Utilizing the Theory of Practice Architectures in research on mentoring and professional development: A self-study approach

Eli Lejonberg[1]*, Hilde Marie Madsø Jacobsen[1], Tove Seiness Hunskaar[1], Ingrid Elna Elden[2], Beverley Goldshaft[3], Ela Sjølie[4]

[1] Department of Teacher Education and School Research, University of Oslo.

[2] Faculty of Education and Arts, Nord University

[3] Norwegian Centre for Learning Environment, University of Stavanger

[4] Department of Industrial Economics and Technology Management, NTNU

* Correspondence: eli.lejonberg@ils.uio.no

Abstract

Researching mentoring and professional development is a complex practice. In the past decade, the Theory of Practice Architectures (TPA) (Kemmis, Wilkinson et al. 2014) has received increased attention from researchers, particularly within the field of education. Utilizing TPA can provide understandings of complex practices by focusing on the elements constituting a practice, interaction between practices and the structures that surround them. By using Self-Study Research Design, this paper aims to highlight challenges that researchers may experience when utilizing TPA in their studies of practice. More specifically, we examine the challenges related to the use of TPA in our own research practices. Utilizing the application of TPA when scrutinizing practice in our investigation of challenges related to use of TPA (Kemmis et al., 2013; Variyan & Edwards-Groves, 2024), we intend to contribute to knowledge on mentoring and professional development research practices and consider implications for our future use of TPA.

Keywords: Educational Research, Mentoring Research, Professional Development, Self-Study Research Design, Theory of Practice Architectures

Sammendrag

Å forske på veiledning og profesjonell utvikling er krevende praksis. Ved å ta i bruk Self-Study Research Design, vil vi med dette bidraget sette søkelys på utfordringer knyttet til slike prosesser. Mer spesifikt undersøker vi utfordringer knyttet til bruk av teorien om praksisarkitekturer i vår egen forskningspraksis. Hensikten med bruk av teorien om praksisarkitektur er å bidra til forståelse av komplekse praksiser ved å fokusere på hva praksiser består av og samspillet mellom praksiser og strukturene som omgir dem.

Funnene som presenteres her utforsker utfordringer relatert til anvendelse av teorien i møte med forskningspraksis. Ved å benytte Self-Study Research Design (LaBoskey, 2004; Pithouse-Morgan, 2022; Vanassche & Kelchtermans, 2015) som en tilnærming undersøkes utfordringer knyttet til bruk av teorien om praksisarkitekturer (Kemmis et al., 2013). Studiens funn om opplevde utfordringer og implikasjoner for bruk av teorien om prakisisarkitektur, blir i artikkelen belyst og drøftet.

Introduction

Mentoring is a social construction. It involves a mentor and a mentee. It is situated in that it takes place at certain sites (notably school classrooms and meeting rooms), and its purpose is to facilitate professional learning. Thus, it is a practice. To do research on mentoring practices is also a practice. Although the role of the researcher is central to what happens in the research practice it is nevertheless a social affair (after all, a researcher needs someone or something to research just like a mentor needs someone to mentor). Seeing researching as a practice means seeing learning as reciprocal, and the researchers' professional development as important as the knowledge dissemination that may evolve from the research. By investigating our research-practices and use of the Theory of Practice Architecture (TPA) in our practices, the current contribution aims to add insights on the relation between theory and practice, acknowledged as one of the most essential and discussed relations within the field of pedagogy (Kvernbekk, 2001). We do this by investigating our own research practice, zooming in on how we use theory to contribute to knowledge about mentoring and teachers' professional development. Our efforts also intend to contribute to insights on mentoring research practices and our professional development as researchers.

Mentoring has been recognised internationally as essential for development of the teaching profession. Much research has pursued ways to improve mentoring in order to support new teachers to develop their teaching practices (Aderibigbe, et al., 2022; Menter & Flores, 2022; Orland-Barak & Wang, 2021). A central strategy in research on mentoring, as in other research, is the application of theory to gain deeper understandings of mentoring. The purpose of this paper is to scrutinise one such theory - the Theory of Practice Architectures (TPA)- in order to investigate challenges of applying the theory in mentoring research contexts.

TPA has practice as its core focus, and it thus provides a fruitful lens to better understand the complexities of practice (Kemmis & Grootenboer, 2008). Complex practices like mentoring involving actors like teachers and mentors is thus relevant to investigate through TPA. TPA provides a framework, a set of concepts, layers with which researchers can analyse, describe and develop practice (Kemmis, Wilkinson, et al., 2014). The complexity of the theoretical framework resonates with the complexity of both researching mentoring and researching research practices making it highly relevant as an approach to our empirical research that explores mentoring and researchers' professional development. Furthermore, the theory has previously been utilized in a number of contributions about mentoring and new teachers' professional development (Goldshaft & Sjølie, 2024; Heikkinen et al., 2018; Hunskaar & Lejonberg, 2024; Jacobsen & Lejonberg, 2024; Kemmis, Heikkinen, et al., 2014; Olin et al., 2020; Pennanen et al., 2016) and researchers' professional development (Smithers & Gibbs, 2024; Reimer, K. E. et al., 2024).

The TPA-framework has according to Kemmis et al. (2014) the potential to provide lenses that help us see social formations as "made by people, and thus open to be remade by people" (Kemmis et al 2014; 17). However, as theoretical frameworks form our interpretations and perceptions, how adequate such lenses are should be critically examined (Kvernbekk, 2001). As such, critical contributions related to TPA can help us elaborate on challenges related to use of this framework. In this paper we use a contribution from Variyan & Edwards-Groves (2024) to elaborate on challenges and disagreements regarding the theoretical grounding and interpretation of TPA (Variyan & Edwards-Groves, 2024). Also, Variyan and Edwards-Groves (2024) argue that critical approaches to TPA can open up for "a more pluralistic and creative engagement with TPA" (p.3).

