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COMMENTARY

A Trip to Guatemala: Considerations in Conducting Research in a Foreign Country

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Upon my initial visit to Guatemala, I didn't identify as a researcher in mathematics education; such a notion wasn't even within the realm of my wildest aspirations. Instead, my role centered around being a helper, a translator, and a connector. My role evolved as I expanded my network and incidentally delved into mathematics education in the United States. Guatemalan acquaintances extended invitations to their schools, seeking my assistance teaching them and their fellow educators. Drawing upon my experience instructing mathematics courses for preservice teachers, I felt adequately qualified and promptly accepted the challenge.

Stepping into a professional development role for the first time, I approached the task impromptu, with only the previous night to prepare for my interactions with the teachers. However, upon visiting the school the next day, I was confronted with my lack of understanding of the Guatemalan education system. Questions flooded my mind: Why were teenagers crammed into a sixth-grade classroom? How did teachers determine what to teach in the absence of textbooks? Where were the math manipulatives? Did kindergarteners genuinely belong at desks more commonly found in high school classrooms? Observing classes, being spontaneously asked to teach without any lesson preparation, and attempting to conduct a professional development seminar for enthusiastically receptive yet directionless teachers, I soon realized I had ventured into unfamiliar territory.

Despite feeling overwhelmed, I developed a profound appreciation for the work being done by the teachers. This commentary serves as a concise reflection on my experiences delivering professional development and embarking on research endeavors in Guatemalan schools. It also critically examines the dynamics of power and control inherent in conducting research in a foreign country.

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The Schools

"Railway School" is a unique private-public institution located in Guatemala City. Despite being privately funded, the school is accredited by the public education system and provides education to students living as squatters along an old railroad line. These students face barriers preventing enrollment in regular public schools, making Railway School a beacon of hope for local families. Teachers warmly welcomed me, inviting me both to observe and teach lessons. Outside of class time, I conducted professional development sessions with the educators. In contrast, "Village School" is a government-recognized public elementary school in rural Guatemala. Introduced through mutual friends in the community, I established a connection with the school. Similarly welcomed, I engaged with the school by teaching lessons and facilitating professional development sessions for the teachers. The third school, "Border School," is a subsidized private institution on the outskirts of Guatemala City. While requiring a modest tuition fee, the school adjusts fees based on families' financial capabilities. Despite persistent efforts and the offer of gifts, it took several years for me to connect with the teachers. To date, I have only conducted one professional development session with the teachers at Border School.

All three schools share commonalities: their teachers possess high school diplomas but lack university education. Railway School and Border School Principals express a keen interest in enhancing their teachers' mathematical education, emphasizing the need for further learning. Village School's principal did not express concerns about her teachers' mathematical knowledge. Each school faces a shortage of manipulatives for mathematics education, prompting me to donate various materials during my visits. Regarding the urban context, Milner's (2012) definitions classify each school as urban. Railway School, situated in Guatemala City with a population of approximately one million, falls into the Urban Intensive category. The students, facing desperate poverty and potential homelessness, experience limited access to basic amenities. Border School and Village School align with the Urban Characteristic category, characterized by crowded classrooms, resource scarcity, and community poverty levels reminiscent of traditional urban areas. Although geographically distant from urban boundaries, Village School exhibits contextual circumstances resembling an urban setting. Resettled after the 1980s massacres, the village experiences crowded living conditions and a lack of parental support due to low literacy rates. The opportunity to work with these schools facilitated through personal connections, underscores their vital role in addressing educational equity in challenging environments.

Schools catering to urban populations, like Railway School, Village School, and Border School, hold immense significance in fostering equity. In such settings, where inequity and gatekeepers are prevalent, the collaboration between

teachers and communities can shape students' worldviews and empower them to dream big. Gutiérrez (2002) emphasizes the transformative potential of education in enabling students to learn, succeed, and gain control over their world. Conducting mathematics education research in these settings becomes crucial for identifying the best ways to serve these students and contribute to their success.

