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Competence and/or Performance - Assessment and Entrepreneurial Teaching and Learning in Two Swedish Lower Secondary Schools

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Abstract. Entrepreneurial teaching and learning, thus entrepreneurial education corresponds well with formative assessment/assessment for learning. Both are characterised by an approach to education, teaching, and learning, which puts pupils in the centre of their own learning. Learning aims to "go deep" and generate "real learning" where competencies rather than measurable results are the focus. Both entrepreneurial education, and assessment for learning are promoted by the Swedish National Agency for Education. Entrepreneurial education has been inscribed in the national curriculum for Swedish compulsory schools since 2011. The same curriculum and syllabuses also focus on several knowledge requirements, which form the basis for assessing pupils' performances. Thus, the Swedish national curriculum can be said to send two rather disparate messages. This research focuses on lower secondary school and the broad approach of entrepreneurial education and uses Basil Bernstein's theory of performance and competence models to elaborate on entrepreneurial teaching and learning in relation to assessment. Observations along with interviews with teachers and pupils in two Swedish lower secondary schools provide the empirical basis for the research. The results reveal some differences between the schools but indicate that both teachers and pupils are relating to the prevailing dominance of performance models and thus encounter difficulties when trying to adopt entrepreneurial education and assessment for learning.

Keywords: entrepreneurial education; assessment for learning; lower secondary school; performance model; competence model.

Introduction

Entrepreneurial education (EE) aims to develop an entrepreneurial mind-set among pupils and, thus, the future labour force (European Commission, 2002; 2006; 2010; 2012; 2013; 2016; OECD, 1989; 1998; Swedish Government Office, 2009). This means that pupils' abilities such as creativity, curiosity, and problem-solving are to be encouraged. Aspects such as interdisciplinary collaboration, involvement with the surrounding society as well as pupils' participation, influence, activity, and experiences are advocated, thus entrepreneurial teaching and learning is to be perceived as an educational approach (Erkkilä, 2000; Kyrö,

2005; Lackéus, 2015; Røe Ødegård, 2014). The need for EE has been expressed in national and international policy text for decades; in 2011, it was inscribed in the Swedish national curriculum (SNAE, 2011a).

In Sweden, there has also been an increased focus on assessment for learning (AfL), (also referred to as formative assessment)[1], where assessment is used as a tool in the ongoing learning process. The state has encouraged implementation of AfL in Swedish classrooms through some of its policies (e.g. SNAE, 2011b). The motive behind this is to support pupils' learning and development. Among others, Stobart (2008) claims that AfL is a process, but also an approach to learning and teaching. It is obvious that EE can be easily linked to AfL. In literature on entrepreneurial teaching and learning, AfL is advocated and seen as a part of its means (Falk-Lundqvist, Hallberg, Leffler, & Svedberg, 2011; 2014; Josefsson, Bostani, & Josefsson, 2009). In parallel with this, there is also an increased summative focus in Swedish compulsory schools (Wahlström & Sundberg, 2015). Summative results usually are considered as what counts concerning pupils' future possibilities, and, to a large extent, the focus on summative results controls the mediation of knowledge (Stobart, 2008). Thus, the message to teachers and pupils is somewhat contradictory as summative assessment can be perceived as requiring other types of classroom practices and ultimately other forms of knowledge rather than those promoted by EE and AfL.

Basil Bernstein (2000) uses the concepts of performance models and competence models to distinguish between the knowledge forms that different pedagogic practices generate. This study is a part of a continuing professional development (CPD) programme on EE, including 25 schools across Sweden. It took place between 2012 and 2015 and its goal was to combine school improvement and research. The aim was to provide a better understanding of EE, further develop it, and encourage its adoption. The present study involves two lower secondary schools taking part in the programme. The study uses the concepts of the performance and competence models to elaborate on teachers and pupils understanding of knowledge, teaching, and learning in relation to EE and AfL. There is a lack of empirical research on EE in relation to assessment in compulsory schools. Furthermore, in the current research on AfL, there seems to be a lack of thorough studies using direct examples from classroom observations (Black, 2015). Therefore, this study aims to fill this gap.

Aim and research questions

The aim of this study is to elaborate on how different modes of teaching and learning are associated to different forms of knowledge and assessment, and

[1] In some research, the concepts of "assessment for learning" and "formative assessment" are given somewhat different meanings (e.g., Bennett, 2011; Swaffield, 2011). In this article, the concepts are used synonymously, which is also common in other research (Swaffield, 2011). Both concepts are used in the article: In most sections assessment for learning is mainly used, but in the Results section, formative assessment is used.

how this relates to entrepreneurial education in Swedish lower secondary schools. The following research questions will guide the study:

- How is teaching conducted and questions about knowledge and assessment expressed in practice?
- How do teachers express themselves about teaching, knowledge, and assessment in relation to entrepreneurial learning?
- How do pupils express themselves about and relate to teaching, learning, and assessment?

Background

In this section, we place entrepreneurial education in an international and national (Swedish) context. The Swedish assessment system in compulsory school will be presented, followed by the means of summative assessment and assessment for learning. Views on entrepreneurial learning in relation to assessment will conclude this part of the article.

Entrepreneurial education

International and national policy documents have expressed the need for EE for a long time (European Commission, 2002; 2006; 2010; 2012; 2013; 2016; OECD, 1989; 1998; Swedish Government Office, 2009). Globalisation and marketization are the main incentives for introducing EE from an early age. In Sweden, this is a thread throughout the educational system (Swedish Government Office, 2009). EE is often delineated by a narrow and a broad approach. The narrow approach is connected to teaching and learning about how to plan, start, and run businesses. The broad approach, most commonly called entrepreneurial learning, is about usurping an entrepreneurial mind-set (e.g. Erkkilä, 2000; Jones & Iredale, 2010; Leffler, 2006; Lindster & Norberg, 2016; Mahieu, 2006). In Sweden, the narrow approach is primarily a question for upper secondary school and higher education, whereas the broad approach permeates the entire educational system. Education should provide the conditions for pupils to develop an entrepreneurial mind-set, as the Swedish curriculum (SNAE, 2011a, Lgr 11) says:

> An important task for the school is to provide a general but coherent view. The school should stimulate pupils' *creativity, curiosity* and *self-confidence* as well as their *desire to explore their own ideas* and *solve problems*. Pupils should have the opportunity to *take initiative* and *responsibility*, and to develop their *ability to work both independently* and *together with others*. The school in doing this should contribute to pupils developing attitudes that promote entrepreneurship. (p.11, italics added).

