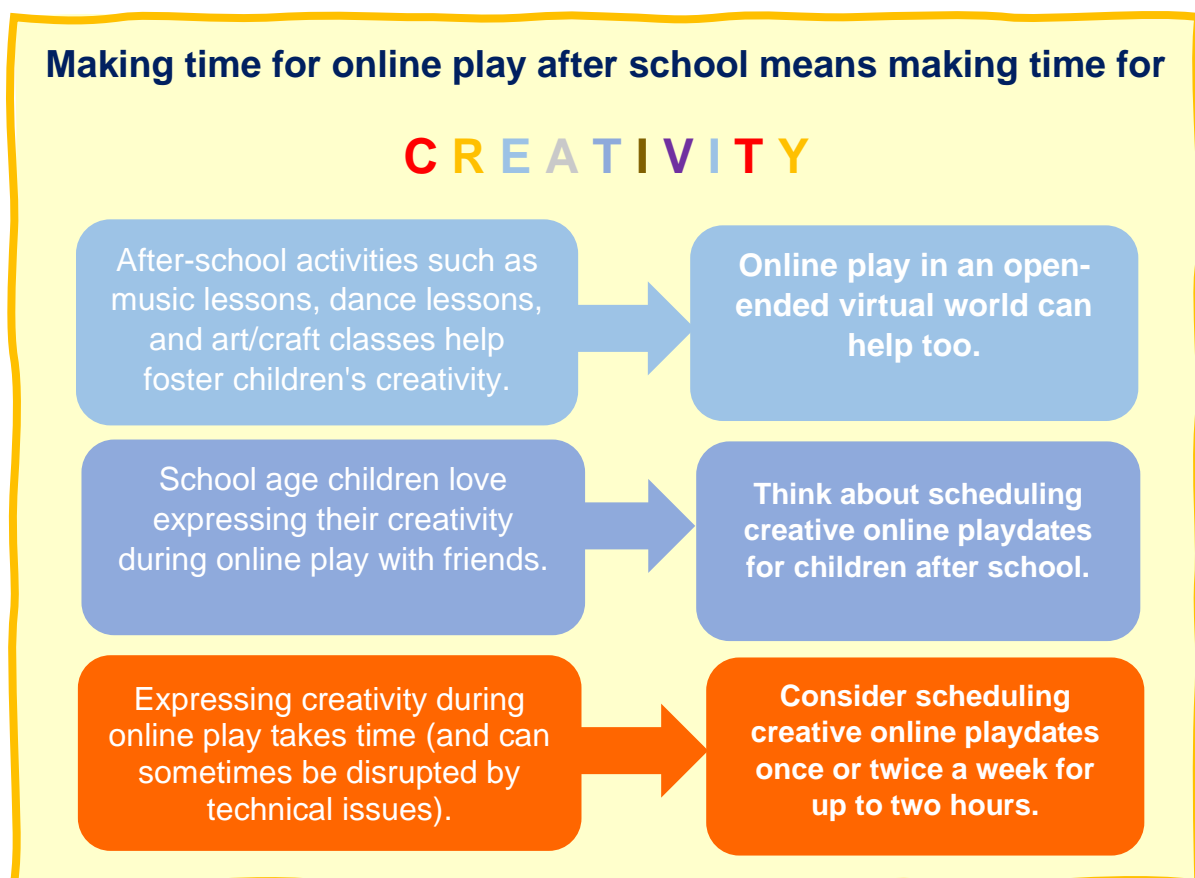
The first suggested practice is scheduling online sociodramatic play for up to two-hours after school once or twice a week (like other after-school activities). This practice might align more closely with children's cognitive motive to be creative with friends during online sociodramatic play compared to a one-hour time limit. Information relating to this practice could describe how children's ability to express their creativity during online sociodramatic play (e.g., co-constructing complex in-world structures with friends) is a considerably time-consuming process, particularly if technical issues outside their control (e.g., intermittent internet connectivity) disrupt these in-world activities.

Importantly, advising up to two-hours for online sociodramatic play after school reflects a time limit preferred by children participating in this research (e.g., Angela and Beavis) and aligns with current recommendations for school age children's daily recreational screen time in Australia (Australian Government Department of Health and Aged Care, 2021). Moreover, several parenting

websites (such as those mediating Tessie’s everyday practices) encourage caregivers to provide opportunities for children to use screen-based technologies for “creating” rather than “consuming” (see Coulson, 2023; Goodwin, 2018a). An example of an infographic encouraging caregivers to consider this suggested practice is displayed in Figure 7.1.

Figure 7.1

Infographic Promoting Two Hours for Creative Online Play After School



The second suggested practice that could be included in new cultural artifacts promoting online sociodramatic play as a creative after-school activity is scheduling screen time (e.g., one hour) for Minecraft-specific activities when children are too sick to go to school (but well enough to use screen-based devices). This practice would possibly align more closely with children’s cognitive motive to learn play-related Minecraft skills compared to having no screen time on sick days. Information relating to this practice could explain how such skills significantly heighten

children's ability to express their creativity (e.g., co-constructing and enhancing in-world structures) during online play with their friends.

Further information relating to this suggested practice might explain how school age children are highly motivated to collectively theorise (i.e., learn new skills) with more knowledgeable others (e.g., educators, peers) and, in a digitised society, these more knowledgeable others may include the game designers of Minecraft (Caughey, 2021). Scheduling screen time for Minecraft gameplay on sick days could thus be positioned in new cultural artifacts as a creative learning activity when children are unable to engage in object-centred activities at school whilst also possibly distracting them from negative emotions associated with feeling unwell (e.g., boredom).

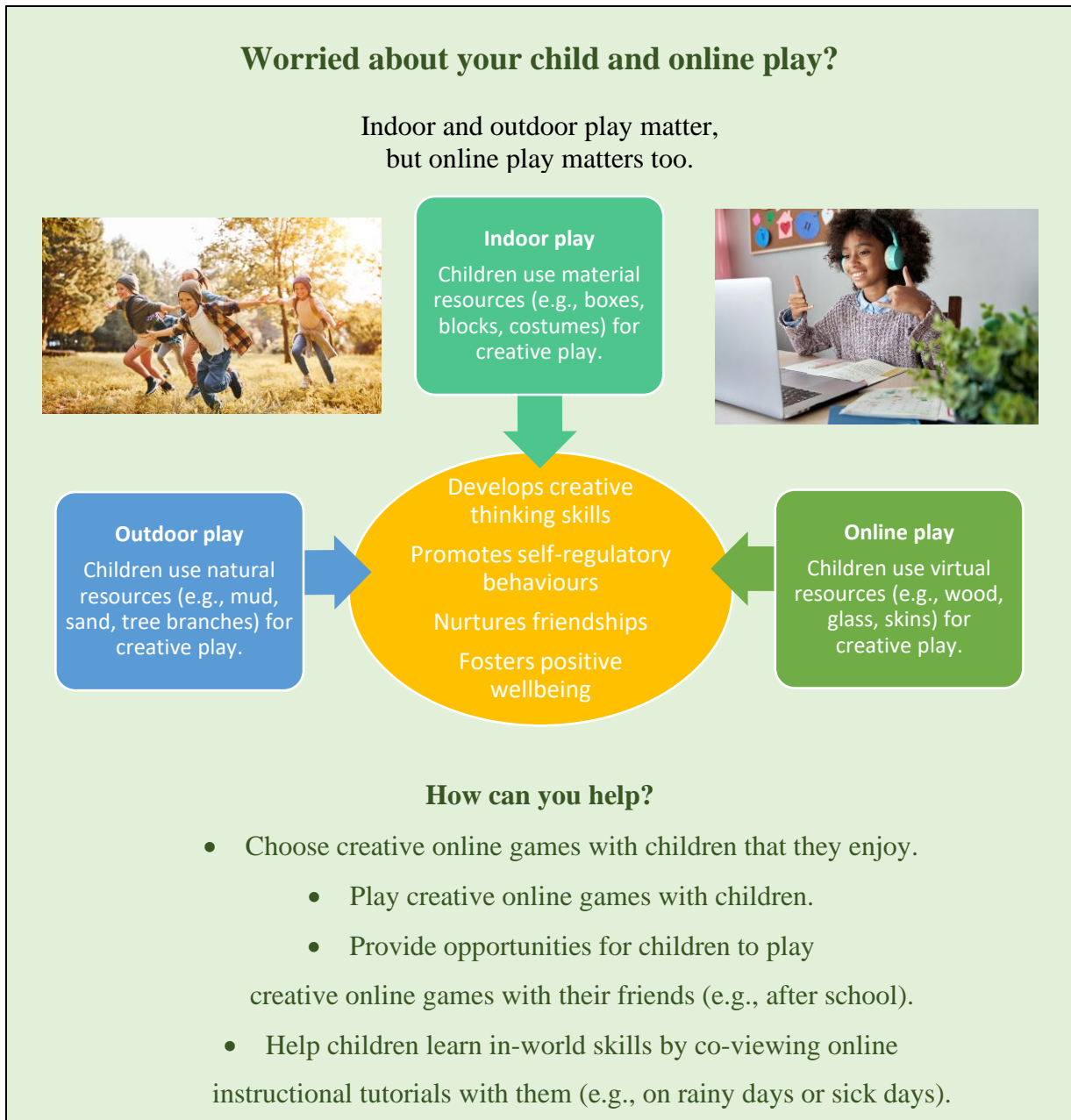
Another way this practice could be enacted is to suggest that caregivers co-view instructional Minecraft tutorials (e.g., via YouTube) with children who are too sick to go to school. Such tutorials are often used by children (e.g., Donut and Doofessor) to help them acquire and/or refine their in-world Minecraft skills for later use in online gaming communities (see also Dezuanni et al., 2015; Wernholm, 2019; 2021; Willett, 2018). Interestingly, Wernholm and Vigmo (2015, p. 243) describe people who create these types of tutorials as “more knowledgeable others” within Minecraft gaming communities.

