The Transformation of Creativity in Entrepreneurial Learning in Teacher Education: A Critical Reflection

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Abstract: The purpose of this study is to examine how students on a teacher education programme interpret entrepreneurial learning. The study was performed in Sweden, based on a design theoretical and multimodal perspective on learning and communication which provides the basis for how we understand learning processes in early teacher education. The sample consists of course literature, teachers' PowerPoint presentations and handouts, and narrative texts written by students. The meaning given to entrepreneurial learning is presented from the analysis of the setting, in the teaching materials and the transformation in the students' texts. We conclude that entrepreneurial learning seeks to challenge traditional, authoritarian ways of teaching. However, it appears to be necessary in order to develop entrepreneurial abilities. There is a difficulty in finding a balance between control and freedom.

Introduction

Since the late 1990s, entrepreneurship has been discussed in positive terms in different contexts and has been incorporated into different policy documents within the European Union, in the Organisation for Economic Co-operation and Development, OECD and in Sweden. A sense of entrepreneurship is, for example, one of the EU's eight key competences for lifelong learning (European Commission, 2010). This interest of entrepreneurship in education is not only a European issue, but can be described as a global movement visible in for example Africa and Australia (Falk-Lundqvist, Hallberg, Leffler, Svedberg, 2011). According to the Swedish Government's strategy for entrepreneurship in education, entrepreneurial learning should be a common underlying theme of the entire educational system (Government Offices of Sweden, 2009). According to the Swedish National Agency for Education, entrepreneurial learning is about "developing and stimulating competencies like taking initiative, responsibility and the ability to turn ideas into action. It is about developing curiosity, self-esteem, creativity and the courage to take risks" (The National Agency for Education, 2015, p.3). In primary and secondary school in Sweden, the intention is primarily for pupils to develop abilities that promote entrepreneurship, through entrepreneurial learning. In upper secondary school, entrepreneurship is a programme specialisation subject within the Business Management and Economics programme. The National Agency for Education has been commissioned by the Swedish government to encourage working with entrepreneurship in schools, and this should permeate all school levels. In the current curricula for compulsory and upper secondary school from 2011, it is stated that all students should learn entrepreneurship and there are similar formulations relating to preschool. In educational practice, this has mainly been manifested as an

entrepreneurial approach to education, and entrepreneurial learning is used as a method for building knowledge and abilities such as creativity, curiosity and taking initiative in learning. Despite the above, entrepreneurial learning is not so often integrated in pre-school and teacher education. There is a need to understand what is included in teaching about entrepreneurial learning content and to critically reflect on the meanings that are produced in education. It is also of relevance to study how educators design courses and modules to respond to new requirements from regulatory documents, students and working life.

This study is part of a project entitled 'Entrepreneurial learning in education and practice in teacher education'. The project's overall purpose is to offer knowledge about entrepreneurial learning and an entrepreneurial approach to students on preschool and primary school teacher education programmes at a Swedish university compulsory school, compulsory school,. In this project, a research study was undertaken with the purpose of examining how students on a teacher education programme transform and represent content and form from a course where entrepreneurial learning is a learning requirement. To achieve this purpose, the following research questions were asked:

Which are the meaning potentials of the course, as offered in teaching by the university teachers, concerning entrepreneurial learning?

How are content and form in the course transformed and represented in students' texts concerning the teaching of entrepreneurial learning in their field studies?

Studying this is relevant due to the links between teachers' education and classroom quality, as well as the link between classroom quality and children's academic progress as emphasised by several researchers (see e.g. Lobman, Ryan & McLaughlin, 2005; Tout, Zaslow & Berry, 2005). Thus, the way teachers carry out their profession and teaching for entrepreneurial learning will evidently affect individual children and students at preschools and schools. Falk (2004) argues that in a teacher education context, a hermeneutic didactic perspective on students' texts in combination with conversations about texts increases knowledge about students' didactic understanding. Alsterdal (2014) also describes how students' narrative texts can provide a basis for knowledge for both students themselves as writers, as well as for readers of these texts. In our study, we analyse students' narrative texts and by interpreting these texts we have been able to obtain knowledge related to entrepreneurial learning.