In Swedish national syllabuses, the pupils' abilities to analyse, reflect, communicate, argue, and evaluate can be connected to entrepreneurial teaching and learning.

Assessment in Swedish compulsory school

In Swedish compulsory school, a criterion-referenced assessment system has been operating since the mid-1990s (Wikström, 2006). This system requires that student performance is assessed in relation to knowledge requirements (criteria) in each subject. Teachers assess their own pupils' performance also regarding summative assessment, which is the basis for selection for further studies. Several assessment reforms have been implemented in recent years with consequences for classroom assessment. Therefore, there is a greater emphasis on assessment, particularly since the revised national curriculum Lgr 11 (SNAE, 2011a) was introduced in 2011. The new curriculum included new syllabuses in all subjects, clearer requirements for what students should achieve, a new grading scale with more levels, end-of-term grading in Grades 6 and 7 (instead of starting in Grade 8, which was formerly the case), and national tests in more subjects starting at earlier grades. The implementation of these reforms brought about a greater focus on summative assessment (Wahlström & Sundberg, 2015) in classroom practice, with teachers more carefully using the national steering documents in teaching and assessment. The main purposes of the assessment reforms were to improve student performance and school effectiveness through better monitoring of pupils' progress (SOU, 2013: 30) and to detect pupils' knowledge gaps at an early stage (Samuelsson, 2012).

Summative assessment

Summative assessment (assessment of learning) is usually described as a summarising of learning after teaching is completed. For a number of years, there has been an international trend towards more summative assessment for accountability, which involves external (political, administrative) requirements that are easily measured and provide clear results (Lundahl, Hultén, Klapp, & Mickwitz, 2015; Stobart, 2008; Torrance, 2011;). This may cause tensions between the kind of assessment that teachers perceive as meaningful and assessment concerning accountability (Black, 2015; Gardner, 2010; Suurtam & Koch, 2014). Public announcement of schools' results based on students' achievements in terms of test scores and grade levels are now common and may counteract the use of formative strategies in classroom practice (Brookhart, 2009; Natriello, 2009). Assessment methods commonly attributed to summative assessment are standardised tests (in Swedish compulsory school: national tests) and grades. The concept of "high-stakes testing" (e.g. Au, 2007) is usually used to describe tests with major consequences for students. The national tests in Grade 9, in lower secondary school in Swedish compulsory school, is generally perceived by students as being high-stakes (Eklöf & Nyroos, 2013). The national test scores may have implications for final grades in Grade 9, which, in turn, give students access to further studies in upper secondary school. National tests in Swedish compulsory school are provided in Grades 3, 6, and 9.

Test scores and grades are often criticised for not contributing to real learning (Stobart, 2008; Jönsson, 2013; Lundahl et al.,2015). Previous research on summative assessment (e.g. Eklöf, 2017) shows that a focus on test scores and grades detracts from actual learning, which implies increased negative stress for both pupils and teachers. One downside of standardised tests (Håkansson &

Sundberg, 2012) is that they limit teaching content and drive teaching to include only what is coming on the test, a practice which is called "teaching to the test" (Mehrens & Kaminski, 1989). However, summative assessments themselves do not necessarily prohibit good teaching, rather it is how the summative results are used. Good teaching and assessment involves assessment *for* learning and assessment *of* learning, in interaction (Black, 2015; Olovsson, 2017; Tveit, 2014)

Assessment for Learning

Black and Wiliam (1998) argued that formative classroom assessment can improve student performance. Their argumentation was built upon their idea that the main purpose of assessment in education is to support pupils' learning. Wiliam and Thompson (2007) elaborated a framework for AfL using three key processes of teaching and learning. The processes involve determining goals for learners, what the learner already knows or can do, and what is required to get the learner to the goal. In this process, feedback is the key element for effective learning, and constructive, forward-looking feedback is what enhances learning most effectively (Hattie & Timperley, 2007). However, criticism of the positive impact of AfL has emerged. The criticism e.g. concerns a perceived instrumental approach to teaching (Bennett, 20011; Torrance, 2007).

If feedback and instructions from teachers to students is too detailed, there is a risk that students may become too dependent on others in their learning process and take a more passive role (Groome, 2005; Jönsson, Lundahl, & Holmgren, 2015; Torrance, 2007; Torrance, 2012). In this context, Torrance (2007) argues that criteria compliance replaces learning. If AfL becomes too teacher-centred and aimed at supporting pupils to achieve a certain grade, it might lose a significant part of its value: "At the heart of it is a vision of active and self-regulating learners who work to make sense of what they are learning …. Peer- and self-assessment play a key role in this self-regulation, as does feedback" (Stobart, 2008, p. 169). In conjunction with this, Stobart discusses the *spirit* of AfL (see also Marshall & Drummond, 2006), which implies a clear understanding of why teaching is organised in certain ways. It is not just about formative techniques, used without reflection in the classroom, a practice referred to as being the "letter" of AfL (Marshall & Drummond, 2006; Stobart, 2008).

Entrepreneurial education and assessment

Literature and research on the broad approach of EE advocates using AfL as it is and sees it as being a natural part of EE, and aligned with its means (Falk-Lundqvist, Hallberg, Leffler, & Svedberg, 2011; 2014; Josefsson, Bostani, & Josefsson, 2009; Lackéus & Moberg, 2013; Lundahl, 2011). The connections between EE and AfL are obvious in many ways. Primarily, they both concern the recognition that learning is not about being able to reproduce what is already known but is increasingly about creating new knowledge relevant to solve problems (e.g. Gibb, 2000; Johannisson, Amundsson, & Kivimäki, 2010; Lundahl, 2011; SNAE, 2015). EE is often linked to Dewey and progressivism, where the learning process rather than measurable knowledge outcomes is the focus (e.g. Røe Ødegård, 2014), and the same applies for AfL (Lundahl, 2011). EE and AfL are approaches based on pupils' knowledge level; they represent a different

view of teaching and learning than what is seen as a traditional approach (Erkkilä, 2000; Gibb, 1993; Kyrö, 2005; Lackéus, 2015; Lundahl, 2011; Stobart, 2008). Nonetheless, not much research on assessment of EE in compulsory school has been done. The problem of assessing complex abilities such as creativity, fantasy, innovation, critical thinking, and problem-solving are addressed by researchers within the fields of AfL and EE (Diehl, Lindgren & Leffler, 2015; Diehl, 2016a; Diehl 2016b; Lundahl, 2011). Lackéus, Lundqvist and Middleton (2015) and Lackéus (2016) offer suggestions based on a smartphone app where students are able to report and reflect on critical learning events as they happen. Other than that, Swedish literature on entrepreneurial learning suggests different ways for teachers to conduct AfL by providing examples of classroom situations and reflecting on them (Falk-Lundqvist, Hallberg, Leffler, & Svedberg, 2011; 2014) or by offering examples of different scoring rubrics (Josefsson Bostani & Josefsson, 2009).