Advising caregivers to co-view “educational digital content” (e.g., Minecraft tutorials) with children aligns with advice currently being disseminated by parenting websites (e.g., see Coulson, 2023; Joshi & Hinkley, 2021) and may lead to other benefits within the institution of online sociodramatic play. For example, research has found that child/adult co-use of digital technologies can help overcome screen time tensions in the home (Livingstone & Pothong, 2022), strengthen familial bonds (Zaman et al., 2016), and foster children's critical thinking skills about the content and safety of online environments (Chaudron et al., 2019). This shared experience might even prompt some caregivers to co-play Minecraft with children. According to a recent study, many school age children would like to play online games (such as Minecraft) with their caregivers

(eSafety Commissioner, 2024a). An example of a Tip Sheet embedded with these practices is shown in Figure 7.2.

Figure 7.2

Tip Sheet Promoting Co-viewing and Co-playing with Children



Importantly, advising caregivers to schedule screen time for children who are too sick to go to school reflects current advice detailed in a recent online article written by child development researchers specialising in child-technology interaction (Kaufman & Zosh, 2023). In this article,

caregivers are advised to apply their usual weekend/school holiday screen time limits when children are too sick to go to school, provided they are monitored and well enough to use screen-based devices.

The third suggested practice that might be included in new cultural artifacts promoting online sociodramatic play as a creative after-school activity is safeguarding such play by discussing practical screening strategies with children about how to recognise whether avatars controlled by strangers in publicly accessible multiplayer virtual worlds are “shady” (a term used by Donut and Emily) or “nice” (a term used by children in other studies such as eSafety Commissioner, 2024a; Twining et al., 2017; Willett, 2017). This practice could align more closely with some older school age children’s cognitive motive to learn play-related skills from avatars controlled by strangers who do not ask for their personal details.

Information relating to this suggested practice might include scholarly insights indicating that some school age children are cognitively motivated to acquire and/or improve their in-world expertise (e.g., locating symbolic objects) from avatars controlled by strangers in online gaming platforms who exhibit (or offer) desirable game-related skills (Ofcom, 2023; Twining et al., 2017; Wernholm, 2019; 2021). These insights might be supported by the theoretically informed notion that, in a digitised society, skilled avatars controlled by “nice” strangers may be viewed by some children (particularly those entering the crisis at age thirteen) as more knowledgeable others who can heighten their ability to build complex Minecraft structures that impress their friends and/or wider peer group.




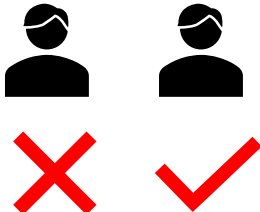
Further information relating to this suggested practice might include the scholarly argument that screening strategies for determining problematic avatars controlled by strangers in online spaces help build children’s online resilience (Marsh, 2011; UNICEF, 2019). The more recent argument that “arming” children with strategies that empower them to tackle problems in online environments “might be the newest 21st century skill” (Graham & Sahlberg, 2021, p. 36) might also be included, as could research suggesting that most school age children are proactive about

keeping themselves safe during online play (e.g., restricting who they play or communicate with, not sharing personal details) (eSafety Commissioner, 2024a). Some caregivers may also be interested in studies where 8- to 12-year-old children have reportedly experienced positive and meaningful social interactions (e.g., collaborative play) with avatars controlled by strangers during online play (e.g., see Navarro, 2021; UNICEF, 2024).

Justifying this suggested practice might be further achieved by including findings from recent large-scale studies indicating that significantly high numbers of school age children are interacting with avatars controlled by strangers in publicly accessible online gaming platforms (including Minecraft) (eSafety Commissioner, 2024a; Ofcom, 2023). Advising that caregivers safeguard online play by discussing practical screening strategies with children about recognising “shady” avatars controlled by strangers may thus heighten their online resilience and arm them with necessary skills required for safe, enjoyable play experiences in publicly accessible multiplayer virtual worlds. In Figure 7.3, an introductory script for an Explainer Video describing this suggested practice is detailed.

Figure 7.3

Explainer Video Promoting Practical Screening Strategies

			
<p>Avatars controlled by strangers in virtual worlds – shady or nice?</p>	<p>Despite the best efforts of parents, caregivers, and educators, some children interact with avatars controlled by strangers during online play.</p>	<p>Help keep children safe by talking to them about what makes an avatar controlled by a stranger shady or nice.</p>	<p>For example... shady avatars might ask children for personal information whereas nice avatars might help children learn new in-world skills.</p>

Along with the three suggested practices detailed in this section, new cultural artifacts promoting online sociodramatic play as a creative after-school activity could also include scholarly insights into children's own views of Minecraft as a mode of creative expression (Dezuanni & O'Mara, 2017; Petry, 2018; Slattery et al., 2023b) and their everyday dilemma of having few loose parts resources available at school for inspiring creative play (Hyndman, 2017). Moreover, in out-of-school contexts, traditional creative play materials (such as classic Lego sets containing miscellaneous blocks) are becoming increasingly difficult to acquire because they have been gradually replaced with fixed designs that must be constructed according to step-by-step instructions. While these types of sets are popular among children, Herger (2020) recently argued that true creativity is inspired by one's imagination, not an instructional manual. Global marketing strategies such as these raise the notion that hands-on creative after-school activities may be less accessible to the current generation of children compared to those from past generations.

A further dilemma faced by the current generation of children is that some adults overlook digital and/or online games (such as Minecraft played in Creative mode) as fostering their creativity in out-of-school contexts. This assertion was evidenced in a recent report where "creating digital content" (e.g., websites, images, games, videos) was recognised as a creative after-school activity for school age children whereas "playing digital games" was considered a cultural after-school activity (Australian Bureau of Statistics, 2023). Similarly, examples of "creative" activities in digital contexts for children were described in another recent report as making changes to photos (e.g., adding funny filters), using colouring apps, locating online images to include in homework tasks, and creating, editing, and posting online videos (e.g., on TikTok or YouTube) (Ofcom, 2024) rather than designing and/or constructing in-world creations in open-ended multiplayer virtual worlds.

Furthermore, while some parenting websites encourage caregivers to provide opportunities for children to express their creativity using digital technologies, suggested examples of creative activities include those requiring highly sophisticated digital literacy skills such as video editing,

blogging, digital storytelling, and podcasting (e.g., see Coulson, 2023). As such, school age children (particularly those in the 8- to 9-year-old age group) whose digital literacy skills are still developing may face significant barriers engaging in these types of creative activities in out-of-school contexts. This assertion is reflected in findings from a recent study indicating that 12- to 17-year-old children are more likely to use digital technologies for creating and uploading videos, music, blogs, and/or web pages on a weekly basis compared to younger children (UNICEF, 2019).

These examples highlight how adult-centric views of “creative” uses of digital technologies may not reflect those of school age children who have clearly and consistently told adult researchers (including myself) that Minecraft (played in Creative mode) enables them to freely express their creativity (e.g., see Dezuanni & O’Mara, 2017; Newland et al., 2018; Slattery et al., 2023b; Trček, 2014). The deliberate dissemination of new cultural artifacts promoting online sociodramatic play as a creative after-school activity may thus help redress this problematic issue in a digitised society.

7.3.1.1 Disseminating cultural artifacts promoting online sociodramatic play as a creative after-school activity

Almost a century ago, Vygotsky (1930/2004) argued that cultivating creativity in school age children should be the main educational objective of teachers. Unsurprisingly, this revolutionary way of thinking continues to permeate contemporary society because “creativity” is currently recognised as a key 21st century skill underlying “the development of transformative competencies” (Slattery et al., 2023b, p. 2) and supporting children’s ability to participate successfully in educational (and future workplace) contexts (Kahila et al., 2020; Newland et al., 2018).

The importance of fostering children’s creativity is also reflected in primary school curriculum documents globally. For example, creative thinking (e.g., generating and applying new ideas in different contexts, using imaginative thought) is considered an essential capability in the mandated curriculum for Australian primary schools (Australian Curriculum, Assessment and Reporting Authority, 2024) and creativity is a key element permeating the International

Baccalaureate (2023) primary years programme. Access to creative activities in digital environments is also a fundamental right of children living in democratic societies (UNCRC, 2021).