Earlier Research

Research about entrepreneurial learning has primarily focused on preschools, compulsory schools and upper secondary schools (e.g. Ehrlin, Insulander & Sandberg, 2015; Falk-Lundqvist, Hallberg, Leffler & Svedberg, 2011; Insulander, Ehrlin & Sandberg, 2015; Otterborg, 2011; Seņkāne, 2014). Research has only addressed how the concept is given meaning within higher education and in relation to the training of future teachers and preschool teachers to a limited extent. Therefore it is important to reach knowledge in this area.

In research concerning entrepreneurial learning from late 90s until today, there seems to be tension between, on the one hand, education *for* entrepreneurship that emphasises the production of economical values: an "external" discourse about entrepreneurship (Johannison & Madsén, 1997; Jones & Iredale, 2010; Otterborg, 2011), and on the other hand, education *in* entrepreneurship which emphasises the development of abilities such as creativity, curiosity and taking initiative in learning: an "internal" discourse about entrepreneurship (Falk-Lundqvist, Hallberg, Leffler & Svedberg, 2011; Skogh, 2006; Svedberg, 2007).

In earlier research concerning entrepreneurial learning in schools, entrepreneurial learning has often been put forward as an opportunity for teachers and pupils to develop a school practice distinguished by engagement and a desire to learn. Efforts in entrepreneurial learning are often held up as an alternative to what is considered to be more conventional teaching in terms of both organisation and communication (Otterborg, 2011; Skogh, 2006; Svedberg, 2007). Entrepreneurial learning is expected to support both teacher and student, since it offers free scope for creativity, curiosity and initiative in learning (Falk-Lundqvist, Hallberg, Leffler & Svedberg, 2011; Johannisson & Madsén, 1997). Falk-Lundqvist, Hallberg, Leffler & Svedberg (2011) place an emphasis on keywords such as creativity, power of initiative, ability to take action, motivation and cooperation, and assert that entrepreneurial learning provides the framework for the development of teaching that makes use of pupils' driving force in all school subjects.

Earlier research in question has also referred to the need for a more critical examination of entrepreneurial learning (Dahlstedt & Hertzberg, 2012; Holmgren & From, 2005; Insulander, Ehrlin & Sandberg, 2015; Leffler, 2006; Leffler & Svedberg, 2004; Mahieu, 2006). Löwstedt (1999) claims that an entrepreneurial ideal is to be regarded as an expression of New Public Management, and Komulainen et al. (2011) compare the focus on individually oriented abilities in entrepreneurial learning to a Trojan horse; neoliberal values come to replace the more humanist-oriented values that previously characterised the school's mission.

When it comes to entrepreneurial learning in higher education, there are recent examples of development projects that aim to use and integrate innovation and entrepreneurship in courses and programmes. For example, six Swedish universities participated in the Swedish national initiative on the integration of entrepreneurship in higher education, financed by the Swedish Agency for Economic and Regional Growth. The project has resulted in reports, new courses and research circles with university teachers, but not in research.

There is a study of a one year programme at a Swedish university where entrepreneurial learning was used as a starting point for the teaching (Sörensen & von Fredrichs, 2013). The aim of the study was to examine what, from a student's perspective, makes higher education entrepreneurial. Data was collected through interviews and the results showed that the students perceived that the programme was more creative than traditional programmes, but that they preferred the more traditional programmes of study (Sörensen & von Fredrichs, 2013). Komulainen, Naskali, Korhonen and Keskitalo-Foley (2011) have studied how Finnish teachers and teaching students perceive the "external" and the "internal" discourse of entrepreneurship. While teachers opposed the external discourse, the internal discourse was unopposed and was regarded as an obvious learning goal. Komulainen et al. problematise the results by pointing towards the internal discourse as being a manifestation of neoliberal subjectivity formation.

So far, there is little research into what teaching students in higher education select and represent as an entrepreneurial approach. We address this gap in this study, in which we focus particularly on how students transform the representations of entrepreneurship and entrepreneurial learning they are offered within a teacher education course.

