



# From Guiding Apprentices To Teaching Students: Fundamental Challenges in the Identity Transition from Occupational Practitioner to Vocational Educator

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## Abstract

The transition from occupational practitioner to vocational educator means moving from the logic of production to the logic of teaching; the purpose of knowledge changes from enhancing production to enhancing learning. This process touches issues of transmitting vocational knowledge from a workplace context to a school context; it has been explored in the literature, but few studies have focused on transmitting vocational knowledge from the perspectives of guiding in a workplace to teaching in a classroom. This article reports a study on the preparation of Norwegian trainee teachers in vocational teacher education. It examines how they talk about the transition from occupational practitioner to vocational educator and identifies important challenges faced by trainee teachers regarding the transition from guiding apprentices to teaching students (i.e., newcomers). The analysis explores how transforming dominant ways of knowing and being as occupational practitioner is crucial to achieving the tasks of a vocational educator.

**Keywords** Teacher training · Learning in professions · Higher education · Transition · Adult learning

## Introduction

This article examines the identity transition from occupational practitioner to vocational educator, emphasizing the challenges associated with moving from guiding apprentices to teaching students. Three shifts are involved: (1) from one kind of social and physical *setting* to another (i.e., workplace to educational institution); (2) from applying what one knows, can do, and values to one set of *purposes* to applying it to a different set

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(i.e., from producing goods and services to developing occupational capacities); and (3) from one *sense of self* to another (i.e., practitioner to teacher). By addressing how trainee teachers talk about the differences in their teaching experiences in the worlds of work and education, this study demonstrates the importance of transforming the dominant ways of knowing and being while guiding apprentices in the workplace. The trainee teachers reveal that entering a vocational classroom with competence as an occupational practitioner is not necessarily enough. While workplace experiences can be crucial for vocational education and training, they can also represent a barrier to trainee teachers' feeling competent in the school setting.

Vocational educators are diverse; the organization of vocational educators differs between systems (Andersson and Köpsèn 2017). Generally, they are qualified in vocational work and recruited from crafts, often after gaining considerable work experience (Misra 2011). There are two pathways to qualify as a vocational educator in Norway; this article focuses on the 3-year bachelor's degree established in 2000, which places greater emphasis on academic knowledge, including the ability to verbalize vocational workplace knowledge. Being at the forefront of academic drift (Smeby and Sutphen 2015) makes Norway an important case for studying trainee teachers' perceptions and perspectives of the transition to teaching. The vocational teacher education qualify for working in junior high and vocational education and training (upper secondary school) (Rokkones et al. 2018). To enroll, an occupational practitioner must have vocational education and training and at least 2 years' experience in vocational work. Vocational teacher education offers both full- and part-time programs; the former is examined in this article. The trainee teachers did not meet daily; in two programs, they met for 5 consecutive days, followed by several weeks of self-study, work (as teacher or occupational practitioner), or placement before the next meeting. The third program met every Friday. Some study participants were completing the teacher qualification while working in vocational education and training as unqualified teachers. Even though the article has a Norwegian context, it offers internationally valuable insights. For example, similar challenges are associated with shifting from a robust occupational identity into another role with a different objective, community, and professional identity.

Numerous studies have discussed the differences between learning in the workplace and in educational institutions (e.g., Billett 2011), but few have focused on the differences between guiding in workplaces and teaching in schools. Furthermore, the transition from occupational practitioner to vocational educator is individually shaped. Rather than viewing it as moving from one physical and social context with a particular set of activities and interactions into another, the personal nature of the transition must be considered. This article analyzes trainee teachers' descriptions of the transition from guiding apprentices in workplaces to teaching students in classrooms. The data show that learners' prior knowledge as students and apprentices and the contextual differences between the teaching/learning arenas of the workplace and classroom are important challenges during the transition.

Understanding how vocational knowledge transcends the contexts of work and school is a central concern of today's education system generally and vocational teaching and learning in particular (Barnett 2006; Billett 2011; Broad 2016; Chan 2012; Green 2015; Guile 2011; Hordern 2014; Kemmis and Green 2013; Moodie and Wheelahan 2012). Studies exploring such transitions highlight the impact of workplace

knowledge and practices and issues related to bringing workplace knowledge and skills into the classroom and vice versa (Chan 2012; Davids et al. 2016; Eraut 2004; Esmond and Wood 2017; Farnsworth and Higham 2012; Green 2015; Kemmis and Green 2013). This article reports on empirical data that shed light on such challenges, especially processes of recontextualizing occupational practitioners' dominant ways of being and knowing when entering the school context.

