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In Search of Learning Opportunities for All - Exploring Learning Environments in Upper Secondary Schools

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In this article, we address one of the most critical challenges facing the schools today: designing of learning environments that can provide learning opportunities for all students. The article first provides a brief introduction to content of this challenge. Then we focus on theoretical tools to understand the learning environment. Based on the concepts of classification and framing, as found in the later work of Basil Bernstein, we view that learning is fundamentally linked to the social and the cultural context of the school. To scales are presented for understanding and analysing the learning environment: the praxis scale and the student positioning scale. The scales are tools for analysing three different learning environments in upper secondary schools in Denmark, Switzerland and the USA. The article provides theoretical and empirical explanations of how the design of the learning environment is connected to the challenges and opportunities faced by different kinds of students. Based on these analyses, a model of four ideal types of learning environment will be presented. It is concluded that the specific design of the learning environment always comes down to the conscious, reflected and common sharing of the teaching responsibilities as the crucial factor in the development of learning opportunities for all students, regardless of the intention of the teaching and the desired learning outcome.

INTRODUCTION

In the Western World, the increasing number of young people that are excluded from secondary schools represents a major challenge. First of all it can be difficult for the individual young person to find a job without a school diploma when faced with an increasingly knowledge and skill based globalized labour market. Secondly it creates a socio economic bias in Europe and elsewhere, between different groups of individuals. Youth with

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non-academic backgrounds and from ethnic minorities tend to have a high dropout rate from upper secondary schools (Johannesen et al., 2010; Humlum & Jensen, 2010; Fastholdelseskaravanen 2010). In Denmark this is most apparent in the vocational education and training (VET) system where the dropout rate has been approximately 50 % for the last decade (UNI-C, The Danish IT Centre for Education and Research).

The exclusion mechanisms exist on all levels in the educational system, but are in contrast to the western postmodern society mantra that all citizens can expect equal opportunities. Exclusion is being perceived as contrary to fundamental human rights, universal citizenship and democratic spirit. Inclusion is a keyword, but the difficulties in creating learning opportunities for all students (Kofoed, 2004; Alenkjær, 2008; Dyssegaard, 2011) is one of the most critical challenges facing all levels in the educational settings today (Stoltz & Gonon, 2012). (In this article we will only focus on upper secondary schools).

There are manly two ways to approach this challenge. The first approach is bringing a strong focus on defining who the educationally marginalized youth are, documenting their shortcomings, and implementing various targeted solutions such as mentoring or counselling programmes and specially designed courses. In line with this trend, previous studies conducted by the authors have focused on reflecting the diversity of educationally marginalized youth in Denmark. One study focused on identity among youth without diplomas from upper secondary schools (Jensen & Jensen, 2005). The results show that these young people do not comprise a homogenous group and taking a closer look at their social networks and varying experiences within the education system reveals very different opportunities and challenges. Another study focused on VET dropout among young people from ethnic minorities (Jensen & Jørgensen, 2005). It illustrated how these students often enrolled in VET with clear ambitions to obtain the associated qualifications, but gradually lose faith in the education system. A third study focused specifically on the learning environment of the basic programmes in Denmark (Katznelson et al., 2011). Here it was shown that, despite the high dropout rate and the general view of the VET students as both a challenged and challenging group, the majority of students were well motivated and had chosen their particular course based on vocational interest and to match their individual competences.

The second approach moves focus away from an individualized and individualizing view on students towards an investigation of how the organizational structures and properties of the school, and teachers' perceptions of students result in different opportunities and challenges for different students. The aim is to identify structures and relationships in the classroom that can combat educational disadvantage by creating 'learning opportunities' for all students in a shared learning environment. The primary concern is students' experiences and their situated practice in the classrooms' learning environments. This article focuses on this second approach.

Although framed by numerous factors such as students' life circumstances, family traditions and cultural backgrounds, this article works from the premise that it is the school that is primarily responsible for students' achievement in school. As a consequence, focus remains centred on the structures of the school and the organisation of learning processes as they come into play in the relationship between student and teacher in everyday school life. Although individual students and teachers appear in the cases and analysis, it is not the individuals themselves or their supposed inherent strengths and deficiencies that is of interest. The findings instead concern structures in the learning environments in upper secondary schools, and the opportunities, challenges and barriers faced by different student positions when engaging with and navigating the demands and expectations of everyday school life.

Our research is based on the view that learning is fundamentally linked to the social and cultural context and not just a cognitive process, and the view that knowledge is situated within the community of practice (Lave & Wenger, 1991; Wenger, 1998). This leads to an understanding of learning as taking place when participating in activities that allows for 'learning by doing' (Dewey, 1938) and learning by actively combining the known with the unknown in order to transform personal, lived experiences into educational competencies and knowledge (Bernstein, 2000a), and the view on learning processes as classified and framed in relations of power and control (Bernstein, 1977, 2000b). Following this thread we use the concept scaffolding based on Jerome Bruner's understanding (Wood, Bruner & Ross, 1976; Bruner, 1990), and focusing on later definitions on instructional scaffolding (Sawyer, 2006). The point is that the scaffolding teacher does not solve the student's problem or tell the student exactly what to do or how to accom-

plish a task. Although this may help the student immediately, the theory of scaffolding pinpoints that it will also hinder the students independent learning process. Scaffolding refers to the type of assistance offered by the teacher with different facilitative tools to support the individual students process of actively building and constructing new knowledge.

