

# Ceci n'est pas une Pratique: A Commentary

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**Abstract** I highlight the main issues discussed in the chapters and wonder about the effect of engaging with representations of practice on actual teaching practice. I offer avenues for future studies in which representations of practice are designed by teachers, rather than researchers and teacher educators.

**Keywords** Teaching practice · Lesson play · Scripting

## Teacher Education via Representations of Practice

What is the meaning of ‘representation’? What is the meaning of ‘practice’? Both constructs have been intensively discussed and defined by researchers (e.g., Grossman et al. 2009; Hall 1997; Herbst et al. 2011; Lampert 2010) in reference to preparation for professional practice in general, and to teacher education in particular. I do not attempt to summarize or declare a preference towards one perspective or another. I refer an interested reader to a concise and informative summary by Herbst (2018), who elaborates on representations of practice and points to similarities among and nuances within various perspectives. However, for my commentary a rather simplistic view suffices: Practice is the practice of teaching and it is represented by a variety of artifacts, such as videos, animations, comic strips, vignettes, scripted interactions, or excerpts of student work. Some of the artifacts are carefully chosen excerpts of actual teaching practice, while others are imagined, designed and simulated.

Considering these artifacts as representations of practice described and analyzed in this volume brings to mind Ren  Magritte’s famous picture, see Fig. 1.

While initially perceived as a contradiction, “Ceci n’est pas une pipe” (This is not a pipe) directs the viewer’s attention that this is an image of an object, rather than an object itself. When asked about the picture, Magritte noted, “Of course it

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**Fig. 1** A copy of a famous picture by René Magritte

was not a pipe, just try to fill it with tobacco.<sup>1</sup>” His response points to the difference between an object (or a concept) and its representation, a theme that I attend to in these notes.

While not always explicitly stated as such, the chapters in the volume have a dual goal: (1) to investigate various components of teachers’ knowledge or aspects of teachers’ competence/expertise, and (2) to contribute to the preparation of teachers for instructional practice or to teachers’ professional development. While chapters by Buchbinder and Cook, by Samkova, by Hoth et al., and by Friesen and Kuntze focus mainly on (1), chapters by Kuntze, by Koellner et al., and by Webel et al. study the effect on (2).

The authors offer thoughtful and informative elaboration on particular features of the representations of practice used in their research, pointing to advantages and limitations of various choices. However, when comparing the suitability of different representations, Friesen and Kuntze found video, text and comic format to be “comparably suitable,” as teachers engage with each format “comparably well”. This reinforces prior research findings of Herbst et al. (2013), by providing stronger evidence via rigorous methodological design.

As a collective, the chapters offer a wide variety of learning experiences for teachers and describe the benefits of continuous professional development as a

<sup>1</sup><http://www.mattesonart.com/biography.aspx>.

result of engagement with representations of practice. They describe how pedagogical choices shifted or enhanced and how critical reflection evolved. For example, teachers participating in the study by Webel et al. became more skillful in posing questions, prospective teachers participating in Samkova's study became more knowledgeable in predicting and handling students' errors, Kuntze's participants became more thoughtful in their critique of lessons.

Acknowledging the explicit and often profound effect on teachers' knowledge when engaged with representations of practice, I echo René Magritte, saying "Ceci n'est pas une pratique" (This is not a practice). A great ballet critic may have never danced. An expert wine taster may have never brewed. A famous sports commentator may not play ball. That is, extended ability to critique a practice does not necessarily correspond to the ability to carry out the practice.

## **From Representations to Practice**

Kuntze refers to Lipowsky (2004), who noted that changes in professional knowledge play the role of a necessary but insufficient condition for changes in the instructional practice of teachers. While participating teachers show evidence of improvement when attending to particular aspects of knowledge studied via representations of practice, how did their personal practice evolve? The authors appear in agreement that the effect of experience in critique and analysis of representation of practice on the "real practice" of teaching has yet to be examined. For example, Kuntze explicitly suggests that further studies should include actual practice, and study a transfer of professional development content to classroom practice. Koellner et al. claim that "objective analyses based on teachers' observed classroom practices is essential to validating data on their self-reported uptake of information from the PD."

While the need to draw an explicit connection between experiencing representations of practice and "real" practice is clearly established, how this need can be addressed remains unclear. It will be necessary not only to overcome the logistics of following teachers who participated in research and professional development, but also to establish the validity of the potential correlation when attributing particular instructional choices to teachers' prior experiences with representations of practice. This is an extremely complicated and challenging task. Avoiding this challenge, I offer an alternative.

## **On Representations of Practice Designed by Teachers**

Note that some of the representations of practice discussed in this volume are carefully chosen excerpts of practice (e.g., video clips in Kuntze and in Hoth et al.), while others are designed (e.g., concept cartoons in Samkova's study), or imagined and simulated (e.g., comics in Webel et al.). However, the choices of excerpts are

made by researchers, and the representations and simulations are created by researchers. But what if we turn the task around and ask teachers to create representations of teaching, rather than respond to what is created by others? Buchbinder and Cook have done just that, asking prospective teachers to continue a conversation between students and teacher in a form of a screenplay.