Theoretical framework

In the following section, the theoretical starting points and the central concepts of the article are defined. A design theoretical (Rostvall & Selander, 2008; Selander & Kress, 2010) and multimodal (Kress, 2010) perspective on learning and communication provides the

basis for how we understand learning processes in higher education and in teacher education. Selander & Kress (2010) introduce a model of *Learning Design Sequences*, which provides tools for studying learning as 'work' done in several steps. The theoretical concepts of their model show how the different parts of a learning context are connected and what the consequences are for the learners' opportunities to make meaning and learn.
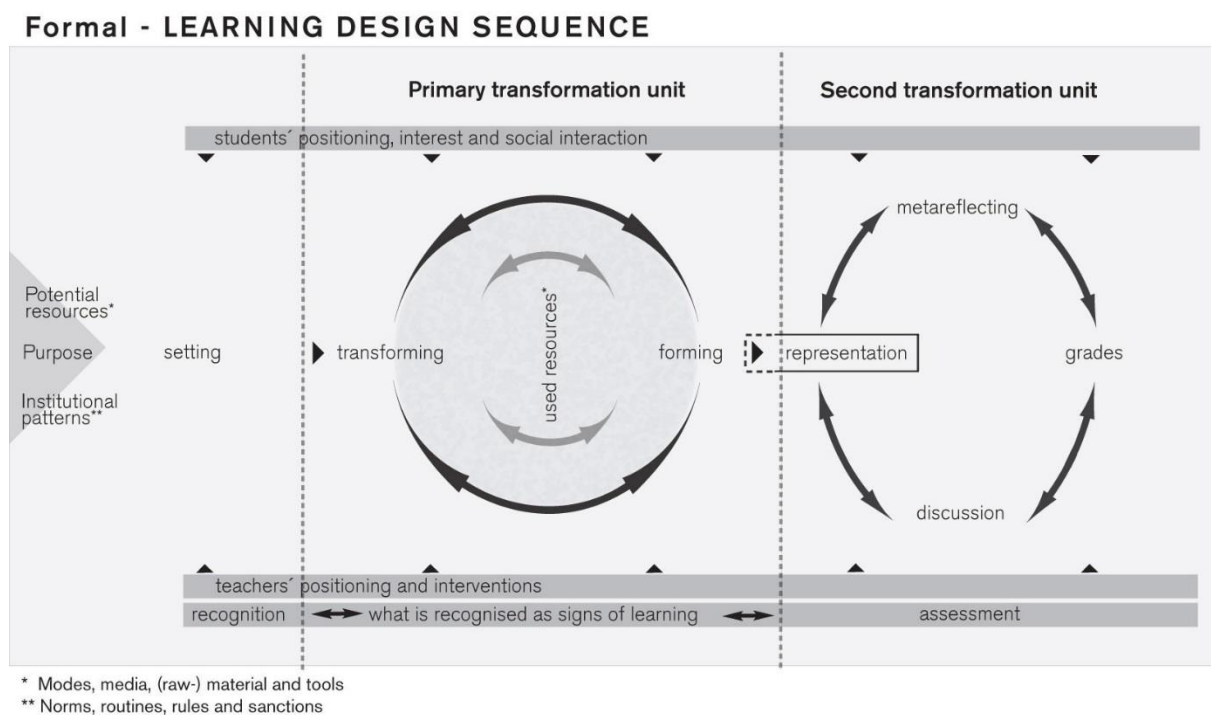
Formal - LEARNING DESIGN SEQUENCE

Figure 1. A model of learning design sequence (Selander, 2008).

