**Teaching and learning in the Danish Vocational Education and Training system from a student’s perspective**

**Work in progress – do not quote**

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**Facts: Upper secondary school in Denmark**

After finishing primary and lower secondary school, the young people of Denmark can choose between a variety of upper secondary educations; including three different academically oriented upper secondary educations: commercial, technical and general. The alternative upper secondary school is a system of Vocational Education and Training (VET). The VET-system consists of 12 different foundational courses lasting between 20 and 60 weeks. These foundational courses are grouped on the basis of vocational coherence. Each of the 12 foundational courses leads into a number of specific VET main courses. This produces a total of 109 different VET-educations. The duration of a full VET-education is between 1½ to 5½ years. The Danish VET-system rests on the dual principal, and the VET-students complete their education through a combination of school and apprenticeship periods.

**Brief description of the VET-research in Denmark and the aim of this PhD-project**

VET-research in Denmark has so far been scarce compared to research into the academically oriented upper secondary educations (Juul 2004). The past few years has seen a significant increase in VET-research and an increasing number of VET-PhD-projects have thus been initiated[[1]](#endnote-1). The increase in VET-research is the result of an increasing political and societal attention towards the VET-system. This attention is ambiguous and is related to a hegemonic-knowledge society discourse and a social political ambition to insure an upper secondary education to (almost) all young people of each cohort: “An important aim was – and still is – to establish a VET-policy able, on the one hand to contribute to a “high skills” strategy in a global market economy (Brown/Green/Lauder 2001), and to include disadvantaged groups into the upper secondary education system” (Cort 2010, p. 39). This ambition is the cornerstone of the educational policy objective labeled ‘the 95% objective’[[2]](#endnote-2) targeted the upper secondary educations level (Welfare agreement 2006), and it reflects a strong political and institutional attention towards completion and dropout rates among the upper secondary educations students in general and in particular in regards to the VET-students.

The completion rate of the latest cohort of VET-students for which we have the data (2008) was 48%. In comparison 84% of the students of the academically oriented upper secondary schools completed their education (Uni-C)[[3]](#endnote-3). In other words, the dropout rate of VET-students is much higher than it is for students of the academically oriented upper secondary schools, and therefore much political and institutional attention has revolved around retention and dropout as well as vulnerable and weak VET-students. This has led to much VET research into these matters, and this research has delivered important and relevant findings. These findings have led to the launch of a number of initiatives targeted at reducing the dropout of VET-students. Initiatives include mentoring, social-psychological services, increased focus on guidance, homework cafes, individual educations plans, a VET-education for older students with longer periods of apprenticeship and increased focus on weak students. However these initiatives have so far failed to make a significant impact on the dropout rate of VET-students (Koudahl 2010).

**Knowledge gap**

Unlike the above described traditional outlook on the VET system this PhD-project does *not* revolve around dropout or a special group of weak VET-students. The topic of this PhD-project is the pedagogy and education of VET-students, i.e. the ways the teaching and learning are organized, and the acquisition of vocational skills seen from the perspective of the VET-students. I thereby direct my research towards the core of the VET-education, the encounter between students and teachers about a vocational subject, and my basic questions are: What happens in the classrooms and in the workshops when VET-students try to acquire desired vocational skills? How is the teaching and learning organized? How is the vocational profession disseminated? How do the students handle themselves in the classrooms and the workshops? This is an underexposed VET-research field and the fundamental ambition is to come to a better understanding of *how does the learning of the VET-students and their ways of acquiring vocational skills and manners reflect the pedagogy.*

The hypothesis is that there are significant relations between the ways the students acquire vocational skills and handle themselves in the classroom *and* the ways the teaching and learning is organized and carried out, that merit further investigation on. The assumption behind my change of attention towards the core of the VET-educations: the encounter between students and teachers about a vocational subject is that one key to an improved understanding of the potentials and challenges of the VET-system lies in a better understanding of this encounter seen from the students’ perspective. The 95% objective is a governmental and institutional objective and *not* a student objective. It is, to a large extent, through a better understanding of the students’ learning or no-learning experiences, their development of desired vocational competences and their experiences with acquiring new skills that a better and more diverse understanding of the potentials and challenges of VET can be found.

