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TEACHERS' AND LEARNERS' EXPERIENCES OF ENTREPRENEURIAL EDUCATION: PRACTICE AND CHALLENGES IN RELATION TO VISIBLE AND INVISIBLE PEDAGOGY

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Abstract

Entrepreneurial education is described as gaining abilities that enable the future workforce to develop, be part of and adapt to the changing society. International policy texts, from for instance the Organisation for Economic Co-operation and Development (OECD) and the European Commission, agree that entrepreneurial abilities are to be taught and learned in school. Even if this has been on the agenda for decades, it wasn't inscribed in the Swedish curricula until 2011. This research focuses on lower secondary schools and what is called the broad approach or entrepreneurial education. To foster entrepreneurially, different progressive theories of instruction are often suggested. Basil Bernstein has outlined two generic forms of instructional theories: visible and invisible pedagogy; visible pedagogy can be described as "traditional", while invisible pedagogy requires progressive teaching and learning. Based on classroom observations, interviews with teachers and learners, this study elaborates on these concepts in relation to experiences of entrepreneurial education. Different challenges, due to contradictory messages in curricula, learners' backgrounds and experiences, as well as teachers' approaches, are revealed. The study suggests that, even though more or less ambitious attempts are being made, "pure" entrepreneurial education is difficult to enable in a practice where visible pedagogy is the standard educational practice.
Key words: *entrepreneurial education, lower secondary school, teachers' and learners' experiences, parental background, visible and invisible pedagogy.*

Introduction

National and international policy documents (European Commission, 2002, 2010, 2013; Government Office of Sweden, 2009; Organisation for Economic Co-operation and Development [OECD], 1989, 1998; Swedish National Agency for Education, 2015) have argued the need for developing and strengthening an entrepreneurial culture as crucial for the population in a changing society. Thus, it has been argued that a more flexible, mobile, adaptable and employable workforce, capable of international cooperation in a global world, is needed. To achieve this, incorporating "entrepreneurial" skills and abilities early in peoples' lives is considered important, which gives education a central role (e.g., European Commission, 2016). The aim is to bring about deeper learning, engagement and motivation amongst learners.

To achieve deeper learning, learners' engagement and motivation, it has been argued that school and classroom practices need to change (Spilling, 2014). A broad approach to entrepreneurial education involves developing general competences and an entrepreneurial mindset (Erkkilä, 2000; Jones & Iredale, 2010). Different progressive theories of instruction have been connected to entrepreneurial education, and they can all be linked to what Bernstein

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(2003) labelled *invisible pedagogy*. A pedagogic practice in accordance with Bernstein's description of invisible pedagogy implicates more teaching and learning processes than most teachers and learners are used to. Thus, the pedagogical practices and the culture of schools are, to different degrees, challenged by the imposition of entrepreneurial education. Due to curricula writings from 2011 (Swedish National Agency for Education, 2011), teachers in Swedish compulsory schools are required to provide preconditions for entrepreneurial teaching and learning, i.e. entrepreneurial education. The greatest challenge is what can be interpreted as double messages in the curricula. The Swedish, as well as many other countries', curricula and syllabi are built upon strictly regulated knowledge requirements in each school subject and also require teachers to develop an entrepreneurial mind set amongst their learners. Thus, teachers are expected to meet both knowledge requirements and social demands, which in turn means they need to handle and enact a classroom practice that includes both a visible and an invisible pedagogy. This can be a problematic equation.

Between 2012 and 2015, a continuing professional development (CPD) programme including 25 schools from across Sweden was carried out by an independent school institute; its ambition was to combine school improvement and research. The aim was to provide a better understanding and development, as well as to encourage enactment, of entrepreneurial education. The present study involved two lower secondary schools taking part in the programme. The schools' catchment areas were rather different, especially regarding parental backgrounds, which may have had an impact on the teachers' choices of working methods in classroom practice. Depending on what theory of instruction a teacher bases his or her teaching on, it will impact the selection and organisation of content, as well as the educational context (Bernstein, 2003). The question is how teachers and learners experience different modes of classroom practices, and thus, *the aim of this research was to examine teachers' and learners' teaching and learning experiences in relation to different modes of pedagogical practices.* The following questions guided the research:

- What do the practices in the two schools look like on a general level?
- How are positive and negative experiences expressed by leaners and teachers?

Background

Nowadays the concept of entrepreneurship is mentioned in educational contexts worldwide, and entrepreneurial education has been a part of policy for decades (European Commission, 2002, 2003, 2010, 2013; OECD, 1989, 1998). The overall aim is to increase employment in a changing society. "Europe needs to foster entrepreneurial drive more effectively. It needs more new and thriving firms willing to reap the benefits of market opening and to embark on creative or innovative ventures for commercial exploitation on a larger scale" (European Commission, 2003, p. 4). Another aim is to bring about deeper learning and motivation among learners.

In an educational context Sweden and the other Nordic countries have agreed on a definition that says, "Entrepreneurship is a dynamic and social process whereby individuals, individually or in cooperation with others, identify possibilities and do something with them to transform ideas into practical and targeted activities in social, cultural and economic contexts" (Swedish National Agency for education, 2015, p. 12, author's translation).

International policy texts (e.g., European Commission, 2013; Lackéus, 2015; OECD, 1998) have emphasised that entrepreneurship in education is about embracing an attitude whereby learners' self-reliance, self-knowledge, creativity and abilities to communicate and cooperate are stimulated. The Swedish National Agency for Education (2015) has in turn formulated a definition of *entrepreneurial education* in accordance with these policies. The agency said that entrepreneurial education means developing and stimulating general competences like taking initiative, taking responsibility, turning ideas into action, developing curiosity, relying on oneself, being creative and demonstrating courage for risk-taking. Furthermore, entrepreneurial

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education should promote competences like decision-making, communication and cooperation to seize opportunities and changes, as well as to develop and create value—personal, cultural, social or economic (Swedish National Agency for Education, 2015).