At the end of the article, didactical perspectives are linked to the analysis by relating the analysis of praxis to the didactical theory (Dale, 1999; Meyer 2005) and the model presented in the end of the article.

THEORETICAL TOOLS

In the following, theoretical tools for analysing the learning environment are introduced to enable clarification of the elements crucial to the construction of learning opportunities, which all students can benefit from.

A SOCIOLOGICAL / PEDAGOGICAL PERSPECTIVE ON THE LEARNING ENVIRONMENT

In the 1930s, Dewey stated that humans organize thoughts and ideas as "either-or", and when it comes to educational philosophy, traditional vs. progressive education is a well-known dichotomy. Dewey does not cultivate the distinction between traditional and progressive education, but he is critical of teaching methods that are static and embraces the position that education and learning are social and interactive processes with students thriving in environments where they are allowed to experience and interact with the curriculum (Dewey, 1938). The distinction between traditional and progressive learning environments is in some ways the underlying theme in Basil Bernstein's later work (Bernstein, 1990), but not as a matter of "either-or". Whereas Bernstein in his earlier work focused on language and developed the concepts of restricted and elaborated codes, in his later work he developed concepts and models that transform relations of power and control into pedagogical codes, and pedagogical modalities are more in focus (Bernstein, 1997; Sadovnik, 2001). In this work, the terms classification and framing are constructed on a scale from weak to strong, allowing analysis of different forms of learning environment. Classification conceptualizes relations of power that regulate relations between contexts or categories, and framing conceptualizes relations of control within these contexts or categories. Using these terms, the analytic spotlight shifts from a one dimensional

focus on traditional versus progressive towards consideration of how organizational structures, social relations and dynamics in the classroom are reflected in certain forms of pedagogy.

These two key concepts are briefly outlined below followed by the construction of two associated analytic scales reflecting our empirical focus on the students' perspectives.

CLASSIFICATION

The concept of classification deals with boundaries between different categories in a pedagogic context such as gender, discourse, subject, knowledge etc., understood as the classification of what content belongs to a given context, subject or learning process and what does not. This classification is cultural and it is thus linked to power understood as the power to determine what belongs and what does not belong to a given category, and, as Bernstein points out, the power of the concepts lies in the analysis of the relation between content – what is in- and excluded in relation to each other and thus how the learning environment is organized.

> "*Where classification is strong, contents are well insulated from each other by strong boundaries. Where classification is weak, there is reduced insulation between contents, for the boundaries between contents are weak or blurred. Classification thus refers to the degree of boundary maintenance between contents*" (Bernstein, 1977, p. 88).

The analysis of boundary maintenance is thus a way of highlighting either strong or weak insulation between contents in relation to one another. This has also significance in regards to the relations between teachers and students on a practical level. The educational codes in a school where the classification is strong will typically support structures that keep elements apart; for example, where pronounced decision-making hierarchy exists, or where a strong professional identity structures the curriculum in single academic disciplines. Keeping elements apart can also be seen in the pronounced distinction between vocations, such as carpenter and joiner, or between the positions of teacher and student.

Where classification is weak, the organization is often structured in ways that support bringing different elements together, typically in a complex

organization with multiple ways of making decisions. The power structures are less visible and there is less specialization than in organizations with strong classification. Bringing elements together can be observed in learning processes integrating elements from different subjects in the same course, when teachers and students are working together on the same theme across subjects, or where students from different VET programmes are mixed together in shared classrooms or workshops.

FRAMING

Whereas classification is about power, framing is about control and communication regarding how content and knowledge are transmitted and legitimated in a given pedagogic context. In a manner of speaking, classification deals with what and framing deals with how 'what' is transmitted and how meanings are constructed and negotiated in an educational context and relationship:

> "*Frame refers to the strength of the boundary between what may be transmitted and what may not be transmitted in the pedagogical relationship. Where framing is strong, there is a sharp boundary, where framing is weak, a blurred boundary, between what may and may not be transmitted. Frame refers us to the range of options available to teacher and taught in the control of what is transmitted and received in the context of the pedagogical relationship*" (Bernstein, 1977, p. 88f).

Strong framing is likely to occur in schools where the communication is dominated by outside regulations, such as tests, and the teaching is thus structured in a relatively fixed curriculum, at a certain time/tempo with a certain outcome – teaching to the test. In a strongly framed pedagogic context there is very little consideration of the individual student's needs, ideas, expectations or prerequisites, and the communication with students is often structured in a Question-Response-Evaluation structure (QRE) initiated by the teacher. Weak framing is likely to occur in schools where the students' knowledge, points of view and experiences are welcomed as part of the teaching and communication. The focus in such a pedagogic structure is on providing teaching that matches the needs and ideas of the students, and the timing/tempo of teaching will vary according to this. The student

outcome will also vary and standardizing is difficult. Alan Sadovnik, a former colleague of Bernstein, offers the following precise summary:

> "*Strong framing refers to a limited degree of options between teacher and students; weak framing implies more freedom*" (Sadovnik, 2001, p. 610).