Didactic design 1 (Selander & Kress, 2010) concerns the setting and the overall conditions that shape students' learning, in this case in relation to entrepreneurial learning and the content in question. This involves institutional patterns, the purposes of teaching and the potential resources that are part of the *university teachers'* didactic design. Institutional patterns include norms and conventions that surround higher education and what is considered there to be relevant knowledge; for example that students are expected to demonstrate their knowledge in writing. The purposes of education and the expected learning outcomes make up the basis for the didactic design, in which potential resources such as assigned literature, lectures, practice and examinations are part of different kinds of learning activities. In these learning activities, students are offered a range of different resources, consisting of different modes (i.e. written text and images) distributed by different media (i.e. films and PowerPoint presentations). These modes and media create specific conditions for the students' opportunities to learn and for their opportunities to represent their knowledge.

Didactic design 2 is directed towards the *students'* didactic design. In a primary transformation cycle, a transformation of the content knowledge is transformed by students as they make different choices which will affect the design of their written assignments. In the context of this article, students choose between potential resources, use a limited selection of these in relation to the instructions for their examinations, and form a new representation and didactic design. What appears as central from the perspective and interest of students will be selected and included in their texts. This transformation is not regarded as a linear process,

but can be described as a circular movement, a varied and dynamic path where the 'fixing' of knowledge appears on different occasions along the way.

Didactic design 3 involves the assessment and recognition of knowledge, which we study only to a limited extent in this article. Formative assessment takes place during the process by way of feedback in the interaction between university teachers and students. Assessment also occurs at the end of the process, through oral presentation which results in a grade. These two teacher-initiated assessment acts are not analysed in this process. We only pay attention to the meta reflection that students themselves articulate in their written examinations. In their meta reflections, students discuss their own achievements – what went well or not so well – and they discuss the challenges they identify in the work with entrepreneurial learning.

Method and Implementation

Studying and understanding people's thoughts, actions and intentions through analysis and interpretation of their narrative texts is an established research method (Gabrielsson, 2008; Skott, 2004). Cohen, Manion and Morrison (2000) argue that a qualitatively oriented content analysis of narratives can lead to authentic and rich data (p. 304). In this article, we used a model of Learning Design Sequences (Selander & Kress, 2010) which may be regarded as a theoretical map that creates a focus for the analysis of the texts. The model aims to capture the process from the teacher's setting of a "scene", through the students' transformation and formation of the context and form, into new representations. These representations are considered as signs of learning. To capture the meaning potentials of the course, as offered in teaching by two university teachers, a compilation of the learning materials was used as a basis for a first analysis. All materials introduced by the teachers; one course book, two PowerPoint presentations, and five handouts, were collected for this purpose. Then, to reach knowledge of students' understanding of the concept of entrepreneurial learning, we analysed 20 narrative texts written by 20 students on the teacher education programme for preschool class and primary school years 1-3, children aged 6-10. The sample concerned all of the students in the course. The students were introduced to the aim of the study and then asked about participation. Participation was voluntary and ethical aspects, including, confidentiality, consent, information, and autonomy, with the emphasis that participation in the study was voluntary were taken into consideration (The Swedish Research Council, 2002).

In Sweden there are two education programmes for teachers in early childhood education at university level (3½ years duration). There is a preschool teacher education programme aimed at students who wish to work with children aged 1-5 and a primary school teacher education programme for preschool class and primary school years 1-3, aimed at students who wish to work with children aged 6-10. The students' texts were the result of an assignment in a course on development and learning. The task for the students was, before and during a field study, to plan and implement an activity based on an entrepreneurial approach with the aim of creating conditions for entrepreneurial learning. Students were asked to describe the planned activity and share their didactic reflections after completing the activity on the basis of the following questions:

1.   In which school year was the activity conducted?

2.   What was the goal of the activity/What did you want the pupils to learn?

3.   How is the activity grounded in the literature on entrepreneurial learning?

4.   Why was it important that the pupils should learn this?

5.   How was the activity conducted?

6.   How was did the implementation of the activity go?

7.   What opportunities for entrepreneurial learning do you think the activity created?

8.   What challenges do you experience in an activity based on an entrepreneurial approach?

Initially we individually read and analysed every text as a separate entity and we sought to find the text's internal logic by searching for patterns and frequent words of meaning for the students understanding about entrepreneurial learning. In the next step, the texts were read collectively and analysed using our theoretical framework and interpreted as parts of a larger body of texts. With a critical hermeneutic language use, one can say that the content analysis and interpretation of the texts has been about linking individual events and narratives into a whole, with an ambition of finding themes and reaching a general understanding (Bryman, 2008, p. 508).

