

This is a Reviewed Article

Pedagogical practices in VET: between direct and indirect teacher approaches

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Student of carpentry: I know it's my own responsibility to get it done. Teacher: It's not your responsibility. It's the school's and my responsibility. You have a co-responsibility to get it done and learn something. Field notes, basic programme of carpentry

Abstract

This article deals with pedagogical practices on the basic carpentry VET programme in Denmark. On the basis of an anthropologically inspired study among carpentry students at two VET schools, the prime objective of analysis is to understand the various pedagogical practices from the students' perspective. Various different teaching situations are analysed and discussed with regard to their impact on the students' motivation for participation as well as development of independent reflection skills. My argument is that the students look to the teachers for active support in their professional development. Without this active teacher support, the students become disengaged and demotivated and risk dropping out. This is especially clear at the beginning of the programme.

1. Introduction

This article deals with the understanding of pedagogical practices and teaching on the basic carpentry training programme in Denmark from the students' perspective. Even though other factors such as social background, previous learning experiences, class size, ethnicity, school management and so on play a role, it seems evident that the teacher is of key importance to VET (vocational education and training) students' achievement (Hanushek, 2002; 2010; Darling-Hammond & Brasford, 2005; Hattie, 2009). VET teachers' key importance is also emphasized in a number of Danish studies (Juul, 2004; Aarkrog, 2007; Jakobsen & Lausch, 2008; Størner, 2008; Katznelson, et al. 2011). Thus on the basis of an anthropologically inspired study among carpentry students at two VET schools, the prime object of analysis is to understand the pedagogic practices from the students' perspective. The

point of this is to draw attention to the impact of different pedagogical practices on the students' motivation for participation as well as their development of independent reflection skills. The theoretical framework of these analyses is inspired by the work of Bernstein (1990; 2000; 2001). Before outlining the study at hand and the analytical model used, a brief introduction to the Danish VET system and the recent changes to it is provided, to serve as a backdrop for the empirical analysis.

The Danish VET system

The origin of the Danish VET system can be traced back to the fourteenth century, when training was organized by the guilds. In the twentieth century the VET system became increasingly integrated into the upper-secondary education system, and the dual apprenticeship system was established as the Danish VET model (Sigurjonsson, 2001). The Danish dual apprenticeship model differs from both the French model (controlled by the state) and the British model (controlled by the labour market), but is similar to the VET models of Germany, Austria and Switzerland (Cort 2010; Stolz & Gonon, 2012). The model has long and proud traditions of providing a highly qualified and well-educated professional workforce to meet the labour market's changing demands (Sigurjonsson, 2001). Thus the workforce provided by the VET system represents a vital growth resource and contributes significantly to Denmark's total GDP (Mandag Morgen, 2010).

Two significant reforms—1991, 2000

In recent years especially, two reforms of the VET system mark significant changes—not least as regards the demands and expectations of both teachers and students. Inspired by New Public Management, the Danish political system of the mid-1980s was committed to reforming the public sector towards increased efficiency and market orientation (Knudsen 2004; Mathiesen, 2000). The VET reform that came into force in 1991 introduced significant new education policy-management tools such as the taximeter system (a state grant in the form of a certain amount per student per week), making each educational institution responsible for its own operation and finances in a free education market (Jørgensen, 2011).

Furthermore, decentralized goals and frames were introduced, replacing a centrally controlled curriculum. Thus the 1991 reform put VET pedagogy on the agenda and indicated a move away from focusing on learning certain predefined and measurable skills towards a more student-centred, individualized pedagogy (Juul, 2004; Knudsen, 2004). The 2000 VET reform took this a step further, with major changes in both pedagogical approach and expectations of students. The reform introduced the concept of competencies rather than qualifications (Juul 2004), thus signalling a paradigmatic shift away from an interest in teachers' organization of teaching towards a focus on individual students' work with the educational content and their learning activities and processes (Svejgaard, 2010: 10. See also Sørensen 2008). In line with this, the student's personal education plan, the introduction of the notion of the individual student as organizer of their own teaching, increased flexibility and modularization, and the introduction of teams instead of classes marked some of the most significant new steps in the 2000 reform (Christensen, et al. 2000; Andersen & Christensen, 2002; Jørgensen, 2011).

