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To cite this article: Åsa Mårtensson (2020): Creating continuity between school and workplace: VET teachers’ in-school work to overcome boundaries, Journal of Vocational Education & Training, DOI: 10.1080/13636820.2020.1829009

To link to this article: https://doi.org/10.1080/13636820.2020.1829009

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Published online: 02 Nov 2020.

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Creating continuity between school and workplace: VET teachers’ in-school work to overcome boundaries

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ABSTRACT
VET typically takes place at two educational sites: in VET school and at the workplace. The focus of this article is to analyse how Swedish VET teachers from three different VET programmes create ‘sameness and continuity’ between in-school training and work-based learning (WBL). Based on qualitative interviews with teachers, their work in connecting these two educational sites is analysed. The article presents findings suggesting that VET teachers overcome the gap between in-school training and WBL by using the boundaries between them in different ways. One category of teachers states that they have everything connected to the intended community of practice (the workplace) in their workshop, and their teaching is embedded in practice. Another group compartmentalises the boundaries between school and workplace as they make students aware of differences between the two sites. The final category of VET teachers consists of those who do not have a workshop as classroom and must therefore actively create connections in their teaching practice, without the intended community of practice being represented at school except through the teachers and students own experience. This study can contribute to VET teachers’ awareness of the resources available to facilitate learning at the boundary between school and the workplace.

Introduction

Vocational education and training (VET) always aims to educate students to become skilled professionals. When researchers draw upon theories of situated learning, the workplace has been positioned at the forefront as the logical environment for learning a vocation. Lave and Wenger (1991) and Wenger’s (1998) concepts of situated learning and boundary crossing are often applied when learning a vocation is the focus. In today’s society, where learning and production are separate and complementary skills (as stated in the EU’s key competences) are identified as important for the future, school is, and will

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remain, a place where learners and teachers meet. VET teachers and VET schools have something important to offer that the workplace cannot and it is the VET teachers’ job to create continuity between the different sites. Studies have shown that it is difficult to connect students’ learning processes in school to a workplace context (Aarkrog 2005; Akkerman and Bakker 2011; Berner 2010). Hodkinson (2005) questioned the description that learning at school differs significantly from work-based learning, and Berner (2010) points out that school-based training belongs to both the vocational learning field and the school system. According to Berner, the VET teacher can facilitate learning by using his or her experience and knowledge, by reaffirming boundaries and reconstructing the workplace in their teaching. The VET teacher reaffirms boundaries by defining and highlighting the differences between the two sites. It is therefore important to examine VET teachers’ in-school activities in order to see vocational education as a whole and thereby be able to enhance learning for vocational knowledge.

The responsibility for planning and implementing VET education differs between countries, as does who assesses the learning (Cedefop 2018). In Sweden VET is organised as three-year programmes (the ‘regular’ programme) with a mandatory minimum of 15 weeks of work-based learning (WBL) when the students are on placement. Students start their VET at the age of 16. VET teachers have full responsibility for students’ work training in, and outside, school. During (WBL), supervisors have the responsibility for training students, but the VET teacher is responsible for planning and grading (SFS 2010:2039). An alternative apprenticeship pathway is available, in which at least 50% of students’ education takes place at a workplace. However, this route to vocational knowledge only attracts 12% of Swedish VET students (SNAE 2019). In Sweden apprentice students are not employed by the company as Choy, Wärvik, and Lindberg (2018) states is the case in other countries. VET teachers can work with apprentice students as well as students at the ‘regular’ programme.

This study concerns VET teachers’ work at the boundary of the two communities of practice, school and work. The community of practice for which the students are educated is referred to here as the intended community of practice. The theoretical framework of situated learning theory (Lave and Wenger 1991; Wenger 1998) and the concepts of boundary work (Akkerman and Bakker 2011; Berner 2010; Tanggaard 2007) are used to examine how Swedish VET teachers work in schools in order to create continuity between school and workplace and facilitate VET students’ learning.

**Previous research**

One problem when studying vocational education and research on the topic is that it is often closely linked to workplace learning and situated learning. Studying learning at the workplace often involves replacing ‘students’ with
‘learners’ (Tynjälä 2013), and with a focus on the workplace the teacher becomes invisible. When Tanggaard (2007) argued in favour of a situated approach to understanding learning in vocational schools, she did so from a students’ perspective, whereas I intend to take the teachers’ perspective. As long as VET takes place in a school context, the teacher and his/her activities are a relevant topic of research, and the two arenas should be regarded as complementary.