Identifying, Informing, and Involving Participants

In a research study, researchers may focus on familiar communities or seek out those aligning with study parameters. Some may rely on introductions within the community, while others might use email lists for a more random sample. In my experience in Guatemala, I leaned on community introductions. When considering mathematics education research in urban settings, researchers should ponder who they want to involve and why. Despite research type constraints, the power dynamic of admission to a study cannot be overlooked. While my research may present as case studies, I acknowledge bias in selecting participating schools and teachers. Examining Gutiérrez's (2009) Dimensions of Equity, particularly Access, prompts researchers to consider who can participate in mathematics education research and in what capacity. The teachers I engaged with served communities needing resources but might be less likely to receive participation offers due to their geographical locations. Unaware of the world of mathematics education research, these teachers didn't know they could conduct action research themselves. Who is invited into the mathematics education community, and how can we amplify the voices of those previously marginalized?

A significant challenge in Guatemalan research lies in communication expectations. In US universities, rapid email communication is the norm. However, Guatemalan principals, lacking computers, often communicated through intermediaries. For instance, the principal of Railway School, the sole one with internet access, faced limitations due to financial constraints. I often sent messages through intermediaries who would then relay responses. This process raised concerns about potential message distortion, especially with Village School, where the principal communicated mainly in Achi while I spoke Spanish with messengers. Similarly, urban researchers must consider differences in communication expectations. Do participants have internet and phone access? If they wish to ask questions, is there a shared language or ready access to an interpreter? Gutiérrez (2009) characterizes identity as a dimension of equity, which raises questions about the role of identity in research beyond the classroom. How does the researcher examine participants' identities, including their previous knowledge or experience with research, and how might this influence their decision to participate?

I frequently encountered unexpected circumstances during my visits to various schools that disrupted my planned activities. Despite meticulous

preparation, unforeseen situations often arose, challenging my adaptability. A notable instance occurred when I journeyed to Railway School, only to discover a veil of secrecy surrounding recent developments. Despite attempts to glean information, my contacts remained elusive, leaving me uninformed about the school's current state. Arriving with the anticipation of regular class observations, I was blindsided by the revelation that classes had been suspended for a month due to a death threat against the principal by an extortionist gang. Uncertain about the school's future, the teachers and I convened in an alternative location for a professional development session. Village School, too, presented its share of scheduling surprises. On one occasion, a teacher strike paralyzed the school, halting all classes due to unpaid wages. Despite the tumult, a few teachers expressed a desire for professional development. Another visit revealed the school's closure for construction, prompting teachers to conduct classes in makeshift locations – kindergarten on a store porch, first grade under a village tree, second grade in a bedroom, and so on. On my last scheduled visit, the principal requested my presence only on the final day, citing a shortened school day to honor mothers.

Interacting with participants from diverse cultures has brought various challenges and occasional disappointments to light. A persistent communication challenge involves clarifying Institutional Review Board (IRB) procedures and emphasizing the voluntary nature of teacher participation. Complications arise from the differing expectations between principals and teachers, with principals dictating specific classroom visit details while teachers express preferences and question deviations from their expectations. The internal dynamics within schools, whether characterized by power struggles or miscommunication, remain unclear. Reflecting on these complexities underscores the importance of effective communication and flexibility in navigating unforeseen challenges. Notably, there are instances where principals have failed to communicate the purpose of my visit to teachers, putting both parties in an awkward position. This lack of prior communication leaves no time for careful consideration or understanding of the research project's implications. Conducting research in a different country presents additional challenges, such as limited timelines and the inability to communicate with participants beforehand. The disadvantage is further exacerbated when participants wish to withdraw, as they may lack the means to communicate their decision.

Gutiérrez (2009) outlined four dimensions of equity: Access, Achievement, Identity, and Power. Examining my work identifying, informing, and involving participants in Guatemala under these dimensions reveals several limitations. Participants lack immediate communication access, desired levels of professional development, necessary mathematics learning, and equipment for instructing students. Their inquiries about my return and the availability of more materials highlight their desire for improvement. This power dynamic is evident, with

the researcher holding more influence due to providing math manipulatives and mathematical knowledge. Although efforts have been made to shift this dynamic, participants perceive the researcher as having power, attributed to the researcher's educational level and citizenship. Balancing this power dynamic is an ongoing process, requiring mindfulness of participants' identities in a different cultural context. Encouraging participants to recognize their expertise in the classroom is essential to empowering them.

