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The Practice Learning Model: conceptualizing teaching and learning in vocational education and training – in practice

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Abstract

Vocational Education and Training (VET) is characterised by a high degree of proximity to the practice it qualifies for. The teaching of for example carpentry students is directed towards and based on the practice of the trained carpenter. This contrasts with traditional upper secondary education where it is not often the case that the teaching of for example physics or history is directed towards and based on the professional practice of a physicist or historian. This article draws on concrete examples from everyday life in VET and discusses the impact that the practical relevance of vocational education can have both on the way teachers organise their teaching and on students' learning. The analysis seeks to qualify the implicit notions of 'practice' in VET by taking as its starting point a 'Practice Learning Model' that offers four different approaches to teaching, each of which - and in combination - have implications for student learning.

Keywords: vocational education and training, teaching and learning in practice, educational framing, vocational classification

Introduction

Vocational education and training programmes differ from and distinguish themselves from traditional upper secondary educational programmes by targeting a labour market where the ability to solve tasks in practice is central. One can think of traditional crafts where the task is to build, repair or renovate for example, buildings, installations, vehicles, or other objects through the use of the right tools or other objects. Or the task may involve caring for people with special needs in hospitals or other institutions for people with these needs. The training of future generations of skilled workers in the correct and appropriate practical handling of artefacts of all kinds is thus central to vocational education and training. It is also characteristic of many of the tasks performed by the skilled worker that they are concrete and have a specific goal and purpose. In other words, you usually know when you have finished your task and whether it was carried out in a way that meets current standards and requirements.

For programmes responsible for the development of skilled labour this means that practical elements have a central place in the teaching. These programmes qualify students to deal with practical tasks and are based in different ways on the inclusion of practice to different degrees and in different ways depending on the specific subject.

When analysed from an international perspective another characteristic of vocational education and training is that it is organised in many ways. While university education is globally organised according to roughly the same template it is completely impossible to identify a similar template for vocational education and training programmes. This can to some extent be explained by the practical anchoring and design of the programmes which often reflect local/national needs and are a product of local/national historical developments and labour market needs.

We can with (Green et al., 1999) distinguish between three fundamentally different ways of organising and governing vocational education and training in an international perspective and thus three different relationships between vocational schools and enterprises. These imply different management models in relation to the programmes and different relationships between the programmes and the labour market that employs the professionally trained labour force.

The market-driven model is characterised by the fact that market forces control the training of skilled labour. Training takes the form of apprenticeships in specific companies. Typically, the apprentice is employed in the company on a paid or unpaid basis. And the further along the apprenticeship programme the more and more complicated tasks are assigned to the apprentice until the time when the apprentice is considered to have completed his or her training. Examples of this practice can be found in Lave and Wenger (1991) who, based on the training of tailors in Liberia, formulate a general theory of the training of skilled labour based on the concepts of legitimate peripheral participation. That is, the process whereby the apprentice from the beginning of the education or training 'programme' is in a peripheral position in relation to the core of the trade and gradually moves to a position as a representative of the same trade - as a master.

Because the training takes place in a specific enterprise the training is to a large extent a function of the work tasks carried out by this enterprise. In a certain sense, it can be said that the training initially

trains to solve specific and related tasks in the company, and that it does not necessarily qualify for a 'labour market' as such. It is thus a training model that is both based on concrete work practice and at the same time orientated towards the same work practice. We find this training model in various forms for example in the United Kingdom.

At the other end of the spectrum is *the state-led model*. Here the training of skilled labour is basically a matter for the state and is subject to state regulation and control. Enterprises may be involved but the primary training takes place in Vocational Education and Training institutions (these might be VET-schools, VET-colleges or other educational institutions depending on the specific educational system. We will in this article refer to these VET-institutions as 'schools'). In this sense, the model is characteristic of large parts of the ordinary education system where the starting point is that students must be qualified for a practice, but this must be done separately from this practice. The learning that can take place in such a system is at best related to practice and not directly based on the same practice. At the same time the model can be said to provide the opportunity for broad training that can be applied in a labour market in general because it gives students a broad foundation for further training in specific work tasks. This model is widespread in Sweden and France for example.