Given the strong educational (and rights-based) focus on fostering children's creativity, new cultural artifacts promoting online sociodramatic play as a creative after-school activity could be disseminated via schools (particularly those where Minecraft: Education Edition is made available to students). This stream of communication is particularly viable given that digital learning policies, such as those mandated by the Victorian Department of Education (DEEWR, 2024), represented the only cultural artifact in this research not mediating how caregivers schedule screen time for online play in the home. Moreover, recent research reports that caregivers (e.g., parents, grandparents) would "welcome more support from their child's school to help them and their child to manage digital media and technologies use at home" (Graham & Sahlberg, 2021, p. 27).

The dissemination of new cultural artifacts promoting online sociodramatic play as a creative after-school activity via digital learning policies may help redress reported findings in this study suggesting that emerging cultural artifacts tend to explicitly mediate why caregivers limit screen time for children's online sociodramatic play whereas existing cultural artifacts tend to implicitly mediate why caregivers provide opportunities for such play. These findings are particularly concerning because they indicate that recently established screen time discourses are prompting caregivers to focus more on "policing" online sociodramatic play rather than embracing its developmental benefits.

Schools, therefore, could play a key role in rectifying this imbalance by disseminating new cultural artifacts such as infographics (e.g., see Figure 7.1), tip sheets (e.g., see Figure 7.2), and explainer videos (e.g., see Figure 7.3) promoting online sociodramatic play as a creative after-school activity that may support the cognitive developmental needs of 8- to 12-year-old children.

7.3.2 From restricting the social developmental needs of 10- to 12-year-old children to linking online sociodramatic play to the crisis at age thirteen

The overarching finding suggesting that 10- to 12-year-old children's social development is potentially being restricted within the institution of online sociodramatic play was predominantly informed by three notable tensions. The first tension, using Messenger Kids for online play, was recognised as likely conflicting with 10- to 12-year-old children's social motive to interact with friends in ways that support their growing need for autonomy, positive peer-informed self-image, and privacy.

The second tension, playing online in main living areas, was identified as possibly conflicting with 10- to 12-year-old children's social motive to share play-related ideas and knowledge with friends in a private household space where they are less likely to be closely supervised, potentially judged, and/or disturbed by family members. The third tension, including siblings during online play, was recognised as potentially conflicting with older school age children's social motive to interact with friends with whom they have formed close bonds and are removed from the emotionality of sibling relationships.

Minimising these tensions, however, could be achieved via the deliberate introduction of new cultural artifacts into digitised societies linking online sociodramatic play to Vygotsky's (1930–1931/1998c) theory about the psychological effects of the crisis at age thirteen (e.g., the need for private, unsupervised play with close friends). Such artifacts could include three suggested caregiver practices that may align more closely with older school age children's social motives for engaging in online sociodramatic play.

The first suggested practice is for children and caregivers to jointly specify video chat software platforms that can be controlled by children during online sociodramatic play, such as FaceTime, Google Meet, or Microsoft Teams (all of which are currently rated suitable for school age children in the Apple App Store and Google Play). This practice might align more closely with 10- to 12-year-old children's social motive to interact with friends compared to using Messenger

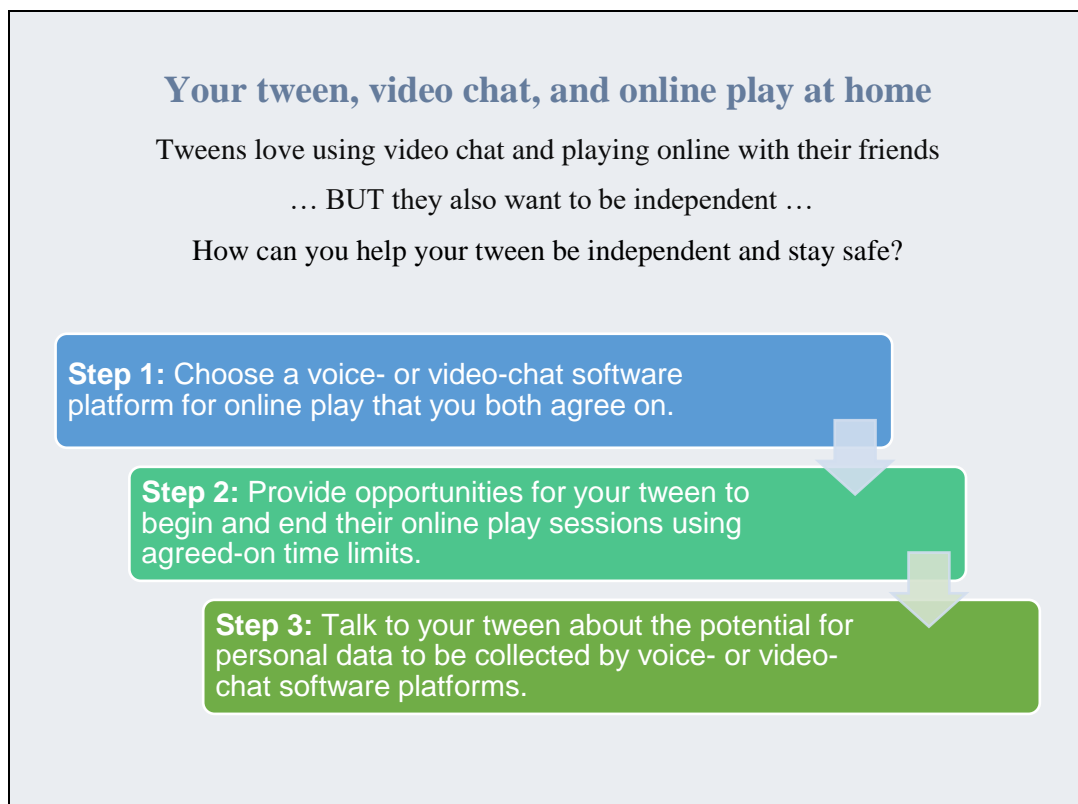
Kids, an adult-controlled software platform. Information relating to this practice could describe how older school age children prefer to autonomously control how, when, and who they interact with during online sociodramatic play because they are entering a critical developmental period (i.e., the crisis at age thirteen) prompting them to establish close personal friendships with peers, particularly those who share similar interests and worldviews (Vygotsky, 1930–1931/1998c).

Further information relating to this suggested practice could explain for caregivers that children entering the crisis at age thirteen begin to experience a higher level of self-reflective awareness that did not exist previously and adopt a more critical stance towards societal norms (Vygotsky, 1930–1931/1998c). For this reason, 10- to 12-year-old children might resist (or resent) using Messenger Kids for online sociodramatic play because they reject adult claims that a heavily monitored software platform is suitable for children in their age group and/or may be concerned that their personal information is being collected by Meta (a company that was recently fined for mishandling user data).

Instead, children in the 10- to 12-year-old age group may prefer voice chatting with their friends via a direct phone call (in speaker mode) or video chatting using FaceTime, Google Meet, or Microsoft Teams. A simple Infographic embedded with this suggested practice (using the term “tween” to refer to children in the 10- to 12-year-old age group) is displayed in Figure 7.4.

Figure 7.4

Infographic Promoting Autonomous Online Play



The second suggested practice that could be included in new cultural artifacts linking online sociodramatic play to the crisis at age thirteen is allocating private, yet safe, household spaces for older school age children’s participation in such play. This practice might align more closely with 10- to 12-year-old children’s social motive to share play-related ideas and knowledge with friends during online sociodramatic play compared to playing online in main living areas.

Justifying this suggested practice might be achieved by explaining that children experiencing inceptive psychological effects of the crisis at age thirteen prefer to socially interact with their close friends away from the supervisory gaze of others, particularly caregivers (Vygotsky, 1930–1931/1998c). This practice, however, will require judicious consideration as current eSafety recommendations highlight school age children using networked devices in areas of the home that are well-supervised by caregivers (e.g., see eSafety Commissioner, 2024b).

Caregivers might thus be encouraged to negotiate with 10- to 12-year-old children about determining safe, suitable household spaces for online sociodramatic play where the noise of such play is still audible, doors remain open, and children are not otherwise completely alone. In this research, an example of this monitoring practice was succinctly described by Peaches who explained that she “hovers around” outside her son’s bedroom door when he plays Minecraft online with friends so she can “still hear what’s happening”.

Further information relating to this suggested practice might highlight the (rather powerful) social motive of children entering the crisis at age thirteen to engage in communicative activities with close friends so they can freely share their views on ethical and moral societal norms to which they adhere (El’Konin, 1971/1999; Vygotsky, 1930–1931/1998c). During online sociodramatic play with close friends, older school age children would undoubtedly express these types of views whilst sharing play-related ideas and knowledge about their co-constructed in-world play scenarios.