The 2000 reform also aimed to simplify the VET system and make it more transparent. The VET system was divided into a basic and a main programme, and the previous 90 entrance tracks were reduced to seven broad entrance tracks leading to the basic programmes. Thus VET students begin their education in one of the broad basic programmes, and continue in a specific professional track on the main programme. This has since been changed to 12 broad entries (such as building and construction, transport and logistics, or media production). The basic programme lasts 20 weeks (though it may be shorter) but can last up to 60 weeks, depending on individual student circumstances. The main programme comprises 108 tracks. Students participate in internships as part of the main programme, alternating with shorter periods in school. Two-thirds of the main programme consists of internships. A full VET programme takes approximately 4.5 years (Aarkrog, 2011).

The Danish VET system today

VET programmes in Denmark are currently experiencing historically low enrolment. One-fifth of school-leavers in cohort 2012 chose a VET programme, representing a decline of more than 10 per cent from 2001, when almost one-third of the cohort chose a VET programme (Danish IT Centre for Education and Research 2013). At the same time, VET is

struggling with a high dropout rate, which has been deadlocked at around 50 per cent for the last ten years (Ministry of Education 2010, s.72) despite the implementation of a wide range of initiatives targeted at combating it. As a result, research into reasons for dropout among VET students and ways to combat it is high on the agenda in Denmark, promoted by the dominant official educational policy objective that 95 per cent of the 2015 cohort should complete at least an upper-secondary education (The Government, 2011; Cort & Rolls, 2010). In other words, VET in Denmark is set to play a central role in achieving the 95 per cent target.

It is thus stretched between two potentially conflicting purposes: securing a highly qualified professional workforce, and securing the 95 per cent target. VET teachers are expected to bridge this gap through their everyday practice. This is not always an easy task (Koudahl 2011), and this has implications both for pedagogical practices and for relations with students on an everyday basis (Louw & Katznelson, in prep.). This is the background to the primary objective of analysis of this paper: to try to understand the pedagogical practices from the students' perspective. The assumption behind this primary study objective is, firstly, that teachers are the single most significant factor affecting students' achievement. Secondly, if VET students experience engaging pedagogical practices, this might actually also minimize the dropout rate (Nielsen, 2011, s.255). Before turning to the empirical analyses, the study at hand and the model for analysis are briefly introduced.

2. Study design

As mentioned, this article presents findings from an anthropologically inspired study (Geertz, 2000; Hasse, 2009; Hastrup, 2003; 2004) of the basic carpentry programme at two schools (school A & B). At school A, I was enrolled as a carpentry student for five weeks and received training together with the other students at the beginning of the basic programme. A week of observation study (Spradley, 1980; Kristiansen & Krogstrup, 2002) was conducted at the end of the basic programme at school A. At school B I conducted a week of observation study, also at the end of the basic programme. School A offers seven different basic programmes and accounts for 2,705 students (a typical for student-number level at vocational schools in Denmark). The basic programme in question consisted of 25 male carpentry students and two teachers. School B offers eight different basic programmes and accounts for 2,253 students. The basic programme in question consisted of 20 male carpentry students.

The two schools are both located in medium-sized towns in Zealand with approximately 30,000 inhabitants.

Fieldwork and observation study are both qualitative approaches which can be traced back to anthropology and ethnography (Kristiansen & Krogstrup, 2002; Denzin & Lincoln, 2011). The point of my fieldwork as an enrolled student was twofold: partly to get close to the carpentry students and share experiences with them, and partly to undertake my own experiences as a carpentry student (Hastrup, 2010: 68). As an observer I was in a more withdrawn position, which, among other things, did not allow access to experience as a student (Kristiansen & Krogstrup, 2002). However, this observing position implied the advantage of being able to maintain an overview, as I was not busy acting in the field. The analysis in this article includes examples from both the fieldwork and the observation studies.