Finally, there is *the co-operative model* which, with variations, is found in e.g., Germany, Denmark, Norway, and the Netherlands. The pivotal point of governance is cooperation between the state and the social partners. This can be seen because the training programme alternates between school-based teaching and training in companies. When large parts of the training take place in companies whose primary task is to make a financial profit, they will also have a decisive influence on the management of the programmes. The involvement of the state and enterprises, represented by the social partners, implies that there are different practices at play within the co-operative model. On one hand, a traditional educational practice represented by school-based education. On the other hand, a production-orientated practice represented by the enterprises (Koudahl, 2006). A consequence of this is that students must be able to participate under both logics/forms of practice to complete their education. An advantage of the cooperative model is that because of the involvement of the social partners in the management of the programmes the general legitimacy of the programmes in the labour market is ensured. In other words, students are trained in and for the labour market in which they will be working. However, the principle of work-linked training also implies that there is not necessarily a link between what is learnt at school and what is learned in the company. Teaching in schools may relate in various ways to work experience but work experience does not necessarily relate to school practice. What they do have in common, however, is that they contribute to a practically oriented education that is intended to qualify for a relatively well-defined practice in the labour market.

So, regardless of how they are organised, 'practice' is at the heart of vocational education and training. But what does the term 'practice' mean? And whose practice are we talking about when we talk about practice in Danish, Norwegian, German, and other vocational education and training programmes based on a co-operative model? In various contexts, vocational education and training programmes are referred to as practice-instructional, practice-oriented, practice-based, practice-guiding, etc. But how to sort through the large number of practice-concepts?

In this article, we will articulate how we can understand the concept of practice within vocational education and training regardless of whether it occurs in relation to one or another of the three models described. In other words, the understanding of the concept of practice is aligned with the purpose and impact of teaching in vocational education and training programmes. In this context, we will introduce the Practice Learning Model as a tool for analysing and planning teaching and thereby provide a model for discussion of student's learning – and the implications of practical dimensions in the learning process.

The Practice Learning Model has been developed with an empirical basis in the project 'Kompetenceløft i praksis' [Competence improvement in practice] which was carried out in the period 2015 to 2017 by the National Centre for Vocational Education at University College Copenhagen in collaboration with nine vocational schools under the leadership of Henrik Hersom and with the participation of Peter Koudahl. The project was carried out as action research project with the involvement of both teachers and management at the nine schools and was focused on knowledge sharing and launching of several initiatives regarding practice involvement and differentiation of teaching. While the schools involved were already involved in a network on improvement and development of educational practices the project was discussed and evaluated among teachers and managers during the whole project period. In that sense, the action research dimension of the project focussed on knowledge sharing. In addition, the project has followed a 'phenomenological track'. Each school was visited several times during the project. Observations of teachers' teaching were carried out followed by interviews focussing on the teachers' reflections on their own teaching practices and their colleagues' teaching. The phenomenological track was empirically focused on the specific teacher and on the specific teacher team. This part of the project involved observation studies and individual as well as group interviews. The overall endeavour of this design is inspired by the Frascati Manual (2015) and its guidelines for applied research: to mediate research and practice in a way that both ensures the quality of the research and favours the participants in the project.

The questions that have been driving the project have focussed on 'practice', how 'practice' is involved in vocational education and training, and how we can understand 'practice-teaching' in more nuanced and elaborated ways than we have done so far? Furthermore, the project investigated the implications of different approaches to practice teaching.

During the project period the focus of the action research part was continuously adjusted and adapted in relation to the ongoing collection of experience guided by research questions about how do teachers work with 'practice' in teaching, how they understand and practise practice-oriented teaching etc. We have had specific focus on differentiated learning processes and how different understanding of 'practice' can lead to differentiated learning pathways.

The results of the overall project are presented and discussed in Hersom and Koudahl (2017).

To be more concrete in relation to the discussion of how we can understand practice and its meaning in a teaching context, we begin with some examples that will serve as references and illustrations in this article.

