Using Mixed Methods to Research Children's Online Opportunities and Risks in a Global Context: The Approach of Global Kids Online

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Abstract

This case presents the Global Kids Online research model, revealing the challenges of researching children's internet and mobile use in a global context, and providing practical methodological solutions. With most available research conducted in the global North while most growth in the population of young internet users is occurring in the global South, researchers are faced with the challenge of creating research tools that are both context-sensitive, yet able to capture children's experiences of the internet on a global scale, and that allow for robust cross-country comparative approaches. The Global Kids Online methodology is designed for children aged 9-17 who use the internet at least minimally and for adult respondents (the children's parents or carers). It includes a survey of parents and children, and individual and group interviews with children. The Global Kids Online project was developed as a collaborative initiative between the London School of Economics and Political Science, the UNICEF Office of Research-Innocenti, and the EU Kids Online network to address this need for a robust global evidence base on children's online opportunities and risks, and their effects on children's well-being and rights, which can be used to inform national and international policy, regulation, and practice.

Learning Outcomes

By the end of this case, students should be able to:

- Understand key issues related to the design, fieldwork, data analysis and management of a global research project on children and the internet
- Assess the advantages of using mixed methods

- Understand the key challenges and advantages of cross-national comparative research.

Acknowledgements

This case is based on our work with colleagues as part of the projects Global Kids Online (GKO) and Maximizing Children's Online Opportunities and Minimizing Risks (MOMRO), and draws on research published in our online research toolkit (see www.globalkidsonline.net/tools). This work was made possible by financial support from the WePROTECT Global Alliance, UNICEF, and the London School of Economics and Political Science. We would like to thank our colleagues from the Global Kids Online network and the project expert advisors for their help and guidance.

Case Study

Research Context, Aims and Research Questions

Everyday life is increasingly infused with digital technology use to the point where the distinction between offline and online is becoming blurred (Livingstone & Bulger, 2014; Third, Bellerose, Dawkins, Keltie, & Pihl, 2014). Theoretical and methodological approaches recognizing the digital as fundamentally interwoven with the social (Couldry & Hepp, 2017; Lupton, 2015; Wajcman, 2015) are coming to the fore of contemporary social and media research. Children, too, are becoming internet users at rapidly increasing rates and at younger ages (Holloway, Green, & Livingstone, 2013), with around one in three internet users globally estimated to be under 18 (Livingstone, Carr, & Byrne, 2016). The digital environment has become an important resource facilitating children's access to information, education, and health resources, as well as offering important opportunities for communication, socializing, creativity, participation, play, and entertainment (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013; Swist, Collin, McCormack, & Third, 2015; Third et al., 2014). The internet is also linked to ideas of digital citizenship and seen as a pathway to for children to exercise their rights to provision, participation, and protection (La Rue, 2014; Livingstone & Bulger, 2014; Livingstone, Mascheroni, & Staksrud, 2015; Third et al., 2014).

However, a growing body of international research and evidence reviews has demonstrated that online opportunities go hand in hand with the experience of online risk (Barbosa, O'Neill, Ponte, Simões, & Jereissati, 2013; Beger, Kounkou Hoveyda, & Sinha, 2012; Gigli & Marles, 2013; ITU, 2013; Livingstone & Helsper, 2010; Livingstone, Nandi, Banaji, & Stoilova, 2017; UNICEF Office of Research-Innocenti, 2012). This also relates to concerns for amplified risks for some children who are more vulnerable offline and also more likely to encounter risk of harm online, while being less likely to have the resilience and support networks helping them deal with risks, and also less likely to take advantage of the existing opportunities (Livingstone, Haddon, & Görzig, 2012). The existing evidence that social exclusions are transmitted to the online environment adding to already existing inequalities and occurring alongside continued vulnerabilities that are extended into the digital environment (Barbovschi, Green, & Vandoninck, 2013; Paus-Hasebrink, Sinner, & Prochazka, 2014) have given rise to concerns with new levels of inequalities in the digital age – both globally and within nation states. These 'digital divides' are related not only to the availability and affordability of internet connectivity and digital devices, but also to the range of activities, digital skills, and tangible outcomes that children are able to