As an answer to the calls for elaboration on challenges related to TPA as well as for pluralistic and creative engagement with TPA, we adopt a self-study approach to explore and challenge our research

practice (LaBoskey, 2004; Pithouse-Morgan, 2022; Vanassche & Kelchtermans, 2015).We do this by zooming in on use of TPA as a theoretical frame and analytical approach in our research on mentoring and teachers' professional development. By adopting a self-study approach on use of TPA in our research, we seek to improve our own practice, as well as to provide insights that can be of interest for others doing research on practices such as mentoring and professional development (Vanassche & Kelchtermans, 2015).

To explore challenges related to use of TPA in research, we arranged a symposium at a national conference on mentoring and teachers' professional development. Participants were invited to share and investigate experiences related to use of TPA in research on mentoring and teachers' professional development. Data from this event is explored in this paper, guided by the following research question: What characterizes perceived challenges encountered when adopting TPA in our empirical research on mentoring and professional development? We use data from own reflections elaborated on in the symposium to illuminate this question. By engaging in such self-study of our research practice, we contribute to the field of mentoring and teachers' professional development by zooming in on challenges related to use of TPA as a potent framework for the understanding and development of practices.

Theory

Presentation of the TPA framework

TPA is a framework that focuses on practices and interaction of practices as the core of human's social nature. TPA outlines that practice comprises of three interconnected elements, namely sayings, doings and relatings (Kemmis & Grootenboer, 2008, Kemmis, Wilkinson et al., 2014). By employing TPA, it becomes possible to use the notion of sayings, doings, and relatings to investigate discourse, action patterns, and relations appearing in practices.

Sayings encompass the thoughts and expressions of the participants involved in a practice. Given the focus on perceived challenges in research practice in this contribution, relevant thoughts and expressions could for instance be related to understanding of elements in research practice, such as understanding of analytical concepts. Doings refer to the actions and performances carried out by the participants, and in our exploration could refer to how the theoretical framework was used analytically. Relatings pertain to affective aspects of practices such as how the participants in a practice interact with one another, the surroundings, as well as with other practices. For this contribution, a relevant focus is to zoom in on affective aspects related to the research process as well as how actors perceive their role as researchers. In the following we will use the notion of sayings, doings and relatings to investigate our own research using the TPA-framework. However, separating these categories is a purely analytical exercise as the sayings, doings and relatings of a practice are closely interconnected, and should be viewed in conjunction as they conjoin in the constitution of practice (Kemmis, 2024; Kemmis, Wilkinson, et al., 2014).

According to Kemmis et al. (2014), the intentions or motivations driving a practice, along with the goals the participants aim to achieve, represent the overarching *project* of that practice. For instance, in the context of a mentoring practice, an example of the primary project could be *to facilitate mentee learning*. However, as highlighted by Langelotz, Rönneman, and Mahon (2019, p. 37), there can also be "sub-projects" within a practice. These sub-projects can be seen as parallel endeavours across participants taking part in the practice, and together they may contribute to the overall project. For example, mentoring a new teacher is a practice with a project which may be to help a newcomer overcome the "practice shock". In other words, there may be various objectives/sub-projects in the mentoring practice, such as maintaining pupils' progression or becoming a better teacher or learning new teaching practices from the mentee.

When investigating use of TPA in our research, the idea in TPA of how structures and surroundings are interwoven with practices is essential and should therefore be mentioned here. TPA provides a

perspective where practice is viewed as inherently situated and linked to a specific place or site (Kemmis, Wilkinson et al., 2014). Such a site is described by consisting of different material and immaterial structures denoted *arrangements* which hang together with practices and with the potential to both enable and constrain the practice (Kemmis, 2024; Kemmis, Wilkinson, et al., 2014); Langelotz, Rönnerman & Mahon, 2019). *Cultural-discursive arrangements* interact with the language and discourses employed within the practice. For instance, research literature on mentoring may influence themes chosen for research, involvement of research groups, methodology and concepts used. *Material-economic arrangements* encompass the physical space and resources within and surrounding the practice site, such as buildings and timetables, research funding, which facilitate and restrict certain ways of action in a practice (whether to use video or just audio to record the symposium). *Social-political arrangements* pertain to power dynamics, organizational rules, hierarchies, relationships, and social norms within and around the site, exerting influence on the social aspect of the practice (such as the academic hierarchies among our participants who included both professors and PhD-candidates). Similar to sayings, doings, and relatings, these various arrangements must be viewed in relation to one another, as they are interconnected. TPA, therefore, offers a dynamic and holistic perspective to illuminate aspects of practices as well as factors that have potential to shape practices such as mentoring (Kemmis, 2024; Kemmis, Wilkinson, et al., 2014) and research practices (Smithers & Gibbs, 2024).

Simultaneously, when applying an all-encompassing/comprehensive theory framework like TPA one may encounter challenges (Kvernbekk, 2011), and recently, actors central in development and use of TPA have engaged in dispute about content and interpretation of TPA (Kemmis, 2024; Variyan & Edwards-Groves, 2024). Variyan and Edwards-Groves (2024) challenge the use of TPA as a thinking tool, arguing that there, over time, has developed quite rigid understandings of use of the theory among TPA-scholars. Central in such a critique are issues related to ontological assumptions, relations between using TPA for descriptive vs. transformative purposes and how TPA has come to develop into a static vs. dynamic theoretical framework (Kemmis, 2024; Variyan & Edwards-Groves, 2024). Such backdrop is relevant to illuminate our investigation of our own use of TPA in our research. Our point of departure is personal experiences of utilizing TPA; becoming familiar with, applying and striving to keep critical in the application of TPA. We aim at contributing to knowledge about perceived challenges associated with adopting TPA as a framework to understand and investigate practice. We contribute by concretizing and elaborating on challenges we have perceived as researchers, when approaching empirical research with TPA. We do not set out to either defend or attack the TPA framework, but to illuminate experiences related to our own research practice and implications for future use of TPA. We also elaborate on our own professional development based on this self-study.