Direct and indirect teacher approach—a model for analysis

The analytical model outlined below is inspired by Bernstein's concepts of visible and invisible pedagogy and his thoughts on differing pedagogical practices (Bernstein 1990; 2000; 2001). Bernstein defines a pedagogical practice as "... a unique human device for both the reproduction and the production of culture" (Bernstein, 1990, s.64). This can be understood both on a sociological level and on the level of transmission of concrete pedagogical content—the practice level (Ibid. 63). On the practice level, Bernstein identifies three rules as essential to any pedagogical relation: hierarchical, sequencing and criterial rules (Bernstein 1990 65ff, 2001 96ff.). These three rules are related to Bernstein's overarching concept of framing, and as such the three concepts can be used to "... analyse the different forms of legitimate communication realized in any pedagogic practice" (Bernstein, 2001, s.12). These three concepts, together with their modalities in visible and invisible pedagogical practices (Bernstein 1990, s.65–72; 2000, s.11–14; 2001, s.96–102), are introduced below. Furthermore I introduce the concepts of direct and indirect teacher approach as more concrete concepts that correspond to visible and invisible pedagogical practices.

Hierarchical rules refer to the social order of the relations between teacher and student. In any pedagogical relation, the teacher has to learn to be a teacher and the student has to learn to be a student. This process entails the acquisition of a set of rules for appropriate

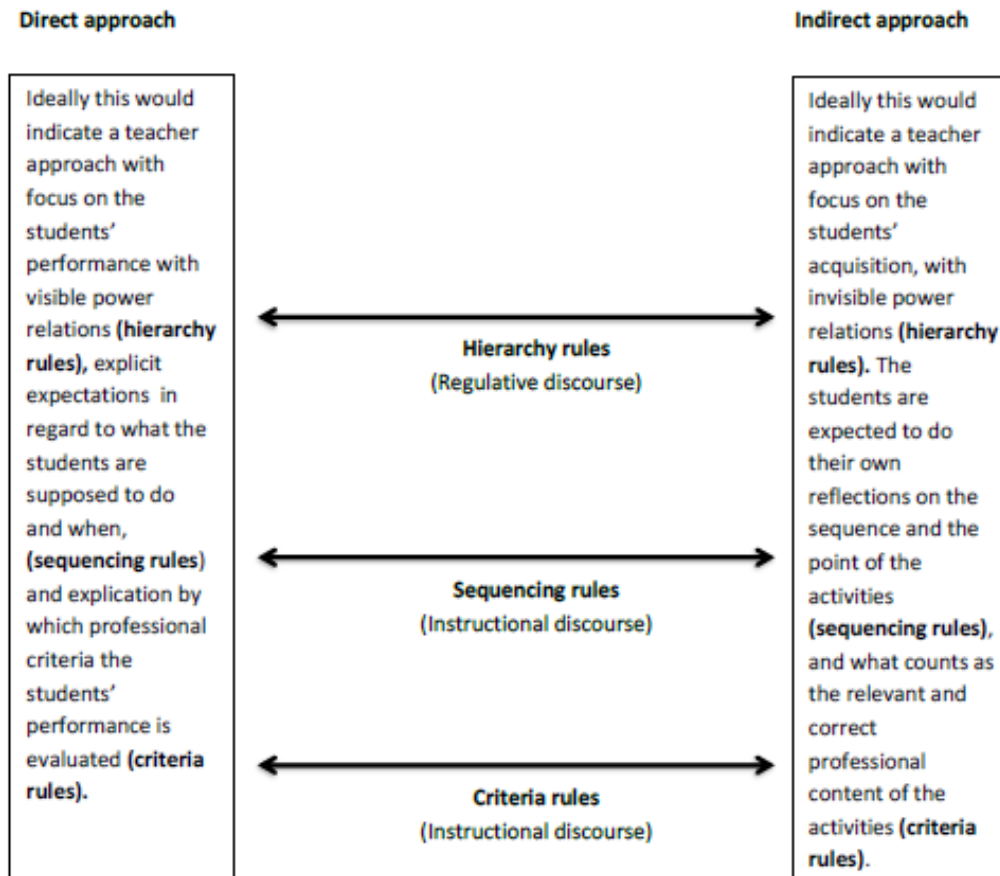
conduct in the pedagogical relation, and this affects the character of the possible relations between teachers and students. If the hierarchical rules of how to be a student or a teacher are visible to the students, the teacher is defined as a central and active figure in relation to the teaching, with clear power relations and explicit expectations about the students' participation. If, on the other hand, what kind of conduct is expected of the students and what is to be expected of the teacher is invisible to the students, the teacher is defined as a withdrawn supporter of the students' learning processes. I shall refer to these two modes as a direct and an indirect teacher approach in relation to hierarchy. Bernstein refers to this hierarchical rule of social order as regulative discourse. He regards this as the dominant discourse in relation to sequencing and criteria rules, which he refers to as instructional discourses.