realize, as well as to the balance between risks and opportunities that the internet affords them (Helsper & Eynon, 2013; Livingstone et al., 2012; van Deursen & Helsper, 2015). Research on children's experiences in the global South suggests a range of familiar barriers, including parental knowledge, teacher training, and a lack of locally relevant material (Kleine, Hollow, & Poveda, 2014; Livingstone & Bulger, 2014), as well as ongoing social inequalities that shape the online opportunities and risks for children (Livingstone et al., 2017), including the cost of data and devices (Phyfer et al., 2016). Still, at the global level, evidence on how internet use is impacting on children's well-being and on their rights is scarce and mostly drawing on data from developed countries, with significant gaps on the situation of children in the global South. This makes the task of formulating policies that are inclusive and contribute to children's safe and positive use of the internet particularly challenging.

To address these gaps the London School of Economics and Political Science (LSE), UNICEF Office of Research-Innocenti, and the EU Kids Online network launched the international research project Global Kids Online (see www.globalkidsonline.net).

Its main objectives are to:

- Enable and support rigorous research about children's internet use, online risks, opportunities, and well-being that is comparative over time and across countries and regions.
- Provide flexible and practical methodological tools for national researchers to collect data on and with children aged 9-17 who use the internet.
- Develop and continually update a freely accessible global research toolkit consisting of a modular survey, qualitative research protocols and a survey administration toolkit that includes a series of expert method guides.
- Build and support capacity in developing countries to conduct research on children's internet use and contribute to evidence-based policy, awareness rising, and practice.
- Contribute evidence in support of policy development that promotes the holistic realization of children's rights online and their access to resources.
- Establish and strengthen an international network of experts in the field who can monitor global trends, support the interface between evidence, policy and practice, and help disseminate findings to relevant audiences on the global level.

The Global Kids Online project focuses on children aged 9-17, and asks:

1. When and how does use of the internet (and associated online, digital, and networked technologies) contribute positively to children's lives, providing opportunities to benefit in diverse ways that contribute to their well-being?

2. When and how is use of the internet (and associated online, digital, and networked technologies) problematic in children's lives – amplifying the risk of harms that may undermine their well-being?

By answering these research questions and gathering rigorous cross-national evidence, Global Kids Online aims to advance understanding of whether and how the internet amplifies the risks of harm to children and how to optimize digital opportunities that contribute to children's well-being. It connects evidence with the ongoing international dialogue regarding policy and practical solutions to children's well-being and rights in the digital age.

Research Design

Theoretically, the project is informed by a structuration approach (Giddens, 1984) to children's lives that sees social structures and children's actions as mutually shaped by each other within dynamics of flows of agency and power (Wells, 2015). Digital technologies are understood as emergent from, rather than external to, society, with their influence depending on human processes of creation, use, and governance (Lievrouw & Livingstone, 2009; Mansell, 2012). For our understanding of the child as internet user, we draw on sociocultural and ecological theories of childhood (e.g. Bronfenbrenner, 1979; Wertsch, 1985) and the anthropology of consumption (e.g. Miller et al., 2016). Following from these debates, the present challenge is to examine children's experiences of the digital environment in a global context and to assess whether the use of the internet and mobile technologies mediates, positively or negatively, children's well-being and rights (Stoilova, Livingstone, & Kardefelt-Winther, 2016).

The approach of Global Kids Online is based on several key claims and concerns:

- A **child rights** focus: we adopt a child-centred approach that sees children as rights-holders and citizens, able to actively shape the online domain and exercise agency.

- An interest in child **well-being**: factors that support children's resilience and well-being or create vulnerability may vary across contexts, hence we aim to

investigate the circumstances under which use of the internet is beneficial and for whom it might increase the risk of harm.