Another argument for the choice of topic is a view on learning as something fundamental human in line with other life-sustaining functions: “… man’s fantastic capacity to learn is embedded in a biological and genetically developed urge to self-realization, and is in its core a survival potential and therefore, in its realization, fundamentally driven by desire in line with other life-sustaining functions” (Illeris 2006, p. 91, my translation). In other words: Students who learn and experience the development of desired skills and competences are more often than not driven towards further learning and thus driven to seek out or stay in the settings where this further learning can take place (e.g. educational settings). Furthermore, my assumption is that ‘weakness’ as a student is not something one student has and another student does not. Weakness is, for the most part, something produced, created and sustained within the educational structures and relations that dominate a particular educational setting and culture, and the different subject positions different students are offered, acquire and are able to present themselves through (Varenne & McDermott, 1998; Davies & Harré, 1990). This presents the basic logic behind my change of topic towards the potentials and challenges imbedded in the encounter between VET-students and VET-teachers viewed from the students’ perspective.

**Method**

The core of this paper is a five week field study among VET-students at the foundational course for carpenters. I was enrolled as a VET-student, and started the course alongside the rest of the new carpenter students. I participated in the course along with the regular students for all five weeks. Prior to the course, I participated in an introduction event where I presented myself and the purpose of my project to the students. Subsequent to the field study seven VET-students agreed to take pictures of their life as carpenter-students with disposable cameras. These pictures will be the starting point for later qualitative interviews. Short research visits at two other VET-schools that offer foundational courses for carpenters in other parts of Denmark are planned. The methodological reflections and implications of my anthropological inspired educational investigation will not be presented in this paper, but will be the subject of later articles/papers.

**Teaching in VET**

The practical aspects attract the students to the VET-educations and the VET-students prefer, for the most part, the practical aspects of the activities in the course of the education (Aarkrog 2007). In spite of this, almost all VET-students in a recent survey, which CeFU conducted among students at four different foundational VET-courses, indicates that the VET-students find it important that their teachers are practically as well as theoretically skilled (Katznelson, Vestergaard & Brown, 2010). However, the topic of this paper is an analysis of the processes of learning and teaching in the carpentry workshop, i.e. the practical oriented activities. Three different subjects form the structure of these analyses:

* *Learning:* What characterizes successful learning activities? What do the students say about good learning experiences? What characterizes unsuccessful learning activities?
* *Organization:* What happens in the carpentry workshop? How are the learning activities organized? How are the activities enacted? How do the students handle themselves in the learning activities?
* *Vocational dissemination:* How are tasks and activities explained, framed and made sense of?

**Learning from a theoretical point of view**

I am inspired both by the Danish education researcher professor Knud Illeris (2006) and the Swiss educational researcher Etienne Wenger (2008 [1998]), whose special emphasis on the social aspects for individuals learning outcome is very important. Learning is such a basic term that we all have a notion of what it implies, and these notions blend together in our everyday use of the term. We seldom pause to clarify what we mean and take for granted, and misunderstandings are frequent. However, learning is perhaps one of the most complex human processes and a thorough investigation of how we learn what we learn is a fundamental subject within the field of humanistic and educational research. If we as researchers and practitioners can gain added insight into the ‘black box’ of learning, we will be better capable of planning and carrying out successful learning processes for individuals.

Illeris states that both individual, social and societal acquisition and interaction processes must be taken into consideration. The acquisition processes at the individual level have both a content dimension and a driver dimension[[4]](#endnote-4). The content dimension concerns what is being learned – the subject matter. Illeris uses the keywords knowledge, understanding and skills to emphasize that content entails more than just cognition, logic and reasoning, not least motor skills. An understanding of the individual imbedded in the learning process is of course also necessary, as well as an understanding of the individual drivers that give energy to the learning processes. Illeris uses motivation, emotions and will to identify drivers. On the individual acquisition level, learning is suspended between these two dimensions – content and drive. Learning however, is also suspended between the individual and an outside world. The outside world involves the immediate situations the specific learning is played out in as well as societal conditions which (Illeris 2006).