These are drawn from various research projects (e.g., Koudahl and Hjort-Madsen, 2016) and illustrate everyday teaching situations in Danish VET-schools. The situations presented involve a high degree of practical approach to teaching. But they do so in crucially different ways which will be unpacked here.

Firstly, we will discuss what different approaches to the practical elements of teaching can mean for students' learning and engagement in their education. Secondly, we will discuss how teachers in VET-schools can examine and reflect on their own teaching practices and how these might be developed and improved. The discussion will be based on the already mentioned Practice Learning Model as presented by Hersom and Koudahl (2017) and later developed by Hersom (2019, 2023).

Picture yourself...

We are at a vocational school somewhere in Denmark. Specifically, we are at a construction department where students from different subjects work in the same hall. That is: the carpentry students join the electrician students in one hall while a couple of masonry students are in the hall next door working with bricks and mortar. They're working on a project that among other things involves making a masonry wall to support a wooden roof structure. Although the construction is scaled down the project is very realistic. Like a house where the walls will support the rafters and roof.

The two masonry students have been at it for a few days and have almost finished the wall - which even to the untrained eye looks somewhat dubious. It certainly doesn't look like something you would pay to have done if you were a customer of a bricklaying company. But the students have done it as well as they could using drawings, spirit levels and other tools to the best of their ability.

Eventually, the teacher finds the time to go over to the hall and see how far the masonry students have come with the wall. He would have been around the students more often but due to illness among colleagues he has had to take over in several places, so the masonry students have been working largely on their own. He looks briefly at the wall and says: "It's askew... it'll never hold. Tear it down and start again!"

In another room at the vocational school some students are having a Danish class. These are metalworker students training to be blacksmiths and industrial technicians who are analysing advertisements to produce material to advertise the product they are making in the workshop. For some of them it's a barbecue. For others it's an outdoor lamp that can be placed in the garden with a block candle. Before today's lesson they have discussed adverts and have talked about the impact of advertising in the public sphere, about marketing and other advertising-related topics. There is a lot of talking among the students and the teacher is circulating between the different groups. Most of the students are at their computers but there are also students who hardly participate.

At the end of the lesson the groups present their findings. Typically, an A-4 page with photo and text to advertise their product. They have taken photos and worked on the text and layout. There is a lot of talking and commenting during the presentation and the teacher has a hard time keeping track of everything but still manages to get the students to explain themselves based on questions like: 'What

are your reflections about this placement of text/image? What is the reasoning behind the choice of colours, heading? etc.

Despite a wide variation in the quality of the students' work and the fact that the presentations do not all follow a string the teacher manages to keep the students reasonably focused and to give them feedback on their work.

Why tear down the wall? And why is a bad advert good enough?

What is the point of students having had a great process while building if the wall is askew and can't stand the rafters and roof being put on it? – you might ask. Not much, you might think. And in that sense the teacher's reaction to the outcome of the masonry students' work is quite understandable. The students have produced a piece of work that does not meet basic quality criteria. It therefore makes no sense to pretend that what they have done is OK. In this situation the teacher acts as the guarantor that professional standards are met. From a customer's point of view his reaction is understandable: there is no point in handing over a product that does not meet the standards required in construction. Students might as well learn right away that if the wall is askew and not straight it needs to be rebuilt. The logic is clear.

But judged from the premise that student learning is the focus the question is how valuable the teacher's response really is. Students have been provided with materials, tools, and drawing: The necessary components to achieve the pre-defined outcome. In other words: the students have had to perform a process in which they have to achieve a predefined goal in a predefined way and meet some predefined standards. The question, however, is what have they learned in this process from bricklaying to tearing down the wall? Perhaps they have learned not to become bricklayers because they can't figure that out? Perhaps they have learned that there is no point slaving away without having the work checked by an experienced colleague in the process? In any case they have learned some dimensions of what it means to be an apprentice bricklayer. The way the teacher acts signals that it is the result that counts and that the work process itself is subordinate to that result. In any case the teacher's management of the teaching situation have had an impact on what the students' have learned from the process.

