

How do I choose?

Teachers making sense of pedagogical responsibility

Doctoral candidates Grace A. Chen and Samantha A. Marshall, and Dr Ilana S. Horn, Professor of Mathematics Education, from the Department of Teaching and Learning at Vanderbilt University Peabody College, are investigating how teachers make sense of their pedagogical responsibility. During the course of their research, they record a conversation among teachers triggered by the question 'for what?' they teach mathematics when, outside of the classroom, their students struggle with issues such as poverty and violence. The subsequent discourse analysis reveals the need to afford teachers opportunities to collaboratively make sense of their pedagogical responsibilities.

Teachers make numerous decisions daily. Many relate to the success of lessons, the opportunities for their students to learn, and the development of their classroom environment. Others are concerned with the purpose of education and the future that they are preparing their students for. In addition to their own motivations and aspirations, demands on teachers come from a variety of stakeholders including students, parents, administrators and policymakers. Teachers rarely have the opportunity to discuss their pedagogical responsibility, so how do they deal with these sometimes competing demands?

Doctoral candidates Grace A. Chen and Samantha A. Marshall, and Dr Ilana S. Horn, Professor of Mathematics Education, all from the Department of Teaching and Learning at Vanderbilt University Peabody College, Nashville, are investigating how teachers make sense of their pedagogical responsibility, particularly whom and what they feel beholden to. In addition to examining the pedagogical action (the 'what' and 'how') of

teaching mathematics, the researchers investigate the purpose of teaching mathematics (the 'why') by exploring the pedagogical reasoning entrenched in pedagogical responsibility.

PEDAGOGICAL JUDGEMENT

Pedagogical judgement refers to the teachers' sensemaking about their professional practice. Pedagogical judgement is made up of three components: pedagogical action denoting both the intentional and unintentional choices made by teachers, pedagogical reasoning referring to the teachers' rationale for their pedagogical actions and pedagogical responsibility describing whom or what teachers feel beholden to. The researchers explain how teachers' pedagogical responsibility usually lies beneath their pedagogical reasoning about their pedagogical actions, underpinning many of the decisions they make within the complex socio-political contexts of their work.

EXPLORING PEDAGOGICAL REASONING AND PEDAGOGICAL RESPONSIBILITY

The researchers selected a social and situated approach to their study in order to explore pedagogical reasoning and pedagogical responsibility. Their rationale is that teachers' thoughts and conversations about their actions and obligations are shaped by external influences, such as what they are told to do and what they observe other teachers doing. A trawl of teacher learning literature revealed that teachers' storytelling offers a window to their pedagogical reasoning and can reveal the teachers' assumptions and aspirations concerning their teaching practice, particularly their pedagogical responsibility.

This research focuses on teachers' pedagogical reasoning in relation to



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their pedagogical responsibility, i.e. the teachers' sense of their obligations and includes their moral, ethical, institutional, legal, instructional, and situational concerns. Given the significance of teachers' sense of pedagogical responsibility, the research team highlights that teachers rarely get the chance to reflect and discuss their pedagogical responsibilities. This may be because teacher professional development usually centres on skills and strategies as opposed to the morals and ethics of teaching. Furthermore, pedagogical responsibility is personal and complex and connections between pedagogical reasoning and pedagogical responsibilities can be unclear.

STUDY PARTICIPANTS

This particular research formed part of a four-year ethnographic study of secondary mathematics teacher learning. The study was carried out in a large urban district in partnership with a professional development organisation (PDO). Around 80 teachers were selected for renewable five-year fellowships with the PDO. The teachers' experience ranged from 1 to over 30 years of teaching. The programme involved participating in a full day professional development session, focused on teaching mathematics, each month during the school year. Participants also attend regional and national conferences together and a strong sense of community exists within the group. The teachers were passionate about their teaching and

familiar with both collaborative learning and reflecting on their teaching practice. Educators outside of the PDO viewed the participants as 'teacher leaders'.

DATA COLLECTION

The researchers employed a variety of data collection techniques, including acting as participant-observers in the professional development sessions each month. In addition to audio recordings of the sessions, the researchers took detailed fieldnotes, chronicling who was

be an inspirational finale. She later told the researchers that she 'didn't expect it to hit as hard as it did'. The *Bad Kids*, filmed at an alternative high school, regarded as a 'last chance' school, focuses on the challenges faced by four students and the principal. The atmosphere in the room changed dramatically during the viewing, with some participants becoming upset and tearful. Afterwards, the PDO leader invited teachers to talk to each other, in order to process the viewing experience.

Investigating how teachers make sense of their pedagogical responsibility, particularly whom and what they feel beholden to.

speaking, what they said and noting the emotional reactions. They also used notes, interview transcripts and artefacts from the larger study.