Theoretical Framework

This study aims to investigate what kind of knowledge is focused on in schools and classes taking part in a CPD programme on entrepreneurial learning. Contradictions in curriculum and syllabuses and their implications on teaching and learning have been described above. A way to explain the different knowledge forms that emerge is to use Bernstein's (2000) pedagogic models, performance and competence. These in turn have an impact on what kind of consciousness and identities are shaped among teachers and pupils. "Our identities, or our sense of who we are, is realised or brought about through what Bernstein calls three "message" systems: curriculum, pedagogy and evaluation" (South African Institute for Distance Education, SAID, 2010). Curriculum concerns what is defined as legitimate knowledge (selection), pedagogy concerns the form or mode used for transmission (how the selection is taught), and evaluation concerns how knowledge is tested or assessed. Evaluation, thus assessment, is dependent on curriculum and pedagogy (SAID, 2010).

Bernstein (1975) distinguishes between two different types of curriculum, one working according to a collection code and one according to an integrated code. In Sweden, as in many other countries, the national curriculum is a merging of both to some degree and thus has many contradictory aspects. The introduction of EE in many ways presupposes an integrated code, but is contradicted by very strict knowledge requirements and required learning outcomes, which to a high degree presupposes schoolwork according to a collection code. The codes in turn are characterised by strong or weak classification and framing. Strong classification means that each category (in this case subjects) has a unique identity, voice, and rules for internal relationships. Weak classification indicates less specialised discourses, voices, and identities. Framing concerns the regulation of communication and interaction in different categories. It is about the internal logic of a pedagogical practice and describes the nature of control over sequencing and pacing, selection of communication, expected assimilation, learning criteria, and the social context in a classroom. Framing, like classification, can be stronger or weaker. Strong classification and strong

framing denotes a pedagogical practice characterised by a collection code, weak classification and framing, thus an integrated code (Bernstein 1975). The different codes consecutively generate contrasting pedagogic models, which influence tests and evaluation/assessment.

The performance model

The performance model is characterised by strong classification.

> Briefly, a performance model of pedagogic practice and context places the emphasis upon a specific output of the acquirer, upon a specific text the acquirer is expected to construct and upon the specialised skills necessary to the production of this specific output, text or product. (Bernstein, 2000, p. 44)

The pedagogic discourse thus is based on the specialisation of subjects, the rules for legitimate texts are explicit, and pupils' performances are graded. An important part of teachers' professionalism is to be explicit and to know the grading procedures, and when pupils work is evaluated (assessed), the focus is on what is missing. "Accountability is facilitated by the 'objectivity' of the performance and thus outputs can be measured and optimised" (Bernstein 2000, p. 50). The grading system implies a potential repair service, and pupils are to blame if they fail. Teachers essentially have control over selection, sequencing, and pace, and the space for the pedagogic practice is clearly marked and explicitly regulated. The modes of instruction imply disciplining regulation where deviances are very visible and not much time is spent or needed on personalised modes of control. In such pedagogic practice, the acquirer (pupil) invisibly is positioned in the past. Thus, teaching is constructed on the past but it is made visible that they learn for the future. Bernstein (2000) distinguishes between introverted and extroverted modalities. "In the case of introverted modalities the future is the exploration of a specialised discourse itself as an autonomous activity" (p. 49) which allows for more autonomy for teachers and learners within curriculum regulation. "In the case of extroverted modalities the future is likely to become dependent on external regulation, for example, the economy or local markets" (p.49), resulting in much less autonomy. The performance model entails rather low costs due to "the explicit structures of transmission and of its progression" (p. 50).

The competence model

The competence model is characterised by weak classification and in "competence theories there is an in-built procedural democracy, an in-built creativity, an in-built virtuous self-regulation. And if it is not in-built, the procedures arise out of, and contribute to a social practice, with a creative potential" (Bernstein, 2000, p. 43).

The pedagogic discourse bases its transmission on competencies that pupils already possess or are thought to possess. It is group based, and pupils appear to have a great deal of control over selection, sequence, and space. The pedagogy is largely based on projects, themes, and experiences. Pupils have access to, and

considerable control over, the construction of many different spaces. Different activities are not punctuated, and progression is implicit to the pupils. Pupils experience the pedagogic practice in the present tense, and teachers understand or "read" the pupils competence development in their products to be able to facilitate further challenges. "The consequence is that the meaning of an acquirer's sign is not available to the acquirer, only to the teacher" (Bernstein, 2000, p. 48). Teachers focus on and discuss pupils' products based on what is present, and criteria for evaluation (assessment) are implicit and diffuse. Even if positional and imperative control of pupils occurs, focus is on self-regulation and individual communication with each pupil about intentions, dispositions, and relationships, based on pupils' own reflexivity. Competence models require a wide range of autonomy, but there still needs to be a homogeneity in practice, which reduces each teacher autonomy. When it comes to teaching material, packages and textbooks are seldom used. Instead teachers construct their own, which requires autonomy. Pupils products are difficult to evaluate objectively, and the models are less amenable to public scrutiny and accountability. Competence models are not connected to specialised futures. The costs for competence models are rather high, as there are no time limits for pupils learning and hidden costs in terms of time needed for teachers' commitment, planning, and socialising with parents are usual. Other than that, feedback to pupils and constructing learning material is time consuming. The

> (…) lack of recognition of hidden costs may lead to ineffective pedagogic practice because of the demands of the practice, or, if these are met, the lack of recognition may give rise to ineffectiveness because of the fatigue of the teachers. (Bernstein, 2000, p. 49)

There are different modes of performance models and different modes of competence models but also merges between them in pedagogic practices. Bernstein (2000) argues that performance modes are normal across all levels of education, and thus competency modes may imply an interruption "or resistance to this normality or may be appropriated by official education for specific and local purposes" (p.51). When the state introduced the broad approach of entrepreneurial education into the Swedish national curriculum, this constituted what can be seen as an appropriation for specific purposes. Before looking into its realisation in practice and the assessment challenges involved, a description of this studies' methodology will be presented.

