

INVITED PAPER

**Children's Digital Play during the COVID-19 Pandemic:
insights from the Play Observatory**

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Abstract

The COVID-19 pandemic has had an enormous impact on many aspects of children's day-to-day lives, including their play. Measures such as lockdowns, school and playground closures, quarantine, isolation and social distancing introduced to curb transmission have resulted in major consequences for where, when, how and with whom children can play.

This article reports on interim findings from 'The Play Observatory', a 15-month project researching children's play experiences during the COVID-19 pandemic. Collecting data through an online survey and online case studies, the research offers insights into ways in which children's play has endured, adapted and responded to restrictions brought about by the pandemic.

This article focuses on children's digital play throughout this period, including examples of digital gaming, online play, social media, playful creation of digital media texts and hybrid online-offline play. Drawing on theories relating to dynamic literacies, multimodal perspectives and the Reggio Emilia concept of the 'hundred languages', this article examines the role of the digital in children's contemporary play practices and the specific affordances of digital play during times of stress, uncertainty and physical distancing.

The findings highlight ways in which digital play continued, adapted, evolved and reflected children's experiences and understandings of the pandemic. The study reveals the complexity of digital play and its place within contemporary digital childhoods, troubling simplistic notions of 'screen time' and highlighting the increasingly blurred boundaries around digital and non-digital practices, calling for educational approaches that value digital play as significant meaning-making.

KEYWORDS: Digital Play, COVID-19, Childhood, Digital Media, Literacies.

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1. Play in a Pandemic

Children draw rapidly and readily on the social and cultural context around them, often layering traditional games, local legends, news, media and popular culture in their play (Opie & Opie, 1959; Willett et al., 2013; Potter & Cowan, 2020). Since the early stages of the COVID-19 pandemic there have been reports of children's games referencing the virus. For example,

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children in the UK were observed playing “coronavirus tag”, pretending to infect one another through touch, in early March 2020 shortly before the government ordered a nationwide lockdown (Smith, 2020).

Despite appearing new, with their timely renaming, games such as “coronavirus tag” build on much older themes in play. Folklorists have noted that “plague” and “fever” were widespread names for chasing games during the twentieth century, with associated rituals for in-game immunity, such as crossing fingers or covering mouths (Roud, 2011). More recently, and in digital form, contagion and survival have been central themes in a number of videogames released prior to the pandemic such as *Resident Evil*, *Halo* and *Plague Inc.* Play is therefore a complex intertwining of contemporary influences and longer histories and traditions (see also Willett et al., 2013; Potter & Cowan, 2020).

Bridging both reality and fantasy, play is understood to offer a means of exploring challenging ideas and feelings in a way that gives children a degree of distance and control (Frost, 2005). The particular power of play during periods of stress and uncertainty has been well noted. For instance, in his study of children's play in Jewish communities during the holocaust, Eisen (1990) argued that play brought an element of sanity in the midst of catastrophe. Similarly, studies of children's block play after witnessing the 9/11 attacks (Edstrom, 2003) and pretend play after natural disasters such as the New Zealand earthquakes (Bateman et al., 2013) highlight the powerful role of play in making sense of traumatic experiences and contributing to wellbeing.

As the COVID-19 pandemic began to unfold in early 2020, it seemed likely to become a point of reference in children's play and that restrictions would shape play in significant ways. However, literature on the impact of pandemics on children's play is notably absent, with a rapid review calling for “more research that evaluates children's play, particularly from children's perspectives, in social isolation during a pandemic or disease outbreak” (Graber et al., 2020, p. 144). The Play Observatory, funded by the UKRI's rapid response call for research into the impact of COVID-19, was explicitly designed to address this absence. This article seeks to shed light on children's play experiences throughout this time in history, placing a particular focus on the role of digital play.

2. Digital Play During the COVID-19 Pandemic

Digital technologies occupied a central place in many children's lives prior to the pandemic, but the outbreak and resulting measures to limit transmission appear to have led to an increase in children's digital activity. For instance, a UK report of children's media lives in

lockdown noted that “restrictions on normal life have left a space which [children] are filling with social media, gaming and watching content” (Ofcom, 2020, p. 4).