Although these outlines of strong and weak classification and framing might seem normative and give the sense of a learning environment divided into a sort of bad cop / good cop, is it important to stress that different student thrive in different learning environments: strong classification of content and strong framing with standardised lines of communication can support students looking for clear-cut and high visibility assistance and structures to support their learning processes. The concepts in themselves are not normative, but the concrete analysis of individual students' opportunities and challenges may well display normative tendencies. Nevertheless, the responsibility for such tendencies rests with the author – not the concepts themselves. Furthermore, the concepts are analytic, while, in praxis classification and framing are not a case of either strong or weak, but rather points along a continuum in different contexts and relations.

TWO SCALES FOR ANALYSING DIFFERENT LEARNING ENVIRONMENTS

In the following, two scales are presented for analysing different learning environments, based on the concepts outlined above and reflecting our empirical focus on the students' perspective. The scales are intended to highlight different structures and power relations in different learning environments, thereby focusing analysis on the significance of the choices made by schools and teachers on a daily basis in terms of in- and exclusion, and on the varying challenges and opportunities encountered by students. The two scales, 'the praxis scale' (figure 1) and 'the student positioning scale' (figure 2), are outlined below.

The praxis scale describes a continuum between two archetypes for how schools and teachers design and structure their work: 'private professionals' (strong classification) and 'joint professionals' (weak classification).

Figure 1:
The praxis scale.

The private professionals often work in schools with a strong classification, where the learning environment is characterized by specialization and priority is given to the individual teacher's responsibility to meet national standards (or other given standards) in their teaching. The individual teacher is allowed a high degree of autonomy in terms of teaching content, structure and method, provided curricular standards are fulfilled. From a student perspective, the school and the teaching are likely to be experienced as 'another world', where appropriate knowledge differs from the knowledge of relevance to their everyday lives. This incongruity poses a challenge to students' ability to transform experience and knowledge from one context to another. The strong classification is reflected in the understanding of knowledge, with a clear binary of right and wrong answers. The learning environment is structured by the logic of 'one teacher, one subject, one class', and the schools are likely to have a pronounced decision-making hierarchy.

The joint professionals are likely to work in schools with a weak classification, with a complex organization, multiple decision-making channels, and less visible specialisation and power structures than schools more closely aligned with the private professional archetype. The teachers and management work together in teams across subjects and/or classes, preparing and designing learning environments in collaboration. The 'bringing elements together' can be observed in designing learning environments where elements from different subjects are integrated. The joint professionals are concerned with creating inclusive structures and offering students different paths to learning – often involving the students and incorporating their personal experiences, expecting them to be an active part of the learning environment and engage in planning and fulfilling learning objectives. From the students' perspective, the school is supporting a meaning-making element by connecting relevant knowledge from different contexts and by focusing on different perspective instead of right and wrong answers.

Knowledge is weakly classified and can be discussed and challenged by students as well as teachers.

The student positioning scale (figure 2) describes a continuum between two stereotypes for how schools and teachers understand young people in general, and students in school contexts in particular: 'students positioned as kids to be shaped' (strong framing) and 'students positioned as adults on trial (weak framing).

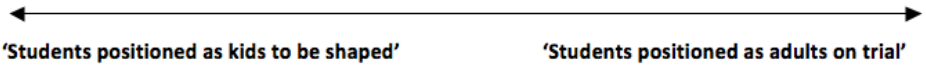

Figure 2:
The student positioning scale.

Students positioned as kids to be shaped reflect a view of young people, and school students in particular, as (potentially) irresponsible and irrational. The teacher tightly controls communication and takes explicit responsibility for the learning process and what is in- and excluded as relevant to the pedagogical context. It follows from this view that the teacher identifies rules and conditions for the students' work and behaviour in school and makes it clear what is right and wrong and what is expected of them. This view is likely to prevail in schools where communication is structured by outside regulations such as a fixed curriculum and standardised tests. The perception of students is generalized, and the goal is for all students to reach a certain pre-determined level of knowledge open to measurement through purportedly objective tests. Teaching is fact based, and acquisition and reproduction of knowledge is the norm.

Students positioned as adults on trial reflect a view of young people, and school students in particular, as (potentially) responsible and (self) engaged in learning. The teacher only has loose control over communication, and the students' knowledge, points of view and experiences is included in the pedagogical context. The responsibility for learning processes is a joint enterprise between teacher and students, and it follows from this view that the teacher's role is to coach and guide the individual student's work and

learning processes. As such, the teacher's primary concern is to scaffold the students' learning by providing differentiated teaching and learning opportunities and environments. This view is likely to prevail in schools where teamwork and interdisciplinary learning processes structure the pedagogic approach. The perception of students is individualized, and the goal is to provide all students with a space to experiment and develop critical perspectives and competencies. The teaching is dialogue based, and reflection on knowledge and the view that learning is a process, is the norm.