The school and work contexts differ in dynamics, interests, and requisite knowledge (Davids et al. 2016; Eraut 2004). Here, context is defined as an "interconnected collection of factors that codetermine the structure and meaning of human actions" (van Oers 1998, p. 137). Key factors affecting a context include agents' motives, intentions, and interpretations of the value of goals (van Oers 1998). While a transition from a production to a teaching/learning context makes the recontextualization process complex, there are attempts to bridge the production and teaching/learning contexts and their rationales that could make the transition and the associated recontextualization processes more straightforward (Laursen 2015). Yet, given the contrasts between school and work (Billett 2011; Eraut 2004) that are in focus here, the knowledge and skills acquired through workplace experiences may not be directly applicable to teaching in school. Thus, in transitioning from an occupational practitioner to a vocational educator, trainee teachers must not only teach in a different context but also reformulate their vocational workplace knowledge from a primarily productive function to a teaching/learning function (Moodie and Wheelahan 2012). This aspect of transition is called the transmission of knowledge, skills, and a general approach to the tasks at hand.

This study investigates the following questions in the Norwegian context: *How do trainee teachers talk about (a) the differences in their guiding experiences in the workplace and their early teaching experiences in education and (b) the challenges of recontextualizing dominant ways of being and knowing as an occupational worker?*

The paper begins with a discussion of the differences between the workplace and school contexts. Second, perspectives are presented that enable analysis of the trainee teachers' experiences regarding the transition from guiding apprentices to teaching students. Third, the methodological approach is detailed. Finally, the findings are discussed, and the paper ends with a conclusion.

### **From Guiding in a Workplace To Teaching in a School**

The workplace and school contexts differ as teaching/learning arenas that value different knowledge types (Kvale 2008). For example, work represents a product-oriented focus, while school is process oriented (Lindström 2008). In this article, the concepts of *guiding* in workplaces and *teaching* in schools are used to distinguish the two institutional practices. Kvale (2008, p. 205) makes this distinction:

In the workplace, practical knowing is transmitted; in school theoretical knowledge is more often conveyed. In the former, learning by doing prevails, while in the latter learning by verbalisation dominates. The ratio of students to a teacher in school is also much higher than in apprenticeships, where there is a limit of about six apprentices to a master. This allows for a closer personal interaction and individual supervision.

Several studies have addressed the assumptions that the experiences acquired from vocational learning and working guarantee high-quality vocational teaching and that transferring workplace knowledge to the classroom are relatively unproblematic (Broad 2016; Fejes and Köpsèn 2014; Page 2013; Robson et al. 2004; Viskovic and Robson 2001). As Viskovic and Robson (2001, p. 222) report, the tacit assumption is that “if you know your subject, you can teach it.” Studies have found that vocational educators tend to apply their knowledge and experience as occupational practitioners to their teaching (Chan 2012; Esmond and Wood 2017; Farnsworth and Higham 2012; Green 2015; Kemmis and Green 2013). According to a participant in Robson et al.’s (2004, p. 191) study, “a lot of what we are teaching here is experience that we have gained over many years of spanning [...] we are trying to pass this on to people.” This suggests that the transition from guiding in workplaces to teaching in classrooms is simply moving the experiences and knowledge acquired in the workplace into the classroom. However, Moodie and Wheelahan (2012) showed that the ability to reformulate workplace knowledge from functioning in the world of work to enhancing learning in the world of schooling is central to the vocational educator’s role. Alvunger and Johansson (2018, p. 43) note that the school and workplace contexts might consider didactic abilities differently “because the workplace is operated by a logic that is about vocational socialisation and acquiring a vocational/professional identity.”

Workplace knowledge is embedded in routines and artifacts; it is tacit, procedural, technical, context-dependent, situated, and tactile (Barnett 2006; Billett 2011; Broad 2016). Learning in workplaces occurs through everyday activities, interactions, and participation (Billett 2011; Pylväs, Nokelainen and Rintata 2017). Learning in a work context is organized as part of another practice, with little separation between learning and work (Billett 2011). Apprentices learn while situated in the work context; initially, they observe and take part in production from the periphery, but their active participation increases (Lave and Wenger 1991). By contrast, students are newcomers to the vocation and need contextualized and complex practices to be decomposed into their constituent parts (Grossman et al. 2009); they learn in an environment created by schools explicitly for learning. These differences lead to two different teaching/learning cultures, so trainee teachers face a key transition in their approach to teaching and learning.