Methodology

The Self-Study Research Design adopted for this contribution enable us to investigate and improve our own research practice (LaBoskey, 2004; Pithouse-Morgan, 2022; Vanassche & Kelchtermans, 2015), as well as to provide valuable insights for other researchers interested in TPA and/or mentoring and teacher professional development. Self-study is recognized as a methodology for studying professional practice and is typically self-initiated and improvement aimed (LaBoskey, 2004). Self-study is described as a stance researchers take, to investigate themselves and their professional experiences, using different techniques and theoretical perspectives (Pithouse-Morgan, 2022). When education researchers research their own practice with the purpose of improving it, they are challenged to make their practice explicit. They thereby validate their professional expertise and add to the knowledge base of teacher education (Vanassche & Kelchtermans, 2015).

Context

Self-study can take many forms; for instance, as in this case, it may involve interaction with colleagues in order to develop practice (LaBoskey, 2004). By inviting other researchers to an open symposium on

challenges related to the use of TPA, we provided a context for exploring our own practice. We gathered six researchers (of whom all are included as co-authors on this text) with experience of using TPA in empirical research, to a conference symposium held in February 2024. The intention of the symposium was to address opportunities and challenges linked to the use of TPA in own research. The theme of the conference was mentoring, and the symposium had use of TPA in research related to mentoring and teachers' professional developments as its topic. The invited symposium participants were instructed to prepare a presentation of experiences with challenges and possibilities related to use of TPA in their own research. The symposium was open for other researchers who were interested in listening and participating in the discussion after the prepared presentations. Approximately 10 researchers joined the symposium in addition to the six authors of this article.

Data

Data were collected by audio recording during the 60-minute symposium. All participants are researchers within the field of mentoring and/or teachers' professional development. Three of the participating researchers were PhD candidates at the time of the symposium, while three are researchers in permanent positions with doctoral degrees. The participants were from four different universities in Norway. Table 1 shows the number of TPA-related published articles varied among the participants from one to twelve. Quotes and content from the symposium that are referred directly to in this text are taken from the invited researchers who are also the authors of this contribution.

Table 1: Overview of researchers

Number	Role in symposium	First publication with TPA	Number of publications using TPA (work in progress in parentheses)	Position at the time of the symposium
Researcher 1 (R1)	Participant	2024	1(2)	PhD Candidate
Researcher 2 (R2)	Participant	2024	1(1)	PhD Candidate
Researcher 3 (R3)	Participant	2022	2 (2)	PhD Candidate
Researcher 4 (R4)	Participant	2021	3 (3)	Associated Professor
Researcher 5 (R5)	Discussant	2014	12 (1)	Professor
Researcher 6 (R6)	Chair	2022	4 (1)	Professor

Analysis

Data from the symposium were transcribed automatically by AI and checked by the authors. Transcripts were made object to a thematic analysis inspired by Braun and Clarke (2022). The approach in this analysis is best described as abductive as we approached the data quite openly, searching for patterns relevant to illuminate use of TPA. However, knowledge of the theory also guided our interpretation of the data. Patterns of meanings and recurrent themes were sorted, coded and categorised in a back-and-forth, inductive-deductive process. In our first read-through, we familiarized ourselves with the material and secured the transcripts by checking them against the sound file. In this process we became aware that several challenges as well as possibilities were described in the material. In line with the topic of the symposium, being challenges and opportunities related to use of TPA in own research, the second read-through was guided by the intention to investigate how the data expressed *perceived challenges* or *opportunities* related to use of TPA. Investigating our material however, we perceived that the material contained several, nevertheless quite vague and exploratory expressions about perceived challenges. These elements seemed more interesting and thus more relevant to emphasize than expressions about opportunities, as these were more recognizable from TPA literature. Therefore, we coded according to what we understood as expressions of perceived challenges. The themes contained elements such as

perceived complexity, uncertainties related to TPA content, use of TPA for analytical purposes, use of methods to approach empirical data, understanding of values in TPA, challenges related to other researchers, to being critical towards TPA and perceptions of personal cognitive limitations. We noticed how such perceived challenges presented a wide range of themes focusing on different aspects for researchers' practice related to theory such as understanding of theory, use of theory and affective aspect related to such practices. In particular, the data presenting affective and relational aspects of our research practice struck us as relevant for further elaboration. We therefore embraced TPA to further develop analytical themes, as we assumed the notion of relatings to have potential to feed into further investigation of the data (see table below). Thus, in the next phase, we decided to use the TPA notions of sayings, doings and relatings to concretize themes highlighting aspects of the coded perceived challenges. These themes are presented in the table below. This approach was found valuable to illuminate the patterns in the material. However, we also experienced challenges related to our coding, particularly related to unclear boundaries between the themes. We explain these challenges further when discussing our findings.

Table 2: Overview of themes

Theme	Sub-theme	Definition
Sayings: challenges related to understanding of TPA content	Understanding analytical concepts of TPA	Quotes describing understanding of TPA framework concepts, for instance challenges related to how to use TPA terminology to denote empirical features.
	Understanding relations between analytical concepts	Quotes describing relation between concepts of TPA, for instance challenges related to how concepts such as what separates the different forms of arrangements
Doings: challenges related to use of TPA content	Use of TPA concepts for analytical purposes	Quotes describing use of TPA framework content as analytical concepts, for instance challenges related to separate *sayings, doings* and *relatings*
	Methods for data gathering	Quotes describing approaches to empirical data as guidelines to methods for data gathering when using TPA, for instance challenges related to perceived demands to *observe* practice to approach it.
Relatings: challenges related to relational and affective aspects related to TPA content	Perceived personal insight	Quotes illuminating relational and affective aspects related to personal insights on TPA, for instance descriptions of the framework challenging own intellectual capacity or assumptions about other people's insights on TPA.
	Relating to the normative grounding of TPA	Quotes illuminating how to deal with the normative grounding of TPA, for instance how transformative missions can challenge interpretation of data.
	Maintaining critical distance towards TPA	Quotes illuminating achieving and keeping a critical distance to TPA and the practices we study, for instance descriptions of how TPA forms our interpretation.