THREE EMPIRICAL EXAMPLES OF DIFFERENT LEARNING ENVIRONMENTS

In the following, three learning environment examples from upper secondary schools are introduced. The first two examples are from an empirical study on learning environments within VET in Denmark and Switzerland. The third example is from research on learning environments in high schools in New York City, USA. All three examples are the result of ethnographically inspired pedagogical fieldwork (Spradley, 1980; Geertz, 1973) and stem from classroom observation studies. In the studies we have followed the Danish ethical standards for research, focusing on providing anonymity for the schools, teachers and students alongside with reflecting a holistic perspective and transparency in the analysing process.

The three schools share the fact that their students are young and represent a wide range of social, cultural and economic backgrounds. We have deliberately chosen schools and examples that represent different national traditions and quite different approaches to learning. The examples are outlined by a description of the school in question, the setting of the learning episode, and the moment of interest for the analysis. Deploying 'the praxis scale' and 'the student positioning scale', the different opportunities and challenges students face in the different learning environments are analysed. When using these three quite different upper secondary school settings we wish to create an international and cross sectorial model for understanding different types of learning environment that can be used as a tool for teachers and schools when they design, reflect upon and carry out teaching.

The school: A large VET school where a number of different VET programmes are located such as bricklayers, mechanics, plumbers, chefs, painters, electricians etc. The different crafts are very noticeable when moving around the school, both in the arrangement and inventory of the workshops and in the various aromas of wood, oil, welding, food, paint etc. They are also apparent from the appearance of students: White work wear for trainee carpenters, black for plumbers, white jacket and a tall white hat for chefs, numerous splashes of paint on the white work wear worn by trainee painters, and so on. Thus the students 'carry' their craft with them around the school, and students of different crafts tend to stick together during breaks and at lunch.

The setting: The episodes take place at the basic programme 'building and construction'. All 25 students of the programme intend to continue within the main programme of carpentry. In the following episode, the trainee carpenters are using a computer program called AutoCAD in a traditional computer room with individual work stations, office chairs, and a teacher desk facing the students. The students use the program to solve different geometric tasks and to draw models of structures, some of which they later construct in wood in the workshop. The students work their way individually through a worksheet with different pre-defined tasks. How the individual student solves the tasks in the worksheet during this two week preparatory course plays a crucial role for teachers in performing a competency appraisal, and hence in determining the total length of the basic programme for the individual student – a good result can place students on a fast track to the main programme while a slower track is offered to students with poor results.

Moments of interest: The following episode takes place almost two weeks into this preparatory course. The teacher marks the beginning of the session by saying: "Okay, start working on your tasks where you left off the last time". During the session, the teacher walks around and offers individual help and instruction. One student needs help getting started and the teacher approaches him by asking: "Tell me what you would do next". The student does not know what the next step is and seems unsure about what

kind of answer the teacher is looking for, and he is therefore unable to reply. The teacher says: "Do you have your book with you?" The student says yes. The teacher continues: "Then I would like you to read about the task first. Then I'll help you". 15 minutes later the teacher returns to the student, asking if he has finished reading about the task. The student nods. The teacher replays: "Okay. Now I'll help you".

ANALYSIS: SOME THOUGHTS REGARDING THE FIRST EXAMPLE

The praxis scale: Most of the students realise the importance of a good performance in solving the tasks on the worksheet in determining the length of their basic programme. The learning environment is strongly affected by this circumstance and the teacher practises a strong classification of this learning environment in at least two ways. Firstly, the teacher is alone with the class and makes his own individual considerations with regard to the organization of the learning environment and the students' work. This is supported by the school structure, which makes it the teachers own professional responsibility to make sure all the students in his class complete the worksheet and are assessed after two weeks. Secondly, the worksheet functions according to a binary logic of right and wrong answers, and the teacher has the key. This is true, not only in terms of the correct results for the various tasks, but also, less obviously, of the right procedure for solving them. In this way, the VET school might seem like 'another world' to the students; a world where common everyday knowledge does not constitute relevant classroom knowledge, making the worksheet tasks appear illogical or irrelevant to the students unless they receive support to understand the recontextualization of the everyday knowledge into the school and professional knowledge. However this is not a clear cut case.

The positioning of the students scale: The students in the case study are in many ways positioned as adults on trial (weak framing). The example indicates that the students have to show commitment and effort in order to receive help. The norm to be followed is that, as a student, you engage in learning processes in a mature and responsible manner. This understanding of students as responsible for their own learning has 'dominated Danish educational discourse for the past 10 - 20 years and was a cornerstone of an extensive reform of the VET system in 2000. Although this view has been

criticized for placing too much pressure on the individual VET student, it nevertheless remains a powerful pedagogic discourse and mode of thinking for teachers when relating to students. In the example, the teacher seems to apply this discourse when he asks the student what he would do next. At the same time, the structure of the communication is strongly controlled by the teacher, as well as the classification of the content and the student seem to be sensing that the teacher is looking for a specific answer. Even though the student in this example is seemingly given room to engage and reflect, the impression remains that there are right and wrong answers to the teacher's question: What would you do next? The student is locked in this right-wrong classified structure and, not knowing the right answer, seems doubly trapped in a learning environment framed by the discourse of self-responsibility. Even though the pedagogy applied would at first glance seem to be scaffolding, with the teacher treating the student as an adult on trial, responsible for his own learning, the standardization of the task questions leads the teacher to a form of teaching-to-the-test practice, reflecting a strong framing and a positioning of the students as kids to be shaped. The teacher offers mixed signals, leaving the student in the example frozen in the moment – not knowing the right answer and sensing it is his own responsibility to find out.