Wenger’s theory on learning (Wenger 2008 [1998]) supplements Illeris’ processes of interaction. Wenger assumes that learning is fundamentally a social phenomenon, as opposed to the individualized and rational understanding that dominated the field of educational research at the time of the development of his social theory on learning: “Our institutions, to the extent that they address issues of learning explicitly, are largely based on the assumption that learning is an individual process, that it has a beginning and an end, that it is best separated from the rest of our activities, and that is the result of teaching (…) So, what if we adopted a different perspective, one that places learning in the context of our lived experience of participation in the world? (…). And what if, in addition, we assumed that learning is, in its essence, a fundamentally social phenomenon, reflecting our own deeply social nature as human beings capable of knowing?” (Wenger 2008 [1998], p. 3).

Wengers offers useful and relevant view of individuals’ learning in communities of practice. What Wenger brings to the table is an improved understanding of, and sensitivity to, the fact that it is the everyday practice that gives meaning and significance to individual participants involved in a given practice (Wenger 2008 [1998], p. 79). The surrounding society is of course not absent, and sets the agenda on a more general level, but it is more than unlikely that the VET-students at the foundational course for carpenters find the activities in the workshop meaningful in terms of the 95% objective.

The everyday concrete purpose of participating in the activities and the learning processes, the everyday negotiation of participating in the communities of practice, the daily walk together with fellow students to the canteen, borrowing tools from each other, success in getting the teacher’s attention and assistance, all determine the nature of the communities and the sense of relevant, meaningful and significant belonging to that community. It is ultimately these everyday experiences that determine whether a student chooses to leave a community and seek other communities. This outlines the theoretical foundation behind the analysis of this paper.

**Learning**

The learning situations that involve practical aspects are special for the majority of the VET-educations. Many of these situations hold a great learning potential which the following observation from the foundational course for carpenters demonstrates:

*[Claus (teacher) is standing at a workbench for approximately 45 minutes to show how to carve out the corners for a window frame. Some 8 or 9 students are gathered around him. Claus does everything and shows how to go about the different things.*

*Subsequent conversation with a student:*

*Int: What’s in it for you, watching Claus doing everything?*

*Student: A lot! I see how to do the different things and learn his tricks].*

(Observation, the foundational course for carpenters)

The students told me that they like Claus and he has their respect because he is a skilled carpenter. Throughout the 45 minutes all the students around Claus seemed very attentive and observed every detail in what he did. Commitment and concentration radiated from the students, and it was obvious that this situation held important learning value for them.

This is a good example of some important elements in the teaching and learning of the VET-students: The teacher takes his time and demonstrates a process thoroughly and throughout. He explains and provides useful advice and professional hints, and last but not least the lesson is related to a concrete task the students face. The example illustrates how one might learn something, in this case a vocational skill, and it shows the central role of the teacher as the skilled and knowledgeable representative of the profession, who takes his time to give a proper demonstration of how to go about it, leaving the students to try out for themselves afterwards.

Construction of the window frame is one of the tasks the students will be tested in. This is a quite difficult task which calls for both precision and caution as one is carving out the tiny grooves and tongues that are used to join the corners of the frame together. Mastery of this task is central to the sense of being able to master the profession as a carpenter. As shown above, concentration and drive radiated from the students, which indicates another central aspect of learning, meaningfulness: “We try to achieve two things: to create meaning, e.g. a coherent understanding of the different aspects of life (see Bruner 1999; Wenger 2004), and to cultivate mastery of the skills and behavior that enable us to confront the practical challenges of life” (Illeris 2006, p. 40, my translation).