Entrepreneurial competences enable young people to have the courage to start and run businesses, as well as to contribute innovatively in existing ventures and workplaces (Røe Ødegård, 2014; Spilling, 2014). To achieve entrepreneurial competences, it has been argued that focus should be directed towards the younger population; thus, education and teaching are seen as the main driving forces and actors. Education has been urged to emphasise the development of general competences like self-confidence and adaptability, as well as specific entrepreneurial competences in the sense of running a business. The latter competences have been labelled, as a narrow approach, cognitive or external entrepreneurship. The former are seen as a broad approach, non-cognitive or internal entrepreneurship, as a way of adapting an entrepreneurial mindset through entrepreneurial education (Backström-Widjeskog, 2008; Erkkilä, 2000; Johannisson, 2005; Jones & Iredale, 2010; Moberg, 2014; Røe Ødegård, 2014; Spilling, 2014).

In an era of re-traditionalisation that has resulted in a standard-based curriculum with a content seen as a given and uncontested body of knowledge (Sundberg & Whalström, 2012), entrepreneurial education can present quite a challenge for both teachers and learners (Diehl, Lindgren, & Leffler, 2015).

Entrepreneurial Education and Classroom Work

Entrepreneurship in school is connected to learning and socialisation and implicates moving away from traditional, teacher-centred teaching and learning towards a focus on learners and their internal motivation, or driving force, and a feeling of meaningfulness is the focus (Erkkilä, 2000; Kyrö, 2005; Lackéus, 2015; Røe Ødegård, 2014). The learning processes are based on activity, cooperation, multidisciplinary learning, learners' participation, experiences and result requirements. Entrepreneurial education is placed within constructivist and sociocultural learning theories, and theorists who have provided the most inspiration are Vygotsky, Bruner and Dewey (Røe Ødegård, 2014). In their theories on learning and socialisation, knowledge production is seen as a continuous construction and reconstruction process in which the individual is involved. Learning occurs when the connection between actions and results is understood by learners, in interplay and under the guidance of teachers (Imsen, 2010; Røe Ødegård, 2014).

Entrepreneurial education, in contrast to cognitive (behaviouristic) education, seems to a great extent to be based on experiences. The experiences have both affective and conative aspects, the former related to motivation, feelings and desires in the development process and the latter to creating meaningful learning (Gibb, 2000). Methods to promote this involving organising flexible learning situations wherein learners influence the construction of the content are important. Teachers move from being subject matter experts to interdisciplinary facilitators, and evaluation moves towards learning outcomes with quality, supportive and process-based methods; thus, formative assessments are advocated (Lackéus & Moberg, 2013). Projects allowing learners to cooperate with the surrounding society on authentic problems and challenges as well as to create value for someone outside of school (Lackéus, 2016) include, together with problem-based learning (PBL), learning through activities, projects, work-related practice, and storylines; different readymade concepts like rural entrepreneurship through active learning (REAL) and competitions are seen as methods to achieve for learners to learn entrepreneurially (Backström-Widjeskog, 2010; Lackéus, 2016; Otterborg, 2011; Rae, 2000; Røe Ødegård, 2014; Svedberg, 2010).

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Teachers and Entrepreneurial Education

Regarding teachers' views on entrepreneurial education, research has revealed different angles depending on, for example, what country the research is conducted in, what level in the education system the teachers teach and what analytical tools are used (Dal, Elo, Leffler, Svedberg, & Westerberg, 2016). Many teachers struggle to ascribe meaning to, and to integrate, entrepreneurial education in pedagogical settings, often due to the strong connection with the economic aspects of entrepreneurship (Backström-Widjeskog, 2008; Holmgren, 2012; Leffler, 2009; Riese, 2010). In a Finnish study many teachers argued that activity, authenticity and an auspicious atmosphere enabled learners to develop competences and skills seen as entrepreneurial. This seemed to be a question of the teachers understanding of the phenomenon: Teachers possessing a broader and deeper understanding focussed more on learners' personal and social entrepreneurship competences, while teachers with limited knowledge focussed on economic and business-related activities (Backström-Widjeskog, 2010). Different enactments and understandings may also be due to individual teachers, their engagement, personal characteristics and perceptions of change (Diehl et al., 2015; Sagar, 2013). Swedish teachers have shown to be concerned about lack of organisation, management, inspiration and support, as well as time-table issues and strong subject division (Bager & Løwe Nielsen, 2009; Berglund & Holmgren, 2007; Sagar, 2013). Other aspects that teachers find challenging are the new culture and rhetoric that entrepreneurial education presupposes (Leffler & Näsström, 2014; Shacklock, Hattam, & Smyth, 2000), not to mention the need to let go of power and control as initiatives move from teachers to learners (Deuchar, 2006; Leffler, 2006; Svedberg, 2010). Entrepreneurial education implies changes for individual teachers in terms of creating new meanings, new schemas and new content in their work (Römer-Paakkanen, 2015). It has been argued that the collaborative culture between colleagues in terms of learning, supporting and reflecting together (Peltonen, 2014), as well as finding time for cooperation (Leffler, 2014; Sagar, 2013), needs to be re-evaluated.

