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The Toy Brick as a Communicative Device for Amplifying Children's Voices in Research

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Introduction

This article arises from recent industry-partner research between the ARC Centre of Excellence for the Digital Child, the LEGO Group, and Edith Cowan University (ECU), examining new ways of communicating children's perspectives of digital citizenship to policy makers and industry in a project called *Digital Safety and Citizenship Roundtables: Using Consultation and Creativity to Engage Stakeholders (Children, Policy Influencers, Industry) in Best Practice in India, South Korea, and Australia*. We posed the research question: What are children's everyday experiences of digital citizenship in these countries, and how might these contribute to digital citizenship policy and practice? In research roundtables, we immersed children aged 3 to 13 in a three-pronged child-centred multimodal methodology that included drawing, show-and-tell discussion, and a block building activity. It is this third block-related method that this article investigates: the project's adoption of an activity using the LEGO® brick whereby the children expressed their views about their everyday digital worlds via brick toy constructions. In this article, we explain how such toy play can be used as a communicative strategy to give children agency so that they can creatively interject their voices into ongoing discussions about children's digital citizenship. Such an approach takes a children's rights perspective and considers the ethics of research with children, whereby "young children have rights; [and] they are agents and active constructors of their social worlds" (Sun *et al.*). The project was also subject to a rigorous human ethics approval process at ECU. This article highlights the benefits of the brick toy as a communicative device for amplifying children's voices about their everyday experiences of media and digital cultures and ends by illustrating some of the children's views depicted in their brick toy creations.

Rationale

Taking a child-centred approach using play-based participatory methods provides a window into children's everyday media and digital cultures that may not be accessed through traditional qualitative techniques. Gennaro and Miller (xxxi) argue that "the impact of technology upon children remains so complicated to grasp, assessing the extent to which digital – and specifically social media – plays a role in the lives of youth is still a prerequisite for our discourse". This provided an imperative for our research to find a child-centred method to grasp this complication. Furthermore, asking children about their experiences of media and digital cultures is a key aim of the Centre for the Digital Child researchers who led this project. It is also emphasised as a research imperative by the 'Growing Up in a Connected World' study conducted for UNICEF and the Global Kids Online team led by Sonia Livingstone in 2019. They identify that, if we are going to understand children's media and digital cultures, we need to ask children about this:

The starting point must be children themselves – asking about the barriers they face in accessing the internet, the opportunities they are discovering online and the digital skills they are acquiring. Children can also report on the online risks they have encountered and

the possible harms, as well as on the support and protection they receive from family, friends, teachers, and wider society. (UNICEF 7)

The Project: What We Did

In 2022, ECU and Digital Child researchers conducted a series of research roundtables with a total of 45 children in India, the Republic of Korea, and Australia with the intention of gathering children's perspectives of digital safety and citizenship. Subsequent adult roundtables were held in which the children's views along with findings from a deep literature review were conveyed to the adult policy, education, and academic stakeholders. In the research, children were positioned as key stakeholders in conversations about their digital citizenship. Three children's roundtables were held in each country: one for pre-primary school children (3-5 years of age), one for early primary school children (6-10 years of age), and one for late primary school children (10-13 year of age). The roundtables included three activities: first, the use of ten image cards depicting digital activities as icebreakers and as prompts for a drawing activity; second, a talking activity in which children explained their drawings and then talked about their experiences of digital citizenship; and third, a toy play activity in which children had access to a table of LEGO brick toys where they were asked to make a construction that showed the roundtable participants and facilitators something about their existing knowledges and comprehension of digital citizenship. It is the latter activity with brick toys that this article will explore.