Turning to the example of the metalworker students' work on the advertisements the picture is somewhat different. As a starting point it could be argued that the outcome of the students' efforts would hardly satisfy a customer who was about to order a campaign for the sale of barbecues or lamps. However, unlike the example of the masonry students the students' work and processes are talked about and the teacher gives feedback to the students. No students are told that their advertisement is useless, that it does not meet the professional standards that a customer could reasonably demand and that it rightly belongs in the wastepaper basket.

In this situation the teacher tries to get the students to talk about their reflections to become aware of different aspects of advertising. Therefore, the results of the students' work are not in the same focus as the reflections they have had and the choices they have made in the process. The primary expectation has not been that the students should meet professional standards as was the case for the masonry students. The question, however, is what have they learned? Perhaps they have learned

something about the importance of advertising in a sales context? About the connection or lack of connection between the content of the advertisement and the actual product? About advertising in the public domain or something about image composition or spelling? Perhaps they have just learned that it is difficult to produce a good advertisement?

And what are we to make of the teachers' way of being a teacher?

One might think that the masonry teacher has no understanding of teaching, pedagogy, or educational planning and that he acts as a craftsman who just happens to bring his habits and craft culture to school. Or that the Danish teacher cannot teach because he leaves it up to the students to decide what is right or wrong. Conversely, the masonry teacher might be said to do the right thing, starting from the quality of the product and acting on that basis: no one should question professional standards. And that the Danish teacher successfully manages to make students aware of their own learning processes, enabling them to reflect on their product and to spot similar phenomena in their everyday lives.

These views can be understood from their own logic, reason, and rationality - depending on the context and purpose. Whatever one may think the examples reflect the everyday life of vocational education and training and they occur at regular intervals. But when we examine the examples side by side, they can appear almost grotesquely different. Perhaps this is because there is something quite different at stake in the two situations?

The Practice Learning Model

Teachers' teaching and students' learning do not operate as elements in a cause-effect relationship. As the examples illustrate it is not always possible to determine what students learn from the different priorities and approaches of the teacher. Sometimes student learning can be a result of interaction with just tools, materials and practical problems that require a solution. This is without the teacher having intentionally organised a learning process. On the other hand, the teacher has the responsibility to plan and implement teaching in a way that puts students in the right conditions to learn. And the prerequisite for teachers to talk about, reflect on and develop their teaching is the existence of vocabulary and concepts that can help to capture the processes at work in concrete teaching situations. The Practice Learning Model presented here is a tool in this respect.