Learners' (Entrepreneurial) Learning

Research regarding learners' relation to entrepreneurial education is scarce, but when learners were asked for different "ingredients" connected to entrepreneurial education, for instance, young learners (age 10–12) had more thoughts about what they would like to influence than they felt they actually could affect (Leffler, 2006). Regarding learning, learners in the same study expressed the importance of learning some subjects, especially mathematics, whilst others, like handicraft, were not seen as so important, even if they were seen as the most fun. They also stressed the need to be quiet, to listen, to raise their hands and to not disturb their classmates. Many learners in the study had difficulties expressing how they actually learned, but motivation and having fun were regarded as facilitating learning. Variety in teaching content, working in teams and working more freely were also appreciated. Still, concentration, listening carefully and practising were seen as crucial and inherent ways of learning, even if teachers' personalities and ways of teaching were seen as having a huge impact (Leffler, 2006). A Scottish study in primary and secondary schools concluded that learners increasingly begin "to focus their view of 'enterprise' upon a model of social renewal, grounded in the need for civic responsibility within a global and ethical framework" (Deuchar, 2006, p. 544). The study also showed that in primary school, learners' empowerment and consultation were developed through work in pupil councils, living models of democracy wherein both individualistic goals and collective responsibility were enabled. In Sweden, on the other hand, Lindster Norberg (2016) concluded that there is a lack of talk about improving the future society or developing democracy among upper secondary learners. An important aspect of learners' engagement and influence seems to be the degree of involvement in working life and the local community.

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Learners' engagement in authentic tasks from actors outside school, as well as help from the local community and workplaces to solve problems, is seen as a beneficial cooperation for the school, the learners and the stakeholders (Leffler & Näsström, 2014). Moberg (2014) found that the narrow approach, or teaching *for* entrepreneurship, "has a positive influence on pupils' entrepreneurial intentions but a negative influence on their level of school engagement" (p. 512), whilst the broad approach, or teaching *through* entrepreneurship, has the opposite impact.

Theoretical Framework

To understand different pedagogical practices and, thus, how learners and teachers talk about them, Bernstein's (2003) concepts of visible and invisible pedagogies are useful tools. To grasp these concepts, it is important to view them in relation to other Bernsteinian notions. Classification and framing are two essential concepts in Bernstein's theories.

Classification is about power and proposes the insulation between different groups or categories (e.g., different subjects or different schools). *Framing* is about control and concerns legitimate forms of communication within groups or categories (e.g., within a subject or within different schools). Depending on the strength of the classification and/or the framing, different codes occur. In their extreme, strong classification and strong framing mean a collection code, whilst weak classification and weak framing mean an integrated code (Bernstein, 1975). The codes in turn imply different generic types or modalities of pedagogical practices, namely a *visible* or an *invisible* pedagogy (Bernstein, 2003).

Still, to fully understand the implications of a visible pedagogy and an invisible pedagogy, the concepts of classification and framing are not sufficient. Bernstein (2003) distinguished between pedagogical practice as a cultural relay (i.e., social form) and what that practice relays (i.e., a specific content). He argued that the cultural relay "is provided by a set of three rules" (p. 65), and these rules in turn "act selectively on the content of any pedagogic practice" (p. 65). Thus the "how" and the "what", the form and the content, of a pedagogical practice in turn have implications on "who" is able to acquire it successfully.

A short introduction to the rules helps understand the notions of visible and invisible pedagogies.

The Three Rules

The *hierarchical rules* are the dominant rules, and they are about learning to be an acquirer, in this case a learner, and learning to be a transmitter, in this case a teacher. The rules thus establish the conditions for order, character and manner and can be either explicit or implicit. In an implicit hierarchy, power can be masked or hidden and, thus, difficult for the acquirer to distinguish. To achieve progression in transmission, some things have to come before others; this requires *sequencing rules*. These in turn imply *pacing rules*, which articulate how much has to be acquired (learned) in a given amount of time. Like the hierarchical rules, these rules can also be explicit or implicit. "Explicit rules regulate the development of the child, usually in terms of age" (Bernstein, 2003, p. 67). In an explicit context the learner lives in the past. In the case of implicit rules, on the other hand, the learner is not aware of his or her temporal project; the learner lives in the present, and only the teacher has an idea of the sequencing of his or her educational progression. *Criterial rules* are also, to different degrees, explicit or implicit. Explicit criteria make clear to the learner what is missing in a product; they are specific and articulated, and the learner is aware of them. Criteria can also be implicit, numerous and diffuse. In an implicit pedagogical practice, what is expected is not outlined giving space for the learners' creativity and social relations to appear supportive and spontaneously.

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So, what implications do these rules have on the pedagogical practice? As mentioned above, Bernstein (2003) outlined two generic types of pedagogical practices, visible and invisible pedagogies. Depending on how explicit or implicit the rules are, different pedagogical modalities are outlined. Explicit rules imply visible pedagogies and implicit invisible pedagogies. It is, however, important to bear in mind that there are a variety of modalities within each pedagogical practice; most important, thus, is that even in an invisible pedagogical practice, the "specific specialized skills and attributes of a visible pedagogy are beneath the surface" (p. 84).

Visible Pedagogy

Bernstein (2003) argued that a visible pedagogy is the standard European practice and is the one that leads to professional occupational placement. Its emphasis is on learners' performance and their ability to meet criteria. The learner's external product is what counts. Visible pedagogy stratifies and produces differences between learners. Learners who have difficulties meeting the sequencing requirements of a visible pedagogy will fall further and further behind. A strategy to counteract that can be to reduce the quantity, quality or both regarding the content to be acquired, which leads to stratification. For example, early reading is seen as crucial; this enables reading and working in textbooks, which makes solitary work possible for many learners at the same time. It does not require a lot of space or material, which makes visible pedagogy a significantly cheaper practice than an invisible one. Reading also eventually makes the child less dependent on the teacher and gives access to other perspectives than those given by the teacher. Learners not following the sequencing rules when it comes to reading become more dependent upon the teacher and, thus, oral forms of discourse. Another aspect of the sequencing rules is the relation between local, context-dependent and less-local, context-independent meanings. Children who have fallen behind this age-bound progression from context-dependent to context-independent meanings will have difficulties applying principles to new situations. Strong pacing affects pedagogical communication: It regulates examples, illustrations and narratives, as well as how many and which questions can be posed and what answers can be given. It also tends to "reduce pupils' speech and privilege teachers' talk, and the pupils come to prefer, as time is scarce for the official pedagogic message" (Bernstein, 2003, p. 77–78). The hierarchical rules are explicit in a visible pedagogy, which means that problems of control are relatively reduced, privileges can be given or withdrawn and strategies like exclusion can be used. Exclusion weakens the communication; learners keep their thoughts and feeling to themselves (private).