Methodology

Sample

Six of the schools taking part in the CPD program were lower secondary schools. Out of these, two were chosen for data gathering due to their geographic similarities (both situated in suburbs of major Swedish cities) and differences in pupil demographics. Almost all the students in School 1 have a Swedish

background, and 1/3 of the students in School 2 have backgrounds other than Swedish.

School 1 is situated in a wealthy middle-class area where housing mainly consists of villas. It has about 150 pupils (grades 7–9, ages 13–16) at the time of data gathering. At the time of data gathering, some subjects where merged on occasion, but the school work was primarily conducted within subject-specific classes. School 2 is situated in a suburban community with mixed housing. It has around 300 pupils (grades 6–9, ages 12–16). The work was organised by subject.

Data collection

The data collection was guided by Bernstein's (1975; 2000) theoretical frameworks. It included classroom observations and interviews with teachers and pupils and went on for about three weeks at each school. The aim was to interview the teachers whose lessons were being observed. The idea was to be able to link the interviews to what had been observed, thus the observations were conducted first.

All in all, 52 lessons were observed: 21 observations in School 1 and 31 in School 2. A structured observation schedule (Cohen, Manion, & Morrison, 2011) with fixed categories was created. The schedule was based on Bernsteinian categories to distinguish the degrees of teachers and pupils' control of communication, criteria, time, pace, sequencing, and order in the classroom. In addition, the observation schedule included Swedish (and international) policy documents (European Commission, 2002, 2006, 2010; Government Office of Sweden, 2009; OECD, 1989, 1998), and the Swedish national curriculum and syllabuses, which describe the required abilities for entrepreneurial education (SNAE, 2011a). Additional field notes were made to absorb the situation and to describe events and behaviours not covered by the structured part of the schedule. Situations, actions, and expressions connected to assessment made up a considerable amount of the field notes. Overall, the method can be described as a form of participant observation (Cohen et al., 2011; Kvale, 1997).

The interviews were semi-structured and used prepared questions that matched the observation protocol as well as questions on assessment, particularly formative assessment, and its relationship to entrepreneurial teaching and learning. The questions allowed scope for open-ended answers (Hannan, 2007). The interview guide was changed to some extent; questions were added and reformulated based on what had been observed during the time spent at the schools. Altogether, eight teachers were interviewed, three in School 1 and five in School 2, and the interviews lasted for 40–90 minutes. Pupils from all grades were interviewed in both schools, resulting in 14 group interviews and one single interview. Nine interviews were conducted in School 1, and six in School 2. Altogether, 38 pupils took part in the interviews. The interviews lasted 30–50 minutes. All interviews were recorded.

Data analysis

Verbatim transcriptions were made to help the researchers remember the details in the context and situations in which the observations and interviews took place (Kvale, 1997). The field notes were transcribed and categorised. For purposes of this study, we focused on observations connected to assessment. The data was analysed by school in order to identify similarities and differences between them. The interviews were transcribed verbatim. The material was reviewed with the research question in mind, and general patterns, regardless of school, were searched for (generating natural units of meaning). The next step was to discern pupils' and teachers' statements about assessment practices. This meant organising the data into feasible and adequate categories (classifying, categorising, and ordering the units of meaning). A search for similarities and differences in the statements identified differences within and between the schools, allowing us to formulate new variables and recognise sub-categories and themes. Based on the concepts of entrepreneurial teaching and learning and assessment, a text was formed and organised, structuring narratives to describe the interview contents. Finally, the interviews were interpreted to create meaning, together with the field notes (Cohen et al., 2011; Watt & Boolsen, 2007).

Ethical considerations

The research was part of a CPD programme, which the participants were aware of. Still, all respondents had to be willing to be interviewed, and the teachers had to be willing to be observed. On the occasion of the first observation in each class, the researcher presented the reason for being in the classroom. Before interviewing willing learners below 15 years of age, parental consent was obtained by having them sign a paper with information about the research. All respondents were informed that they could choose to end the interview at any time (Swedish Research Council, 2002). The names and locations of the schools and the names of the participants were anonymised. Due to the small amount of teacher interviews, they are not specifically presented after the citations in the Results section of the article. Gender and grade is presented regarding the pupils, as they were many more of them and the information is seen as important for understanding their statements.

Results

At the time of data gathering, both schools were engaged in the implementation of the national tests. This meant that a lot of time was spent preparing and conducting the tests. The first part of the results will start by presenting a general picture of the teaching culture in the observed classrooms. This will be followed by a description of classroom work and assessment when the schools are preparing for the national tests. Along with this, other observations related to assessment will be presented. After that, the teachers' discussions of teaching, testing, formative assessment, and entrepreneurial learning will be presented. Finally, the pupils' opinions about learning, tests, and assessment will be heard.

Entrepreneurial teaching, learning, and assessment in practice

School 1

On a general level, many of the observed lessons were characterised by a high degree of creativity. Pupils were given the opportunity to work together, find

their own solutions, and at times work in an interdisciplinary manner. Often, but not always, the pupils seemed to be aware of what they are supposed to learn. Although many lessons were characterised by teachers urging the pupils to reflect and think on their own, that is, teaching was directed towards more complex learning goals, sometimes the "right" answers were given directly and the pupils were told to do things in a certain manner to get it right.

Preparations for the national tests were usually a part of the classroom lessons. One example is that part of lesson in Social Science was devoted to discussion and practice tests from a previous year. The teacher urged the pupils to pay special attention to the questions that required reasoning, reflection, and analysis and told the class that they would later look at examples of how these questions are assessed. On one occasion, one of the pupils said that he was nervous about the upcoming tests, and the teacher said that he was too.

Regarding other observations related to assessment practice, elements of formative assessment occurred quite frequently. One example is from a lesson in Physics and Technology (the subjects are merged). During the lesson, the teacher give support and feedback on what the pupils were working on at the moment and frequently walked around the classroom, talking to individual pupils about their results on former tasks and tests. The teacher told the pupils that they need to be more analytic and that they have to develop their reasoning to get higher grades. The teacher often used a scoring rubric, which helps her explain what areas the pupils need to develop. As she said, "The more the pupils see the rubrics, the more used they will become to the way of thinking and can develop their work."