The situation outlined above presented apparent meaning to the students in itself. That is not always the case, despite the teachers’ own perception of a specific learning activity as relevant and sensible. There are at least two different ways to conceive meaning:Meaning related to *how* the task is to be solved, i.e. a meaning imbedded in the task in its own right, and a meaning related to *why* the task is central to the carpentry profession, i.e. a meaning on a more general level (Sørensen 2008, p. 115). This implies that there are at least two aspects to consider: Firstly, the students I observed were in the very beginning of their education to become carpenters, and were subject to an initial formal evaluation of their potential. Held after the first two weeks, this evaluation is, among other things, used to determine the length of their individual foundational course, which can be between 20-60 weeks. This makes the students ask *how-*questions rather than *why-*questions. Secondly, for a number of the students, this is their first encounter with a specific vocational subject, and they have little need to know *why* tasks are relevant, rather, they need to know *how* to solve specific tasks the right way. As illustrated below it makes good sense to the students when they are given specific and technical instructions on the *how-*level:

*[A student is about to ask Michael (teacher) a question. They both kneel and put the item in question on the floor, right next to where I stand. Michael grabs hold of the two pieces of wood the student is working on and explains while drawing on the wood. The student is kneeling close to Michael and follow his demonstration and explanation closely with one hand rested on the forehead. He does not quite get it, and Michael explains once more. It is clear that the student wants to understand, and he seems very interested and focused. In the end he seems to get it, and is about to leave to carry on his work.*

*Michael: “Stop by me before you go on to the next step. There is something I must show you before you start on that”.*

*Student: “Okay”. He leaves with the wood – clearly content and eager to carry on].*

(Observation, the foundational course for carpenters)

This is not to paint an idealized picture of the practically oriented learning activities of VET. The point is to highlight some learning situations that seem to ‘work’. The activities must be meaningful to the students, and this meaningfulness is often related to the *how* of the tasks more than the *why*, at least in the beginning of their education*.* Secondly it is imperative that the teacher is available when the students need help and that the teacher takes his time to give good and thorough explanations and demonstrations. If the teacher fails in this, the risk is loss of drive and focus and reduced learning:

*[Kim, Jens and I are about to start a task that involves the construction of a bar of wood with four different attachments in it. We need an introduction but Michael is busy filling out the attendance record.*

*Jens: “Michael, enough with the computer now! Can’t you come and help us getting started on the task? – Arnt, Kim and I need a bit of help”.*

*Thomas: “Yes, I just need to… ”.*

*Jens begins to chat with Asger. Michael finishes the attendance record but has by now forgotten Jens’s request for help. Another student grabs hold of Michael and gets help. Jens strolls to Kim and me, waiting and eager to be introduced to the task. Jens grabs hold of Michael and finally he comes over. The lesson has now been running for 20-25 minutes and we have yet to do any actual work. By the end of these two lessons, all we managed to do was to saw out the bar and the four pieces of wood that are to be attached. We spend most of the time waiting].*

(Observation, the foundational course for carpenters)

**Organization**

The situations described above reveal some special challenges for the foundational course for carpenters. The students work on a lot of different tasks because some students work faster than others. The common classroom where students worked on the same tasks the first one to two days of the course was quickly transformed into a highly individualized and individualizing learning environment where nearly all students work on his individual task. This individualizing ties to one of the ambitions of the extensive reform of the Danish VET-system in 2000 (Reform 2000), that removed fixed classes and introduced running enrolment to make the VET-system more flexible and modular. This flexibility was further encouraged by the introduction of twelve foundational courses that lead into the many main courses of the VET-systems and the opportunity for each school to construct individual educations plans to suit different students’ individual ability and pace. These reformations of the VET-system have been criticized by different educational researchers for being *too* individualizing for putting *too* much responsibility on the students’ shoulders. Weak students find this hard to cope with, which is unfortunate because the reform was designed to help weak VET-students: “… the individualized and modularized approaches intended to appeal especially to weaker students through the possibility of extension and differentiation were shown to miss the target group: Juul and Koudahl show how especially the weaker students were not able to deal with the modular approaches which demanded from the student to “take responsibility for their own learning”.” (Cort 2010, p. 41. See also: Juul 2005; Koudahl 2005).