Findings

In the following, we present findings to elaborate on what characterizes perceived challenges encountered when applying TPA as a lens in our empirical research. We use an abductive approach in this presentation in the sense that we alternate between theory and data to add to insights related to our research questions. Such an approach is enhanced by the Self-Study Research Design, enabling findings close to the researcher's reflection on own practice as well as possibilities and constraints related to use of TPA.

1. Understanding concepts of TPA

When considering the TPA-concept 'sayings', the data indicated that there were challenges related to the complexity of the framework and the understanding of the analytical concepts, as this typical quote expresses: "one of the challenges I find with the theory is about all the terms that make it difficult to denote things, what you actually can call things" (R1). Such a quote indicates that the multiplicity of the terms in the theory represent challenges. An example of one such TPA concept presented as challenging to understand by several of the symposium participants, is the notion of a *project*. The literature presents the project as imaginary answers to the question «what are you doing? » (Kemmis, 2014, p. 14). However, the answer to such questions will differ based on which actor(s) one directs the question towards, and challenges related to the idea of different projects playing out simultaneously in practice is addressed throughout the material. R4 expresses understanding "the different projects at play in a practice" as important and challenging. The idea of several parallel projects being evident simultaneously in practice also provides challenges related to what projects to focus on; "who owns" the project as R1 formulated it. R2 expressed potential varied perceptions among the participants of what the projects entailed when enacting an intervention with research-based mentoring-tools. The researchers facilitating the intervention perceived the project as "improving mentoring by supporting mentees' professional development" (R2), whereas R2 told of how the mentors using the tools can perceive the project as "we test some tools for the university" (R2). R5 addresses such challenges related to defining or understanding the project in focus: "at what level is the practice to be found?". R4 expresses how she identified two competing projects in her observation data from a teaching lesson: "the project was that they should learn about changes in society in Norway in the 70s, but if we see the sayings, doings and relatings aligned, we find a sub-project related to present a certain stance and values related to the phenomenon abortion". The data challenge the researcher as she finds the explicit project to be challenged. The researcher becomes uncertain of her interpretation of the projects. Such perceived challenges exemplify challenges we as researchers perceive related to understanding TPA analytical concepts, in this case the idea of the project.

2. Understanding relations between analytical concepts

As described above, challenges related to understanding analytical concepts are evident in our investigation of TPA. However, we also find how understanding the concepts only seems to provide limited insight. We experience that understanding the interconnectedness between concepts such as arrangements and practice adds considerably to the perceived complexity. Schatzki (2002) describes practice as intimately related to, but also separate from, material aspects of reality. As such, material aspects can be understood as "physical occurrences that affect human activity" (Buch & Elkjær, 2019; 8). Kemmis et al. (2014) however, describes how arrangements can enable or constrain practice. However, the relationship between analytical categories is described by R3 as challenging when approaching empirical data: "you need to understand how they hang together, it is quite complex, it takes a lot of thinking", and as described by R5 "we strive to simplify by in a way separating…". In other words, the data illuminate challenges related to striving to divide human practice into TPA categories, the quote above is further elaborated on by R5: "…but it is a holistic approach actually claiming that all is related to all". The theory provides a complex set of concepts to study practice; however, it may be a challenge to utilize the respective concepts on empirical data while keeping the overview of practice as a part of a whole. A tool for observation to be used in mentoring described by R3 in the material is relevant to exemplify challenges related to use of the analytical concept presented by TPA: "it is a physical scheme, so it is material. But also, it contains a cultural discourse. And, it affected the relations, it is also a social-political arrangements. So, this illustrates something about interrelated complexity" (R5).

3. Use of TPA concepts for analytical purposes

The perceived challenges presented over relate to understanding the analytical concepts and their interconnectedness. A potential contribution of the TPA framework is that it provides scholars with terms and models fruitful to interpret complex empirical data. Such use is expressed to hold great potential to shed light on important aspects of empirical data. The following quote is typical in this matter: "it is in analyses the theory gets to shine, especially when it comes to relations" (R3). However, akin to challenges caused by trying to understand the complex terms in TPA we find in 'sayings', we also find challenges in the category of 'doings' related to the use of TPA "as an analytical tool" (R6). Variyan and Edwards-Groves (2024) have problematized a potential instrumental and static approach by where TPA provides researchers with useful themes like sayings, doings and relations, and thereby hamper their capability to see and describe practice complexity. The strive to separate TPA concepts can be illuminated by a quote from R3: "I perceive that the maybe biggest challenge related to using this theory, is that the arrangements are intertwined. They are hard to separate from each other". Such findings can illustrate how the framework challenges us when we investigate reality complexity in smaller chunks, enabled by theoretically based terms from TPA.

4. Methods for data gathering

TPA suggests that observation is a preferred method of data-collection (Aspfors et al, 2021). In the symposium, R5 refers to Schatsky's ideas about observing practice to understand it: "there is no way around it, he says". However, perception of observation as a preferred approach to understand practice is being questioned and potential benefits of widening the approach with other data gathering methods, such as interviews is being explored: "many have written articles based on interviews. I see that one gets access to other and more concrete descriptions of practice. Likewise, I find it is a relevant point that you get more access to the relational through interviews" (R1). Also, the idea of the researcher as an objective observer is challenged in the material: "even when you observe a practice, it is your interpretation as researcher. You will always be secondary" (R1). Limitations related to observation data to understand core features of the TPA framework such as relatings, also inspire R5 to elaborate on alternative approaches: "it is possible to use what is known as interview to the double", elaborated on as a method where the researcher challenges informants to describe their practice as if the listener were to conduct the practice later. Such findings illuminate how researchers can challenge their own and each other's practice with an abductive approach where theory and practice play together.