**Learning vocation in school or the workplace?**

The teacher’s work is to facilitate learning. Here one can question whether school is an environment that can only teach students to be students, or can they actually learn how to bend a nail or make a soufflé in school? Several authors (Aarkrog 2005; Berner 2010; Fjellström 2017; Kilbrink et al. 2018; Säljö 2003; Tanggaard 2007) have challenged Lave and Wenger (1991) assertion that school is solely an educational setting, teaching students to perform well in school settings and in tests. Aarkrog (2005), Berner (2010), Fjellström (2017) and Kilbrink et al. (2018) show that vocational education in school has advantages, because students can learn important aspects of the vocation that cannot be learnt at the workplace. They all argue that, at the workplace, production comes first, and learning is seen as a by-product. Ellström (1992) explains the differences between school-based and workplace learning by the different cultures and expectations of each setting. Each site offers different possibilities for learning and prepares students well for the future. Dahlback et al. (2018) show that Norwegian students appreciate VET, with its close connection between school and work. To create this, there needs to be a clear and relevant connection between what the teaching addresses and the requirements that exist in the profession. This, places demands on the teachers’ pedagogical and professional skills. Kilbrink et al. (2018) show that the different settings support each other and that students appreciate learning in various arenas, such as school, workplaces, at home and in their spare time. Experience from one setting supports learning in another, and learning is enhanced by the similarities and differences between the two sites (Jørgensen 2011). Hence, learning is a product of the encounter between school, workplace, student and teacher.

Jonasson (2014) and Tanggaard (2007) show that, in some cases, students and teachers attribute negative qualities to school-based vocational training. Jonasson (2014) argues that, with their different experiences of the intended community of practice, students as peripheral and teachers as central members, they have different perspectives on what the work consists of and therefore what boundaries there are between school and work. This leads both students and teachers to question whether school-based vocational training is in fact important for vocational education. Kilbrink et al. (2018), on the other hand, state that students referred to school-based learning as their preferred VET learning arena. In school, students argued, they were allowed to make mistakes,
had time to practise and had teachers at hand (cf. Berner 2010). The workplace contributes with something that in-school work cannot provide. The two arenas are complementary and support each other.

**VET teachers’ boundary work**

Berner (2010), Bronkhorst and Akkerman (2016) and Kilbrink et al. (2018) show that both school-based activities and teachers’ efforts to connect WBL with school contribute to vocational learning. Berner (2010) identified various forms of boundary-work and concluded that making the two (school and industry) connect can be a difficult undertaking. The conclusions are that, in their in-school work, teachers reaffirm boundaries between school and workplace by talking and pinpointing the differences between the two sites (whilst teaching in school). Teachers reaffirm boundaries as a strategy to foster, because it allows mistakes and broadens the students’ perspectives. Another way of connecting in-school work with the intended community of practice is by reconstructing the workplace in their in-school teaching. Teachers reconstruct the workplace by blurring the boundaries and treating schoolwork as something being done at a proper workplace, or by drawing upon their own former experience of working life.

Höghielm (2001) describes the organisation and realisation of Swedish vocational education and training as divided into parts: classroom learning with a cognitive perspective and learning at the workplace, which is learning by doing in a sociocultural context with a focus on the environment as an important factor for learning. The study showed that teachers’ work varied between different teaching strategies. One was giving students basic routine work, customised into school tasks, another was organising project-based teaching, where students engaged in constructing a vocationally relevant product. Furthermore, the teachers engaged in keeping students active, guiding them through the task and engaging them in problem-solving activities. Höghielm concluded that, in their endeavour to connect students’ in-school learning with the workplace, VET teachers are ‘trapped’ within a work culture that favours simple work tasks that students undertake and complete at the expense of general knowledge.