Multiple Play-Based, Child-Friendly Participatory Methods

Play-based participatory methods such as visual prompts, drawing, and toy play, unlike a traditional qualitative focus group that centres on discussion, establish a less formal atmosphere for the children more akin to their recreational play activities. Not only do these methods build rapport, but they also elicit a more authentic reflective response from children. (For a review of participatory research with children, see Montreuil *et al.*) As Literat (88) argues about child-friendly methods, "unlike in interviews or focus group sessions where an instantaneous response is expected, the research participants are given time to reflect on their responses, which encourages active conceptualization and contemplation". This additional time for reflection through multiple modes of communication – drawing, show and tell, talking, block play – also gives the child participants an opportunity to craft a more complete depiction of their digital lives, with the added advantage of more easily navigating age-defined literacy, language, and cultural boundaries. The variation and combination of three visual play-based activities along with the children's verbal explanations of their creations attended to how "visual images and the verbal exchanges are central to the children's meaning making process" (Tay-Lim and Lim 65). This approach aided in amplifying the children's authentic voices in the research data gathered in the roundtables. The LEGO brick toy proved to be particularly effective as a mechanism for the children to communicate their views, as it had done in a preceding context, because it gave them a visual mode of expressing tacit experiences of media and digital cultures that had become embedded in their everyday lives.

Precedent of the Brick Toy to Communicate Children's Views

The inspiration for employing LEGO brick toys to communicate children's views in the digital citizenship roundtables project came from work done by the LEGO Group itself. In 2021, the LEGO Group collated workshop feedback and survey data concerning climate change from over 6,000 children aged 8–18. The resulting ten requests depicted through brick constructions were conceptualised as *Building Instructions for a Better World* and were presented to climate and government policymakers who attended the COP26 climate conference in Glasgow in 2021 (LEGO, *Children Call; Building Instructions*). Affirming our project's adoption in January 2022 of LEGO toy play for children to communicate important perspectives of digital citizenship to adult stakeholders, LEGO subsequently developed their COP26 approach into the more general *Build the Change* strategy: "a powerful way for children to express their hopes and dreams for the future with LEGO bricks and other creative materials, plus their own imagination" (LEGO, *Building the Change*). This child-led and play-based pedagogical approach exemplifies the LEGO group's ongoing remit for social good via its child-led brand framework and how the company is conscious of the leadership role it possesses in regard to education and its environmental footprint (Wood).

It also demonstrated to the researchers of the *Digital Safety and Citizenship Roundtables* research project, though not concerning climate change activism, how the LEGO brick toy is a highly effective communicative tool through which children aged 3 to 13 can express their views about their digital lives to adults. Thus, we employed a LEGO brick toy building activity in our project's play-based participatory research methods. As a creative visual method, such a way to capture a range of children's views also aligned with the international research network, *Global Kids Online*, which advocates in its 'Method Guide 8' that creative visual methods are "useful for engaging children in joint knowledge production, as literacy is not required, and such methods are less associated with formal settings such as school" (Kleine *et al.* 9).

Toy Play as a Research Method

When children symbolise their experiences of digital contexts in brick toys, this is a form of symbolic play, a foundational element of children's developing meaning-making (Vygotsky). The children's representation of their lives in such play involves three things, as discussed by Bruner in his analysis of culture and education: thought and emotion enacted through physical action; expression through imagery; and the construction of symbols. LEGO brick toy play as a research method in the children's digital citizenship project involves all three of these: firstly, children are actively enacting their thoughts about their digital lives through physical toy play; secondly, they create visual images via brick toy constructions as representations of their digital experiences; and thirdly, they are using the brick toys to symbolically express their inner worlds. In discussing their similar use of small world toys, which are "scaled down items for children to create and play with small-scale scenarios or world, typically toy animals and people", Gripton and Vincent (226) identified that such methodological toy play has the "advantage of being within the child's world and harnessing the children's ability to communicate through symbolic representation and natural affinity to play" (238). In this way, the toy is a communicative device that does not require a dependence on written or verbal literacies, but rather multiliteracies common in the ϵ (Wright) that transcend age barriers and reflect children's everyday cultures, including media and digital cultures.