Invisible Pedagogy

An invisible pedagogy focuses on learners' competences and is not so interested in gradable performance but rather on cognitive, linguistic, affective and motivational procedures internal to the acquirer. The "*procedures of acquisition* are considered to be shared by all acquirers, although their realization in texts will create a difference between acquirers" (Bernstein, 2003, p. 71). Differences are seen as uniquenesses and are not used to compare children with each other. The educational context is arranged to enable shared competences (internal commonalities), from which learners develop realisations appropriate to them. Invisible pedagogies imply other theories of instruction than visible pedagogies because they emphasise changes within the individual. The invisible pedagogies apply different modalities of progressive pedagogical practices, whilst more behaviourist practices are used in visible pedagogies.

Creativity and freedom of movement are prerequisites for invisible pedagogies, which means a need for more space and materials and, thus, higher costs than a visible practice. Invisible pedagogies would, in their ultimate function, not consider time but, rather, the learners' development as an objective, which presupposes a long pedagogical life. Bernstein (2003) argued that middle-class families "often run a compensatory pedagogic programme dedicated

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to reading, writing and counting whilst the child's creative potential may be facilitated by the invisible pedagogy of the infant school or preschool" (p. 81). Furthermore, children in an invisible pedagogical context are encouraged at all times to verbalise their thoughts and feelings, fantasies, aspirations and fears, which means total (public) surveillance.

Invisible pedagogies are more or less possible in a pedagogical context with weaker classification and framing. Lower secondary school is, on a general level, more strongly classified and framed by, for example, isolation between subjects, teachers, syllabi, curricula, sequencing and pacing than preschool and primary school. According to Bernstein (2003), education in general can be characterised by a visible pedagogy; the introduction of entrepreneurial education can be interpreted as an attempt to introduce more of an invisible pedagogy. Thus, to enable entrepreneurial teaching in lower secondary schools is a challenge even though it is a mandatory task expressed in the Swedish curricula. The results and analyses presented below show and elaborate on how, and why, entrepreneurial education is reflected in classroom practice. But first, insight into the methodology of this study is presented.

Methodology of Research

General Background of Research

The research has a qualitative exploratory approach and is based on two case studies. Qualitative research is "characterized by a 'loosely defined' group of designs that elicit verbal, aural, observational, tactile, gustatory and olfactory information from a range of sources" (Cohen, Manion and Morrison, 2011, p. 219). Through an interpretive process it aims to understand meanings arising from social situations. Case studies are characterized by accepting that there are many variables operating in a case and therefore "usually requires more than one tool for data collection and many sources of evidence" (Cohen, Manion and Morrison, 2011, p. 289) Two, out of six, compulsory schools taking part in CPD program on entrepreneurial education were selected as cases for the research, and during three weeks at each school different tools for data collection were used; observations, interviews with teachers and interviews with learners.

Sample

The two schools chosen for data gathering were chosen due to their similarities concerning geographical location, with both situated in suburbs of major Swedish cities, and differences in learners' demographics, with all ethnic Swedes in School 1 and 1/3 with other ethnic backgrounds in School 2.

School 1 was situated in a rather wealthy, middle-class, White area where housing mainly consisted of villas. It had about 150 learners (grades 7–9, ages 13–16). The school had tried different interdisciplinary working methods, which resulted in schedule merging that made it possible to have longer class periods than are typical in Swedish schools. At the time of data gathering, however, the schoolwork was primarily conducted within subjects. The school had been taking part in several contests that encouraged what can be defined as entrepreneurial teaching and learning. Parents, at the time of data gathering, who had completed post-secondary education accounted for 56%, and the amount of immigrants, first or second generation, was 7% (Swedish National Agency for Education, SALSA[1], 2015).

School 2 was situated in a suburban community with mixed housing. It had around 300 learners (grades 6–9, ages 12–16). The work was organised with subjects as the base. The school featured activities and thematic work regularly during the year, lasting from one day up to a week. Parents who had completed post-secondary education at the time of data gathering accounted for 34%, and the amount of first or second generation immigrants was 34% (Swedish National Agency for Education, SALSA, 2015).

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Data Collection

The data collection was guided by Bernstein's (1975, 1996) theoretical framework and, after discussions with knowledgeable colleagues, designed and performed by the researcher. It included classroom observations, interviews with teachers and learners and lasted three weeks at each school. The aim was to interview the teachers whose lessons were observed. The idea was to be able to link the interviews to what had been observed, and thus, the data gathering began with observations.

All in all, 52 lessons were observed: 21 observations in School 1 and 31 in School 2. A structured observation schedule (Cohen, Manion, & Morison, 2011) with fixed categories was created. It was based on Bernsteinian categories to distinguish the degrees of teachers' and learners' control over 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), the Swedish curriculum and course syllabi, which described the required abilities for entrepreneurship (Swedish National Agency for Education, 2011). Additional field notes were made to absorb the situation and to observe events and behaviours not covered by the structured part of the schedule. Overall, the method can be described as a form of participant observation (Cohen et al., 2011; Kvale, 1997).

The interviews were semi-structured and were thus prepared with pre-set questions that matched the observation protocol while allowing for open-ended answers (Hannan, 2007). The interview guide was changed to some extent; questions were added and reformulated due to what had been observed during the time spent at the schools.