- A **balance between risks and opportunities**: public and policy anxiety about the risks children encounter online creates the danger of emphasizing child protection while overlooking children's rights to provision and participation in the online environment. Global Kids Online offers a more balanced way of addressing opportunities alongside risks.

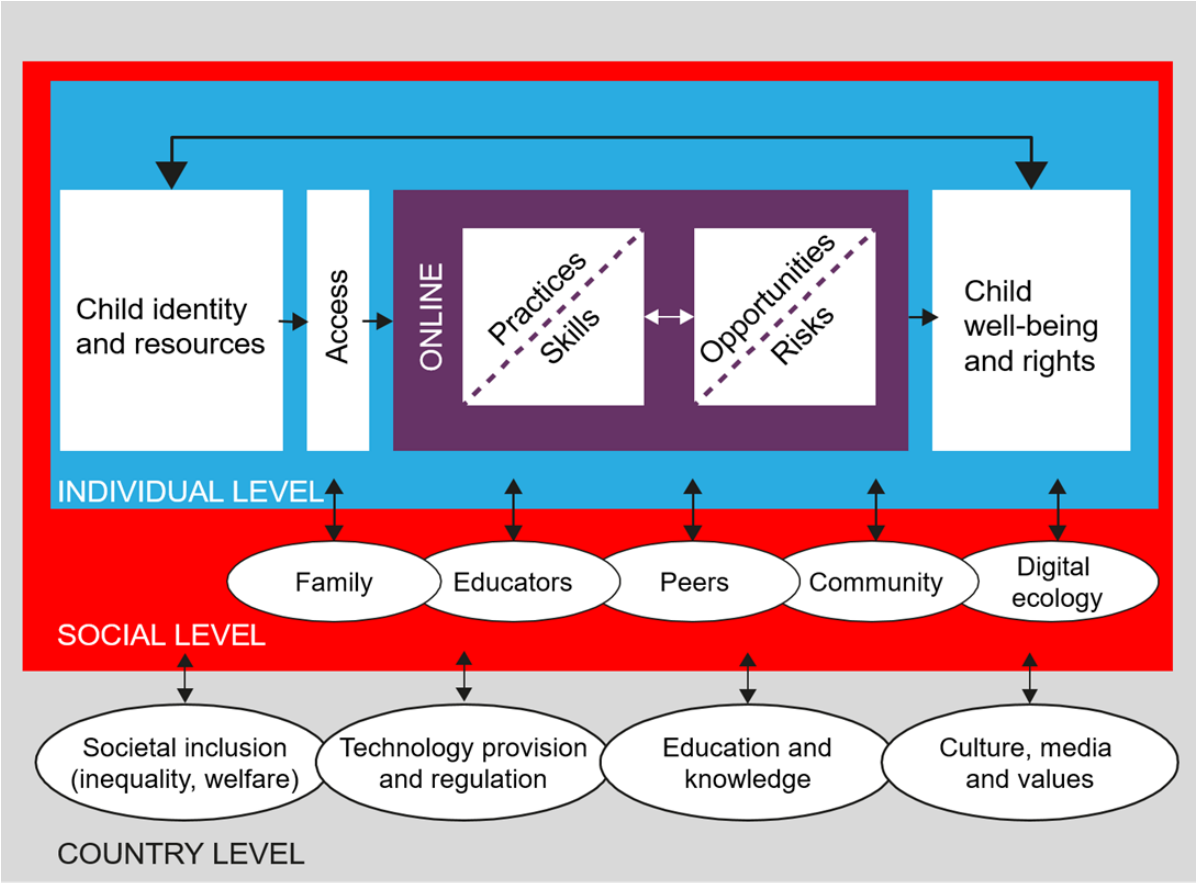
- **Combining standardization and contextualization**: in order to produce meaningful comparisons on a global level, Global Kids Online developed a methodology that would be standardized enough to allow for cross-national comparison of data, yet flexible enough to account for local and contextual variations (see Ólafsson, 2016; Stoilova et al., 2016; Byrne et al., 2017).