A Convergence of Children's Cultures and Media Cultures

Whilst it could be suggested that the use of the LEGO brick toys as a communicative tool too closely aligns with growing commercialisation of children's play, reflecting the convergence of children's cultures and media cultures (Ponte and Aroldi), we would argue that a project which attends to children's perspectives of their digital lives needs to reflect the worlds, and the toy play in those worlds, that children currently inhabit. Indeed, it is children's familiarity with LEGO that created a communicative shortcut that quickly facilitated the children's expressiveness in the project across the age range 3 to 13. (DUPLO was used with the 3-5 year old age group; smaller LEGO bricks were used in groups 6-13.) This is not a commercial endorsement of the brick but an attempt to meet the children in their own play worlds. Our experience of children's familiarity with LEGO echoed other research: "as a familiar medium, LEGO allows participants to express thoughts, share and reflect without relying on technical ability" (Hickman-Dunne and Pimlott-Wilson 94). LEGO has proved to be a ubiquitous element of toy play in the contemporary child's life, not just in European cultures where the toy originated but across cultures. Certainly, the children in India and Korea were as familiar with LEGO as the children in Australia. Ponte and Aroldi (9) argue that "the connection between children's cultures and media cultures can be considered a privileged area of innovation ... [and] research into children's and digital media is also an area of methodological innovation". We see the use of LEGO brick toys in research as one such innovative method that attends to children's authentic perspectives through participatory approaches.

Children's Rights Perspective

Taking a participatory approach in the research method design of the *Digital Safety and Citizenship Roundtables* project meant that the researchers were not just attending to child-friendly methods whereby researchers "adopt practices that resonate with children's cultures of communication, their own concerns and fit in to their everyday routines" (Christensen and James 2) but also paid due respect to "a global agenda of children's rights in the digital age" (Livingstone and Bulger 1). Such rights around children's digital lives came to further prominence in 2021 when the United Nations Committee for the Rights of the Child released *General Comment No. 25 on Children's Rights in Relation to the Digital Environment*, "encouraging innovation in digital play and related activities that support children's autonomy, personal development and enjoyment" (UNCRC 18). Whilst specifically referring to rights in digital contexts, as researchers from the Centre for the Digital Child we felt it was important to reflect in our research design this approach to children's rights, and respect for children's autonomy and enjoyment. We also were committed to the *General Comment 25* principle of "children's right to participate in the decision making that impacts their lives" (Third and Moody 9). Thus, we communicated the children's perspectives including their LEGO brick toy creations to adult stakeholders and we also produced a children's version of the final report for the project (See *et al.*).

A ~ Ethic of Empowerment When Researching Young Children



In addition to this children's rights perspective, we paid heed to the Early Childhood Australia (ECA) principle that research with young children should amplify their voices, ensuring they are afforded "the right to be heard"; thus the researchers were committed to ECA's principle of "promoting children's voice and participation in decision-making processes, and enabling greater opportunities to hear from children about their concerns" (ECA 3). Our child-participatory research about children's experiences of digital safety and citizenship that employed the toy brick as a communicative device for amplifying children's voices by contributing these perspectives back to policy making and influencing stakeholders is also aligned with moves for child participation in decision-making over recent years. For example, in 2015 the Irish Department of Youth Affairs released a *National Strategy on Children and Young People's Participation in Decision-Making, 2015 - 2020*; in 2021, Save the Children released their publication *Together We Decide* about strengthening child participation in UN decision-making processes (Diop, Keating, and Trapp); and in 2022, the Council for Europe released *Listen - Act - Change: Handbook on Children's Participation for Professionals Working for and with Children* (Crowley, Larkins, and Pinto). What all these child participation approaches have in common is a need to heed the voices of children and to amplify these voices so children can contribute to decisions being made about their digital and everyday lives. The researchers of the *Digital Safety and Citizenship Roundtables* project, through our adoption of the LEGO brick toy as a communicative device, agreed with Iivari (290) in ensuring that "children of today should be empowered in and through their digital technology education to switch from mere users of digital technologies created by adults to makers and shapers of such technologies and, along these lines, to transformers of culture".

Exemplars of the Children's Toy Brick Creations

It is not in the scope of this article to provide a complete analysis of the children's brick creations; this can be found in the full report of the children's digital citizenship roundtables project, which is available open access (Stevenson *et al.*), and the project final report (Jayakumar *et al.*). However, below we have included in this article a gallery of some of the children's brick toy creations that exemplify the communicative outcomes of children across the age groups using the toy brick to convey their experiences of their digital and everyday lives. To amplify the children's voices, we have included the children's verbatim explanation of their creation. As mentioned previously, the toy brick creations for the 3-5-year-old roundtables used DUPLO, and the roundtables of age groups 6-10 and 11-13 used LEGO bricks. You will note that the youngest age group, 3-5 years of age (whose parents were often present in the roundtable groups), conveyed less about the digital in their toy creations and more about their everyday lives and loves. Interestingly, this young age group was able to convey their digital experiences more clearly via the drawing activities than the LEGO toy brick activity. (All names and identifying characteristics have been deidentified and/or removed.)