5. Perceived personal potential

Close to the TPA-concept 'relatings', we interpret perceived challenges in the data related to uncertainties and potential personal shortcomings. The participants seem to agree that use of TPA is related to multiple perceived challenges, like illustrated by this typical quote: "I am being faced with challenges" (R3) and "I believe the theory with all the terms makes it hard to describe content" (R1). R1 expresses how thinking about the different TPA concepts and relations between them makes her feel like "it is knotting up inside my head". Such perceived personal cognitive limitations can also be understood in relation to perceptions of other people's cognitive potential. Variyan and Edwards-Groves (2024) describe this as a problematic respect towards founders and developers of the TPA framework. In the data material, influential persons who have developed TPA are referred to several times, as illustrated by quotes like: "according to Stephen Kemmis…" and "if you ask Schatzki…" (R5). Although, as table 1 illustrates, symposium partitioners have accumulated quite considerable TPA experience, data illustrate the credibility of the founders of TPA. Such necessary affirmation from the founders may be interpreted as a standard scientific approach in using theory, or as described by Variyan and Edwards-Groves (2024), as potentially problematic respect towards founders and developers of the TPA framework.

6. Relating to the normative grounding/purpose of TPA

Another challenge being elaborated on in the symposium is the notion of the transformative grounding and normative value-based ambition in TPA (Kemmis, 2023). In the material, the ambition to improve practice is addressed: "the double purpose of education; to prepare people to live well in a world worth living in" (R6). In the symposium, this notion was challenged by the participants as being unprecise and unclear; as R1 formulates: "who's better world are we talking about?" In relation to mentoring, an idea of better practice could for instance be related to symmetry in mentee-mentor relationship as addressed by R3. As R2, also R3 presented an intervention by providing a tool for mentoring and then observed mentoring where such tool was used. She uses TPA to investigate practice when the tool is used and describes findings indicating that "maybe there has been a change in the sociopolitical arrangements driving less imbalance" in power relations between mentors and mentees. Such potential challenges driven by us as researchers, are normative in the sense that we assume potential changes in certain practices, such as mentoring, to be improved by certain interventions, such as introducing tools to empower mentees. TPA allows us to understand such efforts as transformative endeavors to develop practice for the better, however, we also experience challenges related to such efforts. For instance, when developing tools for mentoring, and investigating how mentoring can play out using such tools, our interpretation of data can be blurred by the intention to transform for the better. Such challenges are also related to upholding a critical distance to TPA.

7. Maintaining critical distance towards practice and theory

Relating to how TPA forms our interpretation, is also elaborated on in the material. For instance, as mentioned, the TPA idea of arrangements as potential hinders or drivers for practice can make us aware of how practice is formed by arrangements. However, one of the main challenges related to the TPA framework, as it is presented by Variyan and Edwards-Groves (2024) is connected to how use of the framework can be an obstacle to researchers' understanding of data by limiting researchers' ability or motivation to understand the complexity of practice. In our symposium, several quotes described how use of TPA makes us aware of certain aspects of practice. For instance, TPA may contribute with disclosing power relations in practice by focusing on practices in a local context, taking discursive, social, and material economical aspects into account. However, the following quote can illustrate described challenges related to using TPA for analytical purposes, while still keeping a critical distance: "when you first start using this theory, it is hard not to think by this theory. All you see is like…sayings, doings, relatings" (R3). In the symposium, the same researcher described how zooming in on arrangements made her aware of possible obstacles to learning: "I saw how there was quite a lot hampering learning". As such, the quote can also illustrate how adopting a certain perspective has potential to form our interpretation as researchers.

Also, the normative and transformative grounding of TPA can enhance challenges related to keeping critical distance towards the framework. TPA is described as a resource with transformation or change of practice in its core (Kemmis, Wilkinson, et al., 2014; Mahon et al., 2017). Kemmis, Wilkinson, et al. (2014) describe that the intention of TPA reaches beyond describing and interpreting practice, as the intention is to change practice, evident in the title of a much-sited book; "Changing Practices, Changing Education". R3 describes how insight in mentoring practices convinced her to "go ahead to try to change these practices" by conducting an intervention. The intention is described as "aiming to do something about power relations in mentoring practices". Such quotes can illustrate how the transformative grounding of TPA can encourage us to develop practice, but potentially also challenge our ability to keep a critical distance, both to own research, and also to how we interpret practice using TPA. As denoted by R6 "it is hard to disagree" on the ambition to prepare people to live well in a world worth living. As such, the ambition to change can also be an obstacle to critical use of the theory and understanding of practice (Mahon et al., 2017; Variyan & Edwards-Groves, 2024).

Discussion

The relation between theory and practice is one of the most essential discourses within the field of pedagogics (Kvernbekk, 2001). As researchers striving to shed light on practice, we ground our interpretation in theory to target and strengthen our analytical gaze. However, "how adequate our perceptual perceptions are, depends at least partially on how adequate our theoretical framework is" (Kvernbekk, 2001; 158). In the following, we will use presented findings to elaborate on challenges associated with adopting TPA as a theoretical framework to understand and investigate practice. As such, the symposium held to explore challenges in our own research related to use of TPA can be understood as an effort to provide an arena for critical reflection on our own practice and as a stepping stone for co-construction of insights of challenges related to use of TPA.

By using TPA to frame and present our findings from the symposium, we have strived to illustrate how challenges related to TPA can be understood as grounded in both challenges related to understanding of the framework itself (sayings), use of the framework (doings) and relational and affective aspects of the framework (relatings). However, as also elaborated on in the findings section, such splitting up of perceived challenges is not illustrative of the complexity and interconnectedness of the perceived challenges. Moreover, efforts related to keeping a critical distance towards the framework is challenged when using the framework for analytical purposes. However, we believe the presented categorisation of perceived challenges contributes to insights of certain aspects of challenges related to use of TPA in research. As such, the analytical approach in this contribution can be interpreted as illustrating the expressed challenges related to keeping critical distance and constraining understanding of practice by confessing to preconceived notions of practice as a sum of sayings, doings and relatings. Such interpretation has potential to in itself prefigure what we as researchers identify in the material. Keeping aware of such risk and inspired by a self-study approach, we will now elaborate on presented findings. As such, our contribution can be seen as an answer to the call by Variyan and Edwards-Groves (2024) to elaborate more in depth on challenges related to TPA. We also argue that such investigation has the potential to strengthen our future use of the theory.