The assumption that experiences are fundamental for developing a successful vocational educator relates to the debate regarding emphasizing skills over theoretical knowledge in vocational education and training (e.g., Bathmaker 2013; Broad 2016; Wheelahan 2015). In addition to the need for experience and the ability to remain current with vocational practice (Andersson and Köpsèn 2017), Wheelahan (2015) highlights the importance of balancing skills and knowledge. For instance, pedagogical theories are crucial for teachers to effectively support student learning and extend their repertoire beyond simply applying fixed sets of procedures to different circumstances. Pedagogical skills are central to the process of transforming vocational workplace experiences and knowledge into something teachable in a school context (Fejes and Köpsèn 2014; Lloyd and Payne 2012).

Although the experiences and knowledge gained from the workplace are important, the contrasts between the workplace and school contexts, in addition to the importance of pedagogical skills, require trainee teachers to adjust to something new when entering the school context. Understanding more of the challenges (synthesized in Table 1) that

**Table 1** Differences between guiding apprentices and teaching students

Aspects	Guiding apprentices	Teaching students
Institutional purposes	Product-oriented	Process-oriented
Participants	Apprentices with some basic knowledge and skills	Unskilled students/newcomers
Processes	Primarily a productive function	Primarily a teaching/learning function
Intended outcome	Service and goods on time	Student learning
Activities and interactions	Everyday work activities and interactions with occupational practitioners	Teaching decomposed occupational practices in classrooms
Positioning of learners	Participants in production	Newcomers learning basic skills
Positioning of self	Occupational practitioner	Vocational educator

arise when transitioning from guiding apprentices to teaching students is essential to helping trainee teachers make a successful transition.

### Analytical Perspectives

The transition from occupational practitioner to vocational educator and the process of transmitting knowledge from work to school are movements from one position in society to another. The analytical perspectives of recontextualization and the figured world help account for the connection between the two positions and analyze the trainee teachers' expressions about the transmission of knowledge and experiences.

Transmission of knowledge from one context to another – recontextualization – has been widely explored in the literature (Barnett 2006; Guile 2011; Heggen 2008; Hordern 2014; Moodie and Wheelahan 2012; van Oers 1998). Here, recontextualization serves as an analytical perspective to explore the processes of transmitting knowledge from one context to another and of making that knowledge available to others. Hordern (2014) explains that recontextualization can help describe how concepts move and change between contexts and how knowledge or a practice needs to be transformed in order to meet the new context's requirements. However, the transformation's extent and a transition's potential challenges depend on the differences between the two contexts (Eraut 2004). For example, in the product-oriented context of a workplace, time has a different meaning than what it connotes in a process-oriented classroom. In moving from workplace to classroom, the concept of time undergoes either horizontal or vertical recontextualization (van Oers 1998). Horizontal recontextualization refers to performing a familiar activity in a new context (van Oers 1998), such as simply transferring the link between time and productivity in the workplace to the processes of working with students. Vertical recontextualization is the process of developing new action patterns and strategies (Heggen 2008; van Oers 1998), such as developing patience and the ability to build a learning environment aimed at acquiring the necessary knowledge to ensure productivity.

Recontextualization helps to understand the movement from one context to another in a transition by accounting for both where trainee teachers are moving from and where they are going to. The *figured world* concept is used to further explicate the significance of these two contexts in the transition; a figured world is a “socially and culturally constructed realm of interpretation in which particular characters and actors are recognized, significance is assigned to certain acts, and particular outcomes are valued over others” (Holland et al. 1998, p. 53), as when an occupational practitioner is mindful of how time’s impact on income is meaningful, relevant, and valued. In education, the impact of time might not be meaningful, relevant, or valued in the same way. The figured world concept elicits important characteristics of the differences between dominant ways of knowing and being at work and in school; it provides a way to unpack the trainee teachers’ descriptions of the differences in their experiences. These differences are crucial for understanding the complexities of the trainee teachers’ recontextualization process, and the connection between figured world and recontextualization as analytical concepts enables exploring the trainees’ transition from one world to the other.

The connection between recontextualization and figured world enables analysis of trainee teachers as learners and especially their vertical recontextualization (van Oers 1998) of dominant ways of knowing and *being* occupational practitioners. This refers especially to the aspect of the workers’ sense of self and points to the interconnection between figured world and identity understood as a form of self-understanding that determines the way people view themselves and therefore act in the world (Holland et al. 1998). The figured world with which one identifies becomes a frame of meaning for organizing and understanding aspects of one’s self and guides perceptions of how to act and react (Holland et al. 1998). These self-understandings grow through continued participation. For example, a product orientation and corresponding actions are developed through continuous participation in the role of an occupational practitioner in a figured world organized by a production-oriented frame of meaning.