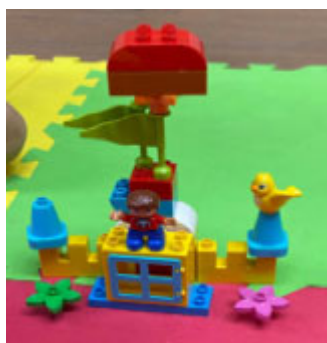


Figure 1 (3–5 age group): Nabha explained that “Here are two cameras, and I’ve added flowers for decoration. Here is my window, and you can enter from here ... there’s a bird which can fly ... My castle!”



Figure 2 (3–5 age group): Noah explained that “I’m going to do a Brontosaurus ... I’m doing a dinosaur with a very long neck”.



Figure 3 (6–10 age group): Mia conveyed her sense of digital safety and explained that “I’ve made a device that means there’s like a lock on it”.

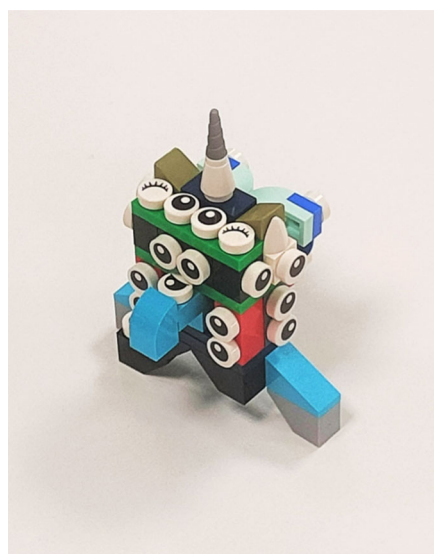


Figure 4 (6–10 age group): Jack also conveyed something about digital safety and explained that “it’s basically a[n] eye monster thing ... So, it’s supposed to symbol what you have to face when you do something wrong that you know you’re not supposed to do.”



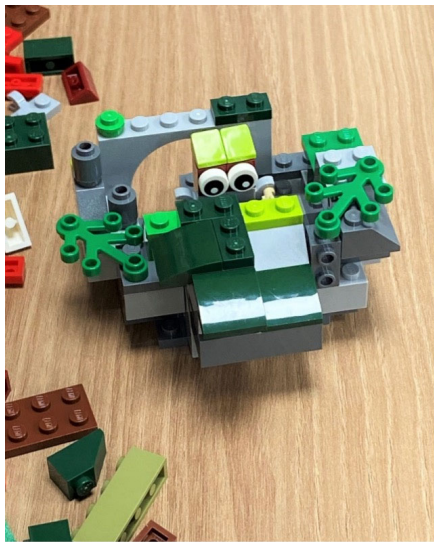


Figure 5 (11–13 age group): Han-Na, who was passionate building games, explained that “I mostly play Minecraft, and this is the character, and there’s a diamond underground ... here ... It’s difficult to find a diamond in the wild, but I found it.”



Figure 6 (11–13 age group): Inesh conveyed nuanced ideas about digital safety and citizenship and made a LEGO representation of “a firewall to keep you safe online”.



Figure 7 (11–13 age group): Gitali, who enjoyed a rich gaming life, explained that “I know it’s cute and not even



Figure 8 (11–13 age group): Will, who recounted an experience of being cyber-

scary. This monster has been inspired by the game Roblox."

stalked, explained that his creation represents "this person [who] tried to stalk me and I just decided to leave the game and then they somehow managed to find me all over again".

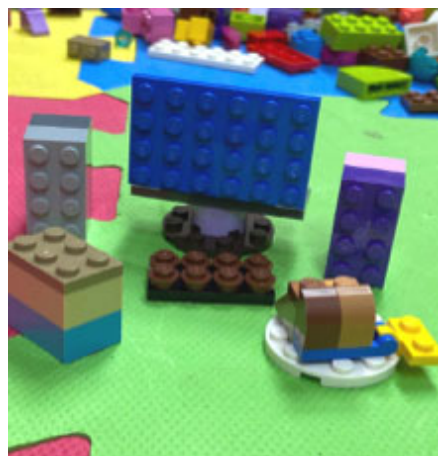


Figure 9 (11–13 age group): Nirav explained about his creation reflecting his room at home, "this is a PS5. This is a gaming setup - mouse, mouse pad, two speakers, computer, keyboard and CPU".