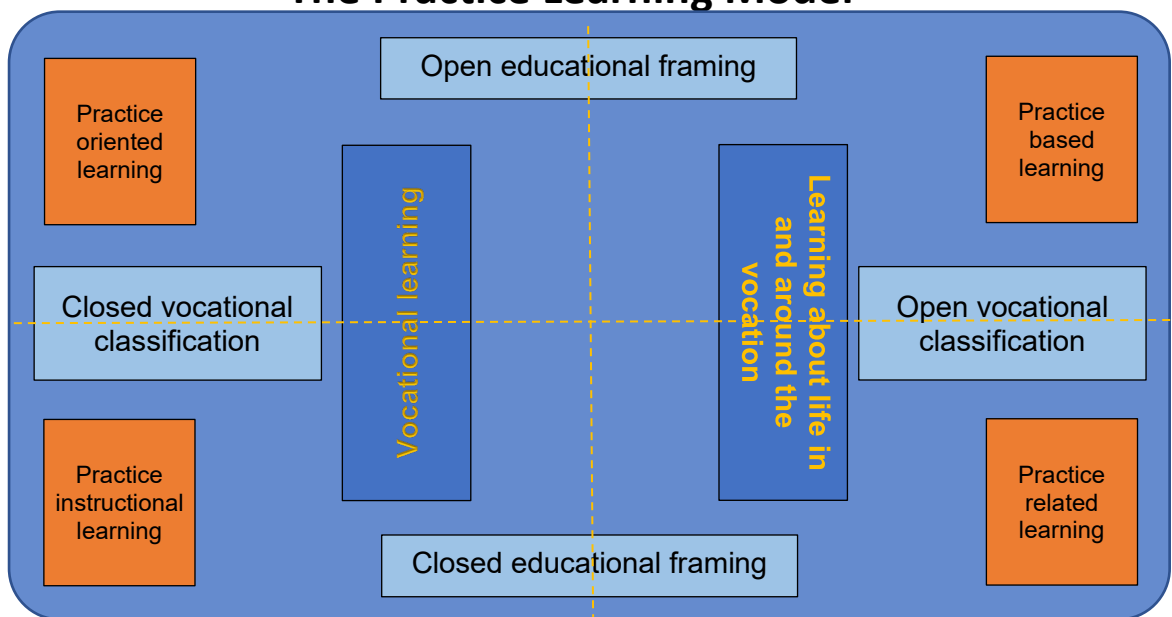
Our starting point for this analysis is that there are links between pedagogy, the way in which teaching is carried out and the student's learning outcome in a specific teaching situation. In other words, the way the teacher teaches has an impact on what students can learn. But it is often not clear to either teacher or student what is at stake in the teaching situation in practice and what the implications of teaching in a particular way might be. This goes for practical teaching in VET where language and curriculum theories - developed for a traditional classroom situation - often fail to capture the dynamics of practical teaching in the workshop. The teacher may have planned his or her teaching from a given pedagogical starting point. But often the teaching is concrete and situated - living its life regardless of the teacher's initial pedagogical and other educational considerations and plans. It can even be very difficult to grasp what is at stake, partly because of the lack of a vocabulary that can be used to put words and concepts to the teaching situation. The example of the masonry students illustrates this:

Even if one might think that the students have 'just been left to their own devices' it is still a teaching situation and the students have a learning outcome. The question is not whether they have learned something or not. The question is rather: What did they learn?

The Practice Learning Model developed by Henrik Hersom (Hersom and Koudahl, 2017) offers an opportunity to put into words systematically and explicitly what is at stake in the teaching situations that take place during the practical teaching in VET-schools. The model is *inspired* by Basil Bernstein notions of strong/weak framing and classification (Bernstein, 1977; 1990; 2000).

In the model teaching and learning are understood in a tension between open/closed vocational classification and open/closed educational framing. We will elaborate on these concepts below.

The Practice Learning Model



The concept of 'classification' refers to the degree of boundary preservation between any subject and the content of the subject in teaching and learning. Boundary preservation/closed classification means that there is a clear division between subjects and that the boundaries of each subject are clearly delineated. In a teaching context this means that it is clear to the students what the subject is and where the boundaries of the subject are. The opposite is the case with an open classification where the students have a much greater influence on what is relevant in the specific educational context.

The notion of 'classification' in the context of vocational education and training refers precisely to the subject and professionalism and the 'framing' refers to the didactical management of the teaching.

Therefore, in the model, we have specified Bernstein's concept of classification and framing as 'vocational' (professional) classification and educational (didactical) framing.

The model can be used both as a tool for planning teaching and as a starting point for discussion and reflection on the implications of having practical elements in the workshop as a pivotal point in the VET-

schools everyday teaching practice. Not least it can be used as a tool to explore students' potential learning in each teaching situation and the implications of given ways of teaching.

The examples with the masonry- and metalworker students illustrate issues that are recognisable in VET: on the one hand students must meet some predefined learning objectives and professional standards which often implies that the educational approach and process is subordinated to the required outcome. On the other hand, students must be involved in the educational process and the teacher must provide feedback that matches the individual students' learning conditions, professional aspirations, objectives and needs. The way these issues are addressed in the specific situation is crucial because of its implications for students' learning and educational outcome.

