Routledge
Taylor & Francis Group

Scandinavian Journal of Educational Research

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/csje20

The Winding Road to Accessing the Voices of One Thousand Schoolchildren: A Nexus Analysis of Collecting Data for a Survey

Åsa Palviainen & Tiina Räisä

To cite this article: Åsa Palviainen & Tiina Räisä (2021): The Winding Road to Accessing the Voices of One Thousand Schoolchildren: A Nexus Analysis of Collecting Data for a Survey, Scandinavian Journal of Educational Research, DOI: 10.1080/00313831.2021.1939137

To link to this article: https://doi.org/10.1080/00313831.2021.1939137

Published online: 22 Jun 2021.

SCANDINAVIAN JOURNAL OF EDUCATIONAL RESEARCH
https://doi.org/10.1080/00313831.2021.1939137

Routledge
Taylor & Francis Group

The Winding Road to Accessing the Voices of One Thousand Schoolchildren: A Nexus Analysis of Collecting Data for a Survey

Åsa Palviainen and Tiina Räisä

Department of Language and Communication Studies, University of Jyväskylä, Jyväskylä, Finland

ABSTRACT

This article describes a nexus analysis of the lengthy, complex process of negotiating access to schools for a research project surveying 1,002 children (aged 9–12 years) about their digital and language practices. The analysis distinguished layers of adult-centered gatekeeping, each of which needed to be tackled in sequence. Bottlenecks particularly arose at the gatekeeping stage, in which superintendents of schools decided whether to grant research access to schools. Factors facilitating the research process included the hybrid data collection design, the procedures for obtaining parental consent, and the active collaboration with the children themselves. A significant discourse emerged among school stakeholders about research fatigue, a discourse that researchers need to take seriously. The implications for future school-based survey data collection involving children are discussed, particularly how collaboration between researchers and school stakeholders can be improved.

ARTICLE HISTORY
Received 9 September 2020
Accepted 7 May 2021

KEYWORDS
School-based research; survey research; children's rights; gatekeeping; research fatigue

1. Introduction

In Finland as many as 97% of children in Grades 5 to 9 have access to a smartphone, and most of them have their own phone (Smahel et al., 2020, p. 141). Smartphones are among the tools employed by family members to manage their daily activities, facilitated by messaging applications such as WhatsApp and SMS (Taipale, 2019). However, despite the central role that digitally-mediated communication plays in many families nowadays, we do not fully understand the opportunities and affordances that digital technologies offer, and how languages are employed through digital applications. As researchers, we wanted to hear at first-hand the voices of children on these matters, so we turned to primary schools to collect survey data. The survey was a first step in a larger, comprehensive ethnographic project that examines family language and technology practices in Swedish-speaking, Russian-speaking, and Polish-speaking communities in Finland.[1]

We decided to turn to schools for our data collection as the school setting has shown itself to be efficient: a large number of participants at the target age can be reached, contextual factors are known, and sampling procedures can be kept under control (Kristjansson et al., 2013; Ólafsson et al., 2013). For this purpose we developed a mixed-mode (de Leeuw, 2005) type of survey – an app installed on iPads that were brought to classrooms by the researchers – which required cooperation (Wanat, 2008) with a number of primary schools in Finland in order to succeed. As

CONTACT Åsa Palvianen asa.palviainen@jyu.fi Department of Language and Communication Studies, University of Jyväskylä, P.B. 35, FIN-40014, Finland

[1]What's in the App? Digitally-mediated communication in contemporary multilingual families across time and space (Academy of Finland, 2018–2022).

our target population was children of families in which Swedish was used daily, we turned to Swedish-medium rather than Finnish-medium schools. Purposive sampling (Ólafsson et al., 2013, p. 32) of schools was applied to make possible a rich description of the practices of this group. Eventually, 15 schools distributed across a wide geographical area participated in the study and the researchers met with a total of 1,002 schoolchildren (Grades 3–6; ages 9–12 years).[2]

The data collection, from the survey questionnaire design to finally meeting the children in their classroom, lasted for one year, and the process was winding, complex, and at times frustrating, owing to the many layers of safeguarding involved. The aim of this article is to make clear the different steps and negotiations with gatekeepers that were needed in order to access the schools and children for research. It gives an overview of the entire complex data-collection process, using nexus analysis. Nexus analysis examines a social issue and can be used for any ethnographic study of discourse (Hult, 2015; Scollon & Scollon, 2004). We identify the actions and artefacts involved in the research process, as well as the major bottlenecks (hindering or complicating the process) and facilitators (enabling the process). The results of the nexus analysis lead to a discussion of the potential implications of this case for other researchers and contexts.

In the following, we will first review the literature on gatekeeping and building trust in school settings, as well as questionnaire-survey data collection with children. Then follows a description of how we designed our survey study. After this we introduce the nexus analysis and its results, with a particular focus on the actors, phases and discourses that finally led to our gaining access to and engaging with the key actors, the children.

2. Gatekeeping, Protection, and Gaining Access to Schools

Many layers of safeguards and stakeholders must be taken into consideration in order to gain access to school settings, i.e., to obtain the necessary authorization to enter a site for the purpose of enrolling research participants (Rice et al., 2007). This can be a complex process, involving many gatekeepers, including ethics committees or organizations, and in school-based research also parents, principals and teachers, who need to make informed decisions on whether to grant access to classrooms (Clark, 2011; Wanat, 2008; Water, 2018).

As gatekeepers simultaneously serve to protect research settings and participants and function as intermediaries between researchers and participants (Clark, 2011; Wanat, 2008), it is important for researchers to take into account and respect gatekeepers' concerns (Wassenaar & Singh, 2016). Working respectfully means the creation of trust and credibility so as to both demonstrate the benefit and relevance of participation and reduce costs and the risk of harm, and it helps ensure that the research is of a high standard (Clark, 2011; Powers, 2007; Wassenaar & Singh, 2016). The development of mutual respect and trust, the clear communication of expectations as regards research involvement, the timing of the research, and the presence of fewer gatekeepers and organizational layers, all serve to enhance research participation (White, 2012).