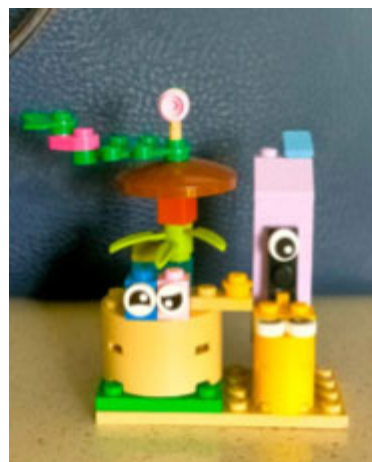



Figure 10 (11–13 age group): Sophia, who told us about an experience of online and offline bullying, explained that "this is my bully detector for online... If you aren't a bully, it will turn the green bit but if you are a bully, it will turn to the pink and then it will kick you out."

Limitations

There are limitations in both the application of the toy brick as a method and in what this article itself can address. Firstly, as a method, there is further work awaiting those interested in using toy play, particularly brick toy play, to apply this method in contexts that explore children's everyday experiences in general, not just their experiences of the focus of this research project, children's digital citizenship. Secondly, it is not possible in an article of this length to present a complex testing of the LEGO brick toy method against other forms of brick toy – that would be an entirely different project to the children's digital citizenship project that we conducted. Furthermore, word limits mean it is not possible to present the full analysis of the children's brick toy creations, and the authors would encourage those interested in more in-depth findings and  images of the children's brick creations and drawings to seek these, as noted previously, in the report authored by Stevenson *et al.*

Conclusion

This article has explained the rationale for using the LEGO brick toy as part of participatory play-based methods in our recent research project, *Digital Safety and Citizenship Roundtables: Using Consultation and Creativity to Engage Stakeholders (Children, Policy Influencers, Industry)* with industry partner the LEGO Group, the ARC Centre of Excellence for the Digital Child, and Edith Cowan University. This rationale placed the child as the expert informant about the media and digital cultures in their everyday experiences of digital citizenship. Through multiple play-based, child-friendly participatory methods, following the precedent of the brick toy being used to communicate children's views about climate change to adult climate policymakers, we sought the views about digital safety and citizenship of children aged 3 to 13 years in three Asia-Pacific countries – India, Korea, and Australia. We then conveyed these to adult stakeholders who contribute to and influence children's digital citizenship policy in these countries. It is our view that such a participatory, play-centred approach respects children's rights to express themselves in authentic and creative ways and is in keeping with the turn to children's participatory frameworks that provide the steps for children to contribute to policy that impacts on their digital and everyday lives. From the experience of conducting the children's roundtables in the project, we encourage other researchers to take a children's rights approach and embed an ethic of empowerment through toy play-based methods when researching young children. We argue that such toy play in research provides vivid windows into children's media and digital cultures, whilst at the same time empowering today's digital child to be agentic in discussion that impact their digital futures.

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References

Bruner, Jerome. *The Culture of Education*. Massachusetts: Harvard UP, 1996.

Christensen, Pia, and Allison James. "Introduction: Researching Children and Childhood: Cultures of Communication." *Research with Children: Perspectives and Practices*. Eds. Pia Christenson and Allison James. Abingdon: Routledge, 2017. 1–10.

Crowley, Anne, Cath Larkins, and Luis Manuel Pinto. *Listen – Act – Change: Handbook on Children's Participation for Professionals Working for and with Children*. Strasbourg: Council of Europe, 2022. 31 Mar. 2023 <<https://edoc.coe.int/en/children-s-rights/9288-listen-act-change-council-of-europe-handbook-on-childrens-participation.html>>.

Department of Children and Youth Affairs Ireland. *National Strategy on Children and Young People's Participation in Decision-making, 2015–2020*. Dublin: Government of Ireland Publications, 2015. 31 Mar. 2023 <<https://www.gov.ie/en/publication/9128db-national-strategy->

[on-children-and-young-peoples-participation-in-dec/>](#).