All in all, eight teachers, three in School 1 and five in School 2, were interviewed, and the interviews lasted for 40–90 minutes. Learners from all grades were interviewed in both schools and resulted in 14 group interviews and one single interview. In School 1, nine interviews were conducted, while in School 2, the amount was six. Altogether, 38 learners took part in the interviews. The interviews lasted between 30 and 50 minutes. All interviews were recorded.

Data Analyses

All transcriptions were made by the researcher and gave an opportunity to relive and remember details (sometimes important) about the context and situations in which the observations and interviews had taken place (Kvale, 1997). The observation data were analysed using Excel[2] based on who was in control of communication, criteria, time, pace, sequencing and order in the classroom. The field notes were transcribed and categorised using a grid of entrepreneurial keywords, such as learners getting the opportunity to be curious, creative or innovative or to work with peers or in groups, analyse or reflect. These aspects were all important to enable analysis according to visible and invisible pedagogies. The data were analysed by school, which enabled a crystallising of similarities and differences between them. The field notes increased the data's accuracy and provided a more complete picture of the phenomenon (Cohen et al., 2011).

The interviews were listened to and transcribed verbatim. With the research questions in mind, the material was first read through, and general patterns, regardless of school, were searched for (generating natural units of meaning). The next step was to discern learners' and teachers' statements about positive and negative learning experiences as well as their explanations for why these experiences were either positive or negative. This meant organising 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, formulated new variables and recognised subcategories and

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themes. Based on the concepts of visible and invisible pedagogies, a text was formed and organised (structuring narratives to describe the interview contents). Finally, the interviews were interpreted to create meaning, together with the observation protocols and field notes taken (Cohen et al., 2011; Watt Boolsen, 2007).

Ethical Considerations

Research was a part of the terms for the CPD-programme, and thus an aspect that the participants were aware of. Still, of course, all respondents had to be willing and accept to be interviewed, and the teachers, to be observed. At the first observation in each class, the researcher presented the reason for being in the classroom. Parents' consent was ensured before interviewing willing learners below 15 years of age, this by signing a paper with information about the research. All respondents were informed that they could choose to end the interview at any time. The names and location of the schools, as well as of the participants were anonymised.

Results of Research

Classroom Practices

In School 1 some teachers introduced themes that the learners were to work with for a couple of weeks, while others had a more specific aim for each lesson. All lessons started with an introduction by the teacher; after that, the learners started working, often in groups or pairs. Some lessons were part of a bigger theme, and worksheets were used to track the progress of the larger project throughout each lesson. The teacher explained steps that could be followed at the learners' own pace. Other lessons were less structured, and the learners had to organise their tasks themselves; the conditions, such as due dates, group membership, time for, and form of submission, were changed now and then. The field notes showed that during these lessons the learners sometimes seemed uncertain about what to do and had difficulties getting started. Some lessons lasted 90–120 minutes, others for 40–50 minutes. The shorter lessons were more specifically led by the teachers. The overall organisation was that each teacher planned and taught his or her own subjects. The observations showed plenty of room for the learners to use and develop entrepreneurial abilities such as creativity and responsibility, to explore ideas and to work with others. The learners often had lively discussions with each other and with the teacher during lessons of project and theme character. In this school each learner had a laptop or an iPad, which was frequently used during lessons. These devices were also used by teachers to present their plans and assignments, as well as for learners to send their work to the teachers. On occasion the learners expressed concerns about their grades and sometimes questioned the teachers' ability to give fair grades when they worked in pairs or groups.

In School 2 the classroom practices followed more or less the same structure. Lessons most commonly started with an introduction and instructions from the teacher, who then asked the learners to work on the tasks. The tasks could be continuing work from the books, following an instruction sheet during, for example, a lab or answering fixed questions. In these settings the teacher walked around the classroom and helped learners who had gotten stuck or who had questions. Sometimes the lessons were more like lectures and called for the learners' attention throughout the class. Most of the lessons lasted 40–50 minutes and were led by the teachers. On occasion learners discussed tasks with peers or in small groups, but in general there was little room for extended discussion. The observations sometimes showed, though not to a very high degree, teachers being concerned about learners developing skills like initiative, curiosity, creativity, risk-taking, reflection, analysis and argument. Group work sometimes occurred, but communication skills were not practised thoroughly. On one occasion a project that lasted for a longer period of time (2–3 weeks) was observed. This school had a computer lab that could be

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booked by teachers for special occasions; along with that the school had a class set of iPads that could be booked and used in the classrooms at times. The learners, especially the older ones, expressed concerns about their grades and quite often asked what they needed to do to improve them.

Analyses of Classroom Practices

In School 1 the observed teachers more often worked according to a more entrepreneurial/progressive theory of instruction. At times they presented tasks that involved the surrounding society, allowed for learners' participation, built upon their experiences and provided room for communication, creativity, problem-solving and cooperation. The school had been taking part in competitions promoting entrepreneurial teaching and learning, working on projects now and then and often learning though activity. During these occasions the sequencing and pacing, as well as the criteria and hierarchy, could appear unclear in the beginning, but often the teacher made these rules more explicit along the way. Hence, the educational practice was still divided into different subjects, and memorising was still a frequent learning method. In School 2 elements of what could be defined as entrepreneurial teaching were unusual and mostly observed in subjects like technology and handicraft. Sequencing, pacing and criteria, as well as hierarchy, were mostly very explicit. Thus, teaching was conducted following the means of a visible pedagogy in both schools. In School 1 weaker framing in some subjects, and at times of project work, was more common, which implies elements of invisible pedagogy. Even if learners in both schools were concerned about their grades, there were differences between the schools: In School 1 the learners on occasion questioned teachers' ability to provide fair ratings, whilst the learners in School 2 asked the teachers what they themselves could do to raise their grades.