## Data and Procedures

The data for this article are derived from participant observations and six focus group interviews conducted in 2015–2016 with trainee teachers in their second year of a bachelor’s program. The participants had a range of experiences, from teaching without formal qualification to experiences from the placement and working from 5 to 25 years in either a single vocation or several vocations.

*Participant observations* were primarily conducted to learn the field and obtain a solid sense of the contextual world from the participants’ perspective (Hatch 2002). They began at the general level: “What is happening here?”; “What concerns these actors?”; “What are they doing in the different course settings?” The focus then narrowed, with reference back to the research questions. The observations offered access to trainee teachers’ experiences of their world and knowledge about them in natural settings unstructured by a researcher (Fangen 2010; Hatch 2002). During the observations, there were also informal chats with lecturers and trainee teachers aimed at answering the questions above. Although the topic of transitioning from occupational practitioner to vocational educator was always central, the observations were unstructured and followed no guide. Detailed, raw field notes describing the contexts, actions,

and conversations were taken throughout (Hatch 2002); they totaled 103 pages after transcription and were analyzed as a written text. The trainee teachers were observed in most of their classes over a year for a total of 120 h. This extensive time investment provided comprehensive information about the classroom context that was applied in the analysis to obtain a deeper understanding of the trainee teachers' expressions.

The *focus group interviews* took place after participant observation. All trainee teachers who responded to the invitation were selected, but the recruitment aim was to obtain diverse experiences in practicing as a vocational educator. All 28 participants were informed orally and in writing about anonymity and the purpose of the focus groups. Questions in the interview guide were derived from preliminary analysis of the participant observations. Each interview lasted an hour and was recorded and transcribed verbatim. The interviews were interactive; the trainee teachers spoke to one another about different, similar, or shared experiences, which revealed their own language (Wilkinson 1998). A demographic overview of the five female and seven male participants quoted in this article is presented in Table 2.

The *analytical process* began with preliminary analysis of the field observations, followed by a thematic analysis of the focus group interviews that involved reading and rereading the material to obtain an overview and identify where and how the transition was discussed. This highlighted expressions about the differences between guiding apprentices and teaching students.

To gain insight into those differences, the analytical tools of the figured world and the interconnection between it and self-understandings were applied. The figured world helped account for important characteristics in the differences between the dominant ways of knowing and being at work and in school. As an analytical tool, the figured world enabled exploring why these differences emerged – and where they originated – in the transition from occupational practitioner to vocational educator. This analysis revealed words and sentences that indicated frustration when encountering the new context of schooling and adjusting to teaching newcomers.

**Table 2** Demographic overview of the participants

Participants	Original occupational specialization	Years as occupational practitioner	Years as teacher educator
Sander	Technical subjects	10	4
Kristian	Technical subjects	18	4
Maria	Restaurant and food business	12	3
Lea	Restaurant and food business	17	13
Kevyn	Technical subjects	20	A few substitute teacher experiences
Wilhelm	Technical subjects	13	3
Alex	Technical subjects	24	3
Mathias	Restaurant and food business	14	~3
Kristina	Restaurant and food business	10	1
Elisabeth	Design and handcraft	14	None
Helene	Technical subjects	22	6 months
Per	Technical subjects	20	None

In the last step, recontextualization was used to gain a deeper understanding of why feelings like frustration arose when talking about the transition from guiding to teaching. Recontextualization “refers to the appropriate and transformation of knowledge for various purposes” (Barnett 2006, p. 144). Horizontal recontextualization, in which a known activity is performed in a new situation (van Oers 1998), was particularly helpful for understanding the expressions of frustration when starting to teach newcomers. Vertical recontextualization, in which new action patterns and strategies are developed, enabled deep exploration of the trainee teachers’ specific expressions when discussing the ways they encountered frustration. Together, the concepts of recontextualization and figured world enabled the exploration and understanding of the specific challenges trainee teachers face in a transition that entails different ways of developing skillful procedures.

## Findings

Below is a brief introduction of the themes followed by a presentation of the analysis of the trainee teachers’ descriptions of the transition from guiding apprentices to teaching students, emphasizing their early teaching experiences with newcomer students, whether during placement or when teaching before enrolling in teacher education.