Wanat (2008) also notes, however, that building relationships with gatekeepers and negotiating access is an ill-defined and unpredictable process. Identifying the lines of communication in order to obtain approval for school-based research and being aware of who exactly must approve the proposal are crucial to the success of a study, and yet these lines of communication and the number of gatekeeping layers vary considerably between districts and institutions (Rice et al., 2007). Furthermore, the "chain of negotiation" (Valentine, 2008) in which the relationship is built up between researchers and stakeholders can be a long and painstaking one. Madge et al. (2012, p. 422), who conducted a large-scale school-based survey study in the UK, reported that "[n]egotiating access to schools was often a lengthy and sensitive process. Making and

[2]Finland has a parallel Swedish- and Finnish-medium education system. Nation-wide, there are 220 Swedish-medium comprehensive schools (grades 1-9) with 35,587 enrolled students, compared with 1,996 Finnish-medium comprehensive schools and 524,360 students (Statistics Finland, 2019a, 2019b).

maintaining contact involved school visits, telephone calls and emails, many of which did not elicit any response."

In Finland, there is no centralized or standard protocol regarding whom one must approach to obtain permission to conduct school-based research. Finland has a uniform, 9-year comprehensive school system, in which most schools are jointly financed by the state and local municipalities. While there is a joint national core curriculum, local authorities – municipalities and the individual schools therein – have extensive freedom to draw up their own curricula, as long as they are based on the national framework. Moreover, although the administrative structure may vary from one district to another, each usually has a position corresponding to a superintendent of schools, who is responsible for the activities of the schools in that municipality or district.[3] School principals and teachers have a lot of autonomy. The procedures for obtaining research permission and gaining access to schools in Finland may therefore vary between individual stakeholders, schools, and districts (c.f., Rice et al., 2007).

Many researchers have critically examined the tendency of parents and teachers to make judgements on behalf of children (Coyne, 2010; Felzmann, 2009; Valentine, 2008), and for adult proxies "to stand in for and provide second-hand accounts of children's experiences, understandings and expectations" (Carter, 2009, p. 860). In their latest ethical guidelines for research with human participants, the Finnish National Board on Research Integrity stresses the agency of the child and states that "[a] child should be able to influence matters concerning themselves to the extent commensurate with their level of development" (TENK, 2019, p. 52).

During the process of getting access to the voices of the children in our survey, trust, i.e., developing positive expectations regarding the actions of others (van den Berg & Keymolen, 2017, p. 194), turned out to be a key issue. This relationship of trust had to be developed between the researchers and the gatekeepers (Clark, 2011), and between the researchers and the children. The process also included building trust in technologies, processes, and the data protection measures taken (European Parliament, 2019; Milkaite & Lievens, 2020; TENK, 2019). We also had to make clear our respect for the child's right to freedom of expression (United Nations General Assembly, 1989).

3. Questionnaire Survey Data Collection with Children

Children are the experts on their own lives and their experiences need to be the starting point for research (Ólafsson et al., 2013; Water, 2018). Using survey questionnaires provides valuable information about the target child population as long as they are planned age-appropriately and carefully (Ólafsson et al., 2013). In the EU Kids Online project (Smahel et al., 2020), which examined the online practices of 25,101 nine to sixteen-year-old children from 19 European countries, the national teams employed a variety of methods for the survey data collection. While one of the national teams used an online survey, the others had the children respond to questionnaires either in school or in their homes, using computers, tablets, notebooks or paper and pencil, and assisted, interviewed or instructed by trained researchers, administrators or their teachers (Smahel et al., 2020, pp. 14–15).

Online surveys have the advantage of reaching a large population in a short period of time and automatically sending the collected data to a data server for analysis (Evans & Mathur, 2018). Surveying online does, however, bring with it sampling problems and the risk of low response rates (Evans & Mathur, 2018; Lefever et al., 2007). Moreover, in our specific case, linking to an online survey on the Internet was not regarded as a feasible alternative because our survey was targeted at minors, which presents its own ethical and practical problems (Hokke et al., 2018). To achieve the best outcome in terms of effort and results, we therefore developed a mixed-mode (de

[3]These superintendents have different titles, depending on district and organization, but the most common ones are *bildningsdirektör* (Swedish) and *sivistys(toimen)johtaja* (Finnish).

Leeuw, 2005) survey type: a digital questionnaire was designed with Webropol software and loaded onto iPads. Then, the field researcher (and a research assistant) took a number of iPads into the classrooms, so that the children could enter data on-site. By touching and typing on the screens, the children responded to questions such as "How old are you?", "Who are the members of your family?", "What languages and apps do you use in your family?", and "With whom and how do you use these apps?". The questionnaire was available in Swedish, Finnish, and English, and took an average of 10 min to complete. The data entered was automatically exported to a protected data server and available to researchers as MS Excel spreadsheets.

As Ólafsson et al. (2013, p. 39) point out, it is absolutely critical to follow the ethical guidelines provided by the country where research is being carried out, as well as find out whether parental consent is necessary in order to involve the children. Ethics approval for the full project was obtained in connection with the grant application, but as a further safeguard, we consulted the Data Protection Officer at the university where the project was based before starting the survey data collection. Although potentially sensitive information was being sought from children concerning their digital and language practices, the survey did not collect or process any personal data that could identify either the individual or the school. Therefore the General Data Protection Regulation (European Parliament, 2019) did not apply. For this type of survey-based research involving a large number of minors, the ethical guidelines of the Finnish National Board on Research Integrity (TENK, 2019, p. 53) state that it is sufficient to inform parents about the research so that they can refuse their child's participation in the research if they so desire. This is referred to as passive parental consent (Felzmann, 2009). Our study required us to inform all the individuals involved – including the children themselves – about the research in adequate, ethical, transparent ways.

4. Methodology: Nexus Analysis Procedures

In order to unpack the complexities involved in the entire data collection process and to recognize, identify and map the crucial objects, participants and discourses in these, we employed nexus analysis (Scollon & Scollon, 2004). The activities included talking, writing, documenting and visualizing (Scollon & Scollon, 2004, p. 177), and the materials on which our analyses were based included a range of artefacts and documents: (a) printed or electronic MS Word documents (such as letters of invitation, privacy notice letters, and letters giving parental consent), (b) e-mail correspondence with stakeholders, (c) written notes about phone calls with stakeholders, including the dates of contact, (d) research permit application forms (digital and paper), (e) the electronic survey (developed with Webropol software) and survey data output (MS Excel spreadsheet), (f) the researchers' own written fieldnotes and photos taken during the school-based fieldwork, and (g) Messenger conversations between the field researcher and the PI. The data was organized (e.g., e-mails were put in chronological order) to make it possible to trace trajectories, stages and processes.

Social action occurs at the intersection of the historical bodies (lived experiences) of the participants, the interaction order between them, and the discourses that mediate that action (Hult, 2015). This means that the researchers as analysts "are themselves part of the nexus of practice under study, the analysis is in itself transformative … [and] a form of social action" (Scollon & Scollon, 2004, p. 9). As participants engaged in the nexus under study, both as actors in the fieldwork and as analysts of the entire process, it is therefore crucial for researchers to be aware of and establish their zone of identification (Scollon & Scollon, 2004) and for us to acknowledge our role in this social action.

Nexus analysis is carried out through a three-stage process (Scollon & Scollon, 2004, pp. 152–178). In the first stage – *engaging with the nexus* – the social actions and actors are identified. On the basis of the materials collected, we identified a time trajectory for our study with four main phases, each of which was characterized by distinct actions, actors and artefacts (mediational means) (Hult, 2015). After this stage comes *navigating the nexus*, in which discourses are mapped

and circumferenced. At this stage of the analysis we focused on the most significant cycles of discourse connected with the later stages of the data collection process, which required interaction with the school stakeholders (the superintendents, principals, teachers, parents and children). In doing this we identified the mediated actions in which school access was being "produced, ratified, or contested" (Scollon & Scollon, 2004, p. 159). First, we mapped three significant cycles of discourse that contested, challenged or slowed down school access, then we mapped three cycles of discourse that ratified, facilitated or enabled access to children's voices in the school setting. The third and final step of a nexus analysis is *changing the nexus*. In this step, links and discourses are opened up, ultimately leading to new social practices. In our discussion and conclusion we discuss the implications of our findings and what can be learned from this case.

In the following we present the results of the three-stage analysis: first, the engagement with the nexus; second, the navigation of discourses within the nexus; and third, a discussion of the implications and how the nexus can be changed.

5. Findings

5.1. Engaging with the Nexus: Identifying Actions, Actors and Artefacts

The study process, from the start of the survey design to the in-classroom data collection, lasted for one year. Following the principles of nexus analysis, the identification of central actions,

Table 1. The survey study and its phases (planning, school contact, and data collection) from November 2018 to November 2019: actions, actors, and artefacts.

Phases	Timeline	Actions	Actors	Artefacts
I Preparations	November–March	Designing and piloting the survey, data protection measures.	Principal investigator (PI), project team members, research assistant (RA), technical support staff, teacher, parents and children of one school class, host university data protection officer, translators.	E-mails, computers, iPads, Webropol (electronic survey software), MS Word documents.
IIa Establishing Contact	April–May	Formulating research information and sending invitation letters to principals, contacting gatekeepers for access.	PI, principals, superintendents of schools.	E-mails, MS Word documents.
		Summer break June–July		
IIb Establishing Contact	August–September	Contacting gatekeepers for access, applying for research permits.	PI, researcher, superintendents of schools, principals.	E-mails, notes of phone calls, electronic and paper application forms, electronic application forms, MS Word documents.
III Organizing the School Visits	October	Accessing schools, formulating parental information and consent letters, practical planning and collaboration with school staff, technical and travel preparations.	Researcher, principals, teachers, parents, RA, technical support.	E-mails, notes of phone calls, MS Word documents, digital information letter, Wilma messages, iPads, Webropol software.
IV Classroom Data Collection	November	Visiting schools and collecting data in classrooms, automatic data transfer to research server.	Researcher, RA, principals, teachers, children.	Car, iPads, Webropol software, sheet with app icons, data server, MS Excel sheets.

participants and mediating artefacts (Hult, 2015) led to a timeline with four major and distinct consecutive phases (Table 1).

The first phase – Preparations – was devoted to designing the digital questionnaire and confirming the data protection measures. The principal investigator (PI), in collaboration with the data protection officer of the host university, cleared all the measures needed for data protection and compliance with the host university's data protection protocol, GDPR, and TENK (2019). The questionnaire was piloted in one local school. The following phase – Establishing Contact – was devoted to getting permission to access the schools: the principals and superintendents of schools in thirteen school districts were contacted and, upon receipt of a positive response, the researcher and the PI sought and obtained research permits in accordance with the requirements of each district. In the third phase – Organizing the School Visits – the research team had gained access to fifteen schools and a researcher was in close contact with staff, primarily via e-mail, to prepare and coordinate the school visits and to inform the parents. In the final phase – Classroom Data Collection – the researcher and one research assistant (responsible for the iPads and for handling technical issues) went on the road for three weeks, visiting sixty-three classrooms across a wide geographical area. This was the first time the researchers met the targets of the study – the children.

5.2. Navigating the Nexus: The Significant Cycles of Discourse

In the following stage of the nexus analysis, in which the significant cycles of discourse were mapped, we identified three that we refer to as bottlenecks and three as facilitators. Each of these is discussed in turn below. All the empirical examples of data provided in the text are translated from Swedish (or Finnish) into English.

5.2.1. Bottlenecks

5.2.1.1. Inconsistent Lines of Communication. The gatekeeping phase of the study turned out to be more challenging than anticipated. Research access to schools may be granted through a range of procedures: by an individual school, by a school district, or after an established research review process (White, 2012). Through a process of trial and error, we encountered variants of the aforementioned three main procedures, in addition to a multitude of different practices in how they were realized on the ground.

In our first attempts (Establishing contact IIa; see Table 1), the project leader approached the school principals in two urban districts by e-mail, explaining the research aims and inviting the schools to participate. In one of the districts, permission was granted (albeit after several reminders) by the school principal (there was only one school in that district), whereas in the other district the principals re-directed us to the superintendent of schools. On contacting the superintendent, we were asked to go through the research review process of the city in question and make a formal application. After this experience, we decided to approach the superintendents of schools first, rather than the principals, in each district (Establishing contact IIb in Table 1). We soon learned that written contact via e-mail was inefficient and rarely elicited any response. We therefore also called them by telephone. Despite – or perhaps because of – the technologically-dense, digital era in which we are often said to be living, traditional phone calls turned out to be the most efficient way of initiating the process of collaboration and negotiating access to the schools. Numerous attempts to contact different stakeholders and administrators were made – the correspondence included more than one hundred emails and phone calls, with a vast number of stakeholders – but this persistence was necessary in order to make any progress (Madge et al., 2012; Powers, 2007). The key question was, then, not only whom to contact, but also how to contact them.

5.2.1.2. Reluctance to Participate in Research. Although the contact with superintendents of schools and principals was positive, overall, insofar as we eventually gained access to most schools,

some principals declined to take part. The reasons for this reluctance to participate could be identified as either research fatigue, relative cost, or a failure to perceive any benefits in participation.

Research fatigue appears when individuals or groups have become tired of research and are reluctant to engage with it (Clark, 2008). This has been reported as being particularly common in school settings, as staff receive an ever-increasing number of requests for participation from students and researchers alike (Clark, 2008; Felzmann, 2009; Kristjansson et al., 2013; Lefever et al., 2007; Madge et al., 2012; Powers, 2007). One of the principals we talked to said they had had previous experience of poorly planned research, which had led to hesitation about participating in future research. The fatigue may be felt particularly in relation to survey-based research (Evans & Mathur, 2018; Keusch, 2015), as illustrated in the following example:

> The [superintendent of schools] says that he has talked with principals in the district and they think there are too many surveys: "we're tired of questionnaires, we also question the value of the outcomes of all these questionnaires." [Written notes after a phone call.]

Engaging with research participants comes with a variety of *costs*, such as putting extra demands on staff time or other resources, and the disruption of normal school activities may also be considered too high (Clark, 2011). Some principals we contacted declined to participate because they had participated in a stream of student project surveys and mandatory screenings carried out by national and local school authorities over the past year and they were exhausted. One superintendent of schools, who declined to grant research access after having first consulted the principals in her district, explained her decision: "The schools are so busy right now and as their supervisor I have to listen to them" [e-mail to researcher].

Engagement in school-based research should be *beneficial* for the target group, for example, helping to develop teacher skills, promote improved academic outcomes or support other aspects of the curriculum (Clark, 2011; Powers, 2007; White, 2012). Our project only indirectly addressed teaching issues, as it focused on contemporary digital and language practices within families. One superintendent of schools whom we contacted during the first stage of recruitment wrote us:

> We [support] research and surveys of different kinds, but the starting point [for a research proposal to be approved by our district] is that it is of major significance to our schools [—]. Your research is, in my opinion, somewhat beyond the scope of our teaching, even if the role of the family is important for the school. [E-mail from superintendent of schools to PI.]

This meant that we needed on the one hand to better acknowledge the tough situation in schools and, on the other, to put more effort into communicating the benefits of participation and the significance of the research for schools in our subsequent contacts with gatekeepers.

5.2.1.3. Complex Protective Measures. When starting to make our actual applications for research permits, we found a huge variety of different practices in the field. One of the districts we approached had a formal procedure for obtaining research permits that was more complex and time-consuming than the others. The instructions available on the district's Internet pages were relatively clear, but the forms to fill out and the mandatory documents to be submitted were intended for supervised student projects rather than fully-fledged academic research projects. This complicated rather than eased the application procedure and required extra correspondence between the research team and the officials.

The questionnaire in the present study was designed to ensure anonymity (Lefever et al., 2007). No identifiable personal or school data were collected and GDPR requirements did not, therefore, apply (European Parliament, 2019, pp. 27–30), nor was active parental consent required (TENK, 2019). This one school district did, however, state in their official policy for all types of school research – including survey research in which no personal data is collected – that parents must give their active consent in order for the research to go ahead: this means that parents have to explicitly authorize their child's participation in the research by signing a parental consent form before children can be

enrolled in a study (Felzmann, 2009). One principal from this district required paper (rather than electronic) parental consent forms to be distributed to each family for signing and returning to the school and to us. These combined procedures led to the district's final decision and granting of permission coming through only after the data collection had been concluded in all of the other districts. Ultimately, the careful measures and procedures of the authorities and the principal led to the children's voices not being heard and this district not being represented in the survey.

5.2.2. Facilitators

5.2.2.1. Consent Procedures. After access to schools had been granted, we started to engage with parents and children. This phase included navigating among the diverse consent practices that are used in different Finnish districts. In general, this stage went very smoothly, due to the fact that a vast majority had a praxis of passive parental consent. Participation relies on the general principle of informed consent: for participants to be able to exercise their freedom to decide about participation, they must be provided in advance with clear information about what they are consenting to (Coyne, 2010). All districts but one (see above) agreed on the passive parental consent procedure for their child's participation. We thus followed the Finnish TENK's (2019) ethical guidelines, which state that parents need to be offered the opportunity to refuse consent to their child's participation (Felzmann, 2009). In these cases, the teachers were provided with a research information letter which they sent on to parents via the school's electronic messaging system (Wilma) 1–2 weeks before the researcher's school visit. In this letter, parents were also provided with a link and an invitation to respond to a parental survey, almost identical to the child-directed one. This gave the parents a clear picture of the type of research in which they were allowing their child to participate. If they did not want their child to participate, they had to inform the teacher via Wilma. A passive parental consent procedure has been shown to result in better representation and much higher participation rates than active parental consent (Esbensen, Melde, Taylor, & Peterson, 2008; Unger et al., 2004). The drop-out rate for the children was low, with fewer than ten children in total being opted out by their parents.

Although children are considered to be legal minors, they have the right and ability to actively make decisions concerning their participation in research (TENK, 2019), i.e., to give their assent (agreement to participate) or dissent (refusal to participate) (Coyne, 2010; Felzmann, 2009; Water, 2018). After informed parental consent had been obtained, the researcher visited the classes and told the children about the study in a child-friendly manner adjusted to their level of maturity (Coyne, 2010; Dempsey et al., 2018; Milkaite & Lievens, 2020; TENK, 2019; United Nations General Assembly, 1989). During the dialogue with the children, the researcher explained who she was, what the research was about and why it was being done, and that the children were free to decide whether or not they wanted to participate. In an age-appropriate, sensitive, and dialogical way, the researcher also made sure that the children understood what was meant by words such as anonymous and voluntariness. If children do not understand, then they cannot give consent (Dempsey et al., 2018). All but six of the children decided to fill out the questionnaire. The dissenters were given other tasks by their teacher.

5.2.2.2. Hybrid Data Collection Design. We made a strategic decision to design an electronic questionnaire (rather than a paper one) for tablets (rather than for computers). Besides the fact that the project was concerned with digital practices and apps and it would have been foolish not to make use of digital tools, this decision had the advantage of enabling the automatic transfer of the data entries to a database. The survey type can be described as hybrid (or blended) (de Leeuw, 2005), as the tablets were brought to the classroom by the researcher and handed out to the children (see Figure 1).

It was time-consuming and relatively expensive for the researcher and one research assistant to travel around and visit the schools in person, but this did ensure that the sampling would be done securely and according to plan, that the response rate was high, and that the researcher was available

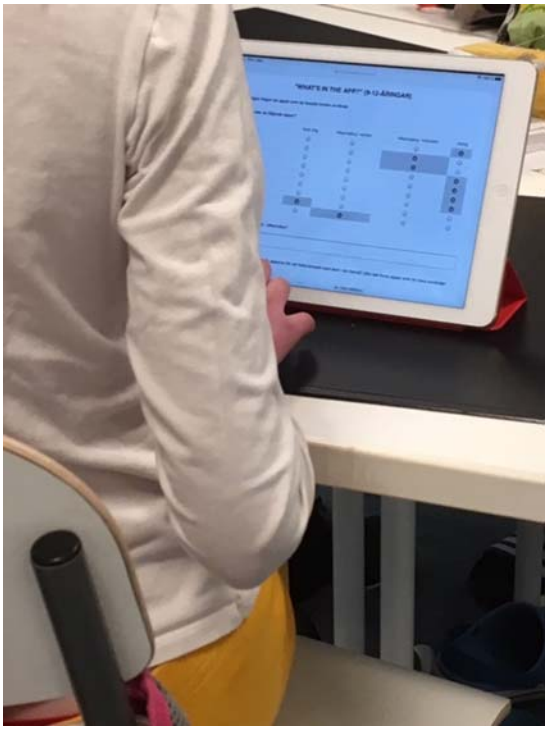

Figure 1. The electronic questionnaire as displayed on an iPad. Photo from the fieldwork.

in person to explain things to the children and provide help when needed. Importantly, the school staff had nothing more to do than give the researchers some 20 min in the classroom to carry out the data collection. This solution was considered to be a convenient approach by the principals and teachers and it was cited as the main reason for granting access:

> The principal at [School] said that this model, in which we come to the school and handle the survey (give instructions etc.), was particularly appealing to her. [Messenger post from field researcher to PI after a school visit.]

Indeed, previous studies have shown that teachers can feel that they are burdened with extra tasks by research projects. For example, online survey designs can require the reservation of and relocation to a computer lab, with teachers asked to give students instructions and basically to be responsible for the data collection (Kristjansson et al., 2013; Madge et al., 2012). The principals and teachers involved in our study had generally prepared very well for the practical aspects of the research visits:

> [This school] had arranged it so well: we were in one and the same classroom and the classes came there one by one. They offered us lunch too. [Messenger post from field researcher to PI after a school visit.]

The questionnaire was fairly short and designed to be simple to complete, so as to engage the children (with topics that were relevant to their own lived experiences, colorful icons, and appealing data entry modes), both being factors that have been shown to be conducive to participation (Keusch, 2015; Madge et al., 2012). Some of the younger children (9-10-year-olds) did not, however, always fully understand the questions and, in some rare cases, they did not know how to use a tablet. In such cases, either their peers, teachers, teaching assistants, or the researchers helped them out. One challenge, here, was not steering the children in a certain direction with their answers. Indeed, some teachers had a tendency to stay in their instructive, adult, authoritative role, for example, dictating how a child should respond to certain questions (Felzmann, 2009; Ólafsson et al., 2013).

5.2.2.3. Engagements with Children's Life-Worlds. Engagement with questionnaires is most likely when the subject of inquiry is perceived as relevant to the respondent's own lived experiences (Madge et al., 2012). Meeting the children in their class was a truly positive experience for the researchers, and the children were curious and interested in the study. Generally speaking, in order for children to understand what they are engaging in and give their consent, it is advisable to make use of visual information, such as icons/symbols, graphics, and cartoons (Dempsey et al., 2018; Milkaite & Lievens, 2020). Consequently, an information sheet with colorful app icons was shown when the researchers explained the aims and procedures to the children in the introductory part of the meeting (see Figure 2).

This sheet turned out to be a true ice-breaker. In the field notes from one visit, the researcher wrote:

Figure 2. The paper sheet with app icons that the researcher used to engage children in the research.

> The children's motivation and inspiration are clearly raised when we show them the sheet with the app icons on. They get very enthusiastic and call out "TikTok!", "WhatsApp!", and so forth. The icons are recognized as something cheerful, something that they are familiar with. The sheet serves as inspiration and encouragement to respond to the questions. [Fieldnotes by researcher]

For the researchers, engaging with the children was a very pleasant experience, and throughout the actual encounter in the classroom the children too expressed pleasure, interest and enthusiasm when responding to the survey. Some children took the opportunity to provide feedback at the very end of the questionnaire. Having asked, "Is there anything else you would like to add?", we got replies such as:

- It was a nice survey
- It was fun to respond to the questions although some were perhaps a bit difficult
- This was a good survey and easy to respond to. Good questions too. Hope this helps you with your beautiful research.
- Thanks for coming here
- Thank you for letting us do this test

[child responses, Excel spreadsheet]

One principal said that their school had often participated in survey studies – "last school year we participated in 28 different ones" – but, unlike our study, these others had rarely had children as their focus. This led to our study being considered valuable and important. We previously referred here to a superintendent of schools who was hesitant about the relevance of this research project in relation to teaching and the schools in their district, as the study focused on families (see the section, Reluctance to Participate in Research). Several principals and teachers expressed the opposite opinion during the fieldwork and considered the research to be highly relevant:

PI:	How was the afternoon?
Field researcher:	It was good. We had an interesting conversation with the principal of [School]. He said that they had wanted to participate just because the research is about apps, so, something important!

[Messenger conversation between PI and field researcher]

Others pointed out that while they were very much aware that digital practices are central to the lives of children and their families, their school lacked empirical knowledge and understanding about this. Although digital literacy is a key value in the current Finnish national curriculum, it is not necessarily integrated into daily classroom activities. For example, when the researcher asked one teacher to what extent they talked about apps and smartphones at school, she responded, "Not at all, really."

6. Discussion

The study process, from the survey preparations to meeting the children in the classroom, could be compared to climbing a pyramid (Figure 3). Starting at the bottom, each stage had to be tackled in order. Some steps involved more work and challenges than others. Climbing the steps in the lower part of the pyramid required more effort than those at the top: the closer to the top of the pyramid we got, the easier and more straightforward it was. With regard to the number of participants involved, the pyramid could be turned upside down: the higher the level, the more actors were involved.

Allowing for the two months of summer break (when schools and universities were closed), the active process of planning and carrying out the data collection took ten months. Of these, eight months were devoted to completing the first two phases: "Preparations" and "Establishing Contact" (see Table 1). The gatekeepers with whom we negotiated during these stages were the host

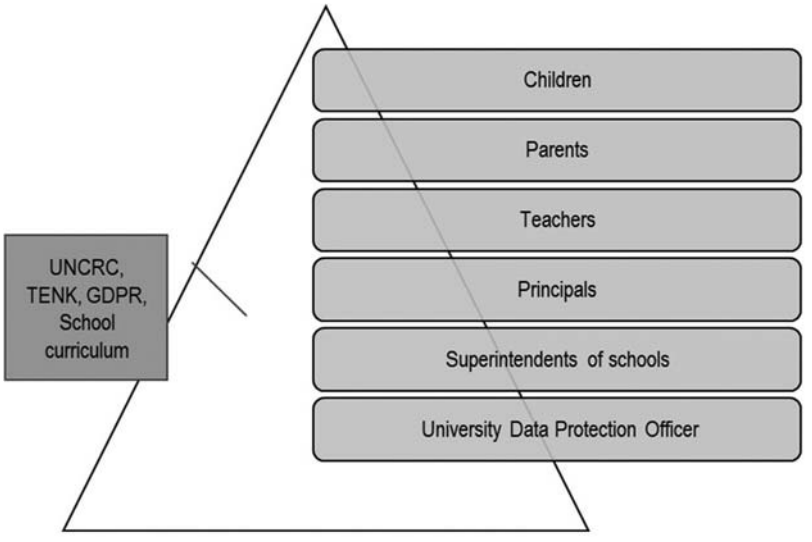

Figure 3. The safeguarding pyramid: gatekeeper layers and ethical regulations and guidelines.

university's data protection officer, the superintendents of schools, and school principals. The key gatekeeper with the formal power to grant or refuse access (Rice et al., 2007; Wanat, 2008) in the Finnish context turned out to be the district-level superintendents of schools (in collaboration with principals). This gatekeeping level was a true bottleneck, not only in terms of practical matters – identifying the key persons, writing e-mails, composing various letters, filling out forms, phoning – but also in more abstract terms – explaining the researchers' responsibilities, convincing the gatekeeper of the importance and benefits of research participation, and building trust (White, 2012). Although the researchers were experienced and the study was part of a large national research project, which had been granted funding against stiff competition, the superintendents of schools occupied the position of power in this situation: the decision of whether or not to give the go-ahead for the fieldwork was completely in their hands. It is worth noting that in the cases in which the superintendents (or principals) were skeptical of the study or otherwise disinclined to participate, their motives were usually to protect staff, i.e., to prevent the teachers from being overworked; no reference was made to the children or parents in this context. Although children were absolutely central to the research, they were practically invisible at this stage.

Once the superintendents and principals had granted research permission and access to the schools, the process of climbing to the top of the pyramid was fast and smooth. The phase of contacting the schools and organizing the visits took about one month, and this is when teachers and parents were involved for the first time: at this stage, there were clear steps to follow and the electronic distribution of the informed parental consent went smoothly. The school visits also generally went without a hitch, as the teachers were well prepared and the researchers followed their set protocol. Without doubt, the fieldwork was tough for the researcher and the research assistant, as they were on the road for three weeks and met one thousand children, with all of whom they needed to communicate adequately. This required focus and stamina.

Importantly, the stakeholders involved in the top stages of the pyramid – the teachers, parents, and children – collaborated throughout (see Wanat, 2008, for contrary findings on co-operation). The passive parental consent can be argued not to give evidence of an active choice by parents on behalf of their children. One alternative could have involved organizing and distributing paper (or electronic) letters to be signed by parent(s) in order for their child to participate. This would have meant a much slower process and fewer child participants, not necessarily because parents would opt their children out, but because the consent forms would simply not be returned. We believe that the gatekeepers' vigilance,

our research transparency and, particularly, the dialogue we had with children temselves in the classroom, all combined to create trust among the parents and their children.

Our research had a clear children's rights perspective insofar as we wanted to make the voices of 9-12-year-olds heard; that is to say, their thoughts and opinions about their family construction and language and digital practices. As the age of digital consent is set at 13 years in Finland (Korpisaari, 2019) and there are recommended age limits for some of the apps we asked the children about, there was potentially an unexpressed ethical dilemma: can one ask children about their use of apps such as WhatsApp or Instagram that have a 12+ years recommendation? This ethical dilemma was not, however, mentioned or explicated as problematic by any of the stakeholders. In fact, the results eventually showed that 88% of the one thousand primary school children involved in the study used WhatsApp to interact with family members, showing this app's central role in many families. In the cases in which the stakeholders were hesitant about participation, this reluctance did not stem from the digital or linguistic research themes, but rather from a lack of time or survey fatigue or, as was the case with one superintendent of schools, due to family research not being seen as relevant.

Finally, it is worth raising the issue of research and survey fatigue in school settings (Felzmann, 2009). It is technically easier than ever before to construct and distribute online questionnaires and, as modern citizens and consumers, we are expected to express our opinions on all kinds of matters. In line with the most recent curriculum development, Finnish schoolchildren are encouraged to take a stand, to have an opinion, and express it, as well as being taught to evaluate their own skills and strengths and identify potential areas for development. This is often realized in the classroom through self- and peer-assessment surveys. Consequently, today's Finnish schoolchildren are trained and experienced in this area. Frequently responding to questionnaires may, however, also result in indifference. Moreover, several of the superintendents and principals involved in our study reported having to complete many obligatory surveys for various authorities, as well as handle the many applications from researchers and students to conduct (survey) research. The fact that not only children but also teaching staff may feel that they are over-researched is an important consideration in future research in this area (Wassenaar & Singh, 2016). As researchers (and as university teachers and supervisors), we need to take a critical stance and ask ourselves when it is necessary to use schools as sites for data collection, what our aims are, and what methods we should use to carry out this work.

7. Changing the Nexus: Conclusion

Several lessons were learned along the winding road we had to follow to gain access to the voices of the schoolchildren in our study. Although this case is from Finland, we believe its insights are valuable and applicable also to other contexts, and could serve to change research collaboration with school stakeholders for the better.

We learned that the gatekeeping and safeguarding system was essentially adult-centered and involved the exercise of complex responsibilities. The decision-making was made locally by individual superintendents of schools and by principals, each having their own protocols and procedures for granting research permission. Identifying the main gatekeepers of each school district and navigating the myriad of different procedures that they had was very time-consuming; it is therefore important in research projects to be ready to find out who is responsible for granting research consent, what the application procedures are for each school district, where to begin, and in what order to proceed (Powers, 2007; Rice et al., 2007; Wanat, 2008; White, 2012). Moreover, to facilitate the process, it is essential to prepare and design the research instruments, data collection and consent procedures so that they place as little burden as possible on the schools.

Getting access to schools and schoolchildren requires hard and persistent work, negotiating with the (adult) gatekeepers to create trust (Lundberg & Abdelzadeh, 2019), and explaining the benefits of the research. There was a strong discourse on research fatigue in the schools, and we need to

seriously listen and adapt to this. Our study showed a considerable variety in experiences of and orientations toward research collaboration from one district to another. The reasons given for granting or denying access to researchers should themselves be researched more systematically in order to foster mutual understanding and to enhance collaboration in this area in the future. In order to improve co-operation between the research community and schools, advisory bodies to which both educational representatives and researchers could turn might serve as an intermediary and provide practical and ethical guidelines and standardized protocols – and minimize misconceptions on both sides.

One of the most important insights of the current study is how rewarding and easy collaboration with children can be when we show them respect, give them power to decide on their contribution, and show interest in their life-worlds and conditions (Coyne & Carter, 2018). As Dempsey et al. (2018, p. 10) state, "children are the experts in being children, and adults, no matter how hard they try, are not children, and do not have the same actions, behaviours or concerns as children." Any research with children and young people means balancing their rights to protection with their rights to participation and to be heard. On a final note, this research process and data collection took place in 2019, before the Covid-19 crisis arose. The crisis has shown how the very topic of the survey – digitally mediated communication – has become crucial, not only for communication within families but also for educational purposes and for linking school and home.

Disclosure Statement

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

Funding

This work was supported by Academy of Finland: [Grant Number 315478].

ORCID

Åsa Palviainen http://orcid.org/0000-0003-2778-2834
Tiina Räisä https://orcid.org/0000-0002-5634-3630

References

Carter, B. (2009). Tick box for child? The ethical positioning of children as vulnerable, researchers as barbarians and reviewers as overly cautious. *International Journal of Nursing Studies*, *46*(6), 858–864. https://doi.org/10.1016/j.ijnurstu.2009.01.003

Clark, T. (2008). 'We're over-researched here!' exploring accounts of research fatigue within qualitative research engagements. *Sociology*, *42*(5), 953-970. https://doi.org/10.1177/0038038508094573

Clark, T. (2011). Gaining and maintaining access. *Qualitative Social Work*, *10*(4), 485–502. https://doi.org/10.1177/1473325009358228

Coyne, I. (2010). Research with children and young people: The issue of parental (proxy) consent. *Children & Society*, *24*(3), 227–237. https://doi.org/10.1111/j.1099-0860.2009.00216.x

Coyne, I., & Carter, B. (2018). *Being participatory: Researching with children and young people (1st ed. 2018 ed.)*. Springer. https://doi.org/10.1007/978-3-319-71228-4

de Leeuw, D. (2005). To mix or not to mix data collection modes in surveys. *Journal of Official Statistics*, *21*(2), 233–255.

Dempsey, J., Sim, G., & Cassidy, B. 2018. *Designing for GDPR - investigating children's understanding of privacy: A survey approach*. Proceedings of the 32nd International BCS Human Computer Interaction Conference (HCI-2018), Swindon, UK.

Esbensen, F., Melde, C., Taylor, T. J., & Peterson, D. (2008). Active parental consent in school-based research. *Evaluation Review*, *32*(4), 335-362. https://doi.org/10.1177/0193841X08315175

European Parliament. (2019). *How the general data protection regulation changes the rules for scientific research*. Publications Office. https://data.europa.eu/doi/10.2861/17421

Evans, J. R., & Mathur, A. (2018). The value of online surveys: A look back and a look ahead. *Internet Research*, *28*(4), 854–887. https://doi.org/10.1108/IntR-03-2018-0089

Felzmann, H. (2009). Ethical issues in school-based research. *Research Ethics*, *5*(3), 104–109. https://doi.org/10.1177/174701610900500304

Hokke, S., Hackworth, N. J., Quin, N., Bennetts, S. K., Win, H. Y., Nicholson, J. M., Zion, L., Lucke, J., Keyzer, P., & Crawford, S. B. (2018). Ethical issues in using the internet to engage participants in family and child research: A scoping review. *PLoS ONE*, *13*(9), e0204572. https://doi.org/10.1371/journal.pone.0204572

Hult, F. M. (2015). Making policy connections across scales using nexus analysis. In F. M. Hult, & D. C. Johnson (Eds.), *Research methods in language and planning: A practical guide* (pp. 215–231). Wiley.

Keusch, F. (2015). Why do people participate in web surveys? Applying survey participation theory to internet survey data collection. *Management Review Quarterly*, *65*(3), 183–216. https://doi.org/10.1007/s11301-014-0111-y

Korpisaari, P. (2019). Finland: A brief overview of the GDPR implementation. *European Data Protection Law Review (EDPL)*, *5*(2), 232–237. https://doi.org/10.21552/edpl/2019/2/13

Kristjansson, A. L., Sigfusson, J., Sigfusdottir, I. D., & Allegrante, J. P. (2013). Data collection procedures for school-based surveys among adolescents: The Youth in Europe Study. *Journal of School Health*, *83*(9), 662–667. https://doi.org/10.1111/josh.12079

Lefever, S., Dal, M., & Matthiasdottir, A. (2007). Online data collection in academic research: Advantages and limitations. *British Journal of Educational Technology*, *38*(4), 574–582. https://doi.org/10.1111/j.1467-8535.2006.00638.x

Lundberg, E., & Abdelzadeh, A. (2019). The role of school climate in explaining changes in social trust over time. *Scandinavian Journal of Educational Research*, *63*(5), 712–724. https://doi.org/10.1080/00313831.2018.1434824

Madge, N., Hemming, P. J., Goodman, A., Goodman, S., Kingston, S., Stenson, K., & Webster, C. (2012). Conducting large-scale surveys in secondary schools: The case of the Youth on Religion (YOR) project. *Children & Society*, *26* (6), 417–429. https://doi.org/10.1111/j.1099-0860.2011.00364.x

Milkaite, I., & Lievens, E. (2020). Child-friendly transparency of data processing in the EU: From legal requirements to platform policies. *Journal of Children and Media*, *14*(1), 5–21. https://doi.org/10.1080/17482798.2019.1701055

Ólafsson, K., Livingstone, S., & Haddon, L. (2013). *How to research children and online technologies? Frequently asked questions and best practice*. EU Kids Online, LSE.

Powers, J. D. (2007). Successful entry and collaboration in school-based research: Tips from a school administrator. *Children & Schools*, *29*(4), 247–250. https://doi.org/10.1093/cs/29.4.247

Rice, M., Bunker, K. D., Kang, D., Howell, C. C., & Weaver, M. (2007). Accessing and recruiting children for research in schools. *Western Journal of Nursing Research*, *29*(4), 501–514. https://doi.org/10.1177/0193945906296549

Scollon, R., & Scollon, S. W. (2004). *Nexus analysis. Discourse and the emerging internet*. Routledge.

Smahel, D., Machackova, H., Mascheroni, G., Dedkova, L., Staksrud, E., Ólafsson, K., Livingstone, S., & Hasebrink, U. (2020). *EU kids online 2020. Survey results from 19 countries*. EU Kids Online, LSE. http://hdl.handle.net/10852/77940

Statistics Finland. (2019a). Educational institutions by year, area, owner, language of instruction, type of educational institution and information. http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__kou__kjarj/statfin_kjarj_pxt_125j.px/

Statistics Finland. (2019b). Pupils in comprehensive schools by region, language of the institution and grade 2011-2019 by municipality of the institution, language of the institution, grade, year and information. http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__kou__pop/statfin_pop_pxt_001.px/

Taipale, S. (2019). *Intergenerational connections in digital families*. Springer. https://doi.org/10.1007/978-3-030-11947-8

TENK (2019). *The ethical principles of research with human participants and ethical review in the human sciences in Finland*. Finnish National Board on Research Integrity TENK. https://www.tenk.fi/sites/tenk.fi/files/Ihmistieteiden_eettisen_ennakkoarvioinnin_ohje_2019.pdf

Unger, J. B., Gallaher, P., Palmer, P. H., Baezconde-Garbanati, L., Trinidad, D. R., Cen, S., & Johnson, C. A. (2004). No news is bad news. *Evaluation Review*, *28*(1), 52-63. https://doi.org/10.1177/0193841X03254421

United Nations General Assembly. (1989). Convention on the rights of the child. *Treaty Series*, *1577*(3).

Valentine, G. (2008). Being seen and heard? The ethical complexities of working with children and young people at home and at school. *Philosophy and Geography*, *2*(2), 141–155. https://doi.org/10.1080/13668799908573667

van den Berg, B., & Keymolen, E. (2017). Regulating security on the internet: Control versus trust. *International Review of Law, Computers & Technology: Justice in Algorithmic Robes*, *31*(2), 188–205. https://doi.org/10.1080/13600869.2017.1298504

Wanat, C. L. (2008). Getting past the gatekeepers: Differences between access and cooperation in public school research. *Field Methods*, *20*(2), 191–208. https://doi.org/10.1177/1525822X07313811

Wassenaar, D. R., & Singh, S. (2016). Contextualising the role of the gatekeeper in social science research. *South African Journal of Bioethics and Law*, *9*(1), 42–46. https://doi.org/10.7196/SAJBL.2016.v9i1.465

Water, T. (2018). Ethical issues in participatory research with children and young people. In *Being participatory: Researching with children and young people (1st ed. 2018 ed.).* (pp. 37–56). Springer. https://doi.org/10.1007/978-3-319-71228-4

White, L. S. (2012). Conducting school-based research: Lessons learned from an after-school intervention study. *Journal of Pediatric Health Care*, *26*(1), 75–79. https://doi.org/10.1016/j.pedhc.2011.05.001