

# Unpacking field trips: The role of a teacher educator in post-field mathematics teacher education courses

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*This paper reports on an ongoing research project to study how mathematics teacher educators ‘unpack’ the field experiences of prospective teachers. By viewing post-field practices through the lens of disruptive pedagogies, we aim to better understand the roles of mathematics teacher educators and to reconceptualise post-field possibilities in teacher education.*

## Introduction

Research in the area of teacher education theory-practice transitions has been extensive (Gainsburg, 2012), including transitions from university (theory) to field experience (practice), as well as transitions from the process of *becoming* a teacher (university) to the first few years of *being* a teacher in schools. Another key transition in teacher education programs is the under-researched transition from field experience back to university. As noted by Eriksen and Bjerke (2019), “little is known about the way in which teacher educators integrate prospective teachers’ actual experiences when they return to university after fieldwork” (p. 9).

The ‘unpacking’ of field-back-to-university transitions is relevant to the community of teacher educators since teacher education programs, and corresponding field experiences, are frequently critiqued for being steeped in technical-rational approaches (Nolan & Tupper, 2020). Mathematics teacher educators (MTEs) struggle with the tensions implicit in these transitions, as they seek to disrupt dominant ‘technique-oriented’ discourses of school mathematics and becoming a teacher.

## Research theory and design

We first acknowledge the difficult, but necessary, task of moving away from using the language of theory and practice to describe the transitions between university teacher education courses and school-based field experiences. To counter this false binary and hierarchy, where expertise is seen to rest primarily with academics, Zeichner (2010) proposes teacher education hybrid or third spaces that “bring practitioner and academic knowledge

Please cite as: Nolan, K., & Bjerke, A. H. (2021). Unpacking field trips: The role of a teacher educator in post-field mathematics teacher education courses. In D. Kollösche (Ed.), *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference* (Vol. 1, pp. 207–210). Tredition. <https://doi.org/10.5281/zenodo.5392502>

together in less hierarchical ways to create new learning opportunities for prospective teachers” (p. 92). Similarly, Rust (2019) calls for teacher educators and teacher education programs to “be situated at the nexus between universities and schools—the place where theory and practice can come together” (p. 524).

In our study, we propose a hybrid space of research where our focus is on disrupting and reimagining knowledge constructed in the movement from university to field and back to university. Within this movement, it is the post-field context that we focus our attention. By viewing MTEs’ post-field practices through the lens of *disruptive pedagogies*, we aim to better understand the roles of MTEs and to reconceptualise post-field possibilities in teacher education.

We draw on Anderson and Justice (2015) in describing a pedagogy as disruptive if it “requires students to challenge or change their epistemologies and participation in their learning” (p. 400). As Schulz (2005) reminds us, “[i]f teacher educators want to change prevailing practices ... they must provide frameworks that encourage different ways of thinking about teaching and learning about teaching” (pp. 149-150). This applies to both pre- and post-periods of field experience, and hence, it underlines the importance of drawing on prospective teachers’ (PTs’) field experiences in post-field university courses, where different theoretical and pedagogical tools have the potential to better understand and unpack the field.

In the research design, we review literature on university to field transitions in mathematics teacher education to construct a list of the barriers/challenges in transitions as identified across the research. We are specifically interested in knowing whether the challenges in university-to-field transitions also carry weight in field-back-to-university transitions and how/if MTEs address them in post-field courses. From this list of barriers/challenges, we construct several questions to ask MTEs to understand their practices as post-field course instructors. All of these questions emerge from the central question of this research study: *What are mathematics teacher educators’ roles in unpacking field experiences?*

With the questions constructed, the research study’s data collection is divided into two parts. Part 1, the primary focus of this paper, includes conversations between the two authors—a dialogue made possible through our own self-study reflections on the questions. In part 2, which moves beyond the content of this paper, we use the questions to interview 20 MTEs from teacher education programs across Canada and Norway to gain broader perspectives on the practices of MTEs in disrupting the field-back-to-university transitions through post-field courses.