In Social Science, the teacher encouraged the pupils to develop their language and write complete sentences, to reason about advantages and disadvantages regarding the issue they are writing about. In Home Economics, the pupils were required to reflect on the processes they learned. In general, the teachers were very encouraging towards the pupils. One example from the field notes is from a Physics and Technology lesson when the teacher was facilitating a discussion with pupils about their thought and different solutions. Following are some of the teacher's comments:

- "This was really good, now you are close!"
- "What fun, then you've got a challenge today also!"
- "Let's try it this way!"

Grading and assessment was explicitly discussed on many occasions during everyday classroom work. The teachers often referred to upcoming tests when they were teaching or commenting on pupils' work. Pupils often asked how their work is going to be assessed. One example is that some classes were building a city in Mindcraft[2] during a lesson in Geography, which was carried out in smaller groups. One pupil asked the teacher how he was going to grade their cities. He replied, "How you have been thinking as a city planner, the

[2] A computer programme that enables the user to build houses and cities.

thought behind it. If it looks good in Mindcraft or not does not give high grades. It's how you have been thinking." Regarding behavioural matters, the teachers repeatedly urged the pupils to put away their mobile phones or prodded them to get started on their work. However, no teacher directly connected behaviour with assessments and grades.

School 2

On a general level, the lessons in this school followed the same pattern. They started out with an introduction, followed by the pupils working on tasks, often answering fixed questions from the textbooks, while the teacher walked around the classroom helping the ones asking for help. Often the end of the lesson seemed to come suddenly as the teachers realised time was running out. It was very seldom that pupils seemed to be aware of why they were working with tasks, and what they actually learned. In handicrafts, a more apparent entrepreneurial and formative approach in teaching could be observed: The handicraft teacher worked according to a process-driven routine where the pupils made a plan, decided how to execute the plan, and then evaluated their work.

During many lessons, much time was spent preparing the pupils for the upcoming national tests. In Mathematics for example, it was common for teachers to hand out previous tests, and to urge the pupils to work out the problems in them. The teachers checked whether the pupils were having difficulty with assignments and spent time explaining to them individually or for the whole class to hear. Teachers also spent a great deal of time explaining how the previous tests were assessed and what the pupils have to consider when taking the upcoming tests. The field notes reveal that "The teacher urges the pupils to notice how many points the different assignments generate, as it gives them a hint about how much they need to answer and how advanced the question is." The same teacher also informed the pupils that showing how they think, the process, is more important than the actual answer.

A great deal of concern about the national tests can be heard among both teachers and pupils. One pupil asked the teacher how the test results will affect the grades. Another pupil asked if it is a good idea, as a preparation, to read all the textbooks from lower secondary school in the subject being tested. One teacher expressed concerns about the lack of time for preparation and revealed that she has lately devoted more time to the subject that will be tested than to other subjects she is teaching. The time issue is also obvious. Teachers often tell the pupils to hurry up and to practice as much as possible during the lessons. Along with this, the teachers are supportive of pupils´ learning and positive towards the pupils: "Are you doing fine? I think you are doing sooo fine, it's going to be fun to summarise your results later on".

On a general level, other observations of the assessment practice indicate a good relationship between the teachers and the pupils. However, many of the teachers reacted strongly when the pupils did not do as they were told, and the pupils were often rebuked. They were often told to stay in their places and to be silent

and focused. Behavioural reprimands were often connected to grades and assessment. One example noted when a boy is noisy: "Stefan, now you have to change places, you get high scores on the national test, and then you waste your talent!"

The teachers often referred to upcoming tests to motivate pupils to get started and to work. If the class worked diligently and behaved well, they were promised to be able to end the lesson a bit earlier than usual. Lesson attendance was of utter importance and was related to grades and to behaviour.

Teachers' comments of entrepreneurial teaching, learning, and assessment

School 1

Relations between entrepreneurial teaching, learning, and assessment

One teacher said he was struggling to find a balance between the required subject knowledge outcomes, which require a more teacher-led style of teaching, and entrepreneurial teaching methods. He argued that pupils need a base of knowledge to be able to understand, reason, and analyse. Entrepreneurial education, on the other hand, he said, requires more interdisciplinary and investigatory working methods where the pupils are active and have influence over their learning. The challenges regarding these working methods are for example: finding time for planning and enacting interdisciplinary work, getting colleagues to join in on such working methods, and establishing fair assessment of individual pupils. The teacher seemed stressed to ensure that all pupils achieved the knowledge requirements. Even if he wanted to work more entrepreneurially and intended to let the pupils have greater influence, the national tests, the required learning outcomes, and fear of not being able to provide fair grades, had a repressive influence on his teaching. Another teacher confirmed that assessment controls the teaching to a great extent. She said that she needs tests to be able to show parents why their children got certain grades, and that grades are important to the pupils:

> They are incentive for some. If one can show them, now you have developed these competences, but if you want to get better, you can do this and this. The grades clarify their learning, they get help and can choose to work for a better grade.

Even this teacher expressed that the national tests are something that stresses her, but thought that more interdisciplinary projects would provide an opportunity to assess the pupils together with colleagues.

Teachers' understanding of formative assessment

Two of the teachers said that formative assessment is about supporting pupils' learning. One said it is about the pupils' ability to self-assess and to be able to set their own goals. One teacher said:

> I think it is difficult….I see formative assessment as sitting down with the pupil and talk about their work and I don't really think I

> have that time, but I can see that many need more of it. …. You can also view formative assessment as working digitally, that I give comments on their work over the internet…but still I think that meeting them, to sit down and talk to them is better….but that is difficult with a whole class.

Even though this teacher saw supporting pupils during a lesson as a form of formative assessment, he did not find the classroom situation a good environment for this, because some pupils never ask for help. The teacher considered different ways to achieve good formative assessment, but thought it would be difficult to get it working.

Another teacher thought she developed her use of formative assessment in a good way; she uses rubrics and evaluates each lesson together with the pupils. That gives her good understanding about what the pupils have understood or not, which does not make the results of the tests so crucial.