The first category of challenges elaborated on in the findings section, is related to understanding a complex framework such as TPA. As mentioned, Variyan and Edwards-Groves (2024) challenge the use of TPA as a thinking tool, arguing that it over time has developed quite rigid understandings of use. The argument that adoption of such frames for thinking can hamper our willingness or ability to find relations across and between understanding presented in models and visualizations of TPA. Such challenges are related to ontological assumptions about how phenomenon exists in the world (Kemmis, 2024; Variyan & Edwards-Groves, 2024). As indicated in our data, the framework can potentially form our understanding of phenomena, as illustrated by the quote from the symposium about how the framework has the power to form our interpretation to the point where "all you see is like…sayings, doings, relatings". Variyan and Edwards-Groves (2024) build on Ball (2006) to point to how frameworks such as TPA might lead to researchers interpreting practice as more orderly and predictable than it really is. This self-study approach has raised our awareness of potential positives, but also problematic aspects of understanding practice through the lens of TPA. We need to keep a critical stance towards the theoretical frames we choose (Kvernbekk, 2001). However, it is relevant to note in this matter that such challenges, although directed to "researchers in the research community of the theory of practice architectures" such warning could be as relevant "for theorists in any and every school of social theory" (Kemmis, 2024, p. 14).

The second category of challenges evident in the presented findings, illustrating the challenge of understanding TPA concepts, is related to the notion of an underlying project inviting scholars to understand the exchange of words and actions in a given site as being related to deeper ideas of the purpose of practices. However, to denote the underlying projects challenge our interpretation skills. Is it the scholars who are best equipped to understand the underlying purpose of practice, or is the underlying purpose just available to us through practitioners' interpretation? Such challenges are also related to presented findings on preferable methods for data gathering as well as to relating to the normative

grounding of TPA. As such, this self-study approach has made us aware about how our eagerness to improve practices such as mentoring can challenge our sensitivity to diverse perceptions of the purpose of a practice, which could be understood as the relevant *project*. And also, how the notion of the *project* relates to the idea of transformation of education, which is in the core of the TPA framework.

The third category of challenges elaborated on in the findings section include several illustrations related to use of TPA content for analytical purposes. Findings elaborated on in this study illustrate how we can risk being so preoccupied with looking for sayings, doings and relatings, that it becomes an obstacle to explore empirical data. Presented findings illustrate the risk is that analysis becomes a primarily technical procedure where researchers can be so deeply concerned about understanding the framework, that all they provide is descriptions of practice using TPA terminology. However, Kemmis (2024) states that there is no need to worry about TPA becoming "a kind of Orwellian 'Newspeak' (Orwell, 1949)" (p. 12). Nevertheless, as elaborated on previously, we have experienced the complexity of TPA as challenging our ability to provide new insights, as the strive to use the TPA terminology seizes our cognitive capacity. Such challenges encourage us to keep critical of whether we are in danger of just providing old insight in new TPA wrapping. This self-study approach has made us aware how we need to see beyond the terminology and analytical toolboxes provided by TPA to provide new insight on issues such as for instance how arrangements can afford mentoring practice. As described, participants elaborate on how it is critical, but also very hard, to move beyond just describing practice with TPA terminology. Such mechanisms can also be relevant for theory-based mentoring. Grounding our reflections in theory can structure our interpretations and provide common language, but possibly also hamper an open exploration. Kemmis (2024) reminds us that the purpose of TPA is not just to help us describe reality, but by doing so, making it available to critical assessment and transformation.

The fourth category of challenges is related to perceived methods for data gathering. Empirical approaches that place the researcher outside the practices such as interviews have been problematized in this matter as they can lead researchers to replace actuality with the theoretically based idealisations (Variyan and Edwards-Groves (2024). Such perspectives can enlighten perceived challenges as they have been described in data presented in this article. As such, presented findings can add to our understanding of how TPA framework can challenge researchers' flexibility and willingness to draw upon the multifaceted tool kit of methodological approaches by emphasizing observations as the preferred data gathering source. However, researcher eagerness to access informants thinking and perceptions can also be an obstacle to focusing on the actual practices (Variyan & Edwards-Groves, 2024).

The fifth presented category of challenges is about our own perceived limitations as well as relating to founders and original theoretical contributions. Variyan and Edwards-Groves (2024) point to how complexity in TPA can be understood as "privileged forms of knowledge" with potential to visualize gaps between those who have gained the attractive insights, and those who still have to work to gain such level of insight; those who need to be "stirred in" (s. 11). They also describe how Stephen Kemmis has been approached by researchers with questions about how the framework should be interpreted. Uncertainties about whether or how to use the framework in appropriate ways, and complexity of the framework, can explain the need to ask others assumed to have more TPA insight to help with interpretation. Our presented findings exemplify such challenges by expressions of uncertainties related to accepted methods for data gathering. There can be several challenges related to people accepting other people to have the power or insight to define how a certain set of theoretical lenses can be used (Variyan and Edwards-Groves (2024). Kemmis (2024) however, underlines that: "A theory is not the exclusive property of those who inaugurate it; if its authors are fortunate, it enters the common stream of thought and practice in a field of enquiry and grows and develops in new and sometimes unexpected directions" (p.2). In light of such contributions, this self-study has made us more aware how it might not be the theory itself that constrains the researchers, but rather our own ideas about opinions attached to it.