The first theme, *knowing nothing*, demonstrates the trainee teachers’ horizontal recontextualization of the dominant ways of knowing how to guide apprentices when transitioning to teaching students. The second theme, *slowing down*, shows how the figured world of work influences occupational practitioners’ dominant ways of being with apprentices; however, entering the figured world of schooling necessitates new action patterns and strategies – vertical recontextualization. Finally, *breaking apart* reveals that the vertical recontextualization process also entails a reinterpretation of their self-understandings.

### Knowing Nothing

The knowing nothing category emerged out of the analysis of trainee teachers’ experiences when attempting to instruct newcomers in the same way as apprentices. They anticipated that students would have the same level of knowledge as apprentices, which provoked an impression of students as not knowing anything:

Sander: You expect so much more, because I have had apprentices and they have the basic package, so then you do not have to think about that. In the beginning, I treated the students as apprentices because that was how I knew how to teach, that was the way you knew worked, and then you got these: “okay.”

While saying “okay,” Sander used a confused facial expression to indicate that his students did not understand his teaching. Kristian agreed, explaining that “then you get all these blank looks, which he interpreted as a lack of understanding. This example illustrates horizontal recontextualisation; applying the same methods used for teaching apprentices to students. However, the ‘way [they] knew worked’ clearly failed. For example, while guiding apprentices, they did not need to teach basic vocational skills,



but if they neglected these skills while teaching students, confusion ensued. This illustrates that a new type of professional knowledge was essential.

The experiences of the differences between apprentices and students appeared to represent a challenge when beginning to teach, as the following field conversation extract indicates:

He said that even if there is a transition in becoming a teacher, they are also somewhat used to it because they have had apprentices. However, working as a teacher with students in their first year of vocational high school is unfamiliar because these students do not know anything. They do not have any of that silent knowledge. They have never touched a tool. (Observation)

The trainee teachers' experiences while guiding apprentices represented a challenge because teaching students was unfamiliar. They had transitioned to a different figured world from the workplace, where certain actions have different significance and different outcomes are valued (Holland et al. 1998). For example, students lack the silent knowledge, of which touching a tool is an example, that apprentices have.

The perception of students as knowing nothing was part of all six focus group interviews. Maria explained that she adjusted her thinking regarding students: "I think like this; they know nothing." Lea expressed what knowing nothing meant for her: "you cannot expect that they know how to twist a rag." Lea's remark encapsulates how trainee teachers perceive their students' knowledge level; not knowing even how to twist a rag means that Lea experiences the students' knowledge level as not even rising to things that are comparatively trivial.

### Slowing Down

The need for slowing down their teaching was a central frustration among trainee teachers. Kevyn explained that he understood the importance of letting students try and fail, whereas "you do not have time to do that when you are a carpenter and have an apprentice." Following Holland et al. (1998), the workplace, understood as a figured world, forms a frame of meaning that shaped the occupational practitioners' styles of interacting with apprentices. For example, the world of work has little or no separation between learning and work (Billett 2011) and the occupational practitioners' rationality of time constrains their apprentices' activities. In school, as they experienced, it is different.

Developing patience was discussed as a crucial yet frustrating challenge when adjusting to teaching newcomers. Wilhelm explained that because "some [students] can be totally blank [...] patience is something I think I have learned a lot about in" pedagogy in teacher education. Continuing the discussion about patience, Wilhelm and Alex shared some of their difficulties when starting to teach students:

Alex: It is of course difficult to keep your fingers away: "no, you do it like this."

Wilhelm: Yes, but I put on the patience hat and give them some extra time. I can stand and watch someone do non-sensible work for almost half an hour before I intervene.

Alex: But that was after you became a teacher.

Wilhelm: Yes, before I was not able to do that; earlier, I grabbed things out of [the apprentices'] hands and just [said], "fuck, look here!"

Wilhelm's patience hat provided him the ability to watch non-sensible work for a while – an impossibility in the workplace with apprentices. The hat also provided him with the ability to wait "for things to be done in slow motion." These expressions illustrate the experiences of transitioning from the product-oriented focus of the workplace as teaching/learning arena to the classroom's process-oriented focus (Kvale 2008; Lindström 2008), where patience is crucial. Per noted that his teaching experience revealed the importance of being willing to adapt and "wait, wait, wait to intervene" rather than "just go[ing] to the students and [saying] 'look here now'". This indicates an adjustment in the frame of meaning applied to interpret how to act and react (Holland et al. 1998). Unlike having apprentices, teaching students requires trainees to keep their hands off and tolerate slow, non-sensible work. This is also an illustration of the horizontal recontextualization of the concept of waiting. Per interpreted his activity as a teacher as "waiting," but a teacher could well interpret – by applying pedagogical and didactical theories – the same process as the facilitation of learning. This points to the emergence of a new type of crucial knowledge in becoming a vocational educator.