### **Barriers/challenges in theory-practice transitions: Review of literature**

Given the self-study context of Part 1 of this study, here we focus our brief review of research in the area of theory-practice transitions primarily on our own findings; the two authors (Bjerke & Nolan) have written extensively on the barriers/challenges encountered in theory-practice transitions, revealing the following (abbreviated) list:

*PTs as visitors*: The visitor ‘stamp’ prevents PTs from trying out new ideas (Nolan, 2012), focusing on unquestioning alignment with existing norms and plans, deferring to the mentor teachers’ accountability for their pupils’ progress (Solomon et al., 2017).

*The different roles of the involved parties:* A lack of understanding of the roles of cooperating/mentor teacher, PT, and university supervisor (Nolan, 2015).

*The theory–practice divide:* A reported disconnect between university and school methods/theories, often resulting in PTs favouring school placement (Eriksen & Bjerke, 2019) and expressing a need to be armed with a ‘toolbox’ in order to be aligned more closely with the school and performing the role of a teacher (Solomon et al., 2017).

*The demands of reform teaching:* Reform, or inquiry, approaches not taken up by PTs during field experience, for several reasons: Inadequate modelling by MTEs; lack of ‘recipes’ for implementing inquiry; inquiry-based lessons reported as taking too much time to plan and implement; PTs’ lack of conviction (Eriksen & Bjerke, 2019; Nolan, 2012, 2015).

### **Questions for MTEs about the field-back-to-university transitions**

Based on the barriers/challenges outlined above, and with the lens of disruptive pedagogy informing our interest in unpacking the post-field context, we have constructed 8 conversation/interview questions. Given space restrictions, we present only 4 of these questions here as illustrations: (1) As a MTE and course instructor, what are the most significant challenges you experience in your work with PTs upon their return from a field experience? How do the challenges relate to the list of theory-practice barriers/challenges above? (2) What pedagogical strategies do you draw on in your post-field courses that you think might (a) intentionally or unintentionally, further re-affirm a university-school divide between theory and practice, and (b) challenge and/or disrupt the division between university/theory and field/practice classrooms, and instead portray them as being more in relationship with each other? (3) What theoretical tools do you draw on in your post-field courses to ‘unpack’ the field? How and to what end do you draw on these tools to understand, disrupt and/or support PTs’ thinking and growth? Describe successes and failures in these efforts. (4) What do you view as your primary role(s) as a MTE in the post-field context?

#### *Part 1: Dialogue between Authors*

As an illustration of the research process, we present the following snapshot of the authors’ dialogue around one of these questions (#3 above):

- Kathy: I have drawn on Bourdieu’s social field theory in my post-field courses, through a basic introduction of the concepts of habitus, field and cultural capital to PTs. Introducing PTs to these concepts in the context of discussing unchanging pedagogical practices in schools was meant to illustrate how a person feels comfortable in a field where their habitus is a good fit with the logic and operation of that field. I had hoped that these discussions, drawing on Bourdieu’s concepts, would aid in disrupting technical-rationality in teacher education by building PTs critical capacities for thinking *with* and *through* theory.
- Annette: You ‘had hoped’. Does this mean that it did not happen? My latest effort has been to introduce Biesta’s virtue-based approach to education, and hence to

mathematics teaching, discussing the PTs' experiences in relation to qualification, subjectification and socialisation. This has worked as a way to address both themselves as PTs, and as a way of talking about their experiences with different pupils.

## Future directions and concluding thoughts

MTEs are called upon to make deliberate pedagogical choices toward “the disruption of practices which contribute to the reproduction of educational inequalities” (Beighton, 2017, p. 113). As this research focuses on disrupting and reimagining knowledge constructed in the movement from university to field and back to university, it is important ongoing work both for those teacher educators involved in our study (as a reflective self-study exercise) and for those reading about and relating to what we report. This brief introduction to our in-progress study highlights our approach to viewing MTEs' post-field practices through the lens of disruptive pedagogies.

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