Children's increased use of digital technology throughout the pandemic can be viewed as an intensification of a growing trend. Data from previous reports (e.g. Ofcom, 2017, 2019) have shown a steady increase in the number of children that own or have access to devices and who play games, including online games. For many children, play practices were therefore already highly digitised (Marsh & Bishop, 2014; Stephen & Plowman, 2014), including play that crossed over and blurred boundaries between online-offline and onscreen-offscreen forms (Cowan, 2018; Potter & Cowan, 2020).

In the initial months of the pandemic, digital play was actively encouraged as a measure for slowing the spread of the virus. The World Health Organization (WHO) launched the campaign “PlayApartTogether” in collaboration with games industry partners in March 2020, promoting gaming as a way to observe the WHO's physical distancing guidelines. This endorsement of online play contrasts the organization's warnings about “gaming disorder” and a narrative of gaming addiction (World Health Organisation, 2018), that prompted headlines about “the rise of a 21st century epidemic” (Bliss, 2020). When faced with a very real and urgent health crisis, the WHO appeared more open to the benefits of such play, with attitudes towards video games shifting from health concern to health intervention.

Whilst digital play has at times been endorsed throughout the pandemic, it has also been criticised, with articles in the press expressing alarm at children's increased “screen time” (Geddes & Marsh, 2021). However, simple quantification of “screen time” has been critiqued for failing to recognise the many practices that can take place on a screen, varying in content and contexts of use (Livingstone & Blum-Ross, 2020).

The endorsement of digital play on the one hand and problematisation of it on the other reflects an ongoing binary discourse surrounding children's digital practices, exacerbated by news media, tending to fall into polarised extremes. Rather than blunt measurement of “screen time” there is a need to better understand what young people have been doing on, through and around screens during this unique time. The complexity of children's digital lives therefore requires a balanced and nuanced approach to understanding digital play and approaches that includes children's own views in these discussions.

3. Digital Play: Multimodality, the “hundred languages” and dynamic literacies

A multimodal perspective, with roots in social semiotic theory (Kress, 2010), focuses on ways in which

meaning is made in multiple modes beyond language, such as image, moving image, music, gesture and movement. It is a perspective that has gained particular popularity among researchers interested in digital media and digitally-mediated social practices as a means of attending to the complexity of contemporary communication (e.g. Adami, 2009; Domingo, 2011; Flewitt, 2011). Multimodality places emphasis on identifying and understanding the affordances of particular modes, that is, what kinds of meaning-making each mode makes possible and what kinds they constrain. In this way, a multimodal perspective offers a more balanced approach to understanding digital play through focusing attention on the potentials and limitations of digital tools and their uses in everyday social contexts.

Multimodal perspectives help to draw connections between digital play and learning, recognising that in play children are drawing rapidly and readily on a range of resources, often both digital and non-digital, to make meaning. Each choice reflects interests and understandings of the child, offering insights into their worlds and experiences. Recognising that this happens in a multitude of forms, not only spoken and written modes, helps to expand the lens around what counts as learning (Bezemer & Kress, 2016). In this way, play with a range of materials (e.g. digital and non-digital) might be seen to expand meaning-making and expressions of learning, as “the combination of modes amplifies and/or complicates the separate strands of monomodal meanings” (Wohlwend, 2008).

There are complementarities between multimodal perspectives and the concept of “the hundred languages of children”, a theory developed by the innovative Reggio Emilia schools in Northern Italy, informed particularly the work of Loris Malaguzzi (see Malaguzzi & Cagliari, 2016). The concept of the “hundred languages” recognises and gives value to the many forms of expression children use to make meaning, beyond those of speech and writing, and is supported in educational practice that provides time, resources, spaces and relations for play and creation in multiple modes (Filippini & Vecchi, 2000). Whilst the “hundred languages” have often been considered in terms of physical materials (clay, wire, paint etc.), consideration of “digital languages” has been given increasing focus in Reggio Emilia in recent years (Reggio Children, 2019). Underpinned by a strong multimodal pedagogy, the Reggio Emilia approach therefore offers an additional frame for recognising the potentials of the digital in meaning-making (Cowan, 2019).