School 2

Relations between entrepreneurial teaching, learning, and assessment

One teacher argued that entrepreneurial learning is about motivating the pupils to learn in a safe environment, for example, that pupils would dare to talk in the classroom. She said that many pupils question the teaching content and therefore she intends to motivate them, to persuade them that the knowledge is important for them to be able to improve learning. The teacher suggested that one way to motivate pupils is to be an enthusiastic teacher; she claimed the enthusiasm would be reproduced in the classroom. The teacher gave an example of a situation when she talked about an issue and it later turned up as a question on the national test. She said, "It's important how you mediate things. The pupils may think that the issue will turn up as a question on the national tests".

This teacher thought she was teaching entrepreneurially in Technology and said that the pupils are highly motivated during those lessons. The pupils were eager to get good grades and even stayed after the lessons to finish their work. The teacher tried having the pupils grade their own and others' work.

Another teacher related entrepreneurial teaching to paying attention to every pupil, engaging them in planning, and letting them have a say about when tests should be conducted. Having good relations with the pupils is essential, she said. She did not think that the national tests have a negative influence on entrepreneurial learning but thought that the national testing system is wrong in many aspects. First of all, they imply a lot of negative stress for the pupils. Secondly, she thinks the tests signal a mistrust of teachers, she says that carrying them out:

> (…) underestimates us teachers. We already have grades (to assess the pupils' knowledge) … one must trust that we know what we do. I feel mistrusted, the tests are good but it feels like I am being tested. The pupils want to have as good grades as possible, but they don't even know what to practice.

Yet another teacher admitted they have focused very much on Physics this year, as she thought it was going to be the science subject in the national test. Her way of working entrepreneurially has been to engage the pupils in correcting their own tests, which she found made the pupils committed and contributed to an interest in finding out the right answers on failed questions. She also wanted to improve in making pedagogic plans so that the pupils understand the knowledge requirements, the means for progressing, and the reason for learning a certain teaching content.

Teachers' understanding of formative assessment

Two teachers connected formative assessment solely to how tests are assessed and engaging pupils in correcting tests. One of these teachers said she always tries to assess pupils' working process and sometimes "threatens" pupils if, for example, they talk too much, implying that they will be assessed for grading based on their behaviour. She admitted that she assesses behaviour too, even if she knows she should not. The handicraft teacher saw formative assessment as guiding the pupils continuously. She also thought a lot about how formative assessment could be enacted and its relationship to summative assessment. The teacher initiated a working process where the pupils first consider what they want to work with and how, then carry the project through and finally evaluate their work. She discussed assessment in relation to this process, which means that not only the final product could be assessed but also the idea and the considerations about the project—in other words, the actual work, as well as the pupils' reflections about their work. She said she finds it very demanding to grade and assess the implemented process. She regarded the described working process to align with entrepreneurial learning, and as both formative and summative assessment. The Social Science teacher meant that everything the pupils do is to be assessed, to their advantage. One should assess when they do good things and always look on their work positively. She said she tries to give the pupils positive feedback, lead them in the right direction, talk to them and be attentive to see if someone does not understand.

Pupils' comments of teaching, learning, and assessment

School 1

The pupils expressed rather negative thoughts about studying for tests, which they think has a negative influence on their learning:

> I don't really like to read books and study for a test. Then I think it feels like one just studies, studies, studies … just crude study all the time. Then you do the test, and the day after you have forgotten it all. Sometimes it feels like you just do it because you have to, not to learn … sometimes it would be better to learn in other ways … like doing a project and a presentation or something like that. Then, you learn more when you work together. (girl, Grade 8)

Many pupils requested more practical work in school as they think they learn better in that way. One boy (Grade 9) said, "The pupils would learn more if

there was more practical work, (the knowledge) would settle more due to that both the body and the brain work at the same time.

Regarding if the pupils were aware of the knowledge requirements, one pupil (boy, Grade 8) said: "Yes, we often get to take part of the knowledge requirements. It's just that it's not only those that count. It's also how one behaves in lessons, how one hands in an assignment, how one has written the assignment".

Many pupils felt negative stress regarding grades. This was most obvious among 9th graders:

> There is such a *tremendous* pressure now…..we get homework in *all* subjects, and then there are the national tests, and thus we have tests in other subjects too. Like, this week, we had a national test in Swedish and above that we had a test in Mathematics. (girl, Grade 9)

Overall, the amount of time required to keep up with other homework and study for tests was experienced by pupils as stressful.

Not many pupils thought they had experienced formative assessment in the sense of getting feedback during the semester about their learning progress. Some said they never got feedback, and others said they experienced it on occasion. Some pupils mention that the Science teacher has given them feedback on their work and has pointed out what and how they can improve. The Science teacher uses a scoring rubric, which makes the feedback clearer. Other teachers give written feedback on tests and require pupils to save the tests in a binder. The pupils can then review the comments before the next test to inform themselves about what they need to improve. Yet other teachers, the pupils say, just tell them that they should plod along but do not clarify what to do and how to do it. "He kind of doesn't say what I need to practice … so I don't really know what I should do or what I need to study, so it kind of never works" (girl, Grade 8). Even if the pupils try to get higher grades, the feedback they receive is not seen as sufficient. Many would like to get more continuous feedback on their performance and not only at the end of the semester when they receive grades. Some think that the teachers do not think about their grades during the semester but do a summative calculation only at the end.

Based on the pupils' statements, it does not seem common for them to be part of the assessment process. The only subject the pupils refer to is Swedish, where they have given each other responses on written texts. That said, many considered it is difficult to judge someone else's work or to be able to find something to comment on.

School 2

In this school, some pupils prefer conventional tests rather than assignments that require a lot of writing, thinking, and formulating long coherent texts. Even if they are aware that this kind of studying has a negative effect on their learning,

they argue that it is easier just to read and memorise content and answer questions in a test than to elaborate on an issue in a broader sense. They study for the test and then forget everything, especially if they feel the subject is uninteresting:

> I think some tests, when you are not interested … then you just study sentences and words…then when there is a question then I can answer it exactly, but at the same time I don't understand what it is about, but I write exactly as it should be … but … I myself I don't understand it …and the day after the test I know nothing about it … I have just learned the words. (girl, Grade 9)

The interviews revealed that pupils occasionally are aware of the knowledge requirements, as some of the teachers have shown them to the pupils. However, the requirements generally seem to be rather unclear to the pupils.