Suggesting that caregivers allocate safe household spaces for such play may thus support this evolving social movie orientation appearing in the consciousness of children experiencing inceptive effects of the crisis at age thirteen. An example of a Tip Sheet embedded with this suggested practice is show in Figure 7.5.


Figure 7.5

Tip Sheet Promoting Safe, Private Household Spaces for Online Play

Tweens and privacy.

Tweens love talking to friends online,
but they don't always want family members listening too.
If your child is playing online, try these safety tips...

Talk with your tween about allocating a private, yet safe, household space for online play.



Ensure the door to the room children are in stays open.

Make sure you can hear children play.





Remember to not leave children completely alone.

The third suggested caregiver practice is safeguarding online sociodramatic play by asking older school age children to sometimes include their younger siblings in such play. This practice might align more closely with 10- to 12-year-old children's social motive to interact with friends during online sociodramatic play compared to always being required to include younger siblings. Information relating to this practice could explain how children experiencing psychological effects of the crisis at age thirteen might resist including siblings in their online play sessions because they are becoming increasingly socially motivated to build close, private friendship worlds with peers based on shared (age-related) beliefs, personal qualities, and interests (Vygotsky, 1930–1931/1998c).

Further information relating to this suggested practice could inform caregivers about the new self-reflective awareness prompted by the crisis at age thirteen that may give rise to protesting behaviours (e.g., “kicking out” siblings from online play sessions with friends) driven by a strong inclination to assimilate into their peer group rather than care for younger siblings. It would be important to temper this argument, however, by including scholarly insights about benefits reaped by siblings who enjoy playing Minecraft together in the family home (e.g., see Balmford & Davies, 2020; Dezuanni & O’Mara, 2017; Wernholm, 2019; Willett, 2018). An example of an introductory script to an Explainer Video about this suggested practice shown in Figure 7.6.

Figure 7.6

Explainer Video Promoting Time for Online Play with Peers

			
<p>Siblings and online play</p>	<p>Many children enjoy playing online games with their younger siblings and teaching them new in-world skills.</p>	<p>But...some tweens do not always want younger siblings tagging along.</p>	<p>Siblings playing together online is great, but tweens need time with just their friends too.</p>

Importantly, the three suggested practices described in this section strongly align with recent calls for parents and caregivers to be provided with informed guidance about respecting, supporting, and promoting “children’s growing autonomy and need for privacy” (UNCRC, 2021, p. 14) in digital environments. Children’s rights-based guidelines such as these highlight the urgency for new cultural artifacts linking online sociodramatic play to the crisis at age thirteen to be disseminated throughout digitised societies, particularly those adhering to democratic principles.

7.3.2.1 Disseminating cultural artifacts linking online sociodramatic play to the crisis at age thirteen

According to Vygotsky (1930/2004), the inner life of a child experiencing the psychological effects of the crisis at age thirteen “becomes infinitely more complex compared to that in the earlier years of childhood” (p. 53). It is important, therefore, that caregivers are informed about the new, powerful social motive orientations arising just prior to, and during, this critical developmental period so they can flexibly adapt their everyday practices in ways that align more closely with these newly evolving motives. Currently, however, the availability of emerging cultural artifacts explaining the social motive orientations of children entering the crisis at age thirteen is significantly limited.

This assertion is evidenced by a recent Google search of the phrase “crisis at age thirteen” (conducted on September 27th, 2024) which, along with eliciting a cumbersome number of results (45,800,000), provided a list of weblinks offering help to teenagers exhibiting signs of mental health and/or trauma-related disorders. While including the term “Vygotsky” with this phrase resulted in far fewer results (around 81,000), these weblinks were predominantly (rather lengthy) scholarly articles (many of which were only accessible via academic institutions) and thus unsuitable for informing most caregivers about this important critical developmental period during childhood, especially as it relates to children’s motives for engaging in online sociodramatic play. Meanwhile, a search of “helping children with online play” revealed an unmanageable number of results (2,490,000,000) with some weblinks offering advice about guiding children’s safe participation in online play and others offering advice about limiting such play.

Recently, Hedegaard (2020, p. 2) reiterated the importance of informing adults (e.g., parents, carers, educators) about responding sensitively to children experiencing a crisis of age rather than attempting to “fix” problematic behaviours reflective of these critical developmental periods (e.g., by viewing such behaviours as requiring psychological intervention). New cultural artifacts linking online sociodramatic play to the crisis at age thirteen could thus be disseminated

via parenting websites, digital learning policies, and/or mainstream media programs in the form of infographics (e.g., see Figure 7.4), tip sheets (e.g., see Figure 7.5), and explainer videos (e.g., see Figure 7.6) or commentary from other caregivers. These streams of communication are particularly viable given that reported data in this research indicated that caregivers consult these artifacts to inform their everyday practices, including those relating to managing and monitoring children's participation in online play.

It is important to note, however, that many parenting websites (understandably) classify online articles according to age groups during childhood that reflect prominent education systems, such as preschool (e.g., under 5s), primary school (e.g., 5- to 12-year-olds), and secondary school (e.g., 13- to 17-year-olds) (e.g., see Coulson, 2023; e-Safety Commissioner, 2024b). While this age-related structure may be suitable for disseminating generalised advice about children attending different educational institutions, it also means that caregivers of 10- to 12-year-old children are receiving the same advice (and information) as those of 5- to 6-year-old children – which does not necessarily address the social needs of children experiencing inceptive effects of the crisis at age thirteen.

Other parenting websites, however, classify online articles according to the unique developmental needs of early school age children and older school age children. For example, the Raising Children Network website currently offers a “pre-teens” portal which links to online articles for caregivers of 9- to 11-year-old children. These types of parenting websites would thus provide a viable means of disseminating new cultural artifacts linking online sociodramatic play to the psychological effects of the crisis at age thirteen described by Vygotsky (1930–1931/1998c).

Deliberately introducing these types of cultural artifacts into digitised societies may help redress the problematic findings reported in this study indicating that emerging cultural artifacts are far more likely to explicitly mediate caregiver practices in ways that restrict the social developmental needs of 10- to 12-year-old children compared to those of 8- to 9-year-old children within the institution of online sociodramatic play. Parenting websites, digital learning policies, and

mainstream media programs could thus play a pivotal role in rectifying this need in digitised societies by creating and disseminating new cultural artifacts linking online sociodramatic play to the crisis at age thirteen (Vygotsky, 1930–1931/1998c).

7.4 Implications of the research

The overarching findings reported in this research have significant implications for adults (e.g., policymakers, educators, parenting experts, media content producers) who disseminate emerging cultural artifacts (e.g., digital learning policies, parenting websites, mainstream media programs) explicitly mediating caregiver practices guiding children’s participation in online sociodramatic play in the blended ecology of the family home. First, policymakers and educators who disseminate digital learning policies in schools where *Minecraft: Education Edition* is made available to students might consider including the provision of free play *Minecraft* activities for students (e.g., during “Fun Friday” sessions, lunchtimes, or perhaps at an after-school MineTime Kids’ Club).

Currently, digital learning policies in Victorian government schools (many of which have free access to *Minecraft: Education Edition*) state that students are educated to use digital technologies for a range of purposeful learning activities (e.g., using software platforms embedded with targeted educational outcomes) (DEEWR, 2023). Given that 8- to 12-year-old children are highly cognitively motivated to engage in object-centred activities with more knowledgeable others (El’Konin, 1971/1999), school supported access to free play *Minecraft* activities represents a purposeful learning opportunity for children in this age group.

This implication predominantly stems from reported data in this research suggesting that Donut (age 8) rarely plays *Minecraft: Education Edition* online with his classmates as his mother, Tessie, believes they may find it challenging to read complex text-based material embedded in the game design. Research has found, however, that school provision of free play *Minecraft* activities in the early school years heightens children’s ability to engage in online sociodramatic play with their classmates after school (Caughey, 2021) and is viewed positively by school age children (Dezuanni

& O'Mara, 2017) and their caregivers (Balmford & Davies, 2020). Including free play Minecraft activities in digital learning policies may thus help support school age children's cognitive development within the institution of online sociodramatic play.

The second implication relates to adults (e.g., parenting experts) who disseminate online articles via parenting websites about school age children's participation in online play. While such articles are well-intentioned, some may fail to recognise the everyday reality of children's lives. For example, several parenting experts (such as those consulted by Tessie) advise caregivers to set "no bedrooms" and/or "no strangers" rules for online play (e.g., see Coulson, 2018; Goodwin, 2018a; 2018b; Sparrow, 2017; Wallis, 2020). Findings reported in this research (and several other recent studies), however, indicate that many school age children are playing online games (e.g., Minecraft, Roblox, Fortnite) in their bedrooms and interacting with strangers during online play (e.g., see eSafety Commissioner, 2024a; Ofcom, 2023). More nuanced advice may thus recognise the need that children in this age group have for peer interactions and seek to negotiate safe spaces in the family home that accommodate children's desire for privacy and caregivers' concerns for monitoring.