Such meaning-making is essentially the product of interrelated “dynamic literacies”, incorporating the production of multimodal texts within a sociocultural frame, responding to the changing nature of texts, artefacts and practices over time (Potter & McDougall, 2017). Children’s play, with its “hundred languages”

and facility for drawing on multimodal resources to hand, whether digital or non-digital, is socially constructed and highly complex, with much to tell us about their experiences of living through an historically important event such as a pandemic. Perspectives such as multimodality, dynamic literacies and ‘the hundred languages’ therefore offer valuable lenses for observing and recognising the significance of these moments as serious and significant meaning-making, and for valuing the many avenues of communication and expression made possible by the digital.

4. Methodology

This article reports interim findings from the project “A National Observatory of Children’s Play Experiences During COVID-19”, a 15-month study led by an interdisciplinary team of UK researchers, bringing perspectives from social science, multimodal research, media cultures, folklore studies and histories of childhood. The project examined the impact of the coronavirus pandemic on children’s play, offering insights into their experiences during times of stress and uncertainty, and creating an archived collection to inform future generations’ understandings of young people’s lives at this time in history. The key research questions were:

- How have children been playing during the COVID-19 pandemic (both online and offline, analogue and digital) from the initial outbreak of the virus, throughout lockdown and during ongoing social distancing?
- How has the COVID-19 pandemic featured as a point of reference in play and peer culture, and what insights does this give into children’s unique experiences of it?
- What continuities and discontinuities does this play and peer culture have compared to those of the past, and between different communities?
- How can interdisciplinary perspectives help us better understand the role and value of play for wellbeing during times of crisis?

The project drew on the legacy of British play researchers Iona and Peter Opie and the research team’s previous case studies of playgrounds (Opie & Opie, 1959; Willett et al., 2013; Potter & Cowan, 2020), combining ethnographic, multimodal and participatory approaches to data collection, drawing on sociocultural theories of childhood (James & Prout, 1997).

However, being unable to conduct face-to-face research due to the pandemic necessitated a shift to entirely online methods. The project sought to maintain the core principles and ethos of these earlier in-person studies despite the changing context and new challenges, an approach that has been called “keeping the essence of

methods alive" in pandemic times (Barker, 2021). For instance, the research was approached by "thinking ethnographically" (Atkinson, 2017) despite being unable to carry out traditional on-the-ground ethnography, requiring new online methods of data collection.

The research was designed as an online survey and a series of online case studies. The survey, led by members of the research team at the University of Sheffield and UCL CASA, aimed to capture the spirit of Iona and Peter Opie's loosely structured play questionnaires, or "suggestionnaires" (Bishop, 2016). The survey was designed to gather examples of children's play throughout the pandemic through a mixture of open and closed questions, with the option to upload accompanying media files such as photographs, drawings, video and audio recordings in addition to written descriptions. This feature enabled a rich multimodal dataset to be collected, consisting of examples in a variety of forms accompanied by demographic information about contributors, providing valuable metadata such as country and age of children. An adapted version of the survey was created to make the survey more accessible to child contributors, inviting children to share examples in their own words or with the help of an adult, as well as pathways for adult contributors (e.g. parents, teachers). The survey invited contributions about any examples of play and peer culture relating to children and young people aged 18 and under from anywhere in the world, from the outset of the pandemic onwards. Contributors were also invited to post responses to avoid potential digital barriers to participation.

To add depth to the survey responses, case studies were carried out with a sample of families who had participated in the survey and indicated their willingness to be involved in further research. These families were sampled to represent a range of geographical locations throughout the UK, a spread of children's ages and aimed to represent a diverse range of respondents (using optional information entered in the survey relating to ethnicity, disability etc.). The case studies combined a number of methods designed to support children's participation, including semi-structured Zoom interviews, the invitation to draw a picture or make a map of their play experiences, the option for older children to create a short film highlighting their experiences, and the possibility to design and develop project outputs with the team. This range of methods gave children opportunities to represent their experiences in multiple modes beyond language, and to be active researchers of their own lives, drawing on multimodal methodologies (Jewitt, 2014) and participatory approaches to researching with children (Clark, 2017). In this way, the research aimed to include children's own voices in the research and give them multiple avenues for involvement in various forms.

The study received ethical approval from UCL Institute of Education, guided by the BERA Ethical Guidelines (British Educational Research Association, 2018) and the NCRM ethical guidelines for working with visual data (Wiles et al., 2008). Particular attention was given to ethical issues concerning research with children, including seeking voluntary informed consent from parents and providing specially designed information and consent forms for children.