As a first step in the presentation of our results, we explain the context in which the interpreted texts were produced. *Didactic design 1* is thus investigated by examining what is being emphasised by the teachers in their teaching materials. We also investigate what procedural activities, potential resources and content focuses appear in the teachers' materials. This initial step of the analysis answers the question "Which are the meaning potentials of the course, as offered in teaching by university teachers, concerning entrepreneurial learning?"

In next step, we move on to present the categorisation and interpretation of the underlying themes of the texts. *Didactic design 2* is thus investigated as we study what is put forward as salient points by the students in their representations. The students' assignments include producing their own didactic design: they must devise a lesson or an activity that they will carry out in an authentic situation in class. We ask what procedural activities and used resources are put forward by students in their learning design and what content focus it contains. This step of the analysis answers the question "How are content and form in the course transformed and represented in students' texts concerning the teaching of entrepreneurial learning in their field studies?"

Finally, we outline our overall interpretation of these texts within the current context. Didactic design 3 involves how students carry out meta-reflection on the activity after it has been carried out in class. The students answer questions about how the implementation of the activity went and what challenges they face when working based on an entrepreneurial approach.

Didactic Design 1: Meaning Potentials of the Teaching Materials

In the analysis of the teaching materials offered by the university teachers, the meaning potentials of the course emerge. The institutional patterns, with their norms and conventions, are part of the meaning potentials of the setting. As is customary in higher education, it is the syllabus with its expected learning outcomes, examinations and assignments that demonstrates what is recognised and valued as relevant knowledge. Verbal and written language are often the most valued modes of expression, and as part of a research study the students were asked to demonstrate their knowledge in a written text and later to present this orally in class.

The teaching materials that were introduced as resources for the students included assigned literature and further optional readings, handouts with examples of practical training and activities for the classroom as well as PowerPoint presentations with articulated purposes, central notions and conceptual tools. Since our purpose is to focus on the *students'* transformation of content and form, we chose not to carry out a detailed analysis of the teaching materials, but will present a few examples that may give the reader a sense of its content and form. Regarding the *content*, it is particularly evident that entrepreneurial learning is expected to contribute something new and desirable to school; something that is referred to in the course literature as a "change in school culture". The authors of the course literature, Falk-Lundqvist, Hallberg, Leffler & Svedberg (2014) emphasise that the introduction of entrepreneurship in education aims to challenge traditional ways of teaching, to develop a new school culture. In contrast to traditional, 'boring' and authoritarian schooling where pupils are expected to adapt to the order of things, an entrepreneurial approach seeks to turn towards pupils' own strategies, to their life-worlds in the effort to shape education that will be of use to the world outside of school.

The images that have been selected (Fig. 2, Fig. 3 and Fig. 4) and inserted into the teaching material have been analysed in terms of *form*. The notion of creativity appears in the PowerPoint presentation as essential, and two images are put forward as examples of how teachers may stimulate pupils' creativity. The first slide contains an image of an Easter card with drawn chickens and flowers that has been coloured by someone – probably by a pupil (Fig. 2). Our interpretation is that this card is presented as an example of a material and a way of working that does not give pupils much scope to be truly creative. The motif is already chosen, and what remains for the students is "only" to choose colours and to fill in the card. The next PowerPoint slide represents, in our interpretation, an example of the ways of working that will allow pupils to be creative, to develop an idea or a design which will be realised as a product or construction (Fig. 3 and Fig. 4). There are two images. The first is a construction drawing with a list of instructions, the materials needed for building and the selling price. The second image is a photo of the realised product. It consists of plastic pipes on a raw wooden base. The drawing and the product are made by a pupil.