- **Sensitivity to cultural norms and practices**: navigating cultural, individual, and political sensitivities related to the issues under study (especially when risk-related) is important when conducting research and when reporting the results (see Kardefelt-Winther, 2016 and Ardivilla et al., 2017 for practical examples).

- **A partnership approach** to the research: we unite the benefits of central coordination of resources, expertise and tools with a distributed approach to evidence gathering and collaboration on comparative analysis. This is what has ultimately allowed us to develop a methodology that is both standardized and contextualised.

Global Kids Online is working with the research model shown in Figure 1 originally developed by EU Kids Online and based on original research in 33 countries (Livingstone et al., 2015), which was then adapted by Global Kids Online (see also Stoilova et al., 2016). The model identifies three interrelated levels that define the interconnectedness between the digital environment and children's well-being and rights and exemplify the key levels of influence that operate within national contexts. The levels are connected via multidirectional flows of influence that span both horizontally (across each level) and vertically (between the levels). The model is directly underpinning the research process – the elements on the individual and social levels are represented by core blocks in the qualitative and quantitative research tools and the national level is explored via background review of the existing evidence, policy, and socio-legal frameworks, or alternative datasets.

Figure 1: Individual, social, and country influences on child well-being and rights in the digital age



Source: Livingstone et al. (2015)

- *The individual level*. This level puts children's experiences and resources at the core of the research enquiry. It brings together a number of key elements engaged in multidirectional interconnected flows of influence. The elements include the context of children's experiences (such as socioeconomic characteristics and background) and children's own resources and identity, through children's engagement with the internet (e.g., internet connectivity and devices) and their online experiences (such as online activities, digital skills, engagement with online opportunities and facing risks), and finally their well-being.

- *The social level*. This level situates children's lives in a wider context by including their social surroundings as a way of recognizing the interconnectedness of the individual and the social. The focus is on key

elements, such as family, school, peers, community, and digital ecology (online social networks, information, gaming communities, help services, and more). Exploring these elements in relation to their respective online and offline characteristics (e.g., parental online mediation, as well as parenting support generally) allows for a comprehensive understanding of how the social level shapes children's experiences online and offline, and how this influences their well-being.

- *The country level*. Finally, the country level allows for the consideration of macro processes and influences that provide the structural elements shaping children's experiences, such as social stratification, governance, and cultural infrastructure. Taking into consideration within-country divisions and cross-country differences related to political and economic stability, social inclusion and welfare provisions, educational and technological frameworks, cultural values and media practices, this level provides an opportunity for an in-depth understanding of how structural elements impact children's lives and their online experiences, and enables researchers to identify good practice that can inform policy at both national and international levels.

A possible next step for developing this model would be to use the international evidence to identify the cross-national factors that influence child well-being and rights. Further information about the Global Kids Online framework can be found in Livingstone (2016) at www.globalkidsonline.net/framework

Method in Action

To generate new evidence about children's online access, activities, consequences, and rights, Global Kids Online developed an open-access multi-method research toolkit in collaboration with country partners, experts, and international advisors (see www.globalkidsonline.net/tools). To co-construct and pilot test the toolkit, Global Kids Online worked with country partners who carried out primary research in Argentina, Serbia, South Africa, and the Philippines, locally coordinated through national UNICEF offices. The countries were selected based on both strategic and practical grounds: being middle-income and representing different continents, as well as having an interest from national stakeholders in researching children's internet use in a comparative way. Starting with the research tools developed by EU Kids Online, the Global Kids Online teams used the distinctiveness of their specific country contexts and the particular issues of interest that arise to inform the adaptations of the qualitative and quantitative instruments in a way that can account better for the global diversity of children's lives and online experiences, address the current policy agendas

at the local level, but also gather research evidence that can inform international debates on children's well-being and rights in a digital age (for more details, see Stoilova et al., 2016).