FOCAL CONVERSATION

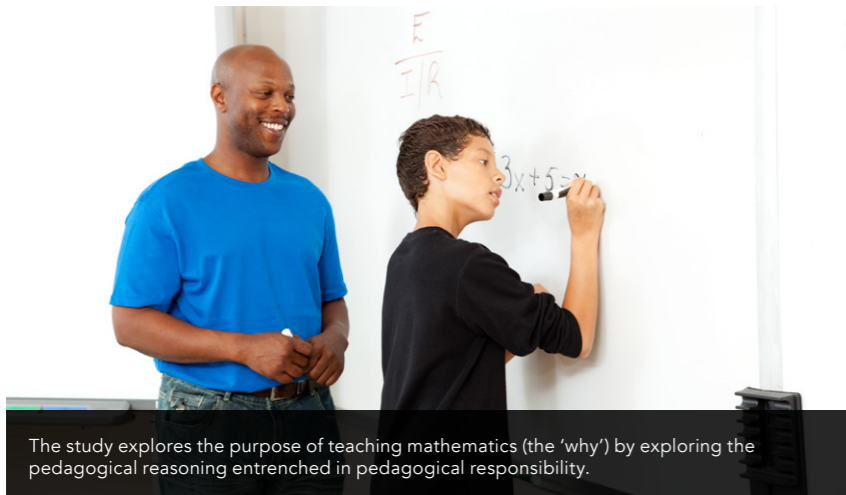
During the morning of the final PDO meeting of the school year, the tone was both festive and sentimental as the group shared what they had learned and celebrated the graduation of those teachers who had completed their five year fellowships with the PDO and welcomed incoming teachers. In the closing session that afternoon, they watched a documentary film selected by the PDO leader, who had found it 'interesting' and thought that it would

Then she asked if anyone wanted to ask a question. No one offered to, so she shared some hopeful updates on what happened to the students since the documentary was filmed.

FOR WHAT?

Some of the teachers offered their thoughts to the group. One teacher described a scene from the film where one of the students slept during a lesson. Emotionally, she continued:

"And all I can think about is, 'For what?' All I can think about is tons of my students in the area. I had three deaths this year. ... it hurts to know that all I cared about was Algebra 1 and they



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knew I cared for them as a person, but then at the end that means nothing, because all I got them was to be able to get a C, and now they're not even living anymore? Or they're in gangs? Like, so, now I'm just wondering for myself, how do I choose? What am I supposed to do?"

This comment was a critical moment, creating an opportunity for conceptual change. After a long pause, an emotional conversation took place amongst the group that, although it only lasted 30 minutes, the researchers found to be 'existentially significant in that teachers repeatedly introduced, negotiated, ratified or rejected common narratives about their pedagogical responsibility as mathematics teachers'. They realised

that the teacher's comment and the conversation that ensued were a rich site for them to analyse the teachers' understandings of pedagogical responsibility.

Challenged by the question 'for what?' they teach mathematics when, outside of the classroom, their students struggle with issues such as poverty and violence, the teachers reflected on how loving their students and teaching them life skills, more than teaching mathematics, made them 'good teachers'. While some teachers' contributions referred to 'the socio-political realities of living and teaching in an unjust society', the conversation centred on the comfortable and familiar notion that love and life skills made good teaching and good teachers.

ANALYSIS AND IMPACT

A discourse analysis was performed on the conversation where the teachers discussed what they felt that they were 'really' doing as teachers. This exposed nuances relating to both the possibilities and the limitations of socially situated pedagogical reasoning surrounding the teachers' pedagogical responsibility throughout this critical event.

The researchers believe pedagogical responsibility is a driving force behind teaching. They suggest that affording teachers opportunities to process tragedy, express vulnerability, and collectively participate in pedagogical reasoning specifically concerning pedagogical responsibility could be a potent asset to teacher learning. This collaborative sensemaking of their pedagogical responsibility would enable teachers to move beyond the familiar ideas of teaching mathematics for love or life skills and enable them to reconnect with the moral rewards of teaching. Moreover, this supportive environment provides teachers with the opportunity to examine their vulnerability and explore how to respond to tragedy, as well as collectively investigating transformative possibilities for a more just public education.

The research team concludes that these findings have particular relevance to the COVID era, 'as teachers grapple with what and how they are supposed to teach given not only the complex socio-political context but also the multitudes of grief that they and students are likely experiencing'.



Pedagogical responsibility is a driving force behind teaching.

Behind the Research



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Research Objectives

The Teacher Learning Lab explores how teacher learning can make authentic maths accessible to students, especially those disenfranchised by the US educational system.

Detail

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Bio

Grace A. Chen is a doctoral candidate in the Department of Teaching and Learning at Vanderbilt University. A former secondary school mathematics teacher, she studies how, why, and what mathematics teachers learn about race, power, and equity, with particular interests in identity, ethics, and affect.

Samantha A. Marshall is a doctoral candidate and NSF GRFP fellow in the Department of Teaching and Learning at Vanderbilt University where her analyses have focused on designing and investigating supports for teachers' learning to teach in more equitable and just ways, in particular through social design experiments.

Ilana S. Horn is a Professor of Mathematics Education at Vanderbilt University Peabody College. Building on anthropological methods and studies of learning, her research centres on ways to make authentic mathematics accessible to students,

particularly those who have historically been disenfranchised by educational systems.

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Personal Response

How do you envisage opportunities for teachers to collaboratively make sense of their pedagogical responsibility be facilitated on a larger scale?

Professional development for teachers often promotes "tips and tricks," implying that teaching is simply about checking off a list of strategies. However, much of teaching is unpredictable and relies on in-the-moment action rooted in pedagogical responsibility. To attend to pedagogical responsibility, professional development should offer teachers opportunities to acknowledge vulnerability, express uncertainty, and reflect on their moral and ethical commitments. Preservice teachers should be prompted to discuss their motivations for becoming teachers and their perceptions of what it means to be a "good teacher." These opportunities can help teachers confront implicit biases and institutional traditions so they can more deliberately link their actions to their ethical sense of care for students.