This article draws on interim findings from the study, at which point there had been 137 contributors to the survey, and case study interviews had been carried out with eight children between the ages of one and thirteen. For the purposes of this article, data from both the survey and case studies were searched to identify examples related specifically to digital play. Digital play was classed as examples in which digital hardware, software or media texts were mentioned by either children or adults. From this selection, the data was analysed thematically and iteratively, identifying four overarching categories of digital play during the pandemic: "Digital Games", "Digital Play through Video Calls", "Play Referencing Digital Media" and "Playful Digital Media Creation". Although these four categories highlight distinct themes in the data, there are many connections between and across these categories that show the interconnected and holistic position the digital has in many children's lives, as discussed in the sections that follow.

5. Findings

Digital Games

A key finding across both the survey and the case studies was the popularity of digital games among many children throughout the pandemic. For some children this included online gaming, and for others it included playing with digital games and apps alone. The world-building game *Minecraft* and the game creation platform *Roblox* were particularly popular, mentioned by several children as ways they spent time during the pandemic. For younger children, games such as *Toca Boca* and features such as *Google Augmented Reality* (AR) were also mentioned, as well as games marketed for education such as *Phonics Hero*, designed to support early literacy.

In some cases, digital gameplay was an intergenerational family activity. For instance, a family from Australia described playing the console game *Mario Kart* together and the mobile game *Hay Day*, with a parent from the UK talking about playing the movement-based games *Just Dance* and *Ring Fit* with their children. Several of the examples also mentioned online play with extended family they were unable to see in person. For instance, a ten-year-old from the UK explained how he built structures in *Minecraft* with his cousin and an eleven-year-old from the UK told us his

family had used the online platform *Board Game Arena* to play games with their grandparents at the beginning of lockdown.

Many of the examples also mentioned using digital games to play with friends, sometimes one or two and sometimes as part of large groups. For example, a parent from the UK told us their fourteen-year-old son played the online multiplayer game *Among Us* with groups of friends. In some cases, digital games involved meeting up with friends in virtual worlds. For example, a parent from Australia described their eleven-year-old daughter spending “a lot of time playing *Roblox* and *Minecraft* with her friends ... In the past week or so, she has been building a world in *Minecraft* with one friend”. A parent from the UK told us their fourteen-year-old son had been using a virtual reality (VR) headset “to allow meeting up and collaborative play”, playing the virtual reality game *Beat Saber* with a friend.

Whilst digital games have been steadily growing in popularity in recent years, the data suggests their use increased throughout the pandemic. A parent from Australia commented “my children have relied a lot more on digital play – the older ones play online with their friends and the younger one likes to play with me (mum)”. This seems in part to have been due to the restrictions on seeing friends in person. For example, a parent from the UK said, “As they weren’t seeing friends, they linked [their tablets] online and had the chance to build together [in *Minecraft*]”. Another UK parent explained that for her children “screen time definitely increased ... because phones were the only way that children could stay in touch with their friends”. A ten-year-old from the UK told us that he “did more online games in the second lockdown”, when he had to stay home and the winter weather limited the time he spent playing outside.

Both the adults’ and children’s comments suggest digital games were an important way of keeping in touch with people and improved their wellbeing during a challenging time. For instance, an eight-year-old from the UK explained, “I have been doing *Roblox* with a friend in Singapore... It made me feel happy because I could connect with my friend through a game”. A ten-year-old from the UK told us that he had been playing “*Minecraft* and *Roblox* with friends on the iPad” reflecting that the activities made him feel happy and more connected to his friends during lockdown. An eighteen-year-old who was waiting to go to university told us he had connected with others at his new college through social media and that they had played online games such as the drawing game *Scribbl.io*. He explained that the games “were really important: although we would often just chat for ages about all kinds of topics, having them meant that we had more fun and were able to build experiences together.”

The findings therefore suggest that digital gaming was an important play experience for many children and

young people throughout the pandemic. Digital games were sometimes played alone and with family members in the same household, and sometimes with extended family and friends. The findings suggest that the use of digital games increased during the pandemic and that this play was valued by children and adults alike as an important way of socialising and staying connected to people they could not see in person due to restrictions such as lockdown. Digital games therefore seem to have significant potential for maintaining social connections across distance and supporting wellbeing during periods of physical distancing.