The Practice Learning Model illustrates these fundamental issues from the links and contradictions in the tension between 'vocational learning' and 'learning about life in and around the vocation' as seen in the left and right sides of the model. There is a difference between teaching aimed at 'vocational learning' as illustrated in the bricklaying example, and teaching that seeks to support students 'learning about life in and around the vocation' as illustrated in the metalworker example. The model straddles four approaches to practice learning: *practice-oriented* and *practice-instructive* learning as expressions of 'vocational learning', and *practice-based* and *practice-related* learning as expressions of 'learning about life in and around the vocation'. The point is that these four different teaching approaches potentially enable and promote specific forms of practice learning. Learning is not always an effect of teaching but conversely, the way teaching is organised and conducted has a significant impact on students' learning opportunities.

The Practice Learning Model describes different degrees of classification and framing in teaching. Educational framing is about *how* students should be taught and vocational classification is about *what* they should learn in the specific situation. The examples given of teaching walling and advertising describe well-known situations in vocational education and training. In the masonry example, students have been given materials, tools, and drawings to produce a pre-defined product in a pre-defined way. In the other example of the metalworkers' work with advertising, there is a markedly greater student involvement through joint discussions and reflections on the process as well as on the product. It is true for both examples that there is some way to go to achieve a satisfactory result in their work from a customer perspective. But at the same time there is a big difference between the two examples seen from a practice learning perspective.

Educational framing

Teaching can be based on an open or closed educational framing or be somewhere in between. Based on closed educational framing the teacher controls *how* students are taught. The individual student has no influence on this. Before meeting the students, the teacher has chosen the educational approach and the various teaching methods to be used. There may be different reasons for working from a closed didactic framework. For example, the teachers' own experiences of how students learn in the best ways, there may be teaching sessions with no time to involve the individual student in the educational planning, or there may be sub-elements of a lesson where a closed educational framing is most

appropriate. The masonry teacher in our example does the opposite of what closed educational framing would indicate. He has left the working process to the students themselves and does not give them continuous instructions on how to carry out the task. This characterises a completely open and uncontrolled framing. If the teacher had approached his teaching based on a more closed educational framing, and thus had instructed and guided the students closely in advance on how to carry out the work, they might not have ended up in the situation where they had to tear down the wall and start all over again. This is even more evident given that the teacher from the beginning had a precise idea of how the wall would turn out in the end.

Open educational framing, on the other hand, is based on the students' highly differentiated ways of learning and on their own suggestions and wishes regarding the form of teaching and teaching activities. In such cases, there is a high degree of student control over where and how learning takes place. There may be various reasons for working with an open didactic framing, such as the teacher's experience that students are most engaged when they have a say in the educational process. This may be based on the experience that some students are best engaged by being and working in a workshop while other students benefit from reading about - and imagining - practice. There may also be varying degrees of framing where the teacher for example sparks and suggests approaches to students along the way. The above-mentioned masonry teacher suggests an educational process in which the students themselves control and have full influence on the process toward the goal.

Teaching in VET is often situated somewhere between the poles and sub-elements of the teaching process can be placed at different points between open and closed educational framing. Some subjects may even be more suitable for open or closed educational framing than others.

Vocational classification

Teaching can have open or closed vocational classification as illustrated horizontally in the Practice Learning Model. Vocational classification is about *what* students should learn. Not *how* they should be taught as described above. The teacher's teaching has a closed vocational classification when the teacher has decided in advance what the teaching will be directed at. In other words, the students are being taught something specific and given and the teacher knows exactly what they are to learn. Therefore, the term 'vocational learning' is used on the left-hand side of the model. The teacher is the one who knows what the most important vocational content is, and he or she acts as a kind of instrument for the students to be adapted to the educational task and to learn the vocational content set by (the teacher's interpretation of) the regulations and the teaching objectives.