The descriptions of slowing down and being hands-off appear frequently in the focus group interviews. The trainee teachers had to contain their frustration and not grab tools from students; as a teacher, Sander has to "swallow a lot." Sander described how it felt to watch students: "sometimes it trembles terribly in the whole body and you stand there, and the whole table is vibrating because you stand there and just 'come on now, just, just, and then... no!'" For Sander, watching students work is so daunting that he must hold on to a table to stop from interfering. Likewise, Maria identified a major challenge: letting the students work instead of saying, "but, look here, you just do it like this, and then, yes, now you are done" [laughter]," as the "occupational practitioner" within her gets frustrated:

Maria: I can see it [...] in the situations at work [as a teacher] that the occupational practitioner is a part of you; you must stop yourself from grabbing the tools because it goes too slow.

Maria reveals that transitioning between figured worlds that shape one's frame of meaning, self-understanding, and actions and reactions requires a reinterpretation (Holland et al. 1998). However, it also indicates the importance of applying a new type of knowledge to understand the teacher's role in students' learning process. In the same interview, one responded:

Mathias: Yes, I think it is like that for all of us. One needs to learn to slow down a bit and allow the students themselves to build the thought process as opposed to jumping over that part and heading straight for the solutions, "you do it like this," and then, "Done!"

The trainee teachers' frames of meaning were grounded in the figured world of a workplace, which influenced how they interacted and determined when to intervene in

learning. However, their move to the figured world of schooling required developing new action patterns and strategies – vertical recontextualization – like pedagogical perspectives. Being patient and mindful about when to intervene in the learning process is important because students need a certain amount of time to carry out skilled work.

### **Breaking Apart**

Breaking apart refers to the challenges of making recontextualized workplace knowledge teachable to newcomers. The trainee teachers discuss breaking their previous knowledge and skills apart in a process of vertical recontextualization that involves build themselves down as occupational practitioners and back up as vocational educators.

Some trainee teachers identified a difference between their guidance as occupational practitioners and as teachers. It was as if they had to do something with their occupational practitioner ways of being and knowing. One explained that she acts differently as a teacher:

*Kristina:* As an occupational practitioner, you were very eager to always help by showing the student what to do, but now it is more like you get the students to think [...] it is not you that gives the answer, like you would as an occupational practitioner.

Kristina is not explicit about why her approach has changed, but she clearly identifies a shift in the interactive dynamics from showing and giving the answer to getting students to think. However, she does not elaborate on what getting a student to think means; she simply contrasts it with showing students what to do. If one cannot show, one must tell, so getting students to think implies that teachers should use words or concepts that help students find answers on their own. This quote emphasizes the challenge of developing new action patterns and strategies to facilitate learning and provides an example of vertical recontextualization. In a broader sense, the expression “getting students to think” could indicate that trainee teachers need pedagogical and didactical perspectives to explain and understand what “getting students to think” actually signifies in a learning process. The expression reveals the trainees’ lack of a comfortable viewpoint to interpret what is going on. Another trainee explained that the dissimilarity between apprentices and students requires something else of her:

*Elisabeth:* In an apprenticeship context, I can teach apprentices to do what I do, but I can see how much more a student should know before they become an apprentice than I could have given them if I had gone from being a hairdresser and taken on a hairdresser’s teaching role.

Elisabeth reveals that, because her students lack an apprentice’s knowledge, what she knows as a hairdresser is insufficient; in that (comfortable) role, she cannot give students what they need. Both she and Kristina point to a difference between their experiences of instructing as occupational practitioners and as teachers that requires a reinterpretation or reorientation of their self-understandings.

When speaking about their early teaching experiences, the trainee teachers mentioned “breaking up” or “apart” what they had learned as occupational practitioners. Helene noted that this process involves “really building yourself downwards.” She uses LEGOs to explain: you “start to break apart the house you have built in LEGO and then you have to start with the LEGO building blocks from scratch.” In this metaphor, the LEGO house signifies an occupational practitioner’s knowledge, while the act of breaking it apart refers to recontextualizing that knowledge. The phrase “building yourself downwards” also indicates that Helene feels that she must change her way of being. In another interview, Elisabeth also expressed that her way of thinking as an occupational practitioner had to be adjusted to the school context, “In order to teach students the basic techniques, totally basic, your way of thinking will have to be turned around, as opposed to what you are doing when you are working in your vocation.” Elisabeth is not explicit about what she means by “turning around” her thinking, but it is reasonable to interpret this as less complex thinking about the work or as the decomposition of complex practices (Grossman et al. 2009).