Experiences of Teaching and Learning

Positive Experiences

The learners and the teachers were asked to give their thoughts on what and why they perceived as fun and interesting (learners) or successful and good (teachers) schoolwork.

When learners in School 1 described fun and interesting things in school, they mentioned being given the opportunity to write scripts and play theatre, design different inventions or be part of an art project challenging social norms. They also mentioned food culture work in home economics and different competitions they had been taking part in. The year before the interviews were conducted the school had something they called "project time", which meant that a certain amount of hours per week were assigned to work on something, often with different subjects and teachers involved. The learners appreciated this and mentioned, among others, a housebuilding project that could be performed either on their computers or by using cardboard and other materials. Other prised activities were writing about what a "dream school" would look like and making films in different subjects. One class had worked on a long-lasting project that resulted in an exhibition and a trip abroad. The teachers in this school more or less mentioned the same things as the learners.

For the question on why these activities were seen as positive, one learner, for example, expressed his experiences in a project like this:

> It was more like the project *was* something; it was not just about looking for information about something, writing it down, and giving it to the teacher . . . it was more like a whole collage, and all groups could see and hear about each other's thoughts and the results of the work . . . and many groups had a very good cooperation. (Boy, grade 9)

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The fun of mixing different subjects was often mentioned, as well as being given the opportunity to be creative and use their fantasy. Cooperating and working in groups were also discussed, even though many learners said they would prefer to choose their own groups and work in smaller rather than bigger groups. The feeling that the work was more free and, on occasion, was presented outside school were other aspects preferred by the learners.

The teacher working with the project that was also mentioned by the learners, emphasised the authenticity and "real" learning that were made possible. She thought the learners had been working too much in textbooks before and wanted to do something else. It started as a rather open project, which meant a great deal of uncertainty, both for the learners and for her, but the learners found their creativity, driving force, engagement and intention during the project. Even though there was no cooperation with other teachers, she saw the contact with the surrounding society and the possibility for learners to practice and develop her subject, as well as other competences in and through different ways, as a thrilling experience and as definitively entrepreneurial education. Other teachers also mentioned creativity and engagement along with the advantages of concrete learning and the possibility to collaborate with other teachers and subjects. Teamwork and the possibility for learners to learn new techniques, computer programmes and programming, on their own iPads or laptops, were seen as positive aspects of these learning activities. Interdisciplinary invention competitions were also mentioned as rewarding and fruitful in terms of learning.

The statements from the learners in School 2 were more specific and subject oriented. They mentioned things like working with an art theme, wherein short films were made and processed in Photoshop[3]; studying the greenhouse effect; and writing about a youth author and making a poster about him or her. Inventing political parties and having a school election was also mentioned, as were building things in pairs in technology class and working on a small project about a famous king in history class. Other examples the learners appreciated were comparing different religions and having a theme day when they presented their roots and origin to their classmates.

The teachers at this school mentioned different things than the learners. One teacher spoke about how some learners had written a "citizen suggestion" to the municipality. A science teacher mentioned the possibility for interdisciplinary work within her subjects, which she had done on occasion. Another science teacher argued that the learners in general liked technology, which was mostly about constructing things.

Some learners in School 2 verbalised why they appreciated the working methods they regarded as fun and interesting. One girl said,

> You had to invent very much, and you had to come up with ideas on how to improve (Girl, grade 7).

Some learners also referred to the time aspect; they liked working with a theme or a project over a period of time.

> For that one was doing it for a long while and it's fun to get involved with computer and tweaking and so (Girl, grade 6).

Regardless of the subject, many learners found it more fun to search and find things on the Internet instead of reading in books. But on a general level it was difficult for the learners to express why they liked learning and doing the things they mentioned as fun and interesting. Often they simply referred to their interest in the subject:

> I like Swedish (the subject), when you are supposed to write thing, because I like writing (Girl, grade 7).

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The teacher who mentioned the citizen suggestion said it was a good thing because it came from the learners' reality and, thus, created engagement; a side effect was that they learned how to express themselves in written text. One of the science teachers said that thematic work gave the learners the opportunity to work over a period of time and to create something, such as a PowerPoint presentation. Hence, she didn't think the time period could be too long, as it would tire the learners. Finally, the creative and developmental aspects, along with freer working methods, were seen as important when it came to the work in technology.

Negative Experiences

Regarding schoolwork that the learners considered not so fun, or even boring, there were great similarities between the schools. They often referred to specific subjects:

> I think Spanish and chemistry are boring…our teacher is really boring (…) and the only thing we do is work in our workbooks….then Chemistry…it's boring with chemical formulas and stuff (S1, girl, grade 8).

It was also very common for learners to have negative attitudes towards subjects such as art, music and handicraft. Many thought these subjects depended on talent, were thought to be unnecessary and something for which they had no use in their future lives and, therefore, were seen as a waste of time. On a general level the findings indicated that subjects that did not engage and interest the learners were perceived as boring; this in turn had a lot to do with the working methods used.

> It's boring when you sit in your desk with a lot of papers and you have to copy what the teacher writes on the blackboard….or look at a power point presentation…or like write 5 pages about something…but if we would learn something that is more interesting, it might be more fun to learn… (S2, girl, grade 7)

Thus, the teachers and how they carried out their teaching had a great impact on how the learners experienced the subjects and lessons. Many learners referred to classes wherein they had to work in their books, read and answer questions in every lesson throughout the semester as very tedious. Some learners mentioned they had to wait a long time for the teacher to help when needed, which generated stress, especially if there was a test coming up soon.