On the right side of the model there we find an open vocational classification implying that the students have great influence on what the teaching will consist of and what vocational content will be worked with. The open vocational classification is limited by and subject to the objectives set out in the subject announcements. But many objectives on knowledge, skills and competences are subject to interpretation and 'translation' by the teacher. The right-hand side of the model suggests a broad focus on 'learning about life in and around the vocation'. Here the focus is not primarily on educating learners who can adapt to the existing vocation - 'as it is'. It is more about educating and forming students for

their vocation and for life in general. The aim here is to empower students in ways that establishes agency and supports their development as capable actors in relation to their own work situation, and in relation to life in the broadest sense (Emirbayer and Mische, 1998). The overall purpose is that the students also acquire the ability to challenge the existing vocation and that they can be critical employees who also contribute to developing the vocation in new directions. In the masonry example, students are required to produce something predetermined, defined in a certain way in a closed vocational classification. There is no room for students' own creative experiments and solutions in relation to the vocational content and the teachers' expectations of the wall. Instructions must be followed, and standards must be met. The masonry teacher could have chosen a more open-ended vocational classification and involved the students in their own vocational goals. This could have led to other types of learning opportunities. Perhaps some of the students were most concerned with making physical contact with the materials and gaining e.g., experience with how the mortar settles on the surface of the bricks. Such a vocational focus may have been met even if the wall ended up being askew and had to be torn down. In the teacher's closed vocational classification, however, it is the quality of the wall as result that constitutes the assessment criterion.

In the example of the metal students' work with advertisements, the purpose is not defined by the concrete outcome of the process in the same way as in the masonry example, but rather by the student's reflections on the outcome of the process. One could put it as the outcome of the process - the advertisement - is not in itself the goal. Rather it is a means to make the process itself visible. And that is the actual end or goal of the teaching. Teaching can thus be understood as related to or based on practice (producing advertisements). Unlike the masonry example the metal students work with advertisements is characterised by an open vocational classification.

Different forms of practice learning

In each of the four corners of the Practice Learning Model we find concepts that combine open/closed educational framing and open/closed vocational classification.

Practice-instructional learning can take place when teaching is characterised by closed educational framing and closed vocational classification. Teaching indicates a given professional understanding of practice for the students, which is established in advance, and the educational path to learning in the vocation is established in advance. In essence, this is vocational training for the vocation. The training aims at developing a workforce capable of engaging in the processes that characterise the vocation in question and thus providing a valuable workforce for production. Neither of the two examples – the construction of the wall and the production of the advertisements - are illustrations of pure practice-instructional learning. The example of the masonry teacher might suggest practice-instructional learning because the teacher has a clear expectation in advance that the outcome should be in a certain way. But on the other hand, this does not match the teacher's educational approach, where he suggests an open framing in which the students must find their own way to the well-defined goal in advance. The teacher could have considered using a practice instructional approach with closed educational framing to achieve the closed vocationally classified objective of how the wall should appear.

Practice-oriented learning can take place when teaching is characterised by open educational framing and closed vocational classification. Teaching is oriented toward the student's future practice. The understanding of vocational practice is already there, and the teacher is the mediator of this understanding. However, unlike practice-instructional learning, practice-oriented learning contains the possibility of involving the students' different ways of understanding the vocation. Moreover, the example of teaching advertising is characterised by the teacher having decided in advance that an advertisement will be produced specifically on a page of the paper. This leans towards a closed vocational classification, which at the same time is not completely closed as the students are also free to develop and define the content of the advertisement. The teacher seeks an open educational framing in the process, leaving it to the students to work on their own in terms of pace and sequence.

Practice-based learning can take place through open didactic framing and open vocational classification. Teaching is based on each practice, which is understood as a broad base with many open learning opportunities. This provides a basis for working on students' formation, citizenship, critical stance, innovation, entrepreneurship, and empowerment. Vocational content and educational processes are developed in a collaborative way between the teacher and students, who can potentially create new professional insights and pathways to learning together. Neither the examples on the wall nor the advertisements represent practice-based learning. But the teacher who taught the advertisements could have used a more open vocational classification where the product could have been given more diverse expression if the metal students had had a freer hand and perhaps could have developed something quite different from a 'traditional' advertisement on a piece of paper.