Digital Play through Video Calls

Although digital games were extremely popular, our findings reveal that this was not the only form of digital play children engaged in throughout the pandemic. Several examples in the data relate to Voice over Internet Protocol (VoIP) systems for video telecommunication, such as *Skype* and *Zoom*. Although primarily designed for conducting meetings, these systems saw a dramatic increase in use during the pandemic as ways of staying in touch with people who could not be met in person.

Examples in the data highlight the diverse ways in which children, young people and families used these systems playfully during the pandemic lockdowns. For instance, a seventeen-year-old from the UK described playing online quizzes via *Zoom*, explaining that a “group of school friends took turns every week to make general knowledge quizzes, usually on *PowerPoint* on laptops. We kept a record of scores every week so we could decide an overall winner at the end”. One parent from the UK shared that their children hosted “a bingo session and their friends joined via video call, which was a lot of fun”. A ten-year-old from the UK also described playing the dice game “*Shut the Box*” with his grandfather over *Zoom*. In these ways, video calls supported gameplay across distance.

Several examples revealed that video calls and other messaging systems were often used simultaneously alongside digital games. For example, an eleven-year-old from the UK said he “started playing *Among Us* this year- and over *Zoom* at the same time with friends”. Similarly, a ten-year-old from the UK said using the instant messaging system *WhatsApp* to chat while playing online games with friends helped him to feel more connected to them. These examples show the interconnectedness of children’s digital practices, where multiple systems and devices may be used together to facilitate social layers to digital play.

For some children, video calls were used in playful ways that blended elements of digital and non-digital play. For example, a parent from Germany explained that her four-year-old son used *Skype* to play with his grandmother who lived in Scotland: “They would set up so one or the other had their dolls house and they would instruct each other where to put the figures etc.”

A UK parent described how their four-year-old child, who was shielding due to medical conditions and was classed as extremely vulnerable, played with her support working through *Zoom*: "She'll run off and get cuddly toys and make them talk to the camera and [the support worker] would talk to them". During our *Zoom* interviews with children as part of the case studies, we were sometimes invited into play scenarios ourselves. For instance, a four-year-old from the UK chatted to us from inside his "bear cave" den made out of fabric and pegs, and his one-year-old brother initiated a game of selling pretend ice cream, "passing" an ice cream through *Zoom* to one of the researchers.

These examples show ways in which traditional play could be adapted to the medium of video calls. Sometimes, the use of video calls seemed to give traditional games a new dimension and make new forms of play possible. For example, a parent from Denmark explained: "My kids (girls aged 3 and 6 at the time) were playing hide and seek with their grandparents using an iPad. I was involved to facilitate, since I had to hide grandma and grandpa (the iPad) for the kids to find them. This gave a whole new dimension to the game, as grandma and grandpa could be hiding in the kitchen drawer or under the sink – or under the bed. When the kids couldn't find them, they asked them to make a sound as a clue."

These examples show enhanced and multiple instances of the kind of games reported in previous research on intergenerational play over *Skype* (Kelly, 2015). Our findings similarly suggest that video calls were a valuable way of sustaining play with people who could not be met in person. This included adapting existing games to the potentials and constraints of a new digital format and creating new forms of hybrid play in the process, blending online/offline and digital/non-digital elements.

Play Referencing Digital Media

Many of the submissions revealed that children had engaged playfully with digital media of various kinds throughout the pandemic, including watching films, television, streaming services like *Netflix* and content on *YouTube*. For example, one family from the UK described watching and singing along to funny songs together on *YouTube*. Several parents mentioned *YouTube* tutorials such as "Draw with Rob" and classes such as "Cosmic Kids Yoga" and "PE with Joe", a daily home workout series launched during lockdown that was extremely popular with families in the UK. In this way, some of the media children enjoyed during the pandemic was a continuation of earlier practices but some of the content was shaped particularly by the pandemic context.

These influences from digital media were reflected in several play examples. One parent in the UK shared an example where her seven-year-old daughter had used

her Barbie dolls to recreate "PE with Joe" by arranging them into press-up positions, and had made them masks to wear. A video shared by another parent in the UK showed their child pretending to give a COVID test to a toy character from the film *Frozen*. A parent from Berlin described her children playing Harry Potter-inspired games during lockdown and "conjuring spells to defeat corona" as well as making "potions" to cure the virus. The influence of digital media was therefore evident in several accounts of play that we received, inflected also with influences from the pandemic context.

Digital games also found their way off the screen and into other play of various kinds. For example, a parent from Australia described her children recreating a physical version of the online game *Among Us* with their friends when they were able to play outside together in the local neighbourhood. Figures from *Among Us* also featured in an example of children's chalk markings made in the street during lockdown in the UK. Similarly, one of the enemy characters from *Minecraft* featured in an example shared by a ten-year-old in the UK: "I did chalk drawings on the drive in front of my house... Because of COVID I didn't want people to come near the house and act like COVID doesn't exist. So I did chalk drawings of things like a ghost, a bottle of poison, a skull and crossbones and I wrote Keep Out. Later my sister came out and we drew a creeper from *Minecraft* as well".

These examples show ways in which children's play blends inspiration from familiar media texts of various kinds, including *YouTube* videos, films, books, and digital games whilst also incorporating references to the pandemic context. This reveals the interconnectedness of children's playworlds and the permeability between onscreen-offscreen and digital non-digital play experiences. It echoes findings from our previous research in physical playgrounds and the "laminates" of experience children draw on in their play, from remixed and remediated popular forms through folklore and children's everyday lived experiences (Potter & Cowan, 2020).

Playful Digital Media Creation

In addition to play influenced by digital media, the findings reveal that several children also created their own playful digital content in a variety of forms during the pandemic. This seemed, in part, to be supported by having more time to engage in such practices during lockdowns, and often took inspiration from the context of the pandemic as well as media texts they enjoyed and were familiar with.

Some of this digital creation took place within digital games. For instance, an eleven year old from the UK said he had spent time during the pandemic "watching *YouTube*, getting hints and tips for *Minecraft* builds". A ten year old from the UK told us he had built a replica

of his own house in *Minecraft* and the parent of a nine-year-old described a “cave house” her son had made using the programme. Sometimes the pandemic featured in this digital making, for instance two brothers from the UK built a “coronavirus clinic” in *Minecraft*, including a lever to trigger an outbreak and a cure for infection.

A number of children mentioned creating their own films and animations during the pandemic. For example, a ten-year-old from the UK described creating a stop-motion animation using loose parts and *LEGO* minifigures that he called “Bumblebee vs Sinestro”, referencing characters from the *DC Comics* series: “I recorded my animation on my iPad with a tripod and I used the *LEGO* animator app... It took a lot of time but I was very happy with my film. My mum sent it to my grandma and my uncles, aunts and cousins”. One parent in the UK described their daughter creating videos “with her Dad/Brother using Barbies and her *Disney Aladdin* which have made her laugh immensely”, showing ways in which toys can become props for videos. A parent from Australia also described her fourteen-year-old son creating 3D models using the software *Blender*, including making things requested by his friends.

Further examples included the parent of an eleven-year-old and eight-year-old in Australia who described how her children enjoyed making movies and “edits” (a series of photos edited together in a short film). An example shared by a seventeen-year-old in the UK featured a music video he had created during lockdown for a national media competition: “My music video “Lost Without You” was created, directed, edited and filmed by me. I had to work independently due to the pandemic and lockdown restrictions”. Another submission featured a short film created by a teenager in the UK as an assignment for her college course during lockdown, created using *iMovie* and stop motion software: “I decided to follow a 1920s style, that explores what lockdown could’ve looked like 100 years ago, where there was no technology and children and young people had to entertain themselves!” She reflected that the film-making activity helped her “put a positive spin on lockdown”.

The pandemic was also a central theme in a short film created by a ten-year-old from the UK made with his father during lockdown, entitled “Covid Gone”, in which photos and videoclips from their home and local neighbourhood during lockdown are given a voiceover reflecting on their experiences. A parent from Chile noted themes relating to the pandemic in her thirteen-year-old son’s filmmaking: “making videos and uploading them to *YouTube*, with wooden animal figures as protagonists. One of the stories was about the animals not being able to go anywhere and being bored, when we were in the middle of lockdown”. A parent in Australia shared a series of *YouTube* videos created by her daughter in a vlog style, in which she shared

information about coronavirus and tips such as handwashing.