The Global Kids Online methodology includes both qualitative and quantitative tools designed for children aged 9-17 who use the internet at least minimally and for adult respondents (the children's parents or carers). The Global Kids Online toolkit consists of five key elements:

- **A qualitative toolkit** that comprises materials needed for conducting and analysing individual interviews and focus groups with children and parents/caregivers. It is designed to cover the key topics prioritized by Global Kids Online, while being flexible enough to follow up on the issues that children themselves raise.

- **A quantitative toolkit** that comprise materials for conducting and analysing a modular survey. It includes: (a) a survey questionnaire with core, optional and adaptable questions for children and their parents/ carers; (b) a quantitative guide describing how to design the survey, proceed with sampling, arrange cognitive tests and pilots, carry out data cleaning and quality control procedures; and (c) a set of data analysis tools, including a data dictionary and an SPSS syntax file.

- **Method guides** that examine key methodological issues related to researching children's online risks and opportunities. Taken together, they can guide researchers through the research process and cover issues such as: a research framework for online risks and opportunities; ethical research with children; survey sampling and administration; adapting a standardized modular survey; research with children of different ages; online opportunities; participatory methods; comparative analysis; addressing diversities and inequalities; and using research findings for policy-making. Written by experts in the field, they give practical advice to researchers, with case studies, best practice examples, and useful links and checklists.

- **Tool adaptation** resources that guide researchers to make decisions on adapting the toolkits given their distinct social environments and specific research agendas.

- **An impact toolkit** is currently under development. Drawing on best practice examples from Global Kids Online and international expertise, it aims to assist

researchers in choosing the best approach to maximizing the impact from their research and making the most of their findings.

With the Global Kids Online network continuously growing, new evidence on children's online risks and opportunities is becoming available. Presently, there are country-level findings from Argentina (Ravalli & Paoloni, 2016), Brazil (Brazilian Internet Steering Committee, 2016), Bulgaria (Hajdinjak, Kanchev, Georgiev, & Apostolov, 2017), Chile (Cabello et al., 2017), Montenegro (Logar, Anzelm, Lazic, & Vujacic, 2016), Serbia (Popadić, Pavlović, Petrović, & Kuzmanović, 2016), the Philippines (Tan, Estacio, & Ylade, 2016), and South Africa (Phyfer, Burton, & Leoschut, 2016), with Ghana, the Philippines, and Uruguay currently carrying out nationally representative surveys. The country level findings can be accessed at www.globalkidsonline.net/results, and a report with key cross-national comparisons from the pilot countries is available at www.globalkidsonline.net/synthesis

Rationale for the Research Methods

Given that previous studies on children and the internet have focused on the global North (Livingstone & Bulger, 2014), researchers are challenged to critically rethink the existing research models for studying children in a global context. While there are good grounds to build on hard-won expertise and to develop standardized tools that permit cross-cultural comparison to inform policy-makers nationally and internationally (Stoilova et al., 2016), considerable methodological, political, and ethical issues arise in relation to applying global research tools developed in the global North. In addressing these challenges, Global Kids Online has focused on:

- Remaining sensitive to the differences in children's lives that inevitably appear when conducting cross-national research. Developing measures to reflect inequalities in children's lives in relation to their general living conditions (e.g. poverty, access to education) and their access to the internet and mobile technologies in particular. These measures are intended to differentiate among children within and across countries in order to represent their offline and online experiences and outcomes fairly (Banaji, 2016).

- Adjusting to the cultural norms in different countries, especially regarding practical and ethical issues, such as children answering sensitive questions (e.g. sexual content), and children's rights to privacy when parents insist on being present during the research. Challenges are often rooted in the differences between adult assumptions and children's lived experiences, and mitigation

strategies and related methodological sensitivities are put in place (Berman, 2016).

- Using language and terminology that is child-friendly and applicable in diverse contexts. This includes, for example, recognizing that children use a diversity of digital devices, sites, and services, and acknowledging that children tend not to differentiate between being online and offline, and tend not to name services by type (e.g. social network sites) but by brand name (e.g. Facebook) (Platt, 2016).