The sixth category of findings illustrating perceived challenges concerns relating to the normative and transformative grounding of TPA. Change and transformation are in the core of the TPA-framework. Presented findings illustrate how such grounding could be an obstacle to scholars' interest in, or ability to think critically regarding the use of the framework. In this regard, the notion of 'good practice' and the ambition to achieve it raise the question of what good practise is. What characterizes good practice and living well in a world worth living in? One researcher in our material describes perceiving challenges related to power relations in mentoring practices and her motivation to do something about them. Experiences from this self-study invite us to reflect upon challenges related to normative grounding of TPA and the focus on change. Who decides what good mentoring is? Although mentoring research over the years has provided evidence that certain characteristics of mentoring can be beneficial (Hobson et al., 2009; Schwille, 2008), the characterizing complexity and contextual features of mentoring practices invites us to always be concerned about issues such as transferability value.

The seventh presented category of challenges is related to keeping a critical distance to TPA. Such challenge can be understood as theory becoming a limitation of how we understand human social interaction (Variyan and Edwards-Groves (2024). However, it can be argued that that is what all theories do (Kemmis, 2024). As illuminated by Kvernbekk (2011), the theoretical lenses we choose prefigure our seeing. Challenges related to how theoretical frameworks form our understanding of the practices we study are evident in the material. For instance, when one of the researchers describes how using TPA makes her interpret all she sees as sayings, doings and relatings. A related challenge can be addressed based on the quote where one participant claimed to *see* how there was "a lot hampering learning". It seems crucial to ask whether we can see how anything hampers learning. Such issues are relevant both to address the status of observation as superior to understanding practice, as well as issues related to maintaining a critical distance to both theory and practice when using TPA in empirical research. The TPA idea of providing an entrance to understand how arrangements can constrain or enable practice, together with the TPA idea of advantage of observation data challenge us to critically consider the limitations of researcher interpretation ability. We use such insight as a steppingstone to explore challenges related to the use of TPA in own research. Also, Kemmis (2024) describes observing TPA being "used in a limited way", as a tool for describing rather than applied critically (p. 12). As described, researchers' interpretation of challenges, as well as relevant changes are always coloured by the researchers' gaze. However, according to Variyan and Edwards-Groves (2024), "agency can be emphasised as a corrective to a deterministic reading of TPA" and thereby hamper potential prefiguring effects of TPA, such as the idea of arrangements as determining human interaction (p. 26). As such, use of a multifaced theoretical framework (where TPA is accompanied by other theoretical lenses) or a critical awareness of the limited power of arrangements, can benefit empirical analysis. Such approaches can potentially help us understand how features like tools and arrangements for mentoring have the power to enable or constrain practice.

As illustrated, there are several significant challenges related to the use of TPA in empirical research on practices such as mentoring and teachers' professional development. As the aim of this study has been to contribute to knowledge about perceived challenges associated with adopting TPA as a framework when investigating such practice, we sum up by highlighting the role of critical examination of own practice. As visualized, the adopted self-study approach can enable us to provide common grounds for co-construction of insights related to challenges in own research practices. However, ethical considerations related to self-study should be taken into account when developing research designs as the one elaborated on here. Self-questioning and opening for critical input on own practice must be a conscious choice, keeping in mind that self-study is indeed a collaborative process (Vanassche & Kelchtermans, 2015). Although we can improve our own practice and contribute with insights relevant for other researchers' professional development, we also need to be prepared to experience discomfort and vulnerability when engaging in settings such as the one investigated here (Pithouse-Morgan, 2022). We must also acknowledge that it is up to the reader to judge relevance. We have provided concrete examples of our own practice and our construction of knowledge and meaning related to it. As self-study quality

cannot be assured by standards, it is up to the reader to judge "the validity of the study by considering whether it is informative, relevant or useful" (Vanassche & Kelchtermans, 2015: 518).

Concluding remarks

Using TPA as an analytical approach has been illuminated as a potential source for trustworthiness and ethos, providing perceived scientificness in researchers work (Variyan and Edwards-Groves (2024). However, Variyan and Edwards-Groves (2024) challenge such mechanisms, arguing that the grounding of TPA use is too weak. In this contribution, we have highlighted challenges related to TPA as a very complex framework that more and more people want to use to understand practices, such as mentoring. Critique of TPA has been illuminated to a limited degree until lately (Variyan and Edwards-Groves (2024). While these authors highlighted challenges based primarily from a theoretical stance and inherent characteristics of the framework, our approach has been to complement this picture by zooming in on personal experiences with the use of TPA. The current contribution thus maps concrete challenges we have experienced. As such, this contribution can legitimate and prepare the ground for more open discussions about processes of applying complex frameworks like TPA. By engaging in practice such as common investigation of challenges, we can contribute to our own and others' self-awareness and critical reflection. Such efforts can help us recognize the individual's agency as freedom of action, which may serve as a corrective to a rigid use of TPA (Variyan and Edwards-Groves (2024). Awareness from this self-study has added to our professional insights and can guide our future research whereupon we use TPA to understand practice.

Although there are significant challenges related to utilizing theory in our research practice, we depend on such theoretical framing. To inform our empirical research, we need to make the theoretical frames we choose explicit. Kvernbekk (2001) argues that we need to be concerned about trusting our experience-based knowledge. Basing perception in theory can enable critical investigation of our interpretation. However, our interpretation and perceptions depend on how solid our theoretical framework is. As such, inherent weaknesses or challenges related to a certain theoretical framework, have potential to mess up researchers' interpretation of empirical data (Kvernbekk, 2001). Findings presented in this contribution shed light on challenges related to the use of TPA in empirical research. TPA is relatively new and has been described as a framework under construction where users together seek to develop and improve the framework (Variyan & Edwards-Groves, 2024). However, challenges are related to scholars striving to understand a complex framework to then be able to use it to improve the world we live in. As such, the contribution of this work is not just to illuminate challenges related to understanding and use of TPA in empirical research, but also to answer the call for critical contributions with potential destabilizers that question core challenges related to TPA (Variyan & Edwards-Groves, 2024).

Consequently, our findings contribute by illustrating aspects of challenges that are important to be aware of for researchers applying TPA approaches. However, whether these challenges reflect as possible limitations of the TPA framework itself, or the analytical abilities and/or capabilities of us researchers cannot be ascertained, as pinpointed by challenges found in our empirical data. In future research, we are inspired by this self-study to keep critical while simultaneously embracing TPA. We need to keep in mind how being too submissive to original theoretical contributions could potentially hamper creative and original use, which is essential for theoretical contribution and development of theory.