In relation to the institution of online sociodramatic play, it would be beneficial if parenting experts also advised caregivers about co-developing strategies with children that achieve a balance between privacy and supervision, while understanding that some children (such as those seeking to acquire in-world skills) may also be cognitively inclined to interact with avatars controlled by strangers in the publicly accessible version of Minecraft. The need for these types of strategies is particularly heightened given recent research suggesting some children encounter negative experiences (e.g., bullying) during online play (e.g., see eSafety Commissioner, 2024a) or may be exposed to gender-based or religious ideologies that prompt violent offline behaviours (e.g., see Koehler et al., 2023).

The third implication arising from this study relates to media content producers who disseminate mainstream television (or radio) programs about children being "addicted" to online

play. Recent research has found that media discourses such as these permeate and spread a stigma about online gaming, even among children as young as 9-years-old (Carter et al., 2020a). In digitised societies, this type of stigma has the potential to marginalise children (and caregivers) who enjoy, and positively view, online play as a valued recreational activity. Subsequently, media content producers who disseminate these types of programs might focus more on how online play can be used to support school age children's developmental needs (as reported in this research) rather than contribute to moral panic about the potentially "addictive" nature of such play or focus on extreme cases where online play is positioned as a highly problematic activity for children.

The need for these types of mainstream media programs in digitised societies, such as Australia, is particularly heightened because children living in these societies have the right to engage in recreational play in digital environments (of their choice) that enable them to experience pleasure, relax, and explore their interests (UNCRC, 2021). According to Carter et al. (2020b, p. 146), however, "pervasive discourses of 'game addiction' – almost exclusively directed at digital games – threaten this right" and give rise to barriers (e.g., restrictive screen time limits) that may constrain children's ability to freely access recreational (and developmentally beneficial) play in digital environments in moderation.

It is also important to note that older generations may be unaware that children being raised and educated in democratic societies have the right to access developmentally beneficial play in digital environments. As many grandparents (such as Anna) regularly guide their grandchildren's use of networked devices and/or online spaces (see also Elias et al., 2020; Graham & Sahlberg, 2021; Ivan & Nimrod, 2021), media content producers who create mainstream programs enjoyed by older people (e.g., free-to-air radio programs produced by national broadcasters) play an important role in disseminating information about children's right to access such play provided it is safe, enjoyable, relaxing, and supports their unique developmental needs and interests.

7.5 Limitations

The findings reported in this investigation are subject to certain limitations. The first limitation is that adult researchers participate in cultural and societal systems (e.g., as authority figures in homes and/or workplaces) that may limit their understanding of children's perspectives (Rogoff et al., 2018). To mitigate this limitation, I employed ethical symmetry (Groundwater-Smith et al., 2015) during data gathering activities with child co-researchers by honouring their right to always express their lived experiences and perspectives of online sociodramatic play freely and openly.

The sample size (i.e., eight children and six caregivers) may also be considered a limitation of this study. Like other qualitative research traditions (e.g., narrative, grounded theory), however, phenomenologists generally prefer smaller samples so they can collect extensive data from individual participants (Creswell & Poth, 2018). Provided languaged data gathered in a research setting is "sufficiently rich to bring refinement and clarity to understanding an experience" (Polkinghorne, 2005, p. 140), smaller sample sizes provide valuable insight into the everyday lifeworlds of children (e.g., see Carter & Nutbrown, 2016).

Furthermore, a recent systematic review of 200 phenomenological studies found that smaller sample sizes (e.g., between 5 and 15 participants) contributed to higher quality final reports in several key ways (Bartholomew et al., 2021). For example, smaller samples enabled deeper insight into the phenomenon under investigation, provided increased opportunities for participants to express their individual voices, and facilitated the researcher's ability to employ reflexivity (i.e., the process of examining one's beliefs, assumptions, and potential biases about a research topic).

A third limitation of this study was the recruitment of friends and family members. Dezuanni (2018, p. 241) argues, however, that despite the "obvious limitations" that recruiting friends and family members brings to a research study, this methodological decision can lead to new knowledge that may be otherwise inaccessible. This assertion is particularly applicable to the research reported in this thesis because the unique conditions of the COVID-19 pandemic posed an

unprecedented range of practical recruitment challenges to qualitative researchers (Boelter et al., 2023). For example, recruiting families to participate in this study was untenable via Victorian government schools because all research activities (including recruitment strategies) were suspended due to ongoing lockdowns from early 2020 until mid-2022 (Blaher, 2022).

Further constraining the recruitment of families unknown to me prior to conducting the study was that school age children and their parents (particularly mothers) living in Victoria (the state in which this study was conducted) were experiencing high levels of anxiety and fatigue in 2022 when the purposive sampling strategy for this research was employed (for more information see Ch. 4, p. 133). The recruitment of friends and family members, therefore, enabled this research to proceed in a timely manner in alignment with university-stipulated protocols. This limitation was mitigated, however, by adhering to strict methodological and ethical guidelines whilst gathering data from co-researchers who were friends or family members.

The use of participatory methods may have also limited children's ability to express their own personal perspectives. This is because Adams (2014) has asserted that children's views can sometimes be shaped, reshaped, and/or influenced by peers or family members during collaborative research activities and these views may not concur or align with their actual views. This limitation was mitigated by ensuring children were always made aware that their own personal views were highly valued, and the diversity of their opinions was key to ensuring their caregivers could understand more about why they enjoyed MineTime.

The final limitation of this study was the specification of Minecraft as the multiplayer virtual world used to define online sociodramatic play. While the open-ended nature of Minecraft played in Creative mode enables children to create imaginary situations in an online space (a defining feature of online sociodramatic play), there may be other software platforms that support this activity. This limitation, therefore, could be mitigated via future research examining how online sociodramatic play might be defined in broader digital contexts.

7.6 Recommendations

This investigation provided theoretical insight into how online sociodramatic play is constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers. While the overarching findings suggest a need for new cultural artifacts to explicitly mediate caregiver practices in ways that align more closely with children's motives for engaging in online sociodramatic play, there are several recommendations for future research that could deepen scholarly understandings about little known aspects of this topic.

The first recommendation is to explore whether open-ended games in Roblox (e.g., Meep City) and/or Fortnite (e.g., Fortnite Creative) support children's ability to create and enact imaginary play scenarios with their friends during online play. While many children recently used the term "open-ended" to describe their online play experiences in Roblox and Fortnite (Livingstone & Pothong, 2021), very little is currently known about the capacity of these highly popular multiplayer virtual worlds to facilitate online sociodramatic play. Such research is important because it could deepen scholarly understandings about the way online sociodramatic play is theorised in relation to the institution described in this study within emerging digital platforms in which school age children engage.

The second recommendation is for future research exploring why children are motivated to interact with avatars controlled by strangers during online sociodramatic play in the publicly accessible version of Minecraft (played in Creative mode). In this study, most children used Minecraft: Education Edition (or private, invitation-only "realms") for online sociodramatic play meaning their interactions with avatars controlled by strangers were limited. Recent studies indicate, however, many school age children play with avatars controlled by strangers in online gaming platforms, such as Minecraft (eSafety Commissioner, 2024a; Ofcom, 2023). Such research would thus provide nuanced insight into the institution of online sociodramatic play in relation to why children might be cognitively (or perhaps socially) motivated to interact with avatars controlled by strangers in Minecraft.

The third recommendation for a future study is to examine how children establish and/or maintain friendships via online sociodramatic play. This recommendation stems from reported data in this study indicating that engaging in online sociodramatic play provided opportunities for children to establish a new friendship with each other (e.g., Bart and Doofessor) and maintain existing friendships with each other and their former classmates (e.g., Angela and Emily). While much is known about children's friendships in relation to co-located sociodramatic play (e.g., see Corsaro, 2015; Dunn, 2004), insights into how online sociodramatic play supports children's ability to establish and maintain friendships is significantly limited. This type of study could provide further insight into children's social motives within the institution of online sociodramatic play and build on findings from existing studies indicating that online play fosters real-world friendships between children (e.g., see Albarello et al., 2021; Caughey, 2021; Kahila et al. 2020).

For the fourth recommendation, the everyday practices of grandparents who guide their grandchildren's participation in online sociodramatic play could be explored more deeply. The involvement of a grandmother (Anna) in this research reflected the everyday reality in many Australian families that grandparents regularly care for their school age grandchildren (e.g., see Baxter, 2022). While recent studies have provided some insight into these practices (e.g., see Elias et al., 2020; Graham & Sahlberg, 2021), very little is currently known about how grandparents guide their grandchildren's participation in online play. Such research could lead to new understandings about caregiver practices within the institution of online sociodramatic play considering grandparents are far more likely to have not played digital games during childhood compared to the current generation of parents (see Rutter & Bryce, 2006).