Diop, Diarra, Roz Keating, and Annabel Trapp. *Together We Decide: Strengthening Child Participation in UN Processes*. London: Save the Children International, 2021. 31 Mar. 2023 <<https://resourcecentre.savethechildren.net/document/together-we-decide-strengthening-child-participation-in-un-processes/>>.

Early Childhood Australia (ECA). *Supporting Young Children's Rights: Statement of Intent 2015–2018*. Canberra: Early Childhood Australia, 2014. 31 Mar. 2023 <<https://www.earlychildhoodaustralia.org.au/wp-content/uploads/2015/03/Supporting-young-childrens-rights-statement-of-intent-2015-2018.pdf>>.

Gripton, Catherine, and Kerry Vincent. "Using Small World Toys for Research: A Method for Gaining Insight into Children's Lived Experiences of School." *International Journal of Research & Method in Education* 44.3 (2021): 225-240. DOI: 10.1080/1743727X.2020.1753692.

Hickman-Dunne, Jo, and Helena Pimlott-Wilson. "Moodboards and LEGO: Principles and Practice in Social Research." In *Creative Methods for Human Geographers*. Eds. Nadia von Benzon, Mark Holton, Catherine Wilkinson, and Sarah Wilkinson. London: Sage, 2021. 87-100. DOI: 10.4135/9781529739152.

Iivari, Netta. "Empowering Children to Make and Shape Our Digital Futures – from Adults Creating Technologies to Children Transforming Cultures." *The International Journal of Information and Learning Technology* 37.5 (2020): 279-293. DOI: 10.1108/IJILT-03-2020-0023.

Jayakumar, Emma, Kylie J. Stevenson, Harrison See, and Yeonghwi Ryu. *A Model for Children's Digital Citizenship in India, Korea, and Australia: Stakeholder Engagement Principles*. Joondalup: Edith Cowan University / Centre for the Digital Child, 2023. 31 Mar. 2023 <<https://doi.org/10.25958/sjqk-rq80>>.

Kleine, Dorothea, Gemma Pearson, and Sammia Poveda. *Method Guide 8 – Participatory Methods: Engaging Children's Voices and Experiences in Research*. London: London School of Economics and Political Science / Global Kids Online, 2016. 31 Mar. 2023 <<https://eprints.lse.ac.uk/71261/>>.

LEGO. *Children Call for Action on Climate Change*. Billund: LEGO Group, 2021. 31 Mar. 2023 <<https://www.LEGO.com/en-fr/aboutus/news/2021/october/building-instructions-for-a-better-world>>.

———. *Building Instructions for a Better World [COP 26]*. LEGO YouTube channel. Billund: LEGO Group, 2021. 31 Mar. 2023 <<https://youtu.be/7GYEYBL67S8>>.

———. *Build the Change*. Billund: LEGO Group, 2022. 31 Mar. 2023. <<https://buildthechange.discoveryeducation.com/>>.



Literat, Ioana. "A Pencil for Your Thoughts': Participatory Drawing as a Visual Research Method

with Children and Youth." *International Journal of Qualitative Methods* 12.1 (2013): 84-98. 31 Mar. 2023 <<https://doi.org/10.1177/16094069130120>>.

Livingstone, Sonia, and Monica Bulger. *A Global Agenda for Children's Rights in the Digital Age*. UNICEF Office of Research – Innocenti and London School of Economics and Social Sciences, 2013. 31 Mar. 2023 <https://eprints.lse.ac.uk/54276/1/livingstone_global_agenda_childrens_digital_2014_author.pdf>.

Montreuil, Monica, Aline Bogossian, Emilie Laberge-Perrault, and Eric Racine. "A Review of Approaches, Strategies and Ethical Considerations in Participatory Research with Children." *International Journal of Qualitative Methods* 20 (2021): 1–15. 31 Mar. 2023 <<https://journals.sagepub.com/doi/pdf/10.1177/1609406920987962>>.

Ponte, Cristina, and Piermarco Aroldi. "Introduction: Children's Cultures and Media Cultures." *Communication Management Quarterly* 29.8 (2013): 7-16. DOI: 10.5937/comman1329007P.

