Complementary Methodologies:
Positioning Theory and Grounded Theory

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Introduction

• The research project

• Positioning theory as methodology argued through grounded theory

• Positioning theory applied to grounded theory coding procedures
Purpose of the Research

• To offer a model supporting out-of-field (OOF) teachers to teach a topic mandated by the curriculum

• To understand the affordances of the digital tools, if any
Research Question and Focus

In what ways do female secondary students and their teachers understand the relationship between teacher/student agency and digital technologies in geoscience?

RQ 1: How do students and teachers assess their use of digital technologies in science?
Constructivist grounded theory analyses align with the constructionist ontological perspective (Charmaz, 2014).

Data collection begins with participants’ meaning making.

- Pragmatism
- Symbolic Interactionism

- Performance Style
  - Action
  - Identity

Constructivist Grounded Theory
Charmaz (2014)

Positioning Theory
Harré & van Langenhove (1999)
Positioning Theory Triad

Positions: **Rights/Duties**

- My rights are what you must do for me
- My duties are what I must do for you
- Be mindful of the symmetry presumption (Harré 2012)

Speech and Other Acts

- Assumptions inform behaviors
- Expectations arise out of assumptions

Storylines

- Cover, Sacred and Secret Stories (Clandinin & Connelly, 1996)
Um, so I focus a lot on the planning, um, and not so much on actually teaching them how to do it in terms of the technical stuff.

Well, I think, uh, Microsoft Office would be one and to quite a high detail, so things like knowing how to format document, creating charts, adding labels, how to use, um, PowerPoint properly. Um, uh, they-I think they need to know how to use Google properly, how to do proper searches, be taught what’s a reliable website what’s not, how to use search terms, how to narrow down what they’re looking for. Um, and, uh, I think they need to know there’s certain conventions in, um, surfing the web and using the net in general, like there’s buttons and buttons take you to somewhere and you’re—there’s certain conventions with that, there’s a digital literacy if you like. And maybe that needs to be formally taught as well.
Digital Technology Use in the Science Classroom

Data from 10 teachers, 6 students

Initial Coding

Focused Coding
Continuum for Digital Technology use by Riverside Science Teachers

- **Expert**: Seek out and learn how to use and/or adapt digital technologies to classroom practice, especially with an emphasis on doing science.
- **Apprentice**: Identify the digital skills students are expected to develop and assume the duty to teach them, but feel conflicted about the value digital technologies bring to learning.
- **Novice**: Identify digital skills students are expected to develop, but do not assume the duty to teach them; feel conflicted about using digital technologies in the classroom.
- Are unaware of the digital skills students must develop and/or lack confidence in their abilities to teach these skills.
References


Would you like to try coding using positioning theory?

I did do other jobs in the real world before [teaching], just in case you wanna know, and I hated them.

• Teacher self-identified rights
• Teacher self-identified duties
• Teacher-identified student rights
• Teacher-identified student duties
May I introduce you to...

Ethan:
I had reached the ceiling...I wasn’t going to be a lab head.

Charlotte:
I did do other jobs in the real world before [teaching], just in case you wanna know, and I hated them.
May I introduce you to...

Ethan:
I had reached the ceiling...I wasn’t going to be a lab head.

Rachel:
The government doesn’t support medical research as much as they should.

Charlotte:
I did do other jobs in the real world before [teaching], just in case you wanna know, and I hated them.
At some point, some students, so we did some—I had to do some online research and I said: ‘Ok, so websites that have—usually websites with, like, .edu, .gov, .org are usually more reliable than ones with just .com or .co.uk’ or something like that. So, and that was just a starting point to go: ‘Well, that’s a more reliable website. Does it come from an organization? Does it come from the RSPCA? Or is it just coming from some Pete’s Animal Farm?’

You know, if I—if I’m gonna design an assignment and I’m like: ‘Oh, I should use some tech-technology,’ and I’ll go: ‘Ok, they can make a video,’ but is that gonna mean—are they gonna learn anything more from making a video than they are from just doing the research anyway?