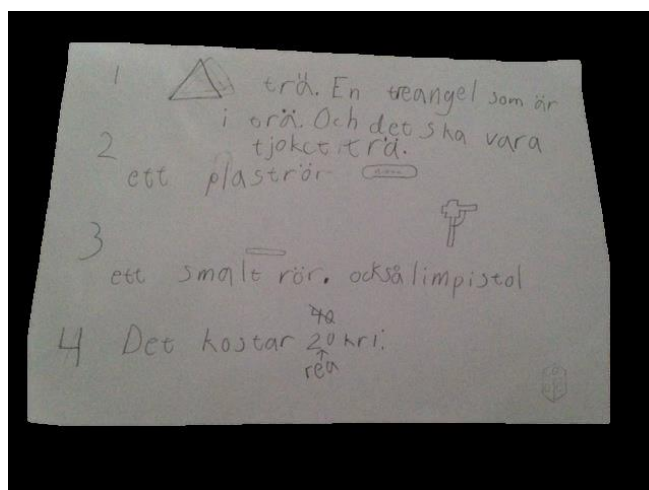**Figure 2. Easter card with drawn chickens and flowers.**

Figure 3. Construction drawing with list of instructions.

Figure 4. Construction with plastic pipes.

The resources which have been introduced in teaching prescribe different kinds of activities. Some include explicit instructions for *procedural activities* that students and teachers are expected to carry out together, but often the activities are implicit in the sense that they naturally follow from the introduced resource. A teacher that shows a PowerPoint slide expects the students to listen to the presentation while reading from the slides. When a film clip is shown, the students are expected to watch it. One procedural activity is an exercise called "The other way round", which involves students suggesting and making a list

of things that are quite the reverse of what they would actually wish or think. The list is then supposed to be re-formulated into constructive ideas.

The teaching material also represents in writing what *content* appears as being salient or urgent. Specific words, abilities and objectives are visible in the studied data as something positive and desirable. Activities that are suggested have the objective of letting pupils participate in planning for and forming things or situations that may be connected to their life-world. Examples of expressions within one theme are: "the pupil as an actor", "the pupil as a creative force", "the pupil's influence", "turning ideas into action", "value creation", "the pupil's life-world" and "interest". The teaching materials also involve a focus on pupils' future choice of profession, with words and notions like "future competences" and "map of competences". Further, it involves pupils' emotions and thoughts, in which expressions like "relationship-building", "dialogue" and "personality development" were used. Finally, the material has a focus on the school cooperating with society, using phrases like "connection with reality", "collaboration with society" and "cooperation with the surrounding world".

It is also clear from the university teachers' design that the aim of activities – both those performed with students and those that are suggested to be performed with pupils – is to develop creativity, courage, curiosity, ability to cooperate, self-reliance, taking initiative, independence and integrity. The supposed role of the teacher supporting entrepreneurial learning is to be positive, supportive, inspiring, permissive and open, and to offer challenging teaching that includes opportunities for the pupils to make choices. Problems include providing pupils with ready-made templates, thinking "inside the box", being much too realistic, being hindered by conventions and the spirit of the time, and being a passive consumer.

Didactic Designs 2 and 3: Transformation of Meaning in the Students' Texts

In the analysis of the students' representations of the teaching activities relating to entrepreneurial learning, the focus of their intended teaching emerges. The activities undertaken and their purpose are described. Throughout, all students state that they have carried out activities which have created conditions for pupils' collaboration, communication between pupils and teachers, communication among pupils and pupils' active participation. The texts also show that the purpose of the activity carried out was to develop pupils' creativity, independence, imagination, curiosity and ability to solve problems. These abilities are described by the students as entrepreneurial abilities.

The analysis shows that all students have drawn inspiration for their activities from lessons in the course and have found support for their various activities in the National Curriculum for Compulsory School; the National Agency for Education (2011) and the course literature; Lundqvist, Hallberg, Leffler and Svedberg (2014). For example, eight out of twenty students conduct the activity "The other way round", which was introduced during the course lessons prior to the field study. The activity aims to make unexpected connections and to encourage "thinking outside the box".