The pupils expressed different degrees of stress connected to grades and assessment. It is rather obvious that, on a general level, the feeling of stress is related to age and grade. Pupils in Grade 9 are more stressed than those in Grades 6 and 7. Pupils in Grade 9 had a lot of national tests during the time of data gathering:

> Now when we have the national tests … it is very, very much in one week! Now we have three (national tests) this week, two in History and one in French … it is very much …. it becomes very stressful. (girl, grade 9)

The pupils were not only worried about the national tests, they also had other tests at the same time. Some of the pupils were aware that the purpose of the national tests is to identify their subject knowledge, and that they are not meant that to study a lot in beforehand. But they still study and seem to feel very frustrated:

> I've heard the test will be about History … there is endless much history and I think it is meaningless to study… think I won´t have time to learn everything! So I just choose a little … it's hard to know what the test will be about. (girl, Grade 9)

The pupils were also asked if they were informed about how they were performing and how to proceed to improve their grades. The most common answer was that they get feedback from the teachers at the end of each semester, when the grades were already set. Other than that, they also get feedback at the individual evaluation talk (together with parents) every semester. Some pupils said that it also is ones' own responsibility to ask the teacher about feedback. Some pupils experienced oral and written feedback on tests and other schoolwork, but the most common feedback regarding grades was given in "bad situations". One girl, for example, was upset because the teacher contacted her mother instead of talking to her when she was about to fail in a subject. The interviews also revealed situations where teachers used grades to correct what

they saw as misbehaviour or laziness. Occasionally, the pupils experienced involvement in the assessment process. In some subjects, they corrected their own tests or commented on a classmate's test or work.

Analysis and discussion

Practice

The observations revealed that the overall pedagogic model in both schools can be linked to what Bernstein (2000) calls the performance model. The pedagogic practices are characterised by isolation between the different subjects, thus strong classification, even though the framing within the subjects differs to some degree between the schools. In School 1, the teachers in the observed lessons can be said to have a more profound understanding and interpretation of EE (Backström-Widjeskog, 2010), and as a result, elements of the competence model can be found. This is illustrated in that pupils have more room for creativity, regulate their time and pace to a higher extent, cooperate and communicate, and thus experience more self-regulatory elements (Bernstein, 2003).

Common in both schools were the preparations that were undertaken before the national tests in connection with everyday teaching. David (2011) discussed the "narrowing of the curriculum", which means that the subjects or the content included in tests has a more prominent role in regular everyday teaching than other subjects or content. This is also something that is apparent in both schools. The teachers, in different ways, expressed that the national tests control teaching content, which implies a "teaching to the test" practice (Mehrens & Kaminski, 1989). This in turn entails a risk that scores and grades, instead of learning, become the main focus (Eklöf, 2017). In School 2, references to grades are not seldom used in connection with pupils' behaviour. It can be argued that grades and tests to a certain extent control both teaching content and pupils' behaviour (Bernstein, 1971; Stobart, 2008). In the same school, grades and national tests are used as tools to motivate pupils to work harder, and if they do so, they may quit the lesson earlier, which can be seen as corresponding badly with the means of entrepreneurial learning. When assessment is described in literature about entrepreneurial learning, it is linked to AfL (Josefsson & Josefsson, 2009; Falk-Lundqvist, Hallberg, Leffler, & Svedberg, 2011). Thus, formative or "entrepreneurial" assessment can be especially found in the feedback to pupils in School 1. Other than that, such assessment often takes the form of general praise and is non-specific in relation to the progress of learning (c.f. Gamlem & Smith, 2013). More examples of AfL are found in School 1, even if they mainly seem to be used to meet summative requirements, and tests and grading criteria control the formative activities in everyday teaching (Torrance, 2007).

In conclusion, summative requirements point out the direction for teaching and assessment in the classrooms that were studied (c.f. Stobart, 2008). The observations indicate that the teaching is to some extent directed towards complex goals/knowledge requirements and that parts of "entrepreneurial learning" (e.g. the ability of analysing and reasoning) are present, even if some

pupils have difficulty knowing what is expected of them regarding different qualities and content in their work (Diehl, 2016b; Olovsson, 2015).

Teachers' expressions

In School 1, it is obvious that teachers struggle to find a balance between the curriculum merge of the performance and competence model (Bernstein, 2000). The introduction of EE has exposed teachers to the contradiction between the two models and induced worries about how to ensure that pupils meet the knowledge requirements yet are given the opportunity to work entrepreneurially. The performance model requires teachers to be explicit and objective when grading pupils' abilities, which is more feasible in a practice characterised by strong classification and framing, thus a curriculum following a collection code (Bernstein, 1975; 2000). However, the prerequisites for EE include weak classification and framing, i.e. a competence model according to an integrated code. Yet, this entails individual-assessment communication about intentions, dispositions, and relations based on pupils' own reflexivity (Bernstein, 2000). One of the teachers has solved the problem by introducing score rubrics, which she views as enabling her to be specific and clear with pupils and herself regarding grades and at the same time allowing for what is labelled entrepreneurial teaching and learning (SNAE, 2011a). However, the use of score rubrics has occasionally been met with criticism, namely that it evokes surface learning, leads to a more passive role for pupils, and entails a type of AfL that can be seen as more "teacher-centred" (Jönsson, Holmgren & Lundahl, 2014). Stobart (2008) argues that there is a risk that AfL will be reduced to an instrument operated by high-stakes accountability, simply offering preparation for summative assessment. The dominance of external accountability pressures implies that there is a risk that the *letter* rather than the *spirit* of AfL merges into the accountability systems, and that AfL only becomes a means for achieving accountability requirements (Black, 2015; Stobart, 2008). Most teachers in School 2 are not as concerned, for they link EE to assessment by letting the pupils form part of the assessment process through correcting their own and/or their classmates' tests. In this school, it is also clear that not only the pupils' knowledge concerning the knowledge requirements are assessed. Skills such as creativity, responsibility for ones' own work, and aspects such as concentration, behaviour, and diligence, form the basis for assessment (cf. Klapp, 2015). This is in line with the performance model where the mode of instruction implies disciplinary regulation (Bernstein, 2000).