The Swedish system, where VET teachers are responsible for planning for both in-school and workplace learning, assumes that teachers need to find and match suitable learning environments with students’ needs and the curriculum, and then plan for and assess learning at that workplace. Mårtensson, Andersson, and Nyström (2019) show that VET teachers’ work to connect students with suitable workplaces is a constant and ongoing task that requires networking and social skills in matching students’ learning needs to a suitable workplace and supervisor. The importance of connecting all parties involved in VET is highlighted by Sappa, Choy, and Aprea (2016) who use the concept of
‘connectivity’ to understand key stakeholders’ conceptions of connectivity between learning in school-based and workplace settings. They show that discrepancy between workplace and school environment can, if assisted, result in higher learning outcome. Köpsén and Andersson (2018) show that the boundary work VET teachers do in connecting students to the workplace can be rewarding for themselves as well. Their study shows that teachers’ boundary activities, such as individual meetings, tripartite conversations, workplace visits and participating in work, can lead to teachers keeping up with their vocation. This gives the teachers input on new methods and materials and they can update themselves in their former occupation, giving them the opportunity to connect their in-school work with the students’ intended community of practice through their work with WBL. The lesson to be learnt here is that the different individuals (teacher, student and supervisor) and the different settings (school and workplace) enhance and support each other in many ways.

The aim of this article is to describe and analyse what characterises VET teachers’ in-school work in their attempts to create ‘sameness and continuity’ between in-school work and WBL (Akkerman and Bakker 2011) for VET students.

Organisation of VET in Sweden and the context of the study

Traditionally, vocational education occurred at the workplace and the path to becoming a central member of the community of practice was through an apprenticeship (Black 1984; Jonasson 2014). Today, vocational schools hold a central position in education for most VET in Sweden (Nielsen and Kvale 1999). This shift in educational location has led to a separation of learning and production. Since the two sites are separated, participating (learning) in school and at the workplace differ and the separation implies discontinuities between the two sites, which can create difficulties for learning. To bridge between school and workplace Swedish VET offer students time on WBL (SFS 2010:800). In addition to the time spent participating at the workplace, the in-school environment is designed, in some programmes, to emulate the workplace, with machines and equipment. For example, all the schools visited in this study running the Building and Construction and Handicraft programmes had workshops resembling a worksite or commercial workshop as well as traditional classrooms. All Swedish VET teachers have a solid knowledge of the community of practice for which they are educating and, while employed as teachers, they also have a position in the education system. This gives VET teachers ‘dual identities’ (Fejes and Köpsén 2014), an occupational as well as a teacher identity, shaped through participation in and crossing boundaries between the different communities of practice.

The context of this study includes the Building and Construction (BC), Child and Recreation (CR) and Handicraft (HC) programmes. After students graduate from the Building and Construction programme, the goal is that they should
have the knowledge needed to work in one of the construction industry’s professions trades (SNAE 2011). The BC programme has a long tradition of apprenticeships (SNAE 2016) and students are still apprentices, but also employed, for another 6800 hours at work after concluding upper secondary school. The programme often has a construction site and workshop adjoining the school and a traditional classroom is often situated directly at the construction site. Berglund’s (2009) and Fjellström’s (2017) studies show that the construction industry’s conditions affect students’ learning, both in school and at the workplace.

The CR programme is for students who want to work with children, adolescents or adults in educational and social fields, or in the leisure and wellness sector (SNAE 2011). Lemar (2001) described the programme as more theoretical than teaching vocational skills. Teaching for CR mainly takes place in traditional classrooms with whiteboards, computers, books, films and other traditional teaching materials. With written assignments for the students to read, discuss and write in square classrooms, the school environment differs from the designated field of work, which is a broad field that includes preschool, assistant to the disabled, security guard and personal trainer. WBL often takes place five days per week and for three to eight consecutive weeks.

The HC programme consists of five different specialisations: hairdressing, carpentry, florist, textile design and a specialisation for ‘other crafts’. This specialisation includes glassblowing, goldsmithing, beauty stylist and upholstery. The overall aim of the programme is to develop craft process skills depending on specialisation. In this project, teachers from the specialisations of hairdressing, carpentry and goldsmithing are represented.