In the analysis, three themes appear in the procedural activities that are in focus. Twelve texts can be connected to the first theme. These texts describe procedural activities that aim *to make pupils involved in planning for and designing something that may be related to their own life-world*. This could be creating rules for the classroom, designing an imaginary schoolyard or a dream society on a new planet, and in one case technically constructing a bridge. Here is one excerpt from text 7 describing an activity undertaken in year 3:

> *Pupils were asked to come up with a plan for how the school yard could be a more fun place for pupils since the school had some extra money left over. They were free to choose how they would proceed with presenting the plan, such as producing a drawing of the schoolyard or making a list of suggestions.*

Four texts can be connected to the second theme, which focuses on *pupils' future professions*. Text 18 is an excerpt from a text that describes an activity connected to pupils' future professional dreams.

> *The students were given the opportunity to work with their chosen profession for about 15 minutes. I told them that they were supposed to give a brief presentation. They could choose for themselves what to present and how they wanted to do it.*

There are four texts that can be connected to the third theme, which focuses on *making pupils describe their feelings and thoughts* related to the current season, the school, friendship or identity. Text 4 is an excerpt:

> *I wanted the pupils to think about the possibilities for making the school the most joyful place possible. For our initial exercise, I asked them to name things that make them happy.*

The *procedural activities* start with students verbally introducing the pupils to what the activity is about and what they should do. In this first step, the pupils are expected to be quiet and listen in order to be inspired. There are six texts that state that the students had started the lesson by describing or discussing the content of the activity. Here is an excerpt from one of these texts:

> *First came a brief summary of what they had done and learned about space and planets, etc. I then told them to draw their own planet and then write about it. (Text 19)*

Twelve of the texts describe the introduction as a question and answer session in which the students ask questions that the pupils are expected to answer. Here is an excerpt from one of these texts:

> *The lesson began with a question and answer session which was based on what the students already knew about the seasons. (Text 2)*

Two of the texts are a description of introductions starting with the student reading aloud.

> *I started the lesson by reading a short story called "What would I be?" [...] The purpose was that I wanted to give examples of professions. (Text 5)*

In several descriptions of the introductions to the activities, the students say that they wrote pupils' answers on the board or on a flip chart. In a next step, pupils were expected to work in groups or pairs to gather suggestions and ideas linked to the current activity. The final step involved bringing whole group back together, with the smaller groups being expected to describe or report what they had come up with. In most cases, this was done by giving an account or reading a text in which they have summed up their contributions, and in

some cases by showing a picture they were asked to draw or paint. In most cases, the students expressed a desire in their texts to make the activity interdisciplinary.

In the analysis of *didactic design 3*, there is a focus on students' meta-reflection on the completed activity. All students report in their texts that the activity they conducted had gone well, but they also describe things that have been problematic. The lessons appear to have been successful if pupils have sat still and listened, if they have been happy and have had fun. In one text such a reflection is expressed like this:

> *All the pupils listened. They thought it was exciting, but above all fun. (Text 6)*

The texts also shows that, in a successful lesson, pupils have been involved and busy doing things, and have shown a positive attitude. It also appears to be positive if the pupils understood the task and contributed to an interesting discussion. Here is one excerpt:

> *The introduction of the activity went well. All the students understood the task since they put forward many proposals. [...] Sometimes the discussions become a little too loud, but after a while I realised that it showed that there were many personalities and wills that wanted to be heard. (Text 8)*

The role of the student as a teacher was also highlighted in the texts, and it appears to be important that the teacher is structured, flexible and well planned. Here are excerpts from two texts:

> *It went well for me because I was structured and flexible. (Text 14)*

> *It went very well. I got what I wanted to get out of the activity and the lesson. (Text 3)*

What is described as being problematic in the texts is that in some cases pupils became anxious, didn't listen or became noisy. Some texts say that the students found it difficult to plan the time and to let go of control and allow pupils to think freely.

In the analysis of the meta-reflections in the texts, it can be seen that the students find it difficult to strike a balance between control and freedom in activities that are supposed to develop entrepreneurial learning.