Responding to contextual variation, the research team were required not only to consider which survey questions to ask, but also to critically reflect on how to ask them and what terminology to use. The experience from the pilot studies demonstrated that even common terminology, such as 'the internet', can become problematic when applied to diverse contexts, and we found that in the different countries, children and parents understood 'the internet' in a variety of ways. This complicates the design of survey questions that can be applied globally and additional measures need to be taken (e.g. by providing additional guidance and training to field researchers) since even the most basic and standard terminology may carry different meanings across contexts. To respond to this challenge, Global Kids Online chose a flexible approach that allowed local research teams to decide on the exact phrasing of survey questions, making sure that the essence of the question was conveyed in the most suitable way. The emphasis was placed on being certain that survey questions were properly understood by children and parents in all contexts, which was fundamental for ensuring comparability across countries. Hence, our experience demonstrated that maximizing standardization would, in fact, jeopardize comparability and threaten validity of findings.

The need for a balance between contextualization and standardization also occurred in designing the Global Kids Online questionnaire, resulting in the creation of a modular survey with Core, Optional and Adaptable questions to address this:

- **Core** questions: a smaller number of questions were identified as compulsory for all country surveys. They encompass all the elements of the Global Kids Online research framework (Livingstone, 2016) discussed above, and offer a balance between opportunities and risks (Third, 2016). As the research progresses and digital environments change, core questions may be subject to modification, but are expected to remain stable for comparability.

- **Optional** questions are comparatively numerous. They are designed to cover the elements of the framework in depth, and to offer opportunities for adding new

topics that are suitable to the specific country contexts. For example, Global Kids Online partners in Argentina found it particularly important to incorporate survey questions about complex skills relating to coding and programming in response to recent education policies integrating digital skills into the school curriculum. Researching online child sexual exploitation and abuse serves as an example of a fully optional topic due to its sensitive nature (Quayle, 2016).

- **Adaptable** questions: researchers are invited to adapt the existing questions by adding country-specific answer options, which are of particular relevance to children's experiences or national policy contexts. In doing so, both current and future partners can ensure flexibility, contingent on specific national, cultural and digital contexts. Adaptable questions could become optional ones in a revised questionnaire after they have been piloted and evaluated.

With respect to contextualization challenges, qualitative methods allow more flexibility, and the research tools have been designed in a way that invites the researcher to follow key themes while responding to the interview situation and the children's responses. The qualitative interview protocols are designed by following the same Global Kids Online research framework, and cover the key elements on the individual and social levels. Similar decisions about flexibility and standardizations were made as during the survey development process – the protocols are loosely structured for local research teams to determine which topics are of most interest and what arrangements work best in their contexts. Nonetheless, our recommendation is that national research teams offer training to the focus group moderators that will help them to navigate between flexibility and standardization. Another decision that has been left open to the national research teams is how to use the qualitative research – it can be applied to inform survey research, especially in countries where little qualitative work engaging with children's own voices and experiences has been conducted previously (Kleine, Pearson, & Poveda, 2016). On the other hand, qualitative research could be used as a survey follow-up to probe further into the nuances of the findings and deepen the interpretation in countries where relevant qualitative research already exists. For example, during the pilot stage, researchers in the Philippines, Serbia and South Africa used qualitative research preceding the survey, while the Argentinian research team conducted surveys before the focus group research.

Similarly, adopting data collection methods is left flexible based on an understanding that, in different countries, certain options will be more feasible or beneficial than others. While the research team in Serbia preferred a school-based survey

administration, given the comparatively easy access to respondents, the Philippine team chose to use tablet-based home administration of the survey. As a consequence, the pilot process offered possibilities for evaluating different types of data collection methods, and recognizing the relative advantages and disadvantages of each (for more details, see Barbosa, Pitta, Senne, & Sózio, 2016).