**Situated learning needs situated teaching**

The theoretical perspective adopted in this article is based on Lave and Wenger (1991) and Wenger’s (1998) concepts of the ‘community of practice’ and ‘situated learning’, especially the notion of boundary crossing. The concepts are used as tools to define individuals within the community and, here, to investigate how they create connections and continuity between different communities of practice for learners. A community of practice consists of people who have a mutual engagement, a joint enterprise and a shared repertoire. As they engage in their community of practice, they continuously take part in a negotiating process of meaning-making. In this study, students are considered peripheral members of the community of practice for which they are being educated, but with an entrance ticket that gives them access to this ‘intended community of practice’. This perspective provides a system of relations and activities that crosses time and space and connects the different communities of practice – VET school and working life. From this perspective, participation is a metaphor for learning, and the students participate in activities both in school
and at the workplace, while VET teachers facilitate in-school learning and participate with the students at school. VET teachers can use their experience to put issues, activities and rules in the intended community of practice into a historical perspective and give students a background and understanding of actions that are performed (perhaps) without reflection at the workplace. Using the concept of situated learning allows us to show how students gain experience through doing in an authentic situation where they are actively immersed in an activity. With the separation described earlier, participation in school activities gives students access to, and allows them to familiarise themselves with, objects, traditions, and values in the intended community of practice before entering the actual workplace. Teachers seldom participate in WBL in Sweden (SNAE 2016) but are responsible for facilitating students’ learning during WBL. Since the students’ intended community of practice is widely regarded as the best location for VET, but gives no guarantees of not reproducing counterproductive patterns and knowledge (Wenger 1998), there is a place for someone, in this case a teacher, to oversee and control the suitability for learning at each workplace used by the school.

I have previously (Mårtensson, Andersson, and Nyström 2019) described VET teachers as boundary crossers who, in their job, participate and cross between the different communities of practice, workplace and school. The term ‘boundary’ is defined by Akkerman and Bakker (2011) as:

A sociocultural difference leading to discontinuity in action or interaction. Boundaries simultaneously suggest a sameness and continuity in the sense that within discontinuity two or more sites are relevant to one another in a particular way. (Akkerman and Bakker 2011, 133)

Sameness is here defined as similarity and/or consistency, i.e. the degree of sameness depends on how much work tasks in school resemble tasks performed at the workplace and/or how much the learning environment (classroom) resembles the intended community of practice. Akkerman and Bakker (2011) find that learning across boundaries is possible where there is continuity in action and interaction between the different arenas. When the same phenomenon is encountered in different contexts, this can enhance learning. ‘Intended continuity’ is defined by Bronkhorst and Akkerman (2016) as ‘practices designed and implemented in educational settings intending to (re-)establish continuity between school and out-of-school’ (p. 23). Intended continuity can be manifested in using boundary objects (such as a logbook) or brokers as representations of practices (VET teachers with their experience from the trade can be one example). Another form of intended continuity is design for learning in out-of-school contexts. This is achieved in Sweden through the mandatory WBL parts of vocational education. Discontinuity, on the other hand, forces the learner to shift perspective, and can create more frustration than learning (Akkerman and Bakker 2011).
Method

This article is based on 15 qualitative interviews with Swedish VET teachers. Two interviews were conducted with two teachers together, giving 17 teachers in total. The Child and Recreation programme was selected due to its good evaluation results for the co-operation between school and workplace (SNAE 2016). The Building and Construction programme was chosen because it has the highest number of apprentices (SNAE 2016), and Handicraft is an area with a long tradition of apprenticeship and therefore of connecting students to their intended community of practice (SOU 2009:85). The teachers represent the different programmes equally; five interviews were conducted with teachers from each programme. From the broad Handicraft programme, teachers from the tracks for hairdresser (two teachers), stylist, goldsmith and cabinetmaker were interviewed. The teachers were employed at eight schools in seven municipalities.

The teachers were contacted via email after their principals had granted access. Schools and teachers were selected by searching the schools’ webpages, in order to secure a range of properties concerning schools and municipalities, age, sex, and experience as a VET teacher. No more than one interview was conducted within the same programme at any one school, but teachers from two different programmes at the same school were interviewed in two cases. Only female teachers were interviewed for the CR programme, a programme with a high proportion of female teachers and pupils. Teachers from the HC programme had the same gender as the majority of their students, and only men were interviewed for the BC programme. Hence, they represented the same gender as the majority of each profession.

The interviews were semi-structured around broad questions about the teachers’ thoughts on WBL and their in-school work. Questions like ‘What are your thoughts on the necessity of WBL?’ and ‘How do you work to secure good WBL for the students?’ were asked to start with and after that the interview continued until we had covered most of the how, with whom, where and why of WBL. All the interviews were recorded and transcribed verbatim. Notes and reflections were written down between interviews and were part of the first analysis.