Acknowledging the enormous difficulty in examining ‘real teaching’, I have been working for a while on representations of practice composed by prospective teachers, rather than those designed by experts. This route started as a ‘lesson play’—presenting part of a lesson in a form of a dialogue between a teacher and students (Zazkis et al. 2009). With colleagues, I analyzed lesson plays composed by prospective teachers and argued that they provide a lens into how teachers imagine practice (Zazkis et al. 2013). In a more recent work, the method of involving prospective teachers in composing dialogues was extended and described as a “scripting approach.” Analyzing teachers’ scripts provided insights into various aspects of their mathematical and pedagogical knowledge (e.g., Zazkis and Zazkis 2014; Zazkis and Kontorovich 2016). In what follows, I offer possible extensions of the studies in this volume, capitalizing upon the scripting approach.

Consider for example a teacher from the Hoth et al. study who, after watching the video, is asked to imagine her/his conversation with Karola and present it in a format of a scripted interaction between a student and a teacher. Will s/he point to the student’s mistake or will s/he design an approach that would lead the student to discover her mistake and possibly reconsider her answer? A scripting task can be implemented either instead of, or in addition to, providing an open response analysis of the teaching sequence that led to Karola’s mistake. Teachers in the Hoth et al. study provided multifaceted and occasionally constructive critiques to the teaching episode in video. However, how would they themselves carry out the lesson? How would they ensure students’ comprehension? A scripted dialogue may provide some answers.

I point out that there is a big difference in describing what one would do and actually doing it, or at least pretending/imagining doing it. In my experience, teachers describe more fluently what they would or could ask, than actually formulating particular questions. In fact, the difficulty of prospective teachers in role-playing a particular interaction led to the development of lesson play tasks, in which the role-play is imagined, without the necessity to “think on your feet”. Webel et al. make an important step towards teachers’ productions when asking teachers to pose their own question to a student following a student’s idea presented in a comic simulation. However, rather than presenting teachers with pre-programmed students’ responses to the chosen questions, how would teachers themselves imagine the response? How will they choose follow up questions, if necessary? A scripted dialogue composed by a teacher may shed light on these questions.

In Kuntze’s chapter teachers commented in open format on two videos selected from authentic classrooms on a geometric proof. Suppose these (or other) teachers were asked to imagine, and present in a form of a script, how their classroom may look like. I wonder, how will the scripts attend to particular issues identified in the

teachers' responses to the videos. Kuntze commented on how teachers may perceive their own practice before and after their engagement with the videos in the professional development project. I suggest that teacher designed scripts, rather than self-reports, may provide an additional and potentially closer look at their practice, via imagined practice. Similarly, the Koellner et al. chapter focuses on what teachers take away from a video based project related to teaching and learning geometry. Their classification of participants is based preliminary on the participants' self-reports. Acknowledging redundancy in my suggestions, I wonder what if the participants were asked to present a scripted dialogue on how they foresee a classroom interaction on a particular topic. Will the script correspond to the self-report? Will particular issues learned from the video be evident? The researchers indicate that validation with classroom practice is needed to further substantiate their findings. Scripts of imagined classroom interactions will provide an intermediate stepping stone for comparison, given the difficulty in following up all of the participants' teaching of the same topic.

Teachers' created representations of practice should not be limited to text-based scripts, which I suggested above. Samkova's chapter provides an interesting analysis of teachers' responses to concept cartoons. I wonder, how a concept cartoon designed by a prospective teacher may look like? I believe it will provide insight about the cartoon-designer's particular aspects of pedagogical content knowledge.

Friesen and Kuntze concluded that different formats of representation were comparably suitable to assess teachers' competence. I wonder, what if teachers were asked to create their own representations in different formats? Will the aspects they chose to address in text be comparable to those addressed via video or via comics? Of interest here is a study of Rougée and Herbst (2018), who compared representations of practice composed by teachers in storyboards and text formats. They found unexpected and nuanced differences and concluded that "medium matters". Obviously, this conclusion depends on the particular aspects of representations that were studied and compared.

Continuing a consideration of the medium, I note that prospective teachers participating in Buchbinder and Cook's study completed their scripted interactions between a teacher and students in the text format, while the prompt was presented as a cartoon-based scenario. Given that these teachers were exposed to *LessonSketch*, as their instructional module was administered in this platform, the setting provides a suitable venue for varying the format of scripts and exploring further the affordances and relative advantages of text and storyboard media. Such exploration can be especially applicable in the context of geometry, where it is reasonable to expect that visual artifacts accompany the dialogue.

I hope the authors will consider these suggestions as avenues for future research, which are a natural extension and follow up from their studies. I note, considering the suggestion to extend the presented studies using scripting or other teacher-designed representations of practice, that "Ceci n'est pas une pratique," either. But I assert that scripting practice brings teachers a step closer to the 'real

practice' of teaching and brings researchers a step closer to evaluating how engagement with representations of practice may influence practice.

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