Literature

Aderibigbe, S. A., Holland, E., Marusic, I., & Shanks, R. (2022). A comparative study of barriers to mentoring student and new teachers. *Mentoring & Tutoring: Partnership in Learning, 30*(3), 355-376.

Aspfors, J., Jakhelln, R., & Sjølie, E. (Eds.). (2021). *Å analysere og endre praksis: Teorien om praksisarkitekturer.* Universitetsforlaget.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative psychology, 9*(1), 3.

Buch, A., & Elkjær, B. (2019). Pragmatism and practice theory: Convergences or collisions. *Caderno de Administração, 27*(2), 1-17.

Clutterbuck, D. (2004). *Everyone needs a mentor: Fostering talent in your organisation*: CIPD Publishing.

Goldshaft, B., & Sjølie, E. (2024). Creating communicative learning spaces in initial teacher education (ITE) with observation-grounded co-mentoring practices. *Professional Development in Education, 50*(3), 533-550. https://doi.org/10.1080/19415257.2024.2337772

Heikkinen, H. L., Wilkinson, J., Aspfors, J., & Bristol, L. (2018). Understanding mentoring of new teachers: Communicative and strategic practices in Australia and Finland. *Teaching and Teacher Education, 71*, 1-11.

Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and Teacher Education, 25*(1), 207-216.

Hunskaar, T. S., & Lejonberg, E. (2024). Mentoring with research-based tools—A holistic approach. *Mentoring & tutoring*, 1-21. https://doi.org/10.1080/13611267.2024.2367749

Jacobsen, H. M., & Lejonberg, E. (2024). Organizing mentoring and induction practices: understood through the eyes of newly qualified teachers. *Mentoring & tutoring, 32*(4), 395-418. https://doi.org/10.1080/13611267.2024.2360603

Kemmis, S. (2024). A response to Variyan and Edwards-Groves. *Critical Studies in Education*, 1-16.

Kemmis, S., & Grootenboer, P. (2008). Situating praxis in practice: Practice architectures and the cultural, social and material conditions for practice. In *Enabling praxis* (pp. 37-62): Brill.

Kemmis, S., Heikkinen, H. L. T., Fransson, G., Aspfors, J., & Edwards-Groves, C. (2014). Mentoring of new teachers as a contested practice: Supervision, support and collaborative self-development. *Teaching and Teacher Education, 43*, 154-164. https://doi.org/10.1016/j.tate.2014.07.001

Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (2013). *Changing practices, changing education*: Springer Science & Business Media.

Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (2014). *Changing practices, changing education*. Singapore: Springer

Kvernbekk, T. (2011). Kap. 8: Erfaring, praksis og teori. In *Pedagogikk og lærerprofesjonalitet*: Gyldendal akademisk.

LaBoskey, V. K. (2004). The methodology of self-study and its theoretical underpinnings. In *International handbook of self-study of teaching and teacher education practices* (pp. 817-869): Springer.

Langelotz, L., Rönnerman, K., & Mahon, K. (2019). Praktikteorier i allmänhet och teorin om praktikarkitekturer i synnerhet. [Practice Theories in General and the Theory of Practice Architectures in Particular]. In I. H. Loeb, L. Langelotz, & K. Rönnerman (Eds.), *Att utveckla utbildningspraktiker: Analys, förståelse ock förändring genom teorin om praktikarkitekturer [Analysis, understanding and change through the theory of practice architectures]* (pp. 27–43).

Mahon, K., Francisco, S., & Kemmis, S. (2017). *Exploring Education and Professional Practice*: Springer.

Menter, I., & Flores, M. A. (2021). Connecting research and professionalism in teacher education. *European Journal of Teacher Education, 44*(1), 115-127.

Nicolini, D. (2012). *Practice theory, work, and organization: An introduction*: OUP Oxford.

Orland-Barak, L., & Wang, J. (2021). Teacher mentoring in service of preservice teachers' learning to teach: Conceptual bases, characteristics, and challenges for teacher education reform. *Journal of teacher education, 72*(1), 86-99.

Olin, A., Francisco, S., Salo, P., Pörn, M., & Karlberg-Granlund, G. (2020). Collaborative professional learning for changing educational practices. *Pedagogy, education, and praxis in critical times*, 141-162.

Pennanen, M., Bristol, L., Wilkinson, J., & Heikkinen, H. L. (2016). What is 'good'mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia. *Pedagogy, Culture & Society, 24*(1), 27-53. https://doi.org/10.1080/14681366.2015.1083045

Pithouse-Morgan, K. (2022). Self-study in teaching and teacher education: Characteristics and contributions. *Teaching and Teacher Education, 119*, 103880.

Reimer, K. E., Kaukko, M., Windsor, S., Kemmis, S., & Mahon, K. (2024). *Living Well in a World Worth Living in for All: Volume 2: Enacting Praxis for a Just and Sustainable Future* (p. 251). Springer Nature.

Schatzki, T. R. (2002). The site of the social: a philosophical account of the constitution of social life and change. Pennsylvania State University Press.

Schwille, S. A. (2008). The professional practice of mentoring. *American Journal of Education, 115*(1), 139-167.

Smithers, K., & Gibbs, L. (2024). Challenges and opportunities for early career researchers: using the theory of practice architectures to unpack enabling and constraining conditions. *Professional Development in Education*, 1–14. https://doi.org/10.1080/19415257.2024.2386661

Vanassche, E., & Kelchtermans, G. (2015). The state of the art in self-study of teacher education practices: A systematic literature review. *Journal of Curriculum Studies, 47*(4), 508-528.

Variyan, G., & Edwards-Groves, C. (2024). The theory of practice architectures and its discontents: disturbing received wisdom to make it dangerous again. *Critical Studies in Education*, 1-18.