All the interviews lasted between 45 and 75 minutes, most were conducted face-to-face and recorded. Two were conducted over the phone and one via Skype due to convenience and a desire to include a broad spectrum of VET teachers. The interviews conducted at the VET schools always included a short tour of the premises and a demonstration of students’ work. The interview took place in or around the teacher’s classroom/workshop. In the interviews conducted via phone or Skype, more questions about the school and workshop were added to compensate for not being able to observe. The interviews were transcribed and thematically analysed.
I conducted a thematic analysis of the 15 transcribed interviews and observations of workshops and classrooms, with the research question as guideline (Boyatzis 1998; Braun and Clarke 2006). In analysing the interviews, I created three different themes based on the teachers’ talk about creating continuity. These themes are divided into levels depending on how they talk about when, why and how they address and use workplaces and their experience from the community of practice in their teaching. All quotes have been translated into English by the author.

The study follows ethical principles for research in the humanities and social sciences (Swedish Research Council 2011, 2017), including protection for each participant through information, consent and confidentiality.

**How VET teachers create continuity in their in-school work**

The findings show that VET teachers address the importance of creating continuity between school and work in different ways. The results range from some teachers who do not articulate any need to create continuity to those who in their day-to-day work often highlight the workplace and its community of practice in order to enhance their teaching and students’ learning. The first theme is entitled *Embedded in teaching practice* and concerns teachers not seeing the point of addressing differences between in-school and work-based learning. The second theme is entitled *Compartmentalised in the teaching practice* and concerns teachers stressing important vocational knowledge by moving between a theory classroom and a workshop. Finally, the third theme, *Creating connections in the teaching practice*, concerns teachers who feel the need to frequently and actively talk about and address the intended community of practice in their in-school work. When cited the names of the teachers has the same initial as the programme they represent (e.g. Hilda from the Handicraft programme).

**Embedded in teaching practice**

The first theme consists of VET teachers’ statements that there is no need to actively address differences or the boundaries between in-school training and the workplace. One example is Hilda, a hairdressing teacher. ‘No, I don’t use WBL in school. When I teach, it goes hand in hand// … //what’s done in theory in school they do in practice too, both in school and on WBL.’ But she reflects that the students’ work during WBL can be a useful factor in school. For example, when students post pictures on social media showing off what they have done, and a conversation starts about how they did it. ‘That’s how it can go, we evaluate the day after.’ WBL is good and meaningful and an education without WBL would be inferior, but Hilda does not see any further need to connect students and workplace. Here, it is a student’s actions (posting a picture) and talk that
impels the teacher to talk about WBL in school, nothing she had planned or saw necessary. Helena, another hairdressing teacher, does not talk about WBL in school. But she says: ‘We talk about behaviour, how to act and be service minded.’ Almost all parts of the work can be done at school – but not quite. ‘[A hairdressing education without WBL] it could work/…/it would be the last resort, but it could work,’ says Hanna. The students can take calls, make appointments, greet customers, take care of their hair, sell products and get paid for it. For these teachers, connecting school and the workplace is not something they have to do.

The analysis shows that, in this case, sameness exists between school and the workplace and continuity is not something that has to be created by the teachers in school. They teach in a classroom that bears a strong resemblance to the workplace. The students participate in work that resembles the intended community of practice, which is present with its tools, routines and work processes. Teachers can here be seen as central members of the community and are introducing the students, who are newcomers (see Wenger 1998). The classroom here is a workshop and borders and boundaries with the intended community of practice are almost invisible. The negotiation of meaning (Wenger 1998) takes place without overtly mentioning it because rules and meaning are inherent in the day-to-day work, there is no need to create something that is already there. The teacher’s job here can be interpreted as that of an older, wiser colleague, or mentor. What the teacher/students do in the school workshop resembles the activities at the workplace, and the similarities contribute to the learning process. The sameness between the school environment and the intended community of practice provides continuity.