THE SECOND EXAMPLE: VETIN SWITZERLAND

The school: The VET school houses a number of different VET programmes ranging from machine technology and polymechanics over architecture, and from commerce education to social- and healthcare education. The students in this example are first year students following the machine technology and polymechanics programme. The school itself resembles a traditional school with classrooms, blackboards and teacher desks, and, based purely on appearance, it is hard to tell this is a VET school. The students wear normal clothes and there are no workshops except a few tools and workstations in some of the classrooms.

The setting: These first year machine technology students work on drawings of different cones. The students draw by hand and are not allowed to use AutoCad until they reach their third year. When the bell rings to signal the start of the lesson, all students are already present and seated with their

books ready and the teacher is also in the classroom preparing things.
Moments of interest: For most of the lesson, the teacher addresses the class, working through the tasks using an overhead projector to illustrate the different drawings of the cones to all the students at the same time. The dialogue in the classroom is mostly QRE-based, initiated and controlled by the teacher. Every once in a while, the teacher pauses and checks whether everyone understand the drawings. The students are all very quiet and appear highly concentrated. During the lesson a few students raise their hands, asking simple questions to make sure they correctly understood the teacher's instructions.

SOME ANALYTIC THOUGHTS ON THE SECOND EXAMPLE

The praxis scale: As in the first example from Denmark, this episode indicates fairly strong classification, with specialization in single subjects and teaching in clearly defined classrooms by a solitary teacher in limited sessions signalled by the bell. In this highly visible (audible) way, the school structure supports the strong classification, clearly segregating different elements. As in Denmark, the VET school is likely to seem like 'another world' to students, where the knowledge considered relevant in the classroom differs from that of relevance in their everyday lives. In the example, the learning environment focuses on classroom-based teaching-to-the-test; there is a focus on the reproduction of textbook knowledge and procedures; there are right and wrong answers and a high degree of standardization. Furthermore, there is a clear division of responsibility with regard to the learning processes. The teacher exerts full control over the learning processes and the content, running through the tasks systematically and visible to all the students at the same time via the overhead projector. In this strongly classified praxis, the message is clear: teaching is the teacher's responsibility and if the students' pay attention to the instructions given, they will learn. These teaching methods are discussed and established among the college's teachers and management as a common foundation of the pedagogic and didactic approach making the praxis a joint enterprise, even though the teacher is alone with the students in the classroom.

The positioning of the students scale: The students in the case are in many ways positioned as kids to be shaped (strong framing). This seems to be ac-

cepted by the students and no one questions what they are doing, why they are doing it, or how they are doing it. There is a clear distinction between the position as teacher and the position as student, and the message seems to be that, if the students do what they are told and show commitment, then the teacher will take responsibility for the students' learning processes. One of the teachers at this school even had very detailed minute-by-minute lesson plans with ready-made posters illustrating the steps and elements of his lesson stuck to the blackboard. This way of framing the pedagogic context affects the possible relations between teacher and students. There seem to be a clear distinction between the position as teacher and the position as student, and the expectations embedded in the teaching and learning are evident, and the development of the students' reflexivity and critical competencies seem less in focus than in the Danish system with the discourse of responsibility for one's own learning, as shown, serve as dominant discourse. Another indication of this strong framing is the system of tests that comprises a central element of VET in Switzerland, with at least three tests per term in each subject. Testing enables the teacher to measure whether students are able to reproduce textbook knowledge. This seems compatible with the logic of learning as something provided by the teacher. Some of the VET-students at this particular school explain that they find it highly motivating to be measured continuously, and that they find the seemingly objective nature of tests appeals to a kind of fairness among students which further strengthens their motivation and commitment.

THE THIRD EXAMPLE: A TRANSFER HIGH SCHOOL IN THE USA

The school: The school is a transfer high school where students that drop out of other high schools get a second chance. The teaching is inquiry-based and the school's goal is to produce independent, reflective, and articulate citizens. The school has a multi-age and multi-cultural classroom environment. On entering the school, you see a large room with a mixture of office and lounge furniture and lots of student work displayed on the walls.

The setting: The teacher is in the classroom and welcomes the students as they arrive. There is a subject timetable, but no bell marking separate lessons. The students and the teacher find tables and chairs and sit in a circle facing one another. The subject is history and the theme is 'The civil war'.

The main topic for discussion is: 'Who or what is responsible for the end of legalised slavery in the USA? Prior to the lesson, students have read excerpts from the account of four historians who offers their views.