Pupils' expressions

Pupils in both schools talk about the lack of "real" and "deep" learning when studying for tests; they prepare by crude studying, or even memorising, before a test and then forgetting everything after. The testing culture which they are experiencing can clearly be connected to the performance model (Bernstein, 2000). Even if national tests include questions aimed at abilities required by the competence model, such as analysing, reflecting, and evaluating, many pupils seem to perceive them as high-stakes (Eklöf & Nyroos, 2013) and prepare them in accordance with a performance model. Thus, "The shadow of high-stakes summative assessments operates as an obstacle through students as well as

directly for teachers" (Black, 2015, p. 174). The pupils in School 1 seek more projects and practical work as well as other methods for showing their knowledge achievement. Such requests were not as common in School 2, where some pupils preferred conventional tests requiring only short answers easily identified as right or wrong. A possible explanation may be the lack of experience with pedagogic modes connected to entrepreneurial learning or learning in accordance with an integrated code, more of a competence model, which the pupils in School 1, to some extent, have experienced (Bernstein, 2000; Diehl, 2016b). The predominance of the performance model and its implications as a repair service is revealed in School 2 in a pupil's expression of disappointment with the teacher, who contacted the pupil's mother instead of the pupil regarding the potential failure in a subject.

The empirical material does not provide information about how the development of the complex competences and abilities are presented to the pupils, but, at least in School 2, the pupils argue that their awareness of the knowledge requirements is inadequate. This gives reason to suppose that discussions about different qualities on reasoning and analysing do not occur to any significant degree (c.f. Gyllander Thorkildsen & Erickson, 2016). Pupils think that their involvement in the assessment process can be increased, even if pupils in School 2 already have some relevant experience. More feedback from the teachers regarding pupils' progress in different subjects is asked for, as it is seen as developing learning (e.g. Hattie & Timperley, 2007; Wiliam, 2011). More detailed reflection of pupils' awareness of the knowledge requirements and what is assessed is found in pupils in School 1; these pupils find the information rather clear in some subjects, though not in all subjects. For the pupils in School 2, it is more common not to be aware of the knowledge requirements. In relation to the two knowledge forms (performance and competence) described by Bernstein (2000), it can be concluded that School 1, to a greater extent than School 2, merges the performance and the competence models. School 2 can be said to work based on the performance model in all subjects except for Handicraft. Hence, when it comes to the pupils' awareness of the knowledge requirements, they seem to be implicit and diffuse (as in the competence model) in both schools. Yet, this may depend on how pupils view 'criteria'. In School 1, the pupils seem to know what to do to achieve the knowledge requirements but not *why*, whereas the pupils in School 2 more often have a diffuse sense of *why* but do not know, and can, on occasion, feel uncertain about *how* to meet the knowledge requirements.

Conclusion

With a few exceptions, either teaching or learning in the two schools seems largely aligned with whether AfL or EE. Teaching usually takes place within specific subjects and is based on the knowledge requirements, most likely to ease and facilitate assessment (Wahlström & Sundberg, 2015). Thus, there are clear indications that the summative assessment is central to both schools, as demonstrated by both observations and interviews with teachers and pupils. Summative assessment can be linked to the knowledge form represented by the performance model (Bernstein, 2000). This model is, in turn, associated with a

curriculum based on a collection code and a pedagogy that Bernstein refers to as 'visible'. A visible pedagogy is characterised by strong classification and framing and emphasises pupils' performance and their external products (Bernstein, 2000). According to Bernstein (2003), visible pedagogy is the standard European practice and the one that leads to professional occupational placement. This means that the message systems, curriculum, pedagogy, and evaluation (assessment) are mainly influenced by the performance model, which subsequently impacts teachers and pupils in terms of consciousness and identity. The consciousness and identity, or the mind-set, that EE pursues requires more of a competence model and can thus be seen slightly more in School 1 than in School 2, even if the performance model is predominantly featured in both schools. Through, among other aspects, the introduction of EE along with strong OECD recommendations (Nusche, Halász, Looney, Santiago & Shewbridge, 2011) and efforts to implement AfL (Jönsson, Lundahl & Holmgren, 2015), the Swedish curriculum can be said to fuse modes of both performance and competence models. Bernstein (2000) argues that modes of competence models can be seen as interrupts or resistance to the "normal" performance model. This may explain the difficulties and dilemmas that both teachers and pupils encounter and experience in relation to EE as well as AfL. As the implications of EE and AfL may not "fit" pupils and teachers understanding and socialisation of the means of schooling, teaching, and learning.

The question of teacher autonomy in relation to national tests was raised during the teacher interviews. The introduction of EE in educational policy and curricula is intimately linked, nationally and internationally, to neoliberalism and marketisation: Pupils are to be prepared for the demands of the global labour market (e.g. European Commission, 2010; 2013; 2016; Government Office of Sweden, 2009; OECD, 1998; SNAE, 2015). This, on one hand, implies a need for pupils bound for the labour market to leave school with an amount of complex skills, abilities, and competences that are advocated by EE and supported by AfL. On the other hand, neoliberalism and marketisation underlie competition and "survival of the fittest", which may explain the increased focus on measurement, performance, and accountability. Thus, it reflects the means of summative assessment. Bernstein argues that "Accountability is facilitated by the 'objectivity' of the performance and thus outputs can be measured and optimised" (Bernstein 2000, p. 50). Among the educational research society, there is significant concern about what comes in the wake of the ideological shift and its focus on performance assessment, measurement, quality assurance (Apple, 2009; Englund, Forsberg & Sundberg, 2012; Lidman, 2011, Ozga, Dahler-Larsen, Segerholm & Simola, 2011; Ozga, 2017), tests, and test results (Ball 2003; Lindgren, Hult, Segerholm & Rönnberg, 2012; Lindgren, 2012 Power, 1999). For example, there are concerns about the focus on teachers' abilities in eliciting certain outcomes replaces a discussion about the desirability (or lack thereof) of the outcomes themselves (Biesta, 2009). In Bernsteinian (2003) terms, this development would be connected to extroverted modalities within the performance model, which result in less autonomy for teachers, instead of external regulation such as economy and local market regulation of their work.

As such, this means that entrepreneurial teaching and learning, as well as the means of AfL, includes an inherent policy and curriculum contradiction, for they strive to foment "real" and "deep" learning in an aim to educate and develop autonomous, confident, analytic, and reflexive citizens. Thus, it seems that the *letter* rather than the *spirit* of AfL (Marshall & Drummond, 2006; Stobart, 2008) is at use. This reasoning can be linked to Bernstein's (Bernstein, 1990) theory of sacred and profane knowledge forms. The sacred can be seen as the "spirit" and connected to 'bildung' and thus to "know-why" knowledge, and the profane as the "letter", thus more practical "know-how" knowledge. In educational practice, for teachers and pupils, the fusion of the performance and competence models is quite a challenge!

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