**Compartmentalised in the teaching practice**

Teachers conforming to the first theme work and interact with students in an environment resembling working life, i.e. the intended community of practice, and this is also the case in this theme. However, here, the teachers actively use the boundary between theory and practice to enhance learning in their in-school job. The analysis shows that these teachers divide the students’ learning into practical doing and theoretical knowing and teach by emphasising the different parts of the same knowing. The teachers describe how, in their teaching, learning can start either in the workshop or the ‘theory classroom’ and result in some students understanding but others not. They can then physically move to the other site, explaining one more time, with the help of either practice or theory, and more students now understand while some must start working on the task, and after that gradually end up understanding. This moving between theory and practice gives students several opportunities to understand and connect in-school learning with practice.
If you can move between them [theory and practice], then those who don’t get it in here [theory classroom], they’ll get it out there [workshop]. They get an understanding out there and then they can connect it when they come in here again. I wish I could use more reality in theory. (Henrik, HC)

I interpret this as the teacher creating a boundary by stressing that there is an ‘out there’ and now the students are ‘in here’. By first creating continuity between school and workplace (the tool is used ‘out there’ and ‘in here’), the teacher then puts the tool in context and thus boundaries between school and workplace are reaffirmed (Berner 2010). Having a ‘theory’ classroom close to the workshop is a winning concept for moving between theory and practice and to connect in-school practice with WBL. Where the teacher in the first theme saw no apparent boundaries between school and practice, here the boundaries are made visible and emphasised. Tools are marked by name on the wall and drawings are explained on whiteboards in the theory classroom. Thus, tools used in the realisation of the drawing give the theory classroom a function as a place of reification. In connecting the two forms of knowledge, the teacher can ask questions like: ‘have you seen this (tool) before during WBL periods?’ (Ben, BC) to get students’ attention.

Some teachers start their teaching in the theory classroom, some in practice. The teachers explained that how they chose to do depended on many factors. The theoretical representation (drawing) of the cabinet (or picture of a hairstyle) can be seen through the glass wall between the workshop and the theory classroom, helping in the transformation from theory to practice, and vice versa. A physical wall and a threshold exist, but the different sites support each other. The boundary between school (theory) and practice is very clear. The difference between the workshop, which represents the community of practice, and the theory classroom is here interpreted as making the boundary between them visible, even though both sites are in school. The workshop in school is a good substitute for the workplace and is a place where learning in a safe environment is possible. In several of the visited schools, the glass wall made it possible for students to see the drawing on the whiteboard whilst working in the workshop, and this was also pointed out by teachers as a way to connect theory with practice. The ‘theory classroom’ also functioned as an exhibition room for students’ work and the teachers explained how they could start a task, for example ‘cabinet making’, by showing a good result, pointing out difficulties and solutions. The teachers could show what the finished result should look like, creating a context for the details they then went on to explain, and create an opportunity for students to start building an understanding of what to create and how. When questions arose, the student could go back and study the starting point – the completed cabinet or drawing (cf. Lave and Wenger 1991).
To further connect in-school activities with the intended community of practice, Hans, a carpentry teacher, explains that the school undertakes projects ordered by ‘real customers’.

We do some customer projects at school. Together with the students, we take measurements and talk to the customer. We go back to school, do a drawing and then we present it to the customer and after getting their approval we start manufacturing. (Hans, HC)

These projects can be good learning opportunities, according to Hans. He and the students can participate in the entire process, which resembles working together in a carpentry business. Teachers such as Hans are dressed as workers, do what workers do and in that way are good role models for their students. They show and tell students about work practices as though they were in a real workshop, but the students have the opportunity to ask questions and make mistakes. This becomes a school task where both sameness and continuity with the workplace are inherent.

Some VET teachers explain that they can work alongside their students when visiting them on WBL, creating continuity by performing the same work tasks as the students at the workplace. Crossing boundaries thus becomes something the student does together with the teacher. They move between theory and practice together, both in school, between the ‘theory classroom’ and workshop, and during WBL. Work culture becomes part of the school and the community of practice. These findings show that the teacher becomes both a boundary crosser and a boundary object in his work of connecting in-school learning with practice.

Creating connections in the teaching practice

The final theme stands out from the others because the analysis shows that some teachers consider it essential to create continuity between school and the community of practice in their in-school teaching. Teachers from the CR stand out as speaking a lot about the importance of WBL and therefore speak of it daily in the classroom.

Before the students’ first WBL period, some teachers use the metaphor that they are teaching ‘swimming on dry land’. Clara says ‘I can teach theory in school before WBL, but after WBL, the students can connect experiences with theory and then I can teach in a different way.’ Christina says that, without WBL, she would not have anything to relate to. ‘I say: “You’ll meet this at WBL, you’ll see this, this will happen” – and when they come back from WBL I’ll ask: “Did you encounter this? Have you now experienced what we talked about?”’ Artefacts and meanings have to be given names, be explained and elaborated upon without being physically present in the classroom. In teaching, Camilla often says things like ‘think of this when you’re on WBL’ and when conducting activities with the
students, she says she has to remind them that: ‘you can do this yourself at the workplace’. Her work experience and membership of the intended community of practice gives her status as a mentor, but with no practice at hand. Here, the teachers describe how they use their knowledge to connect what is taught in school to the intended community of practice by dramatising and telling stories based on their work experience. In this way, they create continuity even though there is a low degree of sameness between the different sites.