In a field conversation, one trainee teacher explained that when one starts to teach one “needs to learn to think” (Observation). She works part time as a hairdresser and part time as a teacher and finds it challenging to switch between those two contexts. In a hairdressing shop where “everything goes so fast, when she is there she just works. As a teacher, she needs to take it totally down to the basics” (Observation). The phrase “learning to think” might imply becoming aware of all the small details or all the parts that comprise “just working” and explicating with words the very actions she executes when just working.

The quotes and observations illustrate that the trainee teachers must change from how they thought and acted as occupational practitioners. Lea described this process as “going downwards to that level,” suggesting the need for a step backwards. Similarly, Maria described starting to teach students as “adjusting to point zero.” They are not precise about what they mean by these terms, but they do evoke how it feels to deal with very basic vocational knowledge for an occupational practitioner: there is a feeling of loss of hard-earned vocational expertise.

### **Synthesizing Findings—Transforming the Self**

The trainee teachers’ descriptions of “knowing nothing,” “slowing down,” and “breaking apart” all reveal a need to act differently when teaching newcomers. They draw a line between guiding as an occupational practitioner and teaching as a vocational educator. Their teaching approach, which began as embedded in their position as an occupational practitioner, is challenged – and may even be a barrier – when entering the world of schooling. The trainee teachers thus face a transformation of their selves, a process of reconstructing the self-understandings they formed in the figured worlds of their particular workplaces. The analysis suggests that the identity transition from occupational practitioner to vocational educator challenges the trainee teachers’ established ways of knowing and being as occupational practitioner and those challenges emerge in the transition itself, in the movement from one world and position to another. This also highlights the importance of considering the position one is leaving relative to where one is going in a transition.

## Discussion

This article investigates how trainee teachers talk about the differences in their teaching experiences in the world of work and their early teaching experiences in the world of education; it also explores the challenges of recontextualizing dominant ways of being and knowing as occupational workers. The differences between the workplace and classroom contexts, in addition to the gap between apprentices' and students' prior knowledge, challenge the trainee teachers to adjust to new ways of approaching tasks, make their knowledge and skills explicit, and reframe the process of learning. The analysis points to the importance of acquiring new types of professional pedagogical knowledge and skills to succeed as vocational educators. There are three kinds of challenges associated with the transition from an occupational practitioner to a vocational educator: (1) movement from one kind of social and physical setting to another, (2) movement from one way of knowing to another, and (3) a shift in the sense of self as worker.

### Movement From One Social and Physical Setting To Another

First, the transition from a workplace setting to an educational setting involves movement from one social and physical setting to another; they have different institutional purposes, as they rely upon different logics: production and teaching. This is a movement from one figured world to another or from the product-oriented frame of meaning in the workplace to the process-oriented frame of meaning of education. The figured world with which one identifies frames meaning making and guides perceptions of how to act and react (Holland et al. 1998). The social and physical setting as a figured world establishes a frame for when to intervene in the learning process. In guiding apprentices in the workplace, the trainee teachers' main priority was still production. They intervened in apprentices' learning to demonstrate, provide guidance, or even take over the process by, for example, grabbing tools. Apprentices learn in a context in which keeping up with production is a core element of learning. The trainee teachers' expectations regarding styles of interactions with students had been formed in the figured world of a workplace and then transferred to the educational setting. Initially, the trainee teachers approached the tasks of a vocational educator through a process of horizontal recontextualization. According to their accounts, this failed when teaching newcomers in the figured world of schooling. Encountering that context, which relies on a different logic than the workplace, required developing an understanding of this new world and choosing appropriate actions and reactions. For example, while being patient and watching work being done in slow motion is costly and harmful in a production-oriented context, rushing students could be harmful to their learning in a school context. Differences in the physical and social settings thus result in different activities and interactions. The aim of teaching shifts from primarily producing goods and services to primarily developing occupational capacities.

### Movement of One Way of Knowing to Another

Newcomers have different prerequisites than apprentices, so teaching in the way trainee teachers already knew best resulted in confused students and frustrated trainee teachers.