The above situations show that the VET-students must *be able to get help*. That is, to become visible to the teacher as a student in need of help. Not all the students possessed this competence equally, and with only one teacher to thirteen students this individualized organization of the learning environment held the potential to produce quite a lot of idle time for some of the students:

*[Kim standing next to me is approximately as fast as I am. I haven’t seen him ask Michael for help one single time and Michael hasn’t looked Kim up to check on his progress. Kim’s workbench is near the edge of the room, and out of ‘Michael’s path’ through the workshop. Kim is being overlooked and allowing himself to be overlooked!]*

(Observation, the foundational course for carpenters)

When the students are scattered about in the room at individual workbenches, one result is a geographical isolation and fixation of the students at specific locations in the room. To attract Michael’s attention you have to move away from your workbench if it is not located on Michael’s path. Furthermore, queues are often formed to get Michael’s help, as nearly every student has different questions. To maintain one’s place in the queue one has to move around the room staying close to Michael, as he works his way through the queue. It follows that the students who excel at this ‘game of Michaels’s attention’gets more and faster help. From my location in the room, I was able to witness this game played out from Kim’s perspective:

*[Michael is walking around helping students who are grabbing hold of him. I need help as well, but I don’t draw much attention to myself, so I have to wait a while before Michael comes around. The same applies to Kim just behind me. He doesn’t call for Michael and is not one to draw attention to him. As far as I can tell, he is doing a good job on his tasks and I can’t help but wonder what he is thinking about Michael and his lack of attention. At one point, just before lunch break, Kim and I are both waiting to get assistance by Michael. Kim has completed a task and need evaluation, but other students are louder and more ‘at’ MICHAEL, taken our place in the queue. As a result, Michael doesn’t get around to us before lunch].*

(Observation, the foundational course for carpenters)

As Aarkrog points out, “Neither strong nor weak students care much whether the teaching is practical or theoretical. What matters is that the teacher is there to help them” (my translation of: Aarkrog 2007:10). It follows that the driver dimension is particular interesting when we consider the significance of situations like the above for the students. As a student I experienced the frustration when I wasn’t able to progress, even though I was ready and ‘driven’ for the subject matter and the task at hand. I would imagine that some of the students experienced similar frustrations. Students who failed to get Michaels’s attention or to maintain their place in the queue experience such frustrations and may lose their drive. Loss of drive is not the only potential outcome of such experiences. The loss of ‘sense of belonging’is also a risk. Jens and Kim both showed interest in the task and had a drive to get started, but other students were assisted more often and were better able to get Michael’s attention. It left the impression that students like Jens and Kim were peripheral to the carpentry community of the foundational course. As Wenger points out, the sense of belonging and being taken seriously when one tries to engage in activities is a central requirement for a good and successful learning process (Wenger 2008 [1998], p. 74). We are social beings, and, according to Wenger, that is the central aspect of learning. A sense of ‘being included in what matters’, a sense of being recognized when we attempt to participate and engage in the activities of the community is central to the students as carpenters-in-the-making:“… the primary focus of this theory is on learning as social participation. Participation here refers not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the practice of social communities and constructing identities in relation to these communities” (Wenger 2008 [1998], p. 4).

There are some special considerations to take into account when organizing the teaching in VET. This includes who and what gets the teachers time and attention, in other words ‘classroom management’. The students’ attempts to belong to the community and project themselves as prober carpentry-students, must be met in a supporting and recognizing manner. Or put differently: It is important that these contributions are exchanged for cultural and educational capital, to borrow a phrase from Bourdieu.

In the introductory example, we saw how Claus taught a group of concentrated and focused students at a workbench for 45 minutes. Subsequently, a few of these students told me that this specific situation was quite unique, which raises the question why that is. What can obstruct such seemingly successful learning situations? And next: might a different plan for and organization of the learning activities increase the number of such situations? The next example may shed some light on these questions. In the example, three teachers manage three different teams of carpentry-students: a foundational course, a main course and a group of students who spend their apprenticeship at the VET-school[[5]](#endnote-5). These three teams of carpentry-students work in three different workshop rooms in one large building. The situation in question is a normal everyday situation at this school and it reflects some of the challenges that arise, when teachers are called upon to help and assist many students who are engaged in a variety of individual tasks:

*[8:31: Niels (teacher) walks by*

*Student: Niels! ...*

*Niels: Not now! I have to... (carry on walking past)*

*Student: Oh, ok… (disappointed – have to carry on waiting)*

*2 minutes later, Niels comes back to assist the student. It turns out that the board the student was about to use was intended for another purpose:*

*Niels: I have just cut this out for a customer.*

*They both leave with the plate to find another*

*8:40: No teacher present now.*

*9:15: Still no teacher present.*

*Conversation with 2 students, who tells me that they often have to wait a lot for the teachers*

*Int.: “But why is it that you don’t carry on and try for yourself?”*

*Nikolaj: “You don’t know if it is correct, what you are doing, and if you make a mistake, you have to start all over”].*

(Observation, the foundational course for carpenters)

In the previously mentioned survey from CeFU, 42% of the students indicated that they found it difficult to attract the attention, and this situation illustrates the consequences of an absent teacher (Katznelson et al. 2010:60). Like Nikolaj other students explains that they stop their work because if they make an error they will have to start over. This is typical for the most VET-schools: An error, e.g. in carving out the grooves and tongues for a window frame, may very well ruin the product beyond repair, and the student has to start all over on a new item. This puts extra pressure on the students to make certain that what they are doing is correct. This makes the teacher availability so important.

The question raised is whether it is possible to organize and frame the learning activities differently. The special conditions of the VET-system with students with a variety of different skill levels, working on individual tasks, might hold hidden learning potentials. If the teachers to a higher degree encouraged their students also to ask for help from fellow students, some of the waiting might be eliminated. Furthermore, there is a huge learning potential for both the helper and the one who is helped in this way of organizing and framing the learning environment, and there might very well also be an added social value.

## 

**Vocational dissemination**

The students appreciate demonstrations of a process or the correct way to handle a tool. However, when these demonstrations are mixed with too much explanations and technical terms, there is a risk of losing some of the students’ focus and concentration. These practical learning activities, which are so attractive for the VET-students are thus in danger of losing their learning potential and pulling effect, as Tue, a student at the foundational course explains:

*“I like when they show it to you. But if they use a vocational term, you pause and think ‘what was that about?’ – and then you don’t listen to the rest. When they show it to you and at the same time tell you the right term and show what the term means, then it works out better for me”.*

(Interview, the foundational course for carpenters)

The survey from CeFU revealed that the VET-students at the foundational courses find it difficult to understand vocational terms (48% agree) and that things were explained too fast (42% agree) (Katznelson, Vestergaard & Brown 2010, p. 52). VET-teachers should certainly not stop giving explanations or using vocational terms, but, as the British education researcher Basil Bernstein so convincingly has shown (Bernstein 1975/1977, 1981) it is important to pay attention to *how* these explanations and terms are disseminated and *how* activities are framed and made relevant. The students’ encounter with carpentry is not least an encounter with a number of new words, terms and concepts, which some students acquire better and faster than others. Some of the students have parents or other relatives within the profession, and some of the students have already worked within the profession. To acquire this new language is in other words easy for some of the students and more difficult for others, as a student said one day in the workshop, when we found it hard to understand a job description: “This new language and these new words takes a bit of getting used to”.

Research into such aspects is well established in the academically oriented upper secondary school in Denmark. It is conceptualized as incompetence in regards to the academically oriented upper secondary educations (Ulriksen, Murning & Ebbensgaard 2009). It is important to note that the incompetence is not to be understood as an intellectual incompetence, rather as a cultural and social incompetence, often rooted in having poorly educated parents. The significance of low-education background is well documented in the academically oriented upper secondary school, but the question pursued is whether the same applies to the VET-system. i.e. ‘incompetence in regards to vocation’.If so, one way to meet this challenge may be to connect words, terms and concepts to the practical tasks that the students are working on and to the subject matter at hand and be very explicit about what to note about a given learning process, like Michael does in the following example:

*[Michael: “This is called a saddle mark. It is used to make trusses and roof. It is important to reserve 3/5 of the width of the wood. This is good to remember. No matter how wide the piece of wood is always reserve 3/5 of its width. You will be asked this many times].*

(Observation, the foundational course for carpenters)

For the students’ sense of learning something, it is therefore important that the teachers take their time to disseminate and explain in ways the students can relate to and find relevant and useful in their future work. This is equally important when constructing the job descriptions the students are encouraged to consult when solving a task, as these job descriptions tends to be very implicit in use of language and terms. In one such job description it was written: “The direction of the surface of the drawing is controlled by tracks”. As a PhD-fellow and newcomer to the profession, I had great difficulties trying to work out the meaning of this sentence, and from what I could hear so did some of the other students.

In the first two weeks of the foundational course, the students complete a series of task of increasing difficulty, which are designed to give the teachers a sense of the individual student’s potential. Many of the descriptions for these tasks contain terms and concepts that can be quite incomprehensible if one does not have a prior vocational knowledge. Another description went like this: “The length of the carving (I) is measured onto the oblique piece and marked alongside the edge of the angle on the hole-piece and then angled onto the ‘hole-side’. The depth of the attachment is marked perpendicular on the hole-piece and the carving is scratch out on both sides”[[6]](#endnote-6). The task was not made any easier by Michael who used a different term for the ‘hole-side’: ‘O-side’. The challenge of interpretation and understanding such text, which was often left to the students, might not seem hard to Michael or those students who are familiar with the profession, and a number of the students in ‘my team’ worked fast and steadily. As for myself and a number of other students, however, this was a huge challenge, which was not made easier by the fact that the job descriptions were copies of copies, where lines and drawings often could be blurred and sometimes even incorrect:

*[Stumped by one of the descriptions, I turned to Michael. It turned out that the explanations in the description I had followed were wrong, and apparently the drawing of the lines should have been on the other side of the wood].*

(Observation, the foundational course for carpenters)

The VET-students have different prerequisites and different drives to participate in the activities. Some understand the introduction and explanations the teachers give right away and some start out as blank slates. The VET-system must embrace and include a mass of very heterogeneous students. The professional and vocational skills and competences of the teacher are central to the students’ learning, but so are the didactical skills and competences of the teachers. It is not enough to support one explanation with another just as incomprehensible. Vocational terms, concepts and explanations must be taught, but always adjusted to the students’ level of competence; otherwise the teacher may lose the students’ attention and drive.

*[Michael gave us a long explanation. I tried to remember it all, but from what I can hear from Jens’ reaction, this is too much information for him to take in at ones. When we began the task, he came over to me to ask what we had to do].*

(Observation, the foundational course for carpenters)

The teachers challenge is to adjust the introductions to fit the different students. If the students start out on a task without proper instruction and framing, they may not learn what was intended and will not understand the lesson in the process. Furthermore, it is important to evaluate the students’ learning processes and give good and useful feedback and feed forward. Students who do not request feedback and/or students who tend to be ‘invisible’ need special attention from the teachers. All in all the vocational and professional skill and competences of the teachers are important, but the didactical skills and competences are equally so, and there must be a sensible balance between these two elements in the teaching of VET-students.

1. There are at present 8 ongoing VET PhD-projects in Denmark. [↑](#endnote-ref-1)
2. ‘The 95% objective’ is a political aim that in 2015, 95% of each cohort leaving primary and lower secondary school must complete an upper secondary education. Currently the figure is approximate 80%. [↑](#endnote-ref-2)
3. The statistic center of The Danish Ministry of Education. [↑](#endnote-ref-3)
4. Illeris uses the term ‘driver’ rather than the more commonly used term ‘motivation’ to emphasize that e.g. resistance or fear also contains energy that can drive learning processes forward (sometimes even quite strongly). The term ‘driver’ is thus a broader term than motivation (Illeris 2006, p.181). [↑](#endnote-ref-4)
5. This is an option for students, who have been unable to find a private company to house them in their obligatory apprenticeship. [↑](#endnote-ref-5)
6. The translation of this job description proved difficult due to the many vocational terms, and I am not even sure I got it right, which just underlines the point I am trying to make.

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