Moment of interest: The teacher addresses the question to the students and invites them to present an argument that they find convincing. Three students present different positions. The teacher acts as moderator and sums up the different arguments, inviting other students to contribute. One student defends the position that the slaves themselves were the liberators, and that a legitimate part of their liberation process was to kill their white oppressors. Another student argues that the white farmers were a product of their time and not necessarily bad people that should be killed. There is no right or wrong answer and the teacher asks the students to link their arguments to the different sources and views of the historians. An African American student argues that if she and her family had been raped and starved, the right thing to do would be to kill their oppressors. Another student asks her how she feels about giving 'a license to kill'. The discussion moves on to the theme of whether killing is the right thing to do for the American soldiers in Iraq and Afghanistan. The teacher embraces this new theme, asking the class what can legitimate the killing of another person. This brings new energy to the discussion and the teacher continuously challenges the students to defend their point of view and find arguments in the texts they have read. At the end of the lesson, the teacher (supported by the students) sums up the various arguments and the process of the discussions, and outlines the context and the theme for the next lesson. Some students are not quite finished discussing and are still trying to make their point and defending their arguments, even though the teacher has stated it is time for a break.

ANALYSIS: SOME THOUGHTS ON THE THIRD EXAMPLE

The praxis scale: The teacher in the example is trying to create learning processes integrating elements from different subjects in the same lesson. The classification of content is weak and the students' contributions are invited into the learning environment, thereby offering students different paths to and possibilities of learning. The teacher involves the students, and expects them to be a part of and engage in planning and fulfilling the learning objectives. The school management and the teachers work together in teams

across subjects and/or classes, preparing the process of learning in collaboration. As a consequence of this weak classification, it is not entirely obvious to the students what is and is not relevant to the discussion or how to present a valid argument. The teacher tries to support this learning process by asking students to link their argumentation to the texts they have read, thereby grounding the discussion in the subject of history. The weak classification of the learning environment is visible to the students both in the way they are seated in a circle, signalling the equality of all participants, and in the way the teacher initiates the session by inviting the students to present the arguments which they find convincing. This organization is congruent with the school's aim of producing independent, reflective and articulate citizens. Although there are subject-oriented focuses in the themes for the class, subject specialisation and power structures are less visible than in many other high schools.

The student positioning scale: Students at this school are positioned as adults on trial (weak framing), and their knowledge, their points of view and their experiences are part of the curriculum. The teacher is positioned as mediator in the discussion and can be seen as scaffolding the students' individual learning processes, thereby creating multiple learning opportunities. The learning environment varies according to the needs and ideas of the students. In the example, the students introduce new themes to the discussion and the teacher uses them as part of the scaffolding of the discussion. The student outcome will obviously vary, so standardizing is difficult. The goal for the teacher is to engage as many students as possible in learning processes by acknowledging and respecting the individual student's capabilities to contribute to the learning environment by influencing the subjects and themes dealt with in the classroom. The teachers never distinguish between right and wrong answers in themselves but the answers are assessed in relation to the source and the argument. Thus the focus is on the different perspectives and positions for answering the questions, and this gives the student room to experiment and develop critical perspectives.

POSSIBLE LEARNING ENVIRONMENTS — A MODEL FOR ANALYSIS

Using the student positioning scale as the basis for comparison, it is obvious

that the positions made available to the students vary considerably between the three examples. In the Swiss example, the dominant position available to students is as kids that need to be shaped, while in the US school it is the position as adults on trial that dominates. In both cases, however, the different positions are made visible and explicit to students. They are therefore aware of what is expected from them in their respective learning settings. In the example from the Danish VET school, the positioning of the students is a mix between the two ideal types of students positioned as kids that need to be shaped and students positioned as adults on trial, and from the students' perspective it is unclear what is expected from them or what demands they need to live up to.

Moving over to the praxis scale, both the Danish and the Swiss VET schools are characterized by a strong classification, with specialization in single subjects. The praxis functions according to a right-wrong logic and both examples have tests as the object of the teaching. Both schools present 'another world' to the students. The teaching in the Swiss example is highly structured and controlled by the teacher, whereas the teaching in the Danish example is more a combination between strong framing and a coaching approach to students, supported by the discourse of responsibility for one's own learning. Even though the teacher is alone with the class, teaching at the Swiss appears to be a joint enterprise with regular discussions of pedagogy and didactics among teachers and management. The process of structuring concrete praxis is left more to the individual teacher at the Danish college. Consequently, the responsibility for ensuring that students meet a set of externally determined standards is also placed on the individual teacher to a greater extent. In the example from USA, praxis once again appears more a joint enterprise as the staff work together in teams and the didactic cornerstone of the teaching is to scaffold and support the students' development of critical thinking and reflexivity. The content of the teaching is weakly classified in order to scaffold the students' individual knowledge and experiences within the curriculum.

By combining the two scales, and based on the above analysis, we can identify four ideal types of possible learning environments (se figure 3 below). In our concluding remarks, we will try to expand upon this model of possible learning environments by considering how it equates to didactic theories, in the work of Hilbert Meyer (2005) and Erling Lars Dale (1999).

	Joint professional		
'students positioned as kids to be shaped'	**Stringent practice**	**Scaffolding practice**	'students positioned as adults on trial'
	Private practice	**Coaching practice**	
	Individualized professional		

Figure 3:
Possible learning environments.