Sequencing rules refer to the progression of the activities of the pedagogical practice. What comes first, what comes next, why is the sequence like this, and how long a time is a given activity supposed to take? In order to encompass any pedagogical relation, I include the progression of the student and the point of the sequence in my use of the concept. If sequence rules are explicated and it is obvious who is in control of the rules, this indicates a visible pedagogical practice. On the other hand, if the sequence rules are invisible, it is up to the students to undertake their own reflections on elements such as the next step and the point of it. I shall refer to these two modalities as a direct and an indirect teacher approach in relation to sequencing.

Criteria rules focus attention on the criteria of what can legitimately or illegitimately be brought into the context. This concept focuses on what is the relevant professional content of the specific teaching activity, and who is in charge of the criteria and of evaluating the content. If it is visible to the student what is missing in the product they are working on, or what counts as relevant content in a given teaching situation, I shall refer to this as a direct teacher approach in relation to criteria. If it is invisible which criteria the students have to meet and if they are expected to work out for themselves what is the relevant content, I shall refer to this as an indirect teacher approach in relation to criteria.

In a direct teacher approach the emphasis is on the students' performance, and in an indirect teacher approach the emphasis is on the students' acquisition. Model 1 below

illustrates the three rules on continuums between direct and indirect teacher approach. The arrows point both ways, indicating that differing teacher approaches can be identified in differing situations.



Model 1: Direct and indirect teacher approach.

Method of analysis

This analytic model is developed in interaction with the empirical study at hand (Madsen 2003, s.16) and is intended to serve as a thinking tool capable of analysing the complex practice of teaching. The model will be applied in the analysis below. The point of the analysis of different pedagogical practices is to draw attention to their significance in regard to the students' motivation for participating as well as their development of professional reflection skills. The specific teaching situations presented are chosen for their

exemplary character in regard to this. Thus the analysis presented is a reduction that highlights some features and plays down others and does not fully reflect the complex practice of VET teaching. However, this is the premise when analysing: “Any perspective represents a selective attention, which allows one to see certain facts clearly, while others are referred to the shade” (Hastrup 2003: 399, author translation). This analysis is therefore not so much of the what, but more of the how of pedagogical practices. The analysis is structured under three themes: ‘VET lectures,’ ‘Starting to think independently,’ and ‘What do you think?’ These themes are designed to cover differing aspects of the two teacher approaches and the three rules outlined above.