These examples highlight some of the playful ways in which children and young people have been creating digital media during lockdown and throughout the pandemic. They show digital hardware and software being used to draw on familiar popular media genres such as comics, cartoons, film, videogames and *YouTube*. The pandemic itself was a focus in several of the media submissions, highlighting children’s understanding of and response to the pandemic in audiovisual forms.

6. Discussion and Conclusions

The Play Observatory findings reveal that digital play has been a significant part of many children’s experiences of the pandemic. Both young people’s own accounts and adult observations indicate that digital play increased throughout the pandemic, showing an intensification of ongoing trends identified in other recent surveys of children’s digital lives (Ofcom, 2017, 2019, 2020). This may have been, in part, due to having more time at home to engage in playful activities throughout the pandemic and to take up new hobbies such as animation and film-making.

However, it is important to also recognise that children’s experiences of the pandemic have varied considerably. A 2020 report by Save the Children highlights digital inequalities, noting that many families “lack reliable, affordable internet access, which makes it hard for children to play online or benefit from digital ideas and resources for play” (p. 3). This suggests that the pandemic may have exacerbated existing digital inequalities as more practices, including play, turned online. However, our study also revealed many episodes of play that did not include the digital, such as outdoor play, physical play, crafts, den-building, play with toys and imaginary play.

From the Play Observatory findings, a major affordance of digital play was the possibility to socially connect with others while being physically separated, helping children’s play endure, adapt and respond to restrictions.

Firstly, it made possible the *continuation* of several existing play practices. Whilst schools and playgrounds were closed, and meeting up with others in person was restricted, digital play such as online gaming offered a way of continuing to connect with friends and extended family members.

Secondly, the data revealed many instances of *adaptation* of traditional play to new digital formats, for instance playing quizzes, bingo and board games through video calls, as well as younger children sharing toys and role-playing with others through the screen. This shows the resilience of play, and the creative

capacities of children and young people to find alternative ways of playing when subjected to restrictions.

Thirdly, the findings show the *emergence* of new forms of play through this digital adaptation. For instance, a game of hide and seek played through an iPad enabled grandparents to be hiding “in” a kitchen drawer; a physical impossibility in the traditional version of the game, but made possible digitally. Such examples show the hybrid nature of much digital play, where boundaries such as online/offline, virtual/real and onscreen/offscreen have become increasingly blurred and blended throughout the pandemic.

Finally, in several examples the pandemic itself was a point of *reference* in play, often intertwined with digital media influences. For example, a coronavirus clinic built in Minecraft showed understanding of outbreaks, infection and immunity, Barbie dolls re-enacted a home workout popular on *YouTube* during lockdown and a toy character from the film *Frozen* was tested for COVID. These instances reveal children's awareness and understanding of the pandemic, with play potentially offering a way of exploring new and unsettling ideas and exercising agency. Similarly, children's digital media created during the pandemic often playfully, and poignantly, explored themes relating to the virus in forms such as films, animations and *YouTube* vlogs, often then shared with others. These creations combined both influences from popular digital media texts and genres, whilst often inflected with themes relating to the pandemic. In this way, digital play offers rich insights into children's understandings and experiences of this unique time in history.

The enduring nature of digital play as a source of connectedness, resilience, wellbeing and creativity has been seen throughout our data, adapting and responding to the pandemic. The Play Observatory therefore highlights the complexity of children's digital play, troubling the “screen time” discourse. The blanket term is often used to cover a multitude of practices whilst positioning children as inactive, uncritical consumers of media. Instead, framed by perspectives such as multimodality, dynamic literacies and the Reggio Emilia concept of the “hundred languages”, the findings from the Play Observatory highlight the many “languages” or “modes” that are combined in play, and how the digital can amplify potentials for meaning-making rather than constricting them. Crucially, it emphasises that digital play is far from passive.

This raises questions as to whether children's digital practices, often developed in play at home and outside of school, are given equal attention and recognition in formal education. Dynamic literacies, multimodality and the “hundred languages” offer both conceptual lenses and pedagogical practices that can support meaning-making in the widest sense, including the digital. Valuing the complexity of children's digital

play, its specific affordances, the interconnectedness of play practices and the increasingly blurred boundaries between digital and non-digital play is necessary not only in relation to making sense of children's play experiences during the pandemic, but also for understanding and supporting digital childhoods more broadly in the post-pandemic period and beyond.

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