The students' lack of competence can be understood as a new problem that makes horizontal recontextualization problematic and demands new action patterns and strategies, or vertical recontextualization. Notably, when horizontal recontextualization fails, trainee teachers need to recontextualize from somewhere else to make teaching and learning work. The data show that one of the challenges of vertical recontextualization is determining how to intervene in the learning process. To interpret when to intervene as a vocational educator and thus verticalize, the trainee teachers need to draw on ideas other than those they were likely to encounter in the vocational context. This indicates a need for new perspectives that enable vocational educators to interpret the learning process with pedagogical and didactic competence. Some trainee teachers reported that they can teach an apprentice to do what they do as occupational practitioners, but when teaching basic skills to newcomers, they must get them to *think* rather than *do*. A successful teaching strategy will thus draw on words, as by applying guided conceptualization alongside practical instruction (Weddle and Hollan 2010). This process is more complex than pure demonstration; the teacher needs to draw on the relationships among speech, gestures, and instruments in order to engage the learner in obtaining relevant meaning from the activity. It follows that transferring teaching approaches applied in workplaces – horizontal recontextualizing – would be insufficient when starting to teach newcomers basic skills.

The trainee teachers used metaphors like “building downwards” and “breaking apart” to describe the process of decomposing knowledge and skills in an example of vertical recontextualization. Decomposition refers to the “breaking down [of a] complex practice into its constituent parts for the purposes of teaching and learning” (Grossman et al. 2009, p. 2069). When guiding in a workplace, instruction is integrated into practice and thus need not be broken down into smaller components. However, in classrooms, where education is the primary action, teachers must break down a complex practice into smaller components while describing their vocational practice and experiences. To describe these parts to others, a language for vocational education must be cultivated.

### **Shift in Sense of Self as Worker**

The transition from an occupational practitioner to an occupational educator also requires a shift in sense of self. The trainee teachers' ideas about educating were rooted in their self-understandings as occupational practitioners. They reported having to restrain themselves because they wanted to act as they might when guiding apprentices in the workplace. For the trainee teachers, vertical recontextualization thus also demands transforming certain dominant ways of being an occupational practitioner. Following Holland et al. (1998), self-understandings are construed relative to a figured world of social life. Changing one's figured world involves more than merely changing the physical and social settings; crucially, it demands a change in one's positioning, purpose, interactions, and sense of self. The trainee teachers' transition to the figured world of schooling involved reinterpretation or reorientation of the self-understandings they had developed in the figured world of the workplace. Reinterpretation of these self-understandings is characterized by detachment and reconstruction (Holland et al. 1998). Detachment involves letting go of practices distinctive to being an

occupational practitioner (Author 2019), whereas reconstruction involves valuation and evaluation (Holland et al. 1998), processes by which the trainee teachers build themselves down as occupational practitioners, and back up as vocational educators. The trainee teachers' descriptions of adjusting to the new world of schooling revealed frustration. The process of rebuilding is signaled by descriptions like going "backwards" and indicates a feeling of loss of competence. This is an important factor to consider in vocational teacher education, especially since self-understandings form the basis for creating new activities and ways of being (Holland et al. 1998).

## Conclusion

This article has explored trainee teachers' identity transition from occupational practitioners to vocational educators, emphasizing the challenges of transitioning from guiding apprentices to teaching students. The analysis draws attention to aspects that are important to target in vocational teacher education and provides empirical data to support the value of teacher education for vocational educators; the paper thus brings new knowledge to the debate regarding emphasizing skills rather than theoretical knowledge (Bathmaker 2013) in vocational education and learning. The research questions were as follows: *How do trainee teachers talk about (a) the differences in their guiding experiences in the workplace and their early teaching experiences in education and (b) the challenges of recontextualizing dominant ways of being and knowing as an occupational worker?*

The trainee teachers' descriptions of those challenges indicate the importance of transforming their dominant ways of knowing and being as occupational practitioners. The analysis highlights that simply entering a vocational classroom with occupational practitioner competence is insufficient for teaching students. In fact, it might even be a barrier to trainee teachers' feelings of competence. The analysis of the challenges of the differences between guiding apprentices and teaching students reveals the importance of didactical and pedagogical theories for vocational educators. Pedagogical skills could also play an important part in the recontextualization process by assisting the trainee teachers in transforming their vocational workplace knowledge and experiences into something teachable (Fejes and Köpsèn 2014; Lloyd and Payne 2012).

Thus, becoming conscious of both the strengths and limitations of the skills and knowledge embedded in the workplace might help trainee teachers develop action patterns and strategies for teaching in school settings. Analysis of the trainees' descriptions makes clear that the transition of their self-understandings from occupational practitioners to vocational educators and from a production-oriented context focused on goods and services to a process-oriented context focused on building students' capacities is a core aspect of vocational teacher training that they found frustrating. It follows that trainee teachers' confusion and feelings of loss of competence should be addressed in the transition from one occupation to another.

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