> I'm tired of that things have to be done in such a hurry all the time….you have hardly finished one work before it's time for the next…and then there is a test in two weeks…and you don't have time to learn you just do crude study and it just goes in and then out again. (S1, girl, grade 9)

Thus, the learners' experiences were very much the same in both schools, but in School 1 they experienced more project and theme work, which they also referred to. Many asked for more practical work, but at the same time, there were learners' in School 1 who found the freer thematic work they had been involved in fuzzy and unclear. In the discussion about one teacher who the learners thought of as creative and inventive, in whose class they often worked in "different" ways, one girl said:

> I also think it is very difficult when he comes with new instructions all the time . . . first, in one lesson, you can do one thing that is totally new; then, the next lesson, he comes with some completely new method for the same thing . . . that can be rather laborious. (Girl, grade 8)

In this school, all of the learners believed they had far too much homework and school days that were far too long; they had lengthy discussions on how stressed they felt and their lack of time for leisure activities.

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The teachers were asked for experiences of less successful activities and were given the opportunity to state the reasons why. One of the teachers in School 1 claimed that she generally did not work to her fullest capacity and with full engagement due to the principals she had before; the one she had at the time of the data gathering was positive and supportive, and gave her the opportunity to work more freely. The other two teachers gave more specific examples. One mentioned an activity in which the learners were to compare the Swedish and American governments. He thought the reasons might be due to the learners' lack of understanding, since the activity was too theoretical and abstract. Maybe a role-play with an American and a Swedish election would have been better, he pondered. The science teacher mentioned a project about energy, which she thought was too freely given. It demanded very much from the learners and should have been more directed in the beginning. The project was changed after an evaluation with the learners, but due to problems related to timetables, premises and resistance from colleagues, there was no extensive energy project during the year of the data gathering. The social science teacher in School 2 said that she was often dissatisfied with her lessons:

> If the learners don't understand or keep up you feel that it's not good, and you blame yourself.

She thought that teachers commonly do not feel satisfied with their lessons, but also thought that the outcome of a lesson or activity can depend on the group of learners. The other teachers mentioned specific activities. One discussed a lesson where she had many artefacts to describe optics and was disappointed when the learners found it boring. She thought that learners prefer the teacher to give lectures, maybe because they feel stressed or do not understand:

> It seems like the learners don't like to discover things, I don't know how one can get them to enjoy it.

The math teacher asked herself the same question. She argued that mathematics is definitely not difficult and that its theory is straightforward but still many do not seem to be interested, just do not understand or do not want to understand. Maybe there is fear behind their unwillingness and lack of understanding; maybe it is due to the time of the day; maybe they should have been paid attention earlier in the education system; or maybe it was due to her as a teacher, she pondered.

Analyses owf Positive and Negative Experiences

On a general level, when looking at the learners' statements, it is obvious that they find schoolwork fun and interesting when it implies creativity and invention, taking part in each other's results as well as work without strict time pressures

A more specific look at the schools' practices reveals differences among the schools. The learners in School 1 mentioned things like teamwork and cooperation with the surrounding society, interdisciplinary work and project work—which the learners and teachers at School 2 did not mention. In School 1, the teachers and learners, to a large extent, agreed on what was experienced as "good" schoolwork, whilst the teachers and learners in School 2 mentioned different things. This can be explained by the fact that the teachers and learners in School 1 had shared experiences due to occasions of interdisciplinary, often project-oriented, activities over longer periods of time. In School 2, the isolation between teachers and subjects (other than when the same teacher teaches the same learners in more than one subject) was strong, which precluded similar statements, other than by chance.

The catchment areas of the two schools are clearly different, and thus the learners and their parents were too, regarding their ethnicity and the parents' post-secondary educational

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levels. The schoolwork in School 1 had more elements of invisible pedagogy, whilst School 2 could be said, to a large extent, to work according to the means of a visible pedagogy. This may have been due to different classificatory principles and thus power relations in the schools. The teachers may have perceived a need for more explicit power and control in School 2, maybe due to unspoken beliefs that this was the best practice in the mixed school setting they worked in. Another difference between the schools was that the learners in School 1 expressed more dissatisfaction with different things, and generally questioned and discussed more educational issues then learners in School 2. A characteristic feature of invisible pedagogy is that learners are encouraged to express their thoughts, feelings, fantasies, aspirations and fears, which could explain why more learners in School 1 might have felt that it was possible, safe and even taken for granted to do this.

The schoolwork that the learners did not like can be connected to behaviouristic learning or the means of a visible pedagogy. Many learners seem to become stressed by the explicit pacing and criteria and the pedagogic practice this implies. A consequence of a visible pedagogy, with which the sequencing rules are explicit and thus time is scarce, is that learners come to prefer that teachers talk, of which examples can be seen in the results. Some learners in School 1 found themselves confused and uncertain when teachers tried to teach entrepreneurially. In a school structure dominated by the means of a visible pedagogy, such attempts seem to trigger stress among some learners. A cautious assumption may be that these learners come from backgrounds in which their parents have few possibilities to facilitate compensatory pedagogy.

The interviewed teachers in School 1 all, in one way or another, reflected on how to optimise their teaching in accordance with what could be seen as entrepreneurial education. In School 2, the reflections varied from self-blaming to blaming the learners for not understanding or not wanting to learn. In a pedagogical practice with strong framing and strong classification—and thus a visible pedagogy—knowledge is given, uncontested and measurable, and if learners fail, they are to blame, not the teacher or the practice. This was perceived as the underlying structure of thoughts for the social studies teacher in School 2, and also the science teacher who was disappointed when her efforts to teach optics, were not appreciated.

Discussion

Much previous research on entrepreneurial education is applicable on the results of this research. These research findings will be discussed in relation to previous research, additionally Bernsteins' (2003) theory on visible and invisible pedagogy will be deliberated. The results demonstrate differences between the schools but also within each school. Many learners from both schools favoured structure, repetition and memorising. This form of teaching and learning can be connected to behaviouristic (Imsen, 2010), or visible (Bernstein, 2003), education in which learning is seen as linear and measurable. To claim that these working methods mean that learners became metacognitive in the sense of becoming aware of how to learn or form new habits and attitudes (Dewey, 1916/1997; Røe Ødegård, 2014) would probably be an overstatement. The fact that many learners think that more creative and loosely framed subjects like handicraft, arts and music (Leffler, 2014) are a waste of time and unnecessary, indicates that they to a large extent are "trapped" in the structure of visible pedagogies.