CONCLUSION AND REFLECTIONS: THE LINKS BETWEEN PRAXIS, THEORY AND MODEL

It is pointless trying to determine one correct model or design for learning which can be applied to all students, regardless of context. Nevertheless some of the characteristics of the Swiss learning environment, with its clear structures and expectations, fixed processes, and explicit arrangements of rules and progressions, are in fact what Meyer (2005) lists as some of the most influential factors when it comes to students' cognitive learning. Though Meyer underlines that the existence of clear structures does not necessarily imply that the teacher always initiates and determines the classification and framing, it does imply that the teacher must have an idea, a plan and a method, even if, as shown in the example from the USA, this is to invite the students to take active part, develop critical standpoints, and produce individual and independent arguments. On the praxis scale, this also calls for joint professionals, but whether the practice is based on the view of students as kids to shape or as adults on trial seems to be less important in terms of the students' learning opportunities.

The most significant role seems to be played by the teachers' ability to reflect upon their methods, experiment and share their praxis: what Dale refers to as developing didactical competences in the daily praxis of the school

(Dale, 1999, p. 46f). As part of this development, it is fundamental that teachers are willing to have on-going discussions about their experiences, share good and bad experiences with colleagues, offer and receive constructive criticism. Whether the learning setting is framed or classified strongly or weakly is less significant. It seems more important that this classification and framing is a result of a joint professional planning and reflection, and that classification and framing is made clear to the students, as well as what is expected from them in specific learning settings. As suggested by many researchers in learning and teaching, meaning is fundamental to the learning process (Meyer, 2005; Wenger, 1998; Illeris, 2006, p. 40), and the development of meaningful participation in the social practices where learning takes place is what creates mutual engagement and motivation: "Practice does not exist in the abstract. It exists because people are engaged in actions whose meanings they negotiate with one another (…) Membership in a community of practice is therefore a matter of mutual engagement. That is what defines the community" (Wenger, 1998, p. 73).

This point is important to teachers. In a Danish VET context, as we saw in the example, the development of the students' ability to work in an independent and responsible manner is a central part of the curriculum, as well as a dominant discourse informing the thinking of the teachers in their praxis. But in order to develop such skills, the students must be given opportunities for meaningful participation, and this might imply unequal strategies on the part of the teachers, favouring those students that need more guidance and scaffolding than others. As Meyer (2005) points out, understanding the intention of teaching is vital in gaining an understanding the content of teaching, and the greater the learning difficulty students have, the more their learning depends upon good teaching and supportive structures (ibid., p. 64 & 70).

However, the intention of the teaching illustrated in the three examples also differs, and one might object that the aim in the example from USA is the development of the students' critical academic competencies, while the aim in the Danish and Swiss example is the development of specific techniques, skills or procedures, and that this makes the examples incommensurable. But such an objection misses the point. Strong classification and framing and clear instructions may have greater potential in the VET system, as opposed to the teaching of social competences, independent

thinking and self-reliance, where weak framing and classification may work better (Meyer, 2006, p. 77). Nevertheless, the specific design of the learning environment always comes down to the conscious, reflected and common sharing of the teaching responsibilities as the crucial factor in the development of education, regardless of the intention of the teaching and the desired learning outcome – and this is the central point made her.

With examples from both general and vocational upper secondary schools, our findings shows that good learning environments are characterized by supporting students in their learning processes. The design of the learning environment is essential and based on our research we suggest a theoretical model to construct and critically discuss such designs. Our suggestion is not so much one specific design or model, but rather that teachers develop and utilize designs and models for reflection in relation to didactic concepts such as intention, content, framing, classification, meaning, methods, environment and students preconditions, and that these different models or designs are the subject of on-going discussion among teaching colleagues, as well as at the management level within schools. The model presented here offers one way of structuring such discussion, and thereby developing a common pedagogical culture and conceptualization. Hopefully this can result in an improvement in the quality of the content of teaching, benefitting the learning opportunities of teachers and students alike.

[1] The study is part of a PhD-project on teaching and learning in VET from the students' perspective (2010-2013). The case is from an anthropological inspired field work at the basic programme of carpentry (see note 3) in Denmark. The field work lasted 5 weeks and was conducted in a class of 25 students of carpentry. Students' and teachers names are anonymized in all 3 cases presented in the article.
[2] The Danish VET system consists of 12 broad basic programmes lasting between 20-60 weeks. The basic programmes lead into approximately 110 different main programmes. The duration of a full VET programme varies between 1½ and 5½ years.
[3] Computer Aided Design
[4] The study is part of a PhD-project on teaching and learning in VET from the students' perspective (2010-2013). The observations are conducted in 6 different classes at a VET school in Switzerland. The study lasted 1 week.
[5] The study is part of a research project on inclusive education in high schools in NYC in 2009-2010. The observations are conducted in 6 different high schools and lasted from 3-7 hours per high school.

REFERENCES

Bernstein, B. (1977) On the classification and framing of educational knowledge, in: B. Bernstein *Class, Codes and Control. Vol. 3. Towards a Theory of Educational Transmissions* (Routledge & Kegan Paul. London, Boston and Henley).

Bernstein, B. (2000a) Pedagogising knowledge: Studies in Recontextualising, in: B. Bernstein *Pedagogy, Symbolic Control and Identity* (Rowman & Littlefield publishers, inc. Boston).

Bernstein, B. (2000b) *Pedagogy, Symbolic Control and Identity* (Rowman & Littlefield publishers, inc. Boston).