Clara describes how she uses the students’ experience after they have been on WBL: ‘to get the students motivated in my teaching, it’s a good thing to connect to their own experiences of WBL.’ By asking about students’ experiences, the teacher creates a common experience for everyone by talking, and the students can create a broader picture in their minds by sharing experiences. The meaning-making continues after WBL in school by taking as much as possible of the intended community of practice into the classroom, and by sharing their experiences the students can learn and create meaning across activities and workplaces. The practice is present, but only as a mental picture. The teacher needs to create an understanding of the workplace, the community of practice and its conditions. Connecting teaching to students’ experiences and continuing to build an understanding from that becomes an important task for the teacher. Whereas the teachers (and students) in the first two themes moved physically between theory and practice in school, these teachers have to embody the community of practice and create continuity where the degree of sameness between school and workplace is low. Clara figuratively moves between the classroom and the workplace in order to boost the students’ interest, facilitate learning and create meaning for what is not present – the practice. These teachers have a more apparent boundary to cross in their day-to-day work with students. It is also difficult to determine whether a student has understood the learning content (e.g. the meaning of ‘a secure environment for children’), although the teacher has given a theoretical lecture and practical exercises in school.

In order to create these connections, teachers emphasise that they need to know the local workplaces, their objectives, tasks and clients. With such knowledge, they can create tasks suitable for students’ learning at that specific workplace. Christina says:

\[
\text{you design WBL tasks that should feel connected to both school and work,}// \ldots \text{//course goals and objectives [for the workplace] where the student is. In my courses, the objective for the workplace differs depending on where the students are}// \ldots /it can sometimes feel like you’re superficial in the tasks.\]

Christina uses school-based tasks to connect practice at the workplace with the school curriculum. These teachers state that it is much easier to teach after WBL. Clara says: ‘WBL is an incredibly useful tool for teaching and it helps me make it concrete.’ As she describes, pedagogical and sociological theories are difficult to
make real in the classroom. It is not until after WBL that all the students have some experience upon which to build as a basic understanding to continue learning. Camilla sees WBL as the starting point in her teaching: ‘I start in WBL and from there I add theory, I connect experience with theory.’ Experience within the intended community of practice builds knowledge and the teachers help their students to create knowledge by connecting theory to practice.

Another way of creating continuity is to work closely with the workplaces in different ways. Clara and her students help out when local after-school clubs have special outdoor activities. Carin explains that she and her students have organised an ‘open pre-school’ to give students more opportunities to connect with their future community of practice. Carin states that acting together with the students is very helpful in her teaching, giving her an opportunity to work alongside the students as in a(n almost) real workplace. In this way, they create a safe learning environment that resembles the intended community of practice and for that moment it can be comparable to a workshop. Clara and Carin have created a sameness between school and working life that their in-school environment does not provide. They use all the space available within the frames of their teaching jobs to create situated learning where ‘situated’ is otherwise lacking.

**Discussion**

In this article, the aim was to describe and analyse the characteristics of VET teachers’ in-school work in their attempts to create ‘sameness and continuity’ between in-school work and WBL for VET students. Swedish VET teachers, as mentioned above, are responsible for planning and assessing learning both in school and at the workplace, giving them a central role as boundary workers and brokers between school and the intended community of practice, their students’ future workplace. The division between in-school work and WBL implies that students at school are separated from their intended community of practice but that school gives students the time and opportunity to participate in a safe environment where learning can be foregrounded.