Conclusions and Discussion

We would like to sum up our first research question, regarding the meaning potentials of the course, as offered in teaching by the university teachers. Regarding both form and content, entrepreneurial learning seems to be about something new and desirable to the school (cf. Insulander, Ehrlin, Sandberg, 2014; Skogh, 2006; Svedberg, 2007; Otterborg, 2011), a "change in school culture" which essentially involves "thinking outside the box" and being creative both as a teacher and as a learner. Entrepreneurial learning should start from a pupil's perspective, in order to develop the pupil's creativity, curiosity and initiative. Regarding our second research question, concerning how the content and form of the course retransformed and represented in students' texts, we can see that the students have taken involving pupils in planning as their starting point, with the aim of creating conditions in which pupils can actively participate. A central approach seems to encourage thinking "the other way round", in order to develop pupils' creativity and curiosity.

The results show that creativity is an important notion within an entrepreneurial approach. The two word clouds (http://www.wordle.net/) below are an illustration of our results. The word clouds show the words that are most commonly used in the studied texts. The size of the words in the cloud illustrates how often the word occurs in the texts; the bigger the word, the more often it is used. The word clouds thus help us to interpret and illustrate what is highlighted as being significant in the texts (cf. Mc Naught & Lam, 2010). Creativity is the word that is the most salient in both the teachers' texts and the students' texts.

Figure 5. Word cloud representing salient content of the setting; Didactic design 1.

Figure 5. Word cloud representing salient content of the primary transformation unit; Didactic design 2.

We may ask what *particular* meanings regarding creativity are being put forward here; what specific aspects of creativity are represented? In the case of the construction with plastic pipes (Fig. 3 and Fig. 4) and the Easter card (Fig. 2), the message seems to be that there are certain ways of working in class that will develop children's creativity. In the first case, creativity involves realising a product or a construction. However, choosing colours from a wide range of options is *not* regarded as creative. Both examples are clearly related to developing an idea of some sort, out of one's motivated interest, but only one is regarded as being "entrepreneurial". The idea of deciding in advance what creativity is, and the kinds of processes or ways of working that will lead to creativity, appears to be problematic. One may argue that creativity is something unpredictable and that creative processes can be very diverse.

Encyclopaedias do not include a standardised definition of creativity. In the Encyclopaedia Britannica (2015), creativity is defined as "the ability to make or otherwise bring into existence something new, whether a new solution to a problem, a new method or device, or a new artistic object or form." The definition of the concept can focus on different aspects. In a Swedish study on creativity, Simon (2009) states that research studies on creativity mostly assume three perspectives; creativity as something personal, creativity as a process or creativity as a product. If there is a focus on the product of creativity, it has to be something new or something useful in order to be seen as something creative (Hoff, 2014). A creative person can be seen as someone who can engage others socially or can make others see things from a new angle, or someone who can come up with new ideas or solve problems, or someone who has changed a field or a scientific domain in an exceptional way (Csikszentmihalyi, 1996). One task in education is to foster creativity in pupils, but Hoff (2014) highlights that herein lies a paradox. On one hand the school has to socialise pupils to act in a certain way in a predefined frame, while on the other hand the school should be a place where pupils can come up with new ideas and solutions that are defined as being creative.

In our study, we can see that creativity is defined as an ability and therefore as something personal, but also as a product one can create in a process. This can be compared to the tension between the "external" and "internal" discourse about entrepreneurship, which has been emphasised as being problematic in earlier research (Leffler, 2006). In the preschool and primary school teacher education courses, the teaching about entrepreneurial learning is about showing the students how to conduct teaching activities that can promote pupils' creative ability, as well as showing examples of creative products. The interpretation of the transformation of what has been taught, as expressed in students' texts, is that students describe creativity very much as an ability that they want the pupils to develop through work processes in which they are supposed to come up with new ideas within a predefined frame.

As earlier research has shown (Berglund, 2013; Komulainen, Naskali, Korhonen & Keskitalo-Foley, 2011; Peters, 2005), the focus on internal abilities and competencies, such being able to turn ideas into actions, having the courage to take risks and the will to improