

## Ethical Dilemmas When Researching Migration and Children’s Experiences of Mathematics

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### Abstract

Ethical dilemmas in research are significant, especially when research involves human beings (Roth, 2005). In this paper, we share ethical dilemmas experienced while conducting research with children. We draw on a research project designed to explore the mathematics experiences of elementary students in the context of migration. As the project evolved, we found ourselves engaging in conversations about matters related to ethical principles and behaviors of doing the research. We suspect that these ethical dilemmas resulted from the change in context from “in school” mathematics classrooms to “at home” online math camps due to COVID-19 lockdown restrictions that impacted recruitment, gaining access through gatekeepers, and the ways that we worked with the children. Drawing O’Neill’s (2014) three discursive positionings: 1) “the child as not yet a person”; 2) “the child as a person”; and 3) “the child as agent” (p. 222), we frame our discussion of ethical issues concerning gaining consent and power relations, as well as how children’s agency and voice were exercised in the research project. We argue that our power, as researchers and authority figures, was dominant in this research, as we had control over various aspects of the research, and this ultimately afforded children less agency.

**Keywords:** Mathematics, Migration, Agency, Voice, Research ethics

## Introduction

Traditionally, educational research around children's lives has been depicted through their adult caregivers' experiences and understandings (Oates, 2020). This renders children as potentially vulnerable and incompetent interpreters of their social worlds and excludes them from engaging in research (Christensen & James, 2008). However, it is neither wise nor feasible to maintain the premise that children are "faceless objects and voiceless vulnerable victims of research" (Maguire, 2005, p. 3). James (2001) argues that children can participate in research, in their own right (p. 3)—recognizing the importance of listening to children's voices and experiences within their social worlds.

Over the last decade, mathematics education research witnessed an interest in the inclusion of students' voices to develop an understanding of their experiences (e.g., Anthony et al., 2013; Barwell et al., 2016; Moschkovich et al., 2018). The predominant rationale is "that only by seeing classroom situations from the perspectives of all participants can we come to an understanding of the motivations and meanings that underlie their participation" (Clarke, 2013, p. 227).

Such considerations shift the positioning of children "from being passive subjects to recognizing their agency and voice" (Oates, 2020, p. 624). *Agency*, according to Gresalfi et al., (2009) is "the way in which he or she acts, or refrains from acting, and the way in which her or his action contributes to the joint action of the group in which he or she is participating" (p. 53). Whereas *voice*, according to Maguire and Graves (2001) refers to "the speaking personality that is recognized, heard, or valued in an utterance or text in a particular context" (p. 564). Recognizing children's agency and voice ushers a move from research "subject" to "participant" as well as a move from doing "research *on*" to doing "research *with*" or even "research *by*" children (Oates, 2020; O'Neill, 2014). These new views pose challenging ethical dilemmas for researchers (Melonie et al., 2015; Oates, 2020). We define ethical dilemmas as the right and wrong principles or behaviours that control or govern the process of doing research.

In this paper, by exploring the mathematics experiences of elementary students in the context of migration<sup>1</sup>, we engage in a critical dialogue on the ethical dilemmas experienced by the researchers. We pay particular attention to how children's agency and voice were exercised.

### **Literature Review: Ethical Dilemmas**

Involving children in research is not a straightforward matter as researchers face ethical dilemmas (Maguire, 2005). Here, ethical dilemmas concerning gaining access through gatekeepers, obtaining consent, establishing trust, power differentials, and children's language rights, voices, and choices in research, are of particular importance.

In terms of gaining access, Coyen (2010) maintains that including a vulnerable population in research entails negotiation with various gatekeepers at different phases of the research project including an institutional research ethics committee, school boards, community centers, as well as parents, guardians, teachers, or group leaders. These gatekeepers may mandate boundaries on children's autonomy (Oates, 2020), thereby, minimizing children's agency and portraying them as incompetent decision-makers.

The second dilemma, obtaining free consent without coercion, is one of the core issues in research (Oates, 2020). It is argued "that because children do not have full autonomy (i.e., agency), they consequently cannot give consent to participate in the research by themselves...[but] may assent" (O'Neill, 2014, p. 221). And although the child assents to participate and understands what they must do in research, they may still feel coerced or forced to participate in research, abiding with adult authority. That said, considering children's agency as crucial in research may not always be a straightforward act "nor is parental consent always the only other consideration where consent is concerned" (Oates, 2020, p. 630).

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<sup>1</sup> We define 'migrant student' as any student who moves from one region of the world to another or from one part of Canada to another. Thus, migrant students include those whose families have moved for economic or employment reasons, refugees, and Indigenous students whose families have moved between Indigenous settings and an urban school.

The third dilemma highlights the importance of establishing trust. It is argued that to gain access to children's everyday lives and experiences, it is essential to develop a relationship of trust with the children. In their work, Delli and Te One (2012), note that establishing trust with children may require researchers to develop a culturally appropriate research protocol that supports the needs and well-being of these children. Meloni et al. (2015) also argue that being aware of the risks and needs of children, the multiple voices, and concerns of children, as well as their network of adults and communities, is helpful in establishing trust relationships with children—which could further allow researchers “to co-construct meanings and research objectives with them” (p. 119).

The fourth dilemma is concerned with power differentials that may exist between researchers, children, and other adults surrounding children. When the researcher plans to do research *with* or *by* children, the role enacted by adults in research is portrayed as one of power and authority over children (Maguire, 2005). Even the power dynamics at play between the parent and the child may lead one to question whether the child is freely assenting to participate or is forced to participate to not go against their parent's wishes. Also, when obtaining assent from the child, for the researcher, this may seem a straightforward process, but for the child, this could be a challenge especially when the researcher is a stranger (Oates, 2020). The child may feel inclined to participate as they may view that as a safer option than rejecting participation (Oates, 2020).

Research conducted *with* or *by* children in diverse linguistic and cultural contexts presents several issues about their agency and voice. Maguire (2005), for example, argues that researchers should always consider the voices of multilingual children, as well as their language rights and their right to decide the level of their participation. She explains that those who engage in this type of research must critically examine their own practices. Breaking away from the oversimplification of children's experiences, an alternative conceptualization is offered to consider various views, opinions, and needs, “especially from the perspective of children themselves” (Maguire, 2005, p. 2).

This agency-centred approach, which sees children as social actors, presents new issues in child-focused research. For instance, Maguire (2005) states “children's informed understanding of what

an inquiry is about is essential” (p. 12), thus we must effectively communicate our intentions with child participants to ensure their understanding. She further states that researchers must embrace non-neutral mediational means that are suitable for all ages, culturally sensitive, and linguistically appropriate (p. 12). Maguire also stresses the importance of acknowledging children’s voices by critically considering whose voices are allowed to speak and allowed to be represented, heard, and recognized (Interview, March 18, 2015). Maguire suggests that researchers should interview children using children’s own language, and if translators are needed, they should have an appropriate understanding of the culture, they should be representative of that culture, and they should be a respected member of that culture (Interview, March 18, 2015). Maguire also stresses the importance of leaving the participants’ spoken language in any text used, but also providing a translation—a manner understood to provide voice, agency, and power to the participants and their language (Interview, March 18, 2015).

The ethical dilemmas outlined offer considerations for researchers working with children in general and children who live and learn in multilingual and plurilingual contexts. With an awareness of these ethical dilemmas, researchers may be better equipped at adopting an epistemological positioning to understand children’s unique needs and characteristics, and to view children as competent social agents.

### **Theoretical Framework: three discourses about ethics in educational research**

According to O’Neill (2014), “to understand the phenomenon of children’s education better, children are necessarily involved as participants in our research...only children can provide or permit the collection of the requisite data on their own educational knowledge and experiences” (p. 220). Hence, children have a sense of agency and are the most competent social agents for informing researchers about their educational experiences, as opposed to speaking to adult caregivers and gaining a second-hand experience (Maguire, 2005; O’Neill, 2014). In his work, O’Neill (2014) refers to three discursive positionings for determining children’s participation in research: 1) “the child as not yet a person”; 2) “the child as a person”; and 3) “the child as agent”

(p. 222). In the first positioning, the child is viewed as having “less than fully-developed reasoning capacities...and parents or other proxies are permitted to make decisions on children’s behalf” (p. 222). The second positioning recognizes the child as an active social agent capable of forming their own thoughts. Various scholarly communities urged the need for research to “understand how children experience the world, on their terms and in their words (p. 222). Here, researchers engage in research *with* children rather than research *on* children (O’Neill, 2014). The third positioning recognizes children as competent in making reasoned decisions in their own interests, they are mature and capable to indicate whether they want to participate in research, and they have sufficient knowledge to decide or identify aspects of their experiences that are worth knowing more about (p. 228–29). Thus, in this third position, research is *by* children rather than *on* or *with* children. O’Neill (2014) summarizes the three positions: “in the first of these, the child’s voice is often inferred, in the second, it is respected and acknowledged, but only in the third does “student voice” educational research hold the possibility of becoming genuinely child-centric” (p. 219). Both, the work of O’Neill (2014) and Maguire (2005), offer a promising epistemological stance on children as intelligent social actors who have a sense of agency and awareness of their social environments.

### **The Research Study: Migration in Mathematics Classrooms**

Mathematics classrooms are becoming more complexly diverse (Barwell, 2016). At least 500,000 children in Canada’s mathematics classrooms—and likely many more—come from migrant backgrounds (Statistics Canada, 2011). The objective of the research study is to understand the experiences of migrant students and their teachers in the context of elementary school mathematics, and to promote and observe dialogue between students and teachers.

Initially, the study consisted of three phases of data collection. In phase one, the research team would visit ten schools and work with five students to become “co-researchers” in their mathematics classroom. Each student would participate in four activities 1) conducting a semi-structured interview with their parents, 2) making classroom observations of their mathematics experience, 3) being interviewed by a researcher, and 4) being a participant in a focus group to

represent their shared experiences. The second phase would focus on teachers' experiences. We would recruit 2–5 teachers from the same school as the students to take part in a focus group to review and reflect on the shared representation prepared by the students. Teachers would then be asked to become a “researcher” in their mathematics classroom and to document experiences that seem to them to be connected to their discussion of the students' work. Each teacher would then be interviewed about the experiences they documented. In the third phase, all participating teachers in the various schools would be invited to discuss their experiences as co-researchers and reflect together on how students' experiences in their mathematics classrooms affected them and their own teaching of mathematics.

Due to the COVID-19 pandemic and school closures our original design was changed. It became necessary to recruit children and teachers outside the school system and for participation to take place virtually via Zoom. In phase one, children were invited to participate in a math club. Children would meet once per week for 90 minutes for six sessions. During these sessions, they engage in mathematics activities with the group and possible follow up activities to work on with their family and share at the next session. In phase two, we plan to have 6 virtual focus groups where teachers will reflect on students' experiences based on the representations that illustrate children's mathematics experiences. At each final focus group meeting, we will ask participants to co-construct a set of shared “takeaways”.

At this point, we have collected data from two groups of children, which included 11 sessions of online mathematics activities with 7 children ages 8 to 12. Throughout the research project, the research team, which involves people from various backgrounds including some with similar backgrounds to the participating children, recorded project meetings and returned regularly to discuss ethical dilemmas arising from or within their work. At different times, members of the research team have kept reflective journals to keep track of these dilemmas. The recordings and reflective journals form the basis of three vignettes written by different members of the team. We

chose the three vignettes as they encapsulate some of the recurring dilemmas that we have

experienced and discussed. We decided to include these ethical dilemmas as they are written in the researchers' journals. Hence, some evidence of analysis is presented based on the researcher's understanding of the dilemma experienced. Still, we felt it was necessary to offer an analysis following each vignette by unpacking it and including a theorized reflection based on O'Neill's (2014) three discursive positionings for determining children's participation in research. These vignettes are presented and analysed in the next section.

### **Ethical Dilemmas Experienced while Working with Children**

As the research team was working on the project, we found ourselves constantly discussing and questioning matters concerning our ethical principles or behaviours in doing research. These ethical dilemmas arose with the change in data collection site from "in school" mathematics classrooms to "at home" online math camps—in terms of recruitment, gaining access through gatekeepers, and working with the children—issues concerning gaining consent and power relations are interwoven within the main ethical dilemmas experienced. We also reflect on how students' agency and voice are exercised in the research project.

We believe that most ethical dilemmas experienced were a result of a change in the plan due to the COVID-19 pandemic. In our case, the change of context led to a change in how we recruited and gained access to students, which in turn impacted students' voice and agency. For instance, we were no longer recruiting students within schools where we could establish relationships with them directly, instead, we were to contact friends, colleagues, organizations, and community centres that helped us recruit parents. Parents then volunteered their children to participate in the math camp. In so doing, the focus was on recruiting parents rather than students, and where students' voice and agency may be diminished by their parents' roles who may hold more authority and require their children to participate without giving them a choice. We were also creating math camps to engage students in mathematics to compensate for the lack of availability of schools. The math camp was no longer a natural educational setting for the students, which exposed them to something that they



other students they might not know, as opposed to being in a classroom with their teacher and classmates. They were at home, alone or with their siblings, which perhaps overlooks the agency that students may have had to choose where to participate and with whom. We, the researchers, also controlled the math camps (i.e., the activities they engaged in, the duration of activities, etc.). Hence, most of the agency remained with the researchers. It is for these reasons and others addressed in greater depth below that we believe the change of context is crucial to our work.

### **Vignette 1: A dilemma about recruiting participants**

To recruit participants, we contacted friends and colleagues, as well as various organizations and community centres. Each contact used their own means to spread the word about the research project. For instance, some contacted their relatives or friends, and others shared a poster in their monthly newsletters. An ethical dilemma experienced was when we tried to recruit children of families who were newly arrived and for whom one of the researchers helped with government-related services. We questioned whether it was acceptable to simply call or send a text message to these families and say, “Hey, we’re organizing a math camp, would your children be interested to participate?” Although the researcher developed a close relationship with these families, we worried that this relationship pressures parents to allow their children to participate—perhaps making parents feel obligated to agree based on the services provided to them.

As we moved to setting up “Math Camps”, we caught ourselves considering how to “sell” the idea of “Math Camps” to parents. In considering how we might recruit participants, we wondered about falling into the trap of leaning on parents’ perhaps inflated notions of the importance of math, and where these perspectives might prompt the parents to enrol their children. This may have been exaggerated even further as the parents were new to Canada and wanted to provide educational opportunities to their children. Although our work may focus on dispelling myths around mathematics (e.g., math is hard; only some can do math; you can do anything if you have math, or you can’t do anything without it), it was confronting to consider that we might have been capitalizing on these myths to recruit students. Furthermore, this approach seemed to be focused on recruiting parents rather than recruiting students. It was not clear whether the students wanted to participate and exercised their agency, or whether their parents required them to participate to increase their math skills.

Even the languages we chose to translate the leaflet we created for recruitment led us to think of the assumptions we make in terms of the languages we see as most significant in the communities we are trying to recruit. Although there are over 200 languages in use in the population, we unintentionally lay boundaries that may limit participation to specific groups of people depending on the language(s) we use. Yet, to try and consider all languages spoken in Canada may not be feasible given the diversity of languages currently in use. Hence, is it more feasible to make the leaflet accessible only in the official languages of Canada, French and English, to avoid questions concerning the inclusion of certain languages and the dismissal of others, or is using the official languages of Canada excluding the participation of those who speak different languages? So, in choosing which languages are used, whose voices are we acknowledging and whose are we denying being heard?

In this first set of related dilemmas, our concerns were about how we could get in touch with children from migrant backgrounds, and how we could offer parents an ‘attractive’ experience—i.e., something interesting and/or useful—in the context of the pandemic when many children were doing school online. For various institutional and practical reasons, including institutional ethics protocols, we could not recruit children directly. In a school setting, such as in our original proposal, once the school has agreed to the study taking place, we would be able to approach children directly, which was not possible for our revised project. There is therefore a sense that aspects of this dilemma are framed in terms of the ‘child as not yet a person’, since our recruitment efforts were focused on parents, who we hoped would enrol their children. Of course, this leads to other dilemmas (see Vignette 2). Our efforts to make the math camps attractive indirectly suggests a sense of children as active agents, since it implies a recognition that the camps must appeal to their interests. Our concerns about common myths about learning mathematics highlight this attention to parents, rather than children, since it is parents who might feel that an online math camp would be valuable for their children if they felt that mathematics was important in some way. The emergent process prompted by changing the research project led to the decisions we have described, as we sought to maintain the research project in the face of drastically changed circumstances.

The issue of the languages we chose to use in our recruitment texts brings different but related problems. Again, the recruitment texts, in line with institutional protocols and Canada’s national research ethics framework, are aimed at parents rather than students. In the context of research involving recent immigrants to Canada, parents may not be familiar with either of the official languages. Our concern about the effects of the choice of languages reflect the underlying focus on parents, rather than students. We did not really consider the needs of children in our consideration of whether to provide recruitment texts in different languages. More broadly, the math camps were conducted predominantly in English and participating children were not consulted about which languages they might like to use, as suggested by Maguire (2005), for example.

## **Vignette 2: Gaining access through gatekeepers**

A community member was generous enough to connect us with several families that fit the inclusion criteria to participate in the research project. However, a dilemma that we experienced was related to relaying of information by community members to parents, and sometimes those messages may have had a different emphasis than had intended. In some instances, parents might have had the impression that the math camp was to help their children become better at mathematics. Although the math camp was created to help us gain an understanding of students' mathematics experiences, it could lead some children to feel or think that their parents wanted them to do the math camp because they were not good at mathematics and needed extra support.

We also communicated with parents or guardians about the research project who then nominated their children. We believe that just because the parent thought that the child should participate in the research, does not justify the child's participation. Although we obtained assent from the child, the interaction we had with the child may present a challenge. The child must deal with a stranger, who appears to have more authority and power, which may lead the child to then show acceptance or approval to participate, as it may feel like a safer or more appropriate option than resisting participation. So, as easy as it may seem for the researcher to get a child's assent, we believe it is not so simple for a child, because they must deal with an authority figure who is viewed with more power. That said, is the child exercising their agency by freely assenting to participate in the research project or do they feel forced to do so? And does the child see any benefit to engaging in the research?

In this vignette, similar concerns about recruiting children via their parents are apparent. The example about the children being led to think they may not be good at mathematics if they have been asked to do the math camp could highlight the children's perspective on the activities involved in the project. Our intentions in the project have always been to create spaces for children to share their experiences of mathematics in a context that is new for them as migrants. Although we have succeeded in obtaining some data about these experiences, the pandemic-related changes to the project made this objective difficult. If the project had run in schools as planned, we would have aimed to invite children to be co-researchers to record their observations about their mathematics classes. Our (exploratory) idea with the math camps was to replace the mathematics classes in our original design. The crucial difference, however, is that members of the research team now became the 'teachers', changing their relationship with the children. The math camp facilitators were open to children's ideas and interests but, as the vignette highlights, concerns about the position of facilitators as authority figures emerged. In this vignette, then, the perspective is closer to the child as person perspective: the voice and experience of children is recognised; the discourse is more in

terms of research *with* children rather than research *on* children. Nevertheless, the vignette highlights that although children are people with a voice, their assent to participate in the project is complicated by the relationship with their parents as well as the positioning of the ‘stranger’ researcher. Whether the children participated willingly remains unknown.

### **Vignette 3: Working with the children**

Another issue that arose for us was in facilitating the math camps. We worried that, in using a zoom platform, we were entering private spaces, children’s homes. We saw that students were often working on their cell phones rather than on a computer and preferred to keep their cameras off. In some cases, this was because they dressed differently at home than in public. For instance, when we suggested that one student put on their camera so she could share the math solution she created with the pattern blocks, the student said, “Yes, just a sec. I’m gonna go put my hijab on”, another indication that we were asking her to switch from her private, at-home self to a public self.

We also felt a certain level of awkwardness in being inside the children’s homes. There were two children from one family, and each participated out of their own space. Now and then, they wandered out of their respective space into the other’s. We were gazing into spaces that we would not normally have access to and perhaps with that came some assumptions as we responded to what the spaces told us, in addition to what the child told us.

While we provided children with space to share what they wanted to do in the math camp, such as working on their math homework, working on activities related to what they are learning in the mathematics classroom, or giving them space to control the time we spent working on certain activities, it still felt that we controlled a lot of their participation in the research. We controlled 1) the language they used to communicate with us and one another, 2) the activities we chose to work on, 3) the time we spent working on certain activities, and 4) the interview questions to ask and when to ask them. For example, we wondered if our use of English might have led students to feel uncomfortable in the research. Would it be more appropriate to use or encourage the use of their home languages in the math camp? Perhaps by encouraging the use of their languages would students feel more welcomed, as they could communicate in a language that they may be more comfortable with?

Even the activities we created for the children to engage with might have made the students uncomfortable, especially the activities that felt foreign to them. At one point, one of the students shared that the activity we were working on “is kind of boring”. The student was having trouble using the entire geoboard to create equal garden space for four members of a family, which could have influenced them to say the activity was boring. This experience led us to wonder about our assumptions of what ideal mathematics activities may be. We had some idea of what activities we wanted to engage the students with. However, after our first interaction with the students, we felt that the activities we chose may not be ideal given the students’ knowledge and experience with mathematics, leading us to change or adjust those activities. Even when we were working with students on mathematics activities, we still made sure to spend time asking them the interview questions outlined in our research.

This vignette is focused on several dilemmas related to researching with students—the child as person discourse. The reflections on these dilemmas within the vignette, however, suggest our

beginning recognition of children as agents. Students' choices regarding when to open their cameras, what to wear, and what they might find interesting all indicate an awareness of their agency. For example, we do not see the student identifying herself as someone who wears a hijab as problematic, rather a recognition of her agency. One of the researchers participating in the math camp is a Muslim and wears the hijab on screen during the math camp. The student seemed quite at ease to say that she was going to put on her hijab. The significance for us is rather that this indicates that with the camera on, her private space (her home) became public, at least to the two researchers. Although the student did not show any discomfort with this, as researchers we became more aware of our presence in these private spaces. The dilemma related to privacy highlights the ambiguous nature of this dilemma: the researchers were concerned about students joining the math camps from their homes, for example, which perhaps overlooks the agency that students may have had to choose where to participate. That said, in the conduct of the math camps, most of the agency remained with the researchers, who decided when things would happen, when the session would end and what questions would be asked. Indeed, once the researchers start asking the participants interview questions, the research arguably becomes *on* students as opposed to *with* or *by* them.

The response of one participant that a geoboard activity was boring again simultaneously highlights their agency (to express their experience) and the fact that the activity has been selected by the researchers for the purposes of the research (and in a language chosen by the researcher for their convenience). There is a real tension here in the idea of research *by* children; the researchers, after all, have funding to research a particular topic related to mathematics learning. Thus, on some level, objectives have already been set.

### **Concluding Remarks**

To a certain extent, our power, as researchers and authority figures, was predominant in this research, as we had control over various aspects of the research. We suggest that researchers working with children need to be mindful of how children (and themselves) are positioned through research context and activities and the possible ethical issues that this generates. Drawing on

O'Neill's (2014) three discursive positionings: 1) "the child as not yet a person"; 2) "the child as a person"; and 3) "the child as agent" (p. 222), we observe that at various points in the research, the three positionings were executed within our research. For instance, during recruitment, the research appeared to be *on* the child as we could not approach a child and invite them to participate, as we needed parents to agree or nominate their children to participate. It was only when parents consented for the child to participate that they became visible to us as a person, and we could work *with* the child in the math camp. Also, when we provided students with space to assent and ask questions about the research, as well as when we asked the students about their mathematics experiences in Canada and elsewhere and provided them autonomy in working on the mathematics activities, we recognized the children as active social agents capable of forming their own thoughts. In so doing, we were engaged in research *by* rather than *with* and *on* children.

The analysis of the three vignettes shows how our research does not fit neatly within one of O'Neill's three discursive positionings. The goals of the project were oriented to children's agency but the changes we undertook in response to the pandemic, in the context of institutional norms and ethics protocols, shifted our orientation in ways that afforded children less agency. It is important to understand the impact of this shift in the broader context of our research on migration in mathematics classrooms. A particular challenge throughout the development of the project has been about how to hear from students about their experiences in ways that are not shaped by the institutional context of schools, as well as the multiple languages and cultural repertoires of the children. Ironically, the pandemic meant that we were no longer working in such a context. Instead, the context of the family led to different challenges, as the vignettes attest. The math camps did give some insights into children's cultural repertoires, such as aspects of their homes, their cultural or religious practices, or their use of social media and technology. We also learned about mathematics from the children we worked with. For instance, we often saw them bring out their school mathematics as an alternative to some of the activities we planned. One student wanted to know more about how to do 'scatter plots', another asked for help with fractions. The participants enjoyed

the manipulative kits that we gave them and were anxious to use them, claiming that they had used some in their Canadian school but not so much previously.

At the heart of our research, we find a question: how can we know the mathematical experiences migrant children bring to school and how they experience school mathematics in an institutional context that will likely strongly influence what they might consider relevant or appropriate to talk about? This question remains in the revised version of our project, with the difference that we, the researchers, have become the context.

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