Practice-related learning can take place when teaching is characterised by closed educational framing and open vocational classification. Like all the model's 'practice-learning concepts' practice-relating is a concept that is used differently and has different definitions in other academic works (e.g., Højlund, 2020; Aarkrog, 2010). Referring to the Practice Learning Model, practice-related learning can occur when the teacher relates to practice in his or her otherwise teacher-directed teaching. The teacher thus directs the educational path of students' learning and formation in and around the vocation, but at the same time, there is freedom for students to influence and help direct the vocational content of the teaching. In the example of the masonry teacher, there is a closed vocational classification since it is not negotiable what the wall should look like and what the students should know/learn to be able to carry out the work and make the wall. At the same time, there is an open educational framing because the students must find their own way with the help of the drawings, tools and materials provided.

Practical learning in vocational education and training

On the one hand, there is no cause-and-effect relationship between the teacher's teaching and the students' learning. On the other hand, it is indisputable that the way teaching is planned and carried out has an impact on what students can learn. Moreover, different students may learn differently from the same teaching situation or process. It is possible that the masonry students have learned a lot about how (not) to build a wall. It is possible that sometime in their future professional career when they are on the building site, they will discover that it was in the bricklaying workshop at the VET-school that

they really learned how to build a wall. Maybe they just learned that they can't figure out how to be bricklayers. Sometimes students can learn by working on their own and sometimes they need a clear framing and classification to learn given moments in the overall process. Either way, it is the teacher's responsibility to plan and deliver teaching in a way that provides opportunities for students to learn.

The Practice Learning Model provides a starting point for discussing and reflecting on the implications for students' learning when teaching from a particular place in the model. Thereby the model offers specific concepts for specific kinds of practice-learning and addresses implications of various ways of practice-teaching at the VET-schools. At the same time, the model provides a tool for articulating and making explicit existing teaching and learning situations.

As an example: It may not be useful for the students learning if the teacher always teaches with the intention of practice-based learning with open vocational classification and open educational framing. Just as it may not be useful if a teacher always uses a practice-instructive approach with closed vocational classification and closed educational framing. However, sometimes teachers' teaching will be in a fixed place in the model, and sometimes it will move around depending on the subjects, classes, students, and programmes in question.

The point here is that it is of great importance from which of the four corners of the Practice Learning Model teaching is planned and implemented. If teaching is based on closed framing and classification the stage is set for educating students who are good at solving selected concrete and specific tasks. If the teaching involves the students in terms of means and ends, and therefore is driven by a more open framing and classification, it opens other ways of realising the student's creative potential, imagination, and attitudes.

This has implications for ways of working with practice learning in vocational education which is also why we must look more closely into future research on the concept of practice learning in VET. This awareness is important because of the significant influence on the idea of what qualifications and competences students are equipped with. Just as students are different and approach teaching with different assumptions, and thus benefit differently from the same teaching, teachers are also different and approach teaching in different ways. However, the teacher's choice of educational framing and vocational classification helps to shape the competences and skills that students - and thus the new generations of skilled workers - can acquire. At the same time, the teacher's scope for action is framed by external teaching conditions and social and educational structures. As the example of the masonry students illustrates, the teacher would have liked to be around the students more often during the process but due to illness among colleagues, this was not possible. The example also illustrates that the premises and conditions for choosing specific approaches to practice learning do not always match the preferred teaching approaches. The framework conditions in vocational education and training thus have an independent impact on the possibilities of implementing the most optimal teaching approaches in terms of vocational classification and educational framing. Therefore the conditions in which education is situated have a direct impact on what students can achieve.

VET is governed by a wide range of regulations, learning outcomes in training schemes and local curricula, with requirements from the labour market that skilled labour possess a high professional and technical level. This largely frames teachers' possibilities for organising teaching based on a high degree of vocational classification and educational framing. At the same time, students are expected to be independent, able to cooperate, solve problems along the way and engage in interdisciplinary work. Project-based teaching might be an option because of the characteristic open classification and framing. However, students have different resources with which they approach learning. Some benefit best from open classification and framing, while others thrive best in more controlled and tightly framed teaching. There are thus strengths and weaknesses in the different forms of practice-learning. Both in terms of the demands of the labour market and in terms of the diversity of students' needs to get the most out of their education.

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