My Role as a Researcher

During my engagement with teachers in Guatemala, I initially embarked on the journey as a graduate student unfamiliar with the intricacies of conducting research studies. At that point, I had no intentions of conducting research with teachers in a different country, and the project was more of a personal interest than a formal study. Acting on the advice of a knowledgeable advisor, I sought Institutional Review Board (IRB) approval, which marked a significant shift from being a friend to adopting a researcher's role. This change influenced my approach to work and my relationships with various individuals.

One notable positive transformation was my heightened awareness of personal biases and a commitment to eliminate them. Initially, upon entering a school in Guatemala, I hastily formed judgments about the teachers and assumed a hero role, believing I could revolutionize their approach to mathematics education. Fortunately, I quickly realized the remarkable abilities of the teachers and acknowledged them as the true heroes. My initial inclination to impose my teaching methods without considering cultural differences and the teachers' hard work was a misstep. As I reassessed my perspective, I learned to listen to and admire the teachers, fostering a collaborative approach that improved my teaching and research skills.

During a subsequent visit to Railway School, I worked with a prekindergarten teacher who expressed her fear of mathematics. Despite the challenges posed by a crowded classroom, I introduced math problems using Unifix cubes. I refrained from taking over the class and gradually involved the teacher in creating problems, shifting the dynamic of knowledge and authority in the classroom. This experience taught me the importance of supporting teachers rather than imposing my methods, leading to positive outcomes.

Another significant change was prompted by my growing awareness of ethical considerations and the potential impact of cultural differences on research practices. While culturally appropriate, providing donations and gifts to schools raised questions about the perception of coercion. Navigating these challenges, such as deviations from planned research activities and unexpected school visits, prompted reflection on the power dynamics in the research relationship. The limitations underscored the need to balance cultural sensitivity with research requirements.

Additionally, I grappled with the responsibility of providing math manipulatives and the unintended consequences of my actions. Despite my intentions, teachers sometimes took gifted materials without sharing them as intended. This highlighted the importance of understanding cultural nuances and respecting the teachers' decisions, even when they differed from my expectations. As I navigated these complexities, my research focus evolved. I relied on personal journal entries for data collection, realizing the ethical considerations of imposing a structured study on participants. This shift, while limiting the participants' voices, also empowered them by avoiding potential exploitation.

Continued Research Decisions

In summary, my engagement with teachers in Guatemala has constituted a dynamic process involving self-reflection, cultural sensitivity, and the adaptation of research practices. Adopting a collaborative and supportive role, I aim to empower teachers while recognizing the intricacies of conducting research in a culturally diverse context. Reflecting on my experiences in Guatemala, I pose several questions for consideration within the research community, guided by a desire to refine the approach to research in foreign settings.

First, I ponder whether Institutional Review Boards (IRBs) include members with a nuanced understanding of the cultural context in which the researcher operates. Additionally, I question which research methods might be incongruent when applied in a different cultural setting and how researchers can tailor their projects to align with the communities they study. Secondly, I explore the idea of allowing participants to revoke permission in instances where timely communication with the researcher is challenging. I suggest incorporating a step to consult participants before submitting work for publication or sharing data at conferences, even if it necessitates an additional site visit, incurring potential costs.

Thirdly, I consider how researchers can effectively communicate the nature and scope of their projects to prospective participants. One suggestion involves locating or translating research publications into the participants' language, accompanied by examples of anticipated outcomes. This approach aims to clarify the researcher's intentions and the eventual use of collected data.

Furthermore, I hope for transparent communication by researchers when disseminating their work. Researchers must acknowledge their biases, report any modifications to the study fairly, and communicate openly with participants and broader audiences. Researchers should be ready to elucidate discrepancies in their research methodologies and decisions made to serve the participant community. Considering the historical mistreatment of some international and domestic communities, researchers must be mindful of this legacy and plan for sustained commitments and contributions to these communities.

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