The fifth recommendation is to explore how the institution of online sociodramatic play (or online play in general) is constituted in the family home for preschool and early school age children (i.e., those in the 3- to 7-year-old age group) and their caregivers. Currently, large scale studies exploring online play are generally conducted with school age children and teenagers (e.g., see eSafety Commissioner, 2024a; Rideout & Robb, 2021). A recent report disseminated by Ofcom

(2023), however, found that children as young as 3-years-old play online games (p. 20) and a favourite online game for many 5- to 7-year-old children is Roblox (p. 23). This type of research is becoming increasingly important given that most online games (e.g., Minecraft, Roblox, Fortnite) are considered unsuitable for children aged under 7-years-old (e.g., see Common Sense Media, Apple App Store, Google Play) and children in this age group have incomplete, simplistic conceptualisations of online privacy risks and cybersafe behaviours compared to older children (Sun et al., 2021).

The final recommendation for future research is to explore how advancements in Artificial Intelligence (AI) technology might impact children's ability to engage in online sociodramatic play. While children have been found to enjoy interacting with non-player Minecraft characters (i.e., those controlled by the gaming platform) such as horses, dogs, villagers, and coding robots (known as *agents*) during online sociodramatic play (Caughey, 2021), these types of in-world characters act according to pre-programmed behaviours and are not (yet) embedded with AI technology. Recently, however, software developers have highlighted the potential for AI-driven characters (e.g., "smart" chatbots) capable of infinite, naturalistic interactions to be embedded into the Minecraft game design (e.g., see Lott, 2023; Yu, 2023). Future research studies could thus explore how these types of characters might enhance, or otherwise hinder, children's ability to create and enact imaginary play situations with each other during online sociodramatic play.

Conclusion

In a letter to his students in 1929, Vygotsky wrote "we live in a period of geological cataclysms in psychology" (as cited in van der Veer & Valsiner, 1991, p. 14). Arguably, this statement could also describe how online play in the postdigital has changed the cultural conditions for school age children's psychological development in the blended ecology of family homes in digitised societies. Children's increased participation in online play during recent COVID-19 lockdowns significantly accelerated these changes leaving little doubt that such play has become

seamlessly enmeshed into the everyday lifeworlds of many school age children growing up in a postdigital era.

This research has illuminated theoretical insight into the nature of these changed cultural conditions by describing how online sociodramatic play is constituted as an institution in the blended ecology of the family home for 8- to 12-year-old children and their caregivers. Importantly, the commonalities and tensions identified as constituting this institution suggest that while the developmental pathways of children in this age group are being supported by a range of mediated practices in the home, they are possibly being restricted by others (particularly those informed by cultural artifacts established after 2010). Such findings highlighted the need for new cultural artifacts (e.g., in the form of infographics, tip sheets, explainer videos, and mainstream media communications) that specifically aim to minimise these tensions so the cultural conditions for child development in the blended ecology of family homes in digitised societies might be optimised.

In this chapter, two theoretically based propositions for creating these new cultural artifacts were presented: 1) promoting online sociodramatic play as a creative after-school activity (e.g., see Figures 7.1, 7.2, and 7.3); and 2) linking online sociodramatic play to the crisis at age thirteen (Vygotsky, 1930–1931/1998c) (e.g., see Figures 7.4, 7.5, and 7.6). These propositions address the major problem identified in the Introduction chapter of this thesis in relation to the need to better understand the institution of online sociodramatic play for school age children – especially as this pertains to the capacity of such play to either restrict or more fully support their developmental needs in a postdigital era.

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Appendix A

Research Advertisement



Does your child use Minecraft and FaceTime or Messenger Kids at the same time to play online with their separately located friends?

Researchers at the Australian Catholic University are interested in finding out more about what children and parents think about this online form of play.

If you live in Victoria and have a child aged 6- to 12-years-old who may be interested in participating in this research, please contact Jane at XXXX to receive further information.

Appendix B

Participant Information Letter

PROJECT TITLE: Children, parents, and online sociodramatic play in the family home

APPLICATION NUMBER: 2022-2554H

PRINCIPAL INVESTIGATOR: Prof. Susan Edwards

CO-SUPERVISOR: Assoc. Prof. Karen McLean

STUDENT RESEARCHER: Ms Jane Caughey

STUDENT'S DEGREE: Doctor of Philosophy

Dear Participant,

You are invited to participate in the research project described below.

What is the project about?

This research project investigates links between children's motivations for engaging in online play and their perspectives of parent rules for such play in the family home. Online play is where children in separate home settings play together in the same Minecraft virtual world environment whilst using FaceTime or Messenger Kids to discuss their play. Online play is important for children because it helps them to connect to their peers when they cannot be in the same physical space.

Who is undertaking the project?

This project is being conducted by Ms Jane Caughey and will form the basis for the degree of Doctor of Philosophy at Australian Catholic University under the supervision of Professor Susan Edwards and Associate Professor Karen McLean. Professor Susan Edwards is Director of the Early Childhood Futures research program at Australian Catholic University and is currently leading a project to develop an online tool guiding the use of digital technology for service providers in early childhood. Associate Professor Karen McLean is a Senior Research Fellow in the Early Childhood Futures research program and is currently leading the Australian Playgroup Provision stream of this program. Jane Caughey holds a Diploma of Teaching (Primary), Bachelor of Education (4th Year), Graduate Diploma of Education (Computers in Education) and Master of Education (Research). She has prior experience as a primary school teacher (1992 - 2004), Educational Consultant (2004 - 2019), and research assistant (2018 - 2021).

Who can take part in the project?

Children aged 6- to 12-years who use Minecraft with FaceTime or Messenger Kids to play with their friends. Parents and guardians of these children are also invited to participate.

What will I be asked to do?

Children participating in the research will be asked to attend five 1-hour group sessions with the student researcher over an 8-week period at one of the following locations:

- Room XXXX at the Australian Catholic University (Ballarat campus), 1200 Mair St, Lake Wendouree
- during the after-school care program at XXXX Catholic Primary School
- in the home of a participating family
- remotely via Zoom.

You will be asked to attend two of these group sessions with your child (where possible). You will also be asked to participate in three audio-recorded individual 15- to 20-minute interviews with the student researcher in Room XXXX at the Australian Catholic University (Ballarat campus), 1200 Mair St, Lake

Wendouree or remotely via Zoom or telephone. Siblings of child participants are welcome to attend parent interviews and the two child/parent group sessions.

Taking part in the research will involve:

- Allowing my child to participate in five 1-hour group sessions at ACU Ballarat campus OR during the after-school care program at XXXX OR in the home of a participating family OR remotely via Zoom over an 8-week period to share their understandings about using Minecraft with FaceTime or Messenger Kids for online play;
- Allowing the student researcher to audio-record my child's voice if group sessions are conducted via Zoom;
- Participating in two 1-hour group sessions at ACU Ballarat campus OR during the after-school care program at XXXX OR in the home of a participating family OR remotely via Zoom over an 8-week period to share my understandings about children using Minecraft with FaceTime or Messenger Kids for online play;
- Participating in three 15- to 20-minute audio-recorded individual interviews at ACU Ballarat campus or remotely via Zoom or telephone over an 8-week period to share my understandings about children using Minecraft with FaceTime or Messenger Kids for online play;
- Allowing the student researcher to record observational fieldnotes during group sessions;
- Allowing the student researcher to retain copies of digital and/or physical documents created by my child and me during the 8-week data collection period.

How much time will the project take?

Children will attend five group sessions, and these will take approximately one hour each and occur five times over an 8-week period. You will be asked to attend two of these group sessions with your child (where possible). Participation will also involve three individual parent interviews with you over an 8-week period and these will take approximately 15- to 20-minutes each.

Are there any risks associated with participating in this project?

This research investigates children's and parents' understandings of using Minecraft with FaceTime or Messenger Kids for online play. If children experience distress or embarrassment whilst sharing their understandings during group sessions, the student researcher will respond appropriately and inform parents. Similarly, parents will have the option not to provide any information if they experience any discomfort whilst sharing their understandings during interviews and group sessions. Co-located group sessions and parent interviews will be held in accordance with strict Covid-19 protocols. The student researcher is fully vaccinated against Covid-19 and adults entering the research setting at ACU Ballarat Campus or the home of a participating family will also need to be fully vaccinated.

What are the benefits of the research project?

Children and parents participating in this research will benefit from a raised awareness of their respective understandings about using Minecraft with FaceTime or Messenger Kids for online play.

Can I withdraw from the study?

Participation in this study is completely voluntary. You are not under any obligation to participate. If you agree to participate, you can withdraw from the study at any time without adverse consequences by contacting the Chief Investigator using the contact details provided below. If you withdraw from the study, all your data will be destroyed (i.e., audio recordings and digitised data will be deleted from all devices and physical materials will be destroyed using confidential document bins).

Will anyone else know the results of the project?

The study will be reported as a thesis for a Doctor of Philosophy degree which may lead to publication in educational journals. Confidentiality will be maintained through the use of pseudonyms for child participants, parents, and any siblings who attend group sessions. This means that in publications arising from the research

you and your child(ren) will not be identifiable. Visual images (e.g., photographs of children's posters) will only be used by the researcher in a public forum if you and your child consent to their use and all identifying data will be removed. Photographs and audio recordings will be deleted from the electronic devices after data collection is completed.