Save the Children. *Children and Participation: Research, Monitoring and Evaluation with Children and Young People*. London: Save the Children Foundation, 2000. 31 Mar. 2023. <https://www.participatorymethods.org/sites/participatorymethods.org/files/children%20and%20participation_wilkinson.pdf>.

See, Harrison, Kylie J. Stevenson, Emma Jayakumar, and Hui Zeng. *Children's Digital Citizenship Project: Your Perspectives: A Report for Children*. Joondalup: Edith Cowan University / Centre for the Digital Child, 2023. 31 Mar. 2023. <<https://doi.org/10.25958/58TA-J853>>.

Stevenson, Kylie J., Emma Jayakumar, Harrison See, Yeonghwi Ryu, and Shruti Das. *Children's Perspectives of Digital Citizenship in India, Korea and Australia: Report of Findings from Children's Digital Citizenship and Safety Roundtables*. Joondalup: Edith Cowan University / Centre for the Digital Child, 2022. 31 Mar. 2023 <<https://doi.org/10.25958/0j0c-xp24>>.

Sun, Yihan, *et al.* "Methods and Ethics in Qualitative Research Exploring Young Children's Voice: A Systematic Review." *International Journal of Qualitative Methods* 22 (2023): 1–15. DOI: 10.1177/16094069231152449.

Tay-Lim, Joanna, and Sirene Lim. "Privileging Younger Children's Voices in Research: Use of Drawings and a Co-Construction Process." *International Journal of Qualitative Methods* 12.1 (2013): 65-83. 31 Mar. 2023. <<https://doi.org/10.1177/160940691301200135>>.

Third, Amanda, and Lilly Moody. *Our Rights in the Digital World: A Report on the Children's Consultations to Inform UNCRC General Comment 25*. Parramatta: Western Sydney University and 5Rights Foundation, 2021. 31 Mar. 2023 <<https://5rightsfoundation.com/uploads/OurRightsinaDigitalWorld-FullReport.pdf>>.

UNCRC. *General Comment No. 25 (2021) on Children's Rights in Relation to the Digital Environment*. CRC/C/GC/25, adopted on 24 March 2021. Geneva: United Nation Office of the High Commissioner for Human Rights, 2021. 31 Mar. 2023. <<https://www.ohchr.org>>

</en/documents/general-comments-and-recommendations/general-comment-no-25-2021-childrens-rights-relation>>.

UNICEF. *Growing Up in a Connected World Summary Report*. Florence: United Nations Office of Research-Innocenti, 2019. 31 Mar. 2023 <<https://www.unicef-irc.org/growing-up-connected>>.

Vygotsky, Lev Semyonovich. *Thought and Language*. Massachusetts: MIT Press, 1962. <<https://doi.org/10.1037/11193-000>>.

Wood, Zoe. "LEGO Issues Cop26 Handbook by Children on How to Tackle Climate Crisis." *The Guardian*, 28 Oct. 2021. <<https://www.theguardian.com/environment/2021/oct/28/lego-issues-cop26-handbook-by-children-on-how-to-tackle-climate-crisis>>.

Wright, Susan. "Ways of Knowing in the Arts." Ed. Susan Wright. *Children, Meaning-Making and the Arts*. Sydney: Pearson Prentice Hall, 2003. 1-33. <<https://eprints.qut.edu.au/21525/>>.

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Dr Emma Jayakumar is research officer for the ARC Centre of Excellence for the Digital Child, ECU node. Emma is the author of two book chapters and highly experienced in working with child-centred research methodologies. In previous research, Emma has investigated the composition of music drama for children, and her ongoing research focuses on child-led participatory research methods. Emma is also a classical composer and librettist specialising in chamber, orchestral and vocal music.

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Dr Harrison See is research officer for the ARC Centre of Excellence for the Digital Child, ECU node. Harrison's expertise is in arts research and creative research methodologies. His arts research focuses on studio collaboration as a means of cross-cultural dialogue, exchange and storytelling. His past research has engaged with artists of Southeast Asian heritage to explore themes of diaspora, discrimination and cultural hybridity. He is also a curator and contemporary artist who regularly exhibits.

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