In summary, the design and pilot of the Global Kids Online toolkit has drawn on a range of methodological expertise and the collaborative work of the country partners (for more on the approach to comparative research, see Hasebrink, 2016). This involved a careful examination of how the toolkit performs when adopted in diverse country contexts and is administrated differently, and a reflexive discussion on how the findings can be useful to inform local policy and practice (see also Byrne, Albright, & Kardefelt-Winther, 2016) and what lessons can be learned for increasing impact on a regional and global level (see also Kroeger, Livingstone, S., Stoilova, & Yu, 2017).

Practical Lessons Learned

- In many cases the development of legislation, regulation, and child-centred provision of resources is lagging behind children's internet use, and happens without sufficient evidence-based understanding of what constitutes empowered yet safe use of these technologies by children. Concerns about online risks, usually amplified in the mass media, often underpin the implementation of restrictive protectionist measures by policy-makers. In this context, we find it particularly important to work with a research framework that offers a more balanced approach, considering both online opportunities and risks. Research with children is crucial to overcoming the imbalance, and can be particularly insightful for understanding better children's online activities and experiences, their pursuit of 'risky opportunities', and their (in)abilities to deal with harm and build resilience.

- A decentralized approach to conducting global research has proven effective as it enabled our country partners to develop their own national research agendas most appropriate to the particular issues raised by the national contexts and to respond to local policy directions. However, by being committed to providing centralized coordination or the development of comparative research methodology, Global Kids Online was in turn particularly beneficial to national research teams in terms of ensuring a level of standardization, sharing of knowledge, exchange of expertise, and drawing regional and global comparisons that can be used more effectively to inform national and international policy-making.

- Collaborative work on strategically involving government agencies and civil society stakeholders from the outset has been advantageous in relation to identifying issues that concern local stakeholders the most and framing relevant research agendas and dissemination strategies (Albright et al., 2016). National research teams collaborated with the private sector and United Nations agencies in addition to government agencies, and civil society, in the process of adapting methodology on the country level. This ensured that the most relevant questions can be asked, and facilitated research uptake and dissemination.

- Qualitative data has been useful in informing the survey design and offering rich insights into the local context and issues that children identify as important to them, thus facilitating the more efficient adaptation of the research tools. Based on these experiences, we suggest that future research partners consider planning the qualitative research before conducting the survey when utilizing the Global Kids Online toolkit.

- The challenges of adapting the survey questions to the local context (related to available devices, patterns of use, levels of digital skills and competence, digital ecologies, cultural and language differences, etc.) has demonstrated that cognitive interviews with children before implementing the survey is crucial for assessing how the questions work in practice and ensuring comparability of the data. Although, to some extent, low response rates to sensitive questions are expected, we discovered that some data was missing because the terminology used was unfamiliar to the children. As a consequence, in addition to cognitive interviews, we also advise new research teams to conduct a small-scale pilot study with the full questionnaire to rethink the use of terminology and the length of the survey interview, and to improve the quality of the data collected.

- Developing tools that enable researchers to explore the complexity of children's lives – considering both its online and offline dimensions – has proven to be particularly important for cross-national research. Paying attention to issues related to parenting styles, peer cultures, material deprivation, violence, or sexual exploitation form an important part of understanding what happens to children online. While some of these factors have proven difficult to measure by asking children directly due to their complexity or sensitivity – such as socio-economic status, material deprivation or sexual exploitation – we still encourage researchers to speak to children directly when seeking ways to gain in-depth understanding of the diversity and inequality of their lifeworlds.

- Within the context of rapidly developing digital technologies, more countries joining the research network, and new issues receiving policy relevance, we consider the adaptation and development of the Global Kids Online toolkit an ongoing process. We find it important that the toolkit is periodically reviewed in the light of new data, and that further clarifications and methodological additions are made when new countries bring in different insights.

Exercises and Discussion Questions

1. Discuss the advantages and challenges of conducting a global research project.

2. Discuss the strengths and weaknesses of adopting quantitative and qualitative methods. Can a mixed-methods approach address some of the problems?

3. Critically assess the rationale given for developing and using the Global Kids Online methodology.

4. Consider the methodological and ethical challenges of doing research with children.

Further Readings

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