**Balancing on the boundary to use sameness and create continuity**

The analysis of VET teachers’ work to connect learning in school and at the workplace shows that the more the in-school teaching environment resembles the workplace, the less teachers actively need to create continuity because it is already in place through artefacts and work tasks. As sameness is defined here, it can be found when the work tasks or environment in school resemble the intended community of practice. If sameness exists between the different learning sites, learning can be enhanced. When there is a high degree of sameness, there is continuity between school and the intended community of
practice. When sameness is low, teachers have to create that continuity, here seen as achieved either by talking or by expanding the classroom beyond school. Where a high degree of sameness exists, teaching in school becomes a job in a workshop with support from the teacher but without the stress of having to perform on time and for profit. In line with Akkerman and Bakker (2011), it is possible to argue that the learning potential is good when there is continuity in action and interaction between the two sites. With a construction site or hair salon at school several of the artefacts used in the trade are at hand and the workplaces are reconstructed (Berner 2010) so that students can participate in work with other newcomers and masters (here VET teachers) by performing vocational tasks. But, with the community of practice embedded in the VET teachers’ work, there is a risk of putting production before learning (Fjellström 2017; Höghielm 2001). This study shows that teachers who have the community of practice close at hand in the workshop can embed its doings in their teaching to such a degree that they do not see the need to actively work to connect the different learning sites, leaving the students alone at the boundary. They will thus support the sociocultural learning aspects but perhaps also oversee the cognitive aspects (Höghielm 2001) of learning. The added value that school is supposed to contribute might be lost if (questionable) activities, norms and values of the intended community of practice are not problematised and critiqued.

In the second theme the teachers use the differences between theory and practice to compartmentalise vocational knowledge to facilitate learning. Sociocultural aspects are enhanced with cognitive support to facilitate learning. In moving between theory and practice, teachers use their experience of the community of practice to aid in reconstructing the workplace in school (Berner 2010; Andersson and Köpsén 2019). Boundary objects, such as drawings on a whiteboard in full sight of the workshop or school tasks undertaken during WBL, can make a good connection between school and work practice to create continuity for students. In this work, VET teachers are visualising differences between the different learning sites in order to facilitate learning.

Berner (2010) describes VET teachers as boundary workers and discusses how in their work they blur the boundaries between workplace learning and everyday in-school activities. The workplace is reconstructed in the school workshop. But, for the CR teachers, the boundaries between school and workplace are clear-cut and the interpretation is that there is therefore an obvious need to visualise and talk about these boundaries. The artefacts cannot be hung on a wall with nametags and the CR teacher does not have a workshop at hand. To facilitate learning, the CR teacher needs to verbally create a context for students. They have to visualise what cannot be shown and the teacher cannot see the pictures the students create in their minds. Another way of connecting when sameness is low is to expand the ‘classroom’ and create a workshop for students that somewhat resembles the intended
community of practice. In such cases, the teacher has to act as a member of the intended community of practice without ‘the real thing’ being present. The CR teachers are so aware of the absence of the intended community of practice that they are constantly creating the image of it, an image that serves to make up for the lack of the real thing.

**Conclusions and contributions**

I have shown different ways in which VET teachers are obliged to work in different settings here visualised in the themes *Embedded in teaching practice* where the teachers saw no immediate need for connective work and left students on their own to connect school and WBL practice. The second theme *Compartmentalised in the teaching practice* where the teachers addressed vocational knowledge by moving between classroom and workshop and thereby giving the students opportunity to learn in different ways. The third theme, *Creating connections in the teaching practice*, demonstrates how the teachers had to actively talk and visualise the intended community of practice to help the students make the connection. Independently of the settings, VET teachers can create continuity, but in some cases this is a demanding task that requires creativity. With a high resemblance, the need to connect can be overlooked because sameness seems obvious to the teacher. Teachers with a workshop at hand can embody the intended community of practice but those without a workshop have to work differently to facilitate learning. This illustrates the complexity of VET teachers’ work in schools and how difficult or easy it is to reconstruct (Berner 2010) the workplace in school.

It is open for discussion whether these findings can be translated into other VET programmes than those described here. Berner’s (2010) findings are from another programme and her use of concepts for how teachers ‘reaffirm’ boundaries and ‘reconstruct’ the workplace in order to facilitate learning seem useful for all three programmes in this study. I have tried to describe VET teachers’ work as it is conducted in environments that range from a high degree of sameness to a lack of sameness and how this impacts upon the teachers’ work. This study can contribute to VET teachers’ awareness of the resources available to facilitate learning. What is available must be recognised and problematised, just as a lack of resources can be overcome. Hopefully, VET teachers’ pedagogical skills in combining the opportunities of school with the advantages of the workplace, with its ‘real’ community of practice, can be recognised.

**Disclosure statement**

No potential conflict of interest was reported by the author.
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