3. VET lecture

Teaching activities in the workshop of the basic carpentry programme give the students hands-on experience and practical knowledge and skills, which is precisely what many VET students are looking for when they choose a VET programme (Katznelson, et al. 2011; Aarkrog, 2007). However, the situation described below has been chosen because it represents a different setting, more similar to the traditional academic lecture. It might thus have been expected not to work well in regard to motivating the students’ participation. However, as we shall see, the students seemed motivated and engaged in the ‘lecture,’ and in a very visible way the situation points to elements of the direct approach affecting the students’ motivation for participation. The teaching situation takes place in a large room. Three wooden roof structures have been placed on the floor in the room, and these constitute the object of the lesson. The students are spread around in the room, some leaning up against the structures and some sitting on them. The teacher stands in the middle of the room.

The teacher lectures for an hour and a half about roof structures, vapour barriers, tie beams and so on, involving the students with questions that are sometimes based on information just given in the lecture and sometimes based on previous teaching as part of the basic programme. The teacher relates his explanations to the huts the students are currently working on in the workshop. During the lecture the teacher tells anecdotes from his own life as a self-employed carpenter and outlines the financial consequences of planning roof constructions right from the start. At the end of the

lesson, several students approach the teacher with follow-up questions. (Observation notes, School A)

What puzzled me when observing this was: Why does it work so well? Why do the VET students seem to be engaged despite their relatively passive role, the absence of any hands-on activities, and the length of the lecture? First of all, it is obvious that the teacher is the central figure and he initiates the activities and the communication: thus the hierarchy is very visible to the students. The teacher uses his own background as a self-employed carpenter to establish himself as a role model, and the students seem to trust him when he introduces seemingly abstract professional content that signals visible and meaningful criteria rules. Furthermore, one obvious but important aspect of the situation draws attention. The teacher is present throughout the lessons, and puts himself at the centre of the activity. This point might seem trivial, but in many cases students experience absent teachers in the VET system, leading to a lack of motivation and engagement on their part (Louw, 2012, Katznelson, et al. 2011). Finally, the teacher is in control of the sequence of the activity, as he introduces the different themes and relates them to the students' work on the basic programme. As the example illustrates, this direct teacher approach in regard to all three rules still leaves room for the students to engage in and participate in the teaching activities.

The next example from the workshop highlights some of the same features, and illustrates how this direct teacher approach in regard to all three rules helps the student, Magnus, to 'break' the learning process up into smaller parts. This enables Magnus to experience success along the way, which seems to be motivating to him:

The teacher takes hold of the two wooden beams Magnus is holding and explains and shows what to do with them. They are both seated on the floor and Magnus listens very intensely to the teacher's instructions, with one hand on his forehead. He doesn't quite get it. He seems very interested and engaged. In the end he gets it and is about to leave to continue his work, when the teacher says: "Come and see me before you move on. There is something I need to show you about the next step. Magnus: "OK." Magnus leaves, visibly pleased and eager to move on. (Fieldnotes, School A).

The hierarchy of the relation is very visible, as Magnus approaches the teacher with a professional problem and the teacher takes it upon himself to transmit the correct solution to Magnus. This kind of visible hierarchy is common in the workshop. However, the way the teacher instructs Magnus explicitly in regard to the sequencing rule and criteria rules (Come and see me before you move on) and criteria rules (There is something I need to show you about the next step) provides Magnus with the opportunity to succeed in small steps, which, in the example, seemed to drive him forward in a motivated way. From my own experience as a VET student, as well as from observing the VET students, I experienced that it is hard to take in long explanations and instructions about practical tasks. As a new student, the attention is mostly focused on the first part of the instructions, to be sure of getting it right (Louw, 2012; Katznelson, et al. 2011). As more experience is built up, it becomes easier to take in long explanations, but especially at the beginning of the basic programme it seems important to split the processes into smaller parts, and to be very explicit about what the students need to do and in what sequence they need to do it. Thus the situations above highlight significant elements of the direct teacher approach in regard to all three rules, and also suggest that this might have a productive effect on the students' motivation for participating.

Starting to think independently

Developing the students' capacity for independent decision-making and professional problem-solving is one of the overall aims of the basic programmes (Order 1514, § 1.2). In the direct teacher approach framework, it might be argued that it is difficult for the students to become more active and to take more responsibility for their own learning processes and develop such independent decision-making competencies.