Will I be able to find out the results of the project?

An individual letter summarising the results of the research will be e-mailed to you at the completion of the research. Your child will also receive a personalised letter summarising the results of the research in age-appropriate language.

Who do I contact if I have questions about the project?

For any further information, please contact Professor Susan Edwards via e-mail at suzyedwards@acu.edu.au.

What if I have a complaint or any concerns?

The study has been reviewed by the Human Research Ethics Committee at Australian Catholic University (review number 2022-2554H). If you have any complaints or concerns about the conduct of the project, you may write to the Manager of the Human Research Ethics and Integrity Committee care of the Office of the Deputy Vice Chancellor (Research).

Manager, Ethics and Integrity
c/o Office of the Deputy Vice Chancellor (Research)
Australian Catholic University
North Sydney Campus
PO Box 968
NORTH SYDNEY, NSW 2059
Ph.: 02 9739 2519
Fax: 02 9739 2870
Email: resethics.manager@acu.edu.au

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

I want to participate! How do I sign up?

If you wish to give consent to participate in this project, you should complete and sign both copies of the attached consent form and the attached child's assent form and return to Jane Caughey.

Yours sincerely,

Susan Edwards

Karen McLean

Professor Susan Edwards

Associate Professor Karen McLean

Appendix C

Parent Consent Form

TITLE OF PROJECT: Children, parents, and online sociodramatic play in the family home

APPLICATION NUMBER: 2022-2554H

PRINCIPAL INVESTIGATOR: Prof. Susan Edwards

CO-SUPERVISOR: Assoc. Prof. Karen McLean

STUDENT RESEARCHER: Ms Jane Caughey

I *(the participant)* have read *(or, where appropriate, have had read to me)* and understood the information provided in the Letter to Participants. Any questions I have asked were answered to my satisfaction.

I agree to participate in this project which will involve (please tick):

- my child participating in five 1-hour group sessions at ACU Ballarat campus OR during the after-school care program at XXXX OR in the home of a participating family OR remotely via Zoom during the 8-week data collection period to share their understandings about using Minecraft with FaceTime or Messenger Kids for online play;
- allowing the student researcher to audio-record my child's voice if group sessions are conducted via Zoom;
- participating in two 1-hour group sessions at ACU Ballarat campus OR during the after-school care program at XXXX (where possible) OR in the home of a participating family OR remotely via Zoom during the 8-week data collection period to share my understandings about children using Minecraft with FaceTime or Messenger Kids for online play;
- participating in three 15- to 20-minute audio-recorded individual interviews at ACU Ballarat Campus or remotely via Zoom or telephone during the 8-week data collection period to share my understandings about children using Minecraft with FaceTime or Messenger Kids for online play;
- allowing the student researcher to record observational fieldnotes during group sessions;
- allowing the student researcher to retain copies of digital and/or physical documents created by my child and me during the 8-week data collection period.

I understand that findings from this research, including images of digital and/or physical documents created by my child and me, will be published in journals and presented at conferences about early childhood development. My confidentiality will be maintained through the use of pseudonyms for myself and my child.

The pseudonym I select for myself is: (Please choose a name that cannot be connected to you).

I understand that if my child experiences any distress or embarrassment during group sessions, the researcher will respond appropriately and notify me. My child and I have the option not to provide any information if we experience any discomfort when asked to discuss our understandings about using Minecraft with FaceTime or Messenger Kids for online play during group sessions and parent interviews.

I realise that I can withdraw my consent at any time without adverse consequences by contacting the Principal Investigator, Professor Susan Edwards, using the contact details provided on the information letter for this study or discussing my decision directly with any research team member. If I withdraw from the study, all of my data will be destroyed (i.e., audio recordings from interviews and images of digital and/or physical documents created by my child and me will be deleted from all devices and any written documentation will be destroyed using confidential document bins).

Child's name:

Your relationship to the child:

NAME OF PARENT:

SIGNATURE: DATE:

Preferred contact details:

Contact phone:

E-mail:

Siblings who may attend group sessions:

Name(s) and Age(s):

.....

Pseudonym(s):

.....

SIGNATURE OF PRINCIPAL INVESTIGATOR: *Susan Edwards* DATE: 12/09/2022

(and)

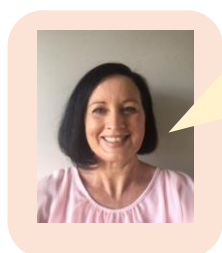
SIGNATURE OF CO-SUPERVISOR: *Karen McLean* DATE: 12/09/2022

(and)

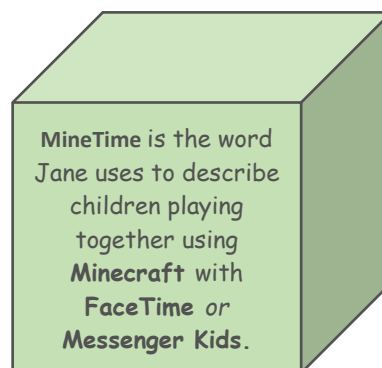
SIGNATURE OF STUDENT RESEARCHER: *Jane Caughey* DATE: 12/09/2022

Appendix D

Child Assent Form



Hello. My name is Jane and I work at a university. I want to know more about what children think about playing MineTime. I would like to know if you can help me find out more about this by coming to a MineTime Kids' Club.



Please circle "yes" or "no" after each sentence:

It is OK for me to go to the MineTime Kids' Club five times to share what I think about playing MineTime.

YES

NO

It is OK for Jane to record my voice if we need to use video chat for the MineTime Kids' Club.

YES

NO

It is OK for Jane to write down what I think about playing MineTime when I am at the MineTime Kids' Club.

YES

NO

It is OK for Jane to take photos of things I make at the MineTime Kids' Club.

YES

NO

Jane will write about what I think about playing MineTime and show photos of things I make about MineTime in a book she will write and presentations she will share with other adults who also want to know more about what children think about playing MineTime. If I withdraw from the study, Jane will delete all my data (photos, voice recordings) from her devices.

Jane won't use your real name in the book or the presentations. Please choose another name you would like her to use:

.....
(My real name)

.....
(My chosen name)

THANK YOU!

Appendix E

Recruitment E-mail Script

Dear (name of parent),

Thank you for your interest in this research about children's online play using Minecraft and FaceTime or Messenger Kids. Please find attached an information letter which provides further information about this research, parent consent forms, and a child assent form identifying what this research involves for you and your child.

If this research is of interest to you, please contact me via email or phone and we will discuss your involvement in this research further. My e-mail address is XXXX and my contact phone number is XXXX.

Please feel free to contact me should you have any further questions about this research. I look forward to hearing from you.

Kind regards,

Jane Caughey
Student Researcher

Appendix F

Child Value Statements

Cohort One

1. I like being creative with my friends when I play MineTime.
2. I like sharing my ideas about Minecraft when I play MineTime.
3. I like building things with friends when I play MineTime.
4. I like having fun with friends when I play MineTime.
5. I like playing in a room by myself when I play MineTime.
6. I like going on adventures with friends when I play MineTime.
7. I like trying to survive with my friends when I play MineTime.
8. I like MineTime because I can teach my friends things they don't know yet.
9. I like MineTime because it's an opportunity to play with my friends.
10. I like MineTime because I am playing with my friends and not worrying.

Cohort Two

1. I like spending time with friends when I play MineTime.
2. I like being creative with friends when I play MineTime.
3. I like building things with friends when I play MineTime.
4. I like having fun with friends when I play MineTime.
5. I like playing MineTime in my bedroom.
6. I like making cool stuff when I play MineTime.
7. I like playing with my best friends when I play MineTime.
8. I like talking to my friends about what we are doing in Minecraft when I play MineTime.
9. I like playing MineTime because your mum doesn't tell you what to do.
10. I like learning new skills when I play MineTime.

Appendix G

Caregiver Value Statements

Cohort One

1. Children should only play MineTime for <u>one hour</u> on school days.
2. Children should finish their jobs before playing MineTime.
3. Children should stop playing MineTime when parents or grandparents tell them their time is up!
4. Children should not play MineTime after dinner.
5. Children should get a 5-minute warning when it's time to stop playing MineTime.
6. Children should include their siblings when they play MineTime.
7. Children should not talk to strangers when they play MineTime.
8. Children should not play MineTime in their bedrooms.
9. Children should not play MineTime if they are too sick to go to school.
10. Children should tell a trusted adult if they (or their friends) are being bullied while they play MineTime.
11. Children should only play MineTime with their real-life friends.
12. Primary school children should only play under 12 games in Roblox.
13. Children should not tell anyone their personal details (like their name, age, or where they live) while playing MineTime.
14. Children should be kind and fair when they play MineTime.