Bernstein, B. (1990) Social class and pedagogic practice, in: B. Bernstein *The Structuring of Pedagogic Discourse. Vol. IV. Class, codes and control* (Routledge. London and New York).

Chouliaraki, L. (2001) Pædagogikkens sociale logik – en introduktion til Basil Bernsteins uddannelsessociologi, in Chouliaraki, L. & M. Bayer (Eds.) *Basil Bernstein. Pædagogik, diskurs og magt* (Akademisk Forlag, Viborg).

Dale, E. L. (1999) Kundskab, rationalitet og didaktik, in E. L. Dale (Eds.) *Pædagogisk filosofi* - en indføring (Århus: Klim).

Dewey, J. (1938) *Experience & Education* (West Lafayette, Ind.: Kappa Delta Pi).

Elsborg, S., Jensen, U. H. & Seeberg, P. (2005) *Muligheder for mønsterbrud i ungdomsuddannelserne: Arbejdsrapport om social mobilitet og intergenerationel uddannelsesmobilitet* (Syddansk Universitetsforlag, Odense).

Elsborg, S., Jensen, U.H. & Seeberg, P. (2005b) A*t skabe succes. Anbefalinger vedrørende mønsterbrud på ungdomsuddannelserne* (Odense: Syddansk Universitetsforlag).

Johannesen, A., Lassen, C. F. & Linde, J. (2010) *Drenge I gråzonen. Veje til at få udsatte drenge til at gennemføre en erhvervsfaglig uddannelse*. Ministeriet for Flygtninge, Indvandrere og Integration & Undervisningsministeriet.

Fink-Jensen, K., Jensen, U. H., Mørck, L. L. & Kragh-Müller, G. (2004): *God skolepraksis - forhold der fremmer og hæmmer læring: Undersøgelse af "de gode eksempler" på klasserumsniveau*. (København: AKF Forlaget).

Geertz, C. (1973) Thick Description: Toward an Interpretive Theory of Culture, in: C. Geertz *The Interpretation of Cultures* (Basic Books, New York).

Illeris, K. (2006) *Læring* (Roskilde Universitetsforlag, Frederiksberg).

Jensen, T. P. & Humlum, M. K. (2010) Frafald på de erhvervsfaglige uddannelser. Hvad karakteriserer de frafaldstruede unge? (København: AKF Forlaget).

Jensen, U. H. & Jensen, T. P. (2005) Unge uden uddannelse. Hvem er de og hvad kan der gøres for at få dem i gang? (København: Socialforskningsinstituttet).

Jensen, U. H. & Jørgensen, B. T. (2005) *Det vigtigste i verden er en uddannelse" - undersøgelse af etniske minoritetsunges frafald fra erhvervsuddannelserne. Baggrundsrapport I.* (København, Tænketanken om udfordringer for integrationsindsatsen i Danmark).

Katznelson, N., Brown, R. & Louw, A. V. (2011) *Ungdom på erhvervsuddannelserne. Delrapport om valg, elever, læring og fællesskaber* (Odense: Erhvervsskolernes Forlag).

Katznelson, N. & Brown, R. (2011) Motivation i erhvervsuddannelserne. *Med eleverne ind i undervisningsrummet til faget, pædagogikken, lærerne og praktikpladsmangel. Anden delrapport* (Odense: Erhvervsskolernes Forlag).

Lave, J. & Wenger, E. (1991) *Situated Learning. Legitimate peripheral participation* (Cambridge: University of Cambridge Press).

Louw, A. V. (2012) Erhvervsfaglig læring i et elevperspektiv, *Dansk Pædagogiske Tidsskrift*, 1/12, 40-49.

Meyer, H. (2005) *Hvad er god undervisning?* Gyldendal, København

Sadovnik, A. R. (2001) Profiles of famous educators. Basil Bernstein (1924-2000), *Prospects*, Bind 31 (4), 607-620. Dordrecht : Springer Netherlands.

Jensen, S., Jensen, U. H. & Seeberg, P. (2006) *Udvikling og forskning i samspil. Mønsterbryderperspektiver på de gymnasiale uddannelser* (Odense: Syddansk Universitetsforlag).

Spradley, J. P. (1980) *Participant observations* (Thomson Learning, London).

Ulriksen, L. & Holmegaard, H. T. (2008) *Læringsmiljø og naturvidenskab på htx – Resultater fra et forskningsprojekt om det tekniske gymnasium* (Odense: Erhvervsskolernes Forlag).

Varenne, H. & McDermott, R. (1998) Adam, Adam, Adam and Adam: The cultural Construction of a Learning Disability, in: H. Varenne & R. McDermott *Successful Failure. The School America Builds* (Colorado & Oxford: Vestview Press).

Vestergaard, A. L., Brown, R. & Simonsen, B. (2010) *Læringsmiljø på hhx – Resultater fra et forskningsprojekt om handelsgymnasiet* (Odense: Erhvervsskolernes Forlag).

Vygotsky, L.S. (1978): *Mind in society: the development of higher psychological processes* (Cambridge, Mass.: Harvard University Press)

Wenger, E. (1998) *Communities of Practice. Learning, Meaning, and Identity* (Cambridge: Cambridge University Press).