However, as the example below illustrates, a direct teacher approach in regard to the dominant regulative discourse of hierarchy rules seems to be a good basis for a mix between direct and indirect teacher approach in regard to the instructional discourses of sequencing and criteria rules. This particular mix of teacher approaches seems to make sense to the students: it addresses their motivation for participation as well as their development of independent professional thinking competencies.

Karsten and Niels approach the teacher to ask for a professional consultation. They are dissatisfied with the finish on the roof of the hut they have built. They suggest a solution to the problem, but the teacher says it's not the right solution. He tells them what to do, and adds: "But it is a good suggestion and it shows that you are starting to think independently." (Observation notes, School A).

As one of the teachers at School B explained to me, acquiring the trade of carpentry is a bit like driving on the motorway. First you turn on to the access ramp, and then you accelerate to slip onto the motorway. In the example above, the teacher seems to be providing such an access ramp. By dismissing the students' suggestion he makes the hierarchy visible; however, at the same time he recognizes Karsten and Niels' dissatisfaction with the finish of the hut by saying that it shows they are starting to think independently. Furthermore, even though the suggestion was not right, by letting the students know that it was a good suggestion, the teacher recognizes the professional relevance of the solution they suggest, indicating that they are on the right professional track. This way of signalling that sequencing and criteria rules are open for discussion indicates a move towards an indirect teacher approach in regard to these two instructional discourses. As Karsten later told me: "When we started out we were told we would be able to build huts at the end of the programme. I thought it was impossible, but we have actually managed it, because here they are." In this light, Karsten and Niels' dissatisfaction with the finish of the hut can be understood as a sense of professional pride. Thus the situation is an exemplary illustration of how a direct teacher approach in regard to the hierarchy rule combined with a move towards an indirect teacher approach in regard to sequencing and criteria rules support the students' development of independent professional reflection competencies as well as their motivation for their education.

What do you think?

The following, rather telling situations illustrate another general tendency relating to different teacher approaches to which I wish to draw attention. The first situation is from the workshop, where some of us are busy making spigots. This is quite difficult precision work. The spigot has to be carved accurately to fit into the joint in order to make the structure

strong: One of the students, Morten, is in doubt about whether the cut he made in the spigot is too deep and he approaches the teacher:

Morten: “Is this okay?”

The teacher:” What do you think? You are graded for the task, so it is up to you.”

Morten leaves and start all over with a new spigot. He quickly loses interest in the work and starts to chat to some of the other students. (Fieldnotes, School A.)

The second situation is from the computer room, where the students are busy doing three-dimensional drawings of structures somewhat resembling what architects work with. From my own work with these 3D drawings, I experienced that it is complex work: it is difficult to visualize the 3D structures on the 2D computer screen and to sort out all the different angles and measurements to put on the drawing. The student, Asger, in the situation below seems to be having similar difficulties, and asks for help from the teacher.

Asger: “Do you want measurements on the rafters?”

The teacher: “I want relevant measurements!”

Asger (addressed to one of the other students): ”It is impossible for me to picture this end-piece in my head.”

The second student: ”You can’t picture it at all?”

Asger: ”No, not at all. It’s too much it is!” (Observation notes, School A.)

Initially it seems as if in this way the teachers are trying to support the development of the student’s own reflections about the tasks they are working on, as in the previous examples. However, there are mixed signals in the communication from the teachers. In the first example the teacher goes on to say, “You are graded for the task, so it is up to you,” and in the second example the teacher indicates that it is the students who are expected to figure out the set of relevant measurements that will be applied in the teachers’ evaluation later on. Thus in signalling the expectation that the students should figure the solutions out themselves, without any supporting indications from the teachers as to the standards by which the task is graded or what relevant measurements might be, the hierarchy is a sophisticated mix of an indirect teacher approach embedded in a direct teacher approach. Through indicating that the student’s independent reflection will be evaluated according to sequencing and criteria rules