Cohort Two

1. Children should not play MineTime on school days.
2. Children should not share any personal information when they play MineTime.
3. Children should get a 10-minute warning when it is time to stop playing MineTime.
4. Children under 12-years-old should not play Roblox online with friends.
5. Children should only use Messenger Kids to play MineTime so parents can monitor who they are talking to.
6. Children should only use the Education Edition of Minecraft to play MineTime.
7. Children should not talk to strangers when they play online.
8. Children should stop playing MineTime when the timer goes off.
9. Children should keep the door open if they play MineTime in their bedroom.
10. Children should always let their parents know who they are playing with online.
11. Children need privacy when they play MineTime.
12. Children should not play MineTime if they are too sick to go to school
13. Children should not play MineTime in their bedroom.
14. Children should only play MineTime for <u>one hour</u> on school days.
15. Children should only play MineTime with their real-life friends.

Appendix H

Feelings About MineTime Activity Sheet

How I feel about playing MineTime with friends

When I play MineTime, I feel...

because

Draw how you feel when you play MineTime.

Tick the **best** answer...

When I play MineTime, I like to...

- talk to my friends about what we are doing in Minecraft.
- learn new skills that help me play Minecraft with my friends.

Appendix I

MineTime Top Five Activity Sheet (Cohort One)

Read the words in each box. List the **top 5** things you like about MineTime

having fun with friends	being creative with friends	sharing my ideas with friends	playing in a room by myself
going on adventures with friends	building things with friends	seeing my friends	finding rare objects with friends
learning new things with friends	trying to survive with friends	teaching my friends new things	getting to play Minecraft

When I play MineTime, I like ...

1. _____
2. _____
3. _____
4. _____
5. _____

Appendix J

MineTime Top Five Activity Sheet (Cohort Two)

Read the words in each box. List the **top 5** things you like about MineTime

making cool stuff	being creative	playing with friends	having fun
spending time with friends	building things	talking to friends	sharing my ideas
learning Minecraft skills	getting pets	playing in my bedroom	trying to survive

When I play MineTime, I like ...

1. _____
2. _____
3. _____
4. _____
5. _____

Appendix K

Symbolic Object Activity Sheets

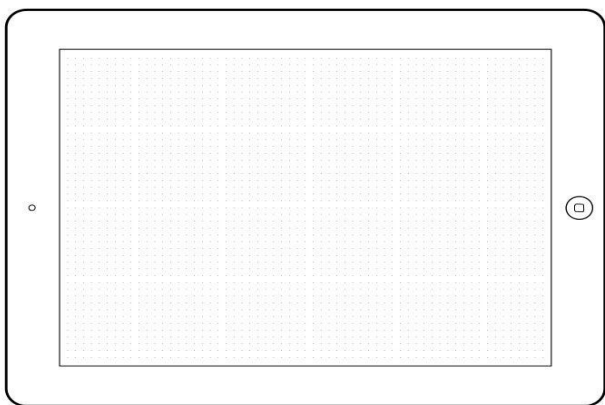
Hotbar Strip

This is a ...	This is a ...	This is a ...	This is a ...	This is a ...	This is a ...	This is a ...	This is a ...	This is a ...
I use this item to:	I use this item to:	I use this item to:	I use this item to:	I use this item to:	I use this item to:	I use this item to:	I use this item to:	I use this item to:

Skins Grid

I use this skin for...	I use this skin for...	I use this skin for...
I use this skin for...	I use this skin for...	I use this skin for...

World iPad


This world is called... _____ In this world, I like to... _____

Appendix L

Focus Questions

What is MineTime?

Who do you like playing MineTime with?

When do you like playing MineTime?

Why do you like MineTime?

Do you like using general Minecraft or Education Edition when you play MineTime?

Why do you think your friends like MineTime?

Where do you like playing MineTime?

What did you like best about playing MineTime in Covid-19 lockdowns?

What are your favourite things to do when you play MineTime with your friends?

Do you like playing MineTime in Creative or Survival mode?
Why?

Appendix M

Interview Schedule

<p>Focus question 1: What are the rules for online play in your home?</p>
<p>Sub-questions:</p> <ul style="list-style-type: none"> • When are children allowed to play online with friends? e.g., school days, weekends, holidays • Where in the home are children allowed to play online with friends? e.g., main living areas, bedrooms • Who are children allowed to play online with? e.g., school friends, relatives • What digital games are children allowed to play online? e.g., Minecraft: Education Edition, Roblox • How are rules for online play enforced? e.g., giving warnings, using timers
<p>Focus question 2: What influences your beliefs, expectations, and rules for online play in the home?</p>
<p>Personal</p> <ul style="list-style-type: none"> • Childhood experiences (e.g., your engagement with digital devices as a child, messages you received about online play in childhood) • Digital gaming habits (e.g., your past and present engagement in recreational gaming) • Parenting ideals (e.g., how you feel about children’s engagement in traditional forms of play and digital/online forms of play in general) • Family factors (e.g., family routines, number of children, children with additional needs) • Work history (e.g., work-related knowledge/experiences of digital/online play) • Economic factors (e.g., cost of apps and/or digital devices) • Social factors (e.g., after school activities, children’s playdates in your home)
<p>Family members and friends</p> <ul style="list-style-type: none"> • Adult family members (e.g., how your parents, partner, siblings, and/or in-laws view online play) • Children (e.g., how your own child(ren), friends, and/or cousins view online play) • Adult friends/acquaintances (e.g., how those with or without children view online play)
<p>Educational institutions</p> <ul style="list-style-type: none"> • Schools/preschools (e.g., educators, school policies, school pamphlets, information nights) • Educational literature (e.g., books, academic journals, parenting pamphlets)
<p>Governmental agencies</p> <ul style="list-style-type: none"> • Governmental advice about children’s use of technologies (e.g., eSafety Commissioner, Department of Health) • Covid-19 lockdown periods (e.g., children being unable to play in co-located spaces)
<p>Media</p> <ul style="list-style-type: none"> • Social media (e.g., Facebook, Instagram, links to parenting Blogs) • Television programs (e.g., documentaries, news reports, current affairs programs) • Streamed media (e.g., podcasts, online news, YouTube) • Digital game reviews (e.g., Common Sense Media, Google Play, Apple App Store) • Software companies (e.g., app developers, digital game marketing, push notifications) • Parenting websites/forums (e.g., Raising Children Network, healthychildren.org) • Popular culture (e.g., apps/games based on television or movie characters)
<p>Other</p>

Appendix N

Ethics Approval

RE: Ethics application status

Dear Applicant,

Chief Investigator: Professor Susan Edwards
Co - Investigator: Assoc. Prof. Karen McLean,
Student Researcher: Jane Caughey (Doctoral Student)
Ethics Register Number: 2022-2554H
Project Title: Children, parents, and online sociodramatic play in the family home
Date Approved: 06/06/2022
End Date: 30/08/2024

This is to certify that the above human ethics [application](#) has been reviewed by the Australian Catholic University Human Research Ethics Committee (ACU HREC). The application has been approved for the period given above.

Continued approval of this research project is contingent upon the submission of an annual progress report which is due on/before each anniversary of the project approval. A final report is due upon completion of the project. A report proforma can be downloaded from the ACU Research Ethics website.

Researchers are responsible for ensuring that all conditions of approval are adhered to and that any modifications to the protocol, including changes to personnel, are approved prior to implementation. In addition, the ACU HREC must be notified of any reportable matters including, but not limited to, incidents, complaints and unexpected issues.

Researchers are also responsible for ensuring that they adhere to the requirements of the National Statement on Ethical Conduct in Human Research, the Australian Code for the Responsible Conduct of Research and the University's Research Code of Conduct.

Appendix O

Script for Participating Family Members

Caregiver script:

I need to inform you that your participation in this research is completely voluntary. If you choose not to take part in the research, it will not affect our relationship in any way. Similarly, there will be no adverse consequences if you choose to withdraw from the research at a later date. Should you feel that I have not reacted sensitively to your decisions, please e-mail my principal supervisor at Suzy.Edwards@acu.edu.au to express your concerns.

Child script:

I need to let you know that you do not have to participate in these research activities. If you do not want to take part, you do not have to. If you choose not to take part in the research, it will not affect me in any way. If you do participate but change your mind later on, that is absolutely fine. You can always let me, or your parents, know if you do not want to participate in any of the research activities.

Appendix P

Sign-in sheets

<p>Welcome to the MINETIME KIDS' CLUB!</p> <p>Group Session 1: Today I can...</p> <ul style="list-style-type: none"> • Draw things I like using for MineTime. • Talk about why I like MineTime. 	
My name	Parent/grandparent signature

List of activities used on sign-in sheets for the other four collaborative group sessions:

Group Session	Activities
2	Today I can... <ul style="list-style-type: none"> • Make a creative response about MineTime. • Share my creative response.
3	Today I can... <ul style="list-style-type: none"> • Make a poster about parents' and grandparents' rules for MineTime • Write or draw how I feel about MineTime.
4	Today I can... <ul style="list-style-type: none"> • Share my creative response MineTime with my family. • Look at my parent/grandparent's creative response. • List the Top 5 things I like about MineTime
5	Today I can... <ul style="list-style-type: none"> • Make a family poster about MineTime. • Share our family poster.