However, there were also learners—especially from School 1—who preferred more free and creative working methods where teachers tried not to "dominate but find ways to facilitate" (Bernstein, 2003, p. 69). These working methods and experiences belong to the more constructivist and sociocultural (progressive) view on teaching and learning, and are thus elements of invisible learning. This way of learning implies learners to view themselves as active in their own learning (Bernstein, 2003; Dewey, 1916/1997; Imsen, 2010; Røe Ødegård, 2014) and learners being given opportunities to develop their ability for problem solving and creativity (Dewey 1916/1997, Swedish National Agency for Education, 2015), which seemed

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to, at least to some extent, be the case in School 1. A range of possible explanations for the differences between the schools can be elaborated on. One can be connected to teachers' understanding of entrepreneurial education, where teachers in School 1 can be presumed having a deeper understanding of the phenomenon entrepreneurial education (Backström-Widjeskog, 2010), than teachers in School 2. Another explanation can be linked to actual experiences and the ability to express them. Different discourses (voices) appear, depending on the social relations emerging from power relations and classificatory principles in a practice, such as a school. These voices set limits to what counts as possible and legitimate messages (Bernstein, 2003). The learners in School 2 have not had the same experiences as the learners in School 1 and could thus only give statements based on their own experiences. For instance, regarding project work in School 1, the acquisition procedures can be considered to be shared, and seemingly were intended to establish changes within the individual (Bernstein, 2003). Considering the observations along with teachers' and learners' statements in School 2, they seemed to have difficulties in "acquiring the competence to produce what counts as effective messages" (Bernstein, 2003, p. 29) when it comes to entrepreneurial education.

A third explanation may be related to parents' backgrounds. School 1 had more parents with post-secondary education than School 2 did. The number of immigrants in school 1, both first and second generation, was strikingly lower than in School 2 (Swedish National Agency for Education SALSA, 2015). Bernstein (2003) argues that lower-working-class children and disadvantaged ethnic groups often cannot meet the requirements of the sequencing rules and may be constrained by local, context-dependent, context-tied skills. To keep up with, the mostly curricula-based pace, schoolwork needs to be done at home, and families are expected to ensure that the learners have the time and space for homework. Because of different backgrounds and conditions at home, not all learners have the same opportunities when it comes to studying at home. Due to this, it can be fair to assume that a higher number of learners in School 1 had favourable preconditions regarding getting help with homework (Bernstein, 2003, p. 81). As noted by others, economic, cultural and social capital (Bourdieu, 1995; Savage, 2015) tend to regulate parents' support for their children. This, in turn, can mean a reduction in the quality of the content to be acquired and lead to stratification (Bernstein, 2003). The catchment area of the school impacts both the content and pacing of the transmission. Specific practises between teachers (transmitters) and learners (acquirers) constitute a local context of reproduction (Bernstein, 2003); thus, different school cultures occur, which in the case of these schools can explain why at least some of the teachers in School 1 found a scope for trying out more progressive or entrepreneurial forms of transmission.

Conclusions

This research wanted to examine teaching and learning experiences in relation to different pedagogic modes.

On a general level it can be argued that teaching and learning in School 2 to a large extent can be characterized by the means of a visible pedagogy. The practice reveals teaching methods that are in accordance with visible pedagogies, and teachers as well as the teachers' experiences are almost exclusively subject specific. Positive experiences include room for some creativity and somewhat looser frames regarding sequencing and pace. The teachers experienced learners' lack of interest or understanding as negative, whilst learners dispraised working in textbooks and answering questions, time pressure and some teachers' way of teaching.

The pedagogic practice in School 1 contains elements of what can be characterized by the means of invisible pedagogy. Here theme and project work was rather common, this gave room for creativity, learners influence, at occasions interdisciplinary work, group work and rather loose frames regarding sequencing and pace. Learners' negative experiences were very much the same as for learners in School 2. Teachers expressed the need for a supportive principle and

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elaborated on how they could improve their teaching to, in turn, improve the learners learning. When expressing positive experiences, they were often linked to theme and project work, by both teachers and learners. Still, both teachers and learners in School 1 expressed difficulties when trying out "entrepreneurial" teaching and learning. Some learners found it unclear and fuzzy, and had difficulties knowing what is expected from them and—especially the teachers who tried the most—felt a need to gradually be more explicit regarding sequencing, pacing and criteria. Therefore, both teachers and learners—or more specifically, the pedagogic practice—can be said to be in a limbo between visible and invisible pedagogies, and are challenged to find manageable modes in a practice of contradictions.

The Swedish and at least European educational standard practice is that of a visible pedagogy, even though the introduction of entrepreneurial education can be seen as an attempt to achieve a practice that is more in accordance with invisible pedagogy. One of the greatest obstacles for this to happen is the strict knowledge requirements in curriculum and syllabi; further examination on grading and assessment would be of interest for future research on entrepreneurial education. An overall reflection and question when it comes to entrepreneurial education in relation to visible and invisible pedagogy would be that of class, ethnicity and gender. Would the ultimate means of entrepreneurial education equalise or deepen the gaps between people of different classes, ethnicities and gender?

Notes

Note 1: SALSA is a statistical model that compares Swedish schools' grades. This means that school performance is calculated by the actual rating results and then put in relation to a number of background factors.

Note 2: A software package used for statistical analysis.

Note 3: A computer programme for elaborating on pictures and films.

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