controlled by the teacher, a hierarchy is established where the teacher has the power to evaluate the students' performance in regard to specific sequencing and criteria rules. This is, of course, mostly how it is in an educational system. However, when the sequencing and criteria rules seemed to be open for discussion, or up to the students to figure out but without active support from the teachers, and when at the same time the teacher masked a visible hierarchy in an invisible hierarchy as in the situations above, it was often demotivating to the students and disengaged them instead of driving them to develop these reflection skills. When the students are left to do their work in a pedagogical practice characterized by a mix between an indirect and a direct teacher approach, as in the examples above, this might actually work counter to intentions and possibly result in actual student dropout. This was a point made clear to me by Peter, a student I talked to one day after school:

Peter tells me that he thinks there are some things missing in the beginning. There is of course the introduction, but it is mostly practical things. He thinks they need to know from the beginning what they are doing now and what they have to do next. There was a dead period in the beginning where he did not know what to do or whether to continue. (Observation notes, School B.)

4. Concluding remarks

First of all, it is important to state that teaching and organizing learning processes for others is difficult. It is not like following a recipe, and the connection between teaching and learning is not and never will be unambiguous (Illeris, 2006, s14). Teaching is a complex practice, and throughout this study different elements of the two teacher approaches and the three rules could be identified at play at various different times in different teaching situations, as also at the same time, in the same situation, in complex ways (as illustrated above). Thus the model I have introduced here and the analysis based on it are not intended to determine once and for all what good teaching practices in VET are or should be. They should be seen more as an attempt to provisionally determine significant relationships between teaching practices and student opportunities for engagement in their education, embedded in the concrete context that currently applies to the field of VET. Thus the indirect teacher approach framework has certain elements in common with the notion of the students' responsibility for their own learning, with its focus on student acquisition. This notion was

one of the cornerstones in the reformation of the Danish VET system in 2000. It was the driving notion behind making students the organizers of teaching. Thus in some ways the indirect teacher approach framework seems legitimized in the reforms as outlined in the introduction: teacher comments like “What do you think?” or “I want relevant measurements” are exemplary of this. However, the general tendency to which I wish to draw attention by presenting the teaching situations above is that this pedagogical practice most often seems to leave a gap in the relation between the students and the teachers that, instead of driving the students to fill it (Bernstein, 1990: 71), disengages and demotivates them. This tendency is most visible at the beginning of the basic programme. The basic programmes are structured, and there are fixed sequencing and criteria rules. However, it is not always visible to the students what is expected of them or how to meet the professional criteria, and the students look to the teacher to point them in the right direction. As Bjørgen points out (2012), the concept of responsibility for own learning has been vastly misunderstood: rather than being a model for teaching, this concept has mostly been used as a moral obligation to place on the students. The claim here is thus that a part of the indirect teacher approach reflects this misunderstanding.

A further claim is that the high dropout rate we are currently witnessing in the VET system is due not only to weak students, but partly also to the gap between pedagogical practices and the demands and expectations of the students. As illustrated in the article, the students actually want to take responsibility, but they call for a more direct teacher approach in relation to hierarchy that will support and engage them (see also Andersen & Lausch, 2010, s.59; Hattie, 2009, s.238). The 2000 reform has already been widely criticized for putting too much responsibility onto the shoulders of the individual student (Cort, 2010; Juul, 2005; Koudahl, 2005). This issue was addressed in the 2007 VET reform, which, among other things, introduced the possibility of schools designing special basic programmes for a particular group of students (Order 1518, § 57). However, as my analysis has highlighted, the notion of students’ own responsibility for learning is still profoundly embedded in everyday pedagogical practices. My hope is thus that a theoretical model like the one in this article might inspire VET teachers to analyse their own practice in regard to the impact of a mix of various different approaches on student motivation for participation and for development of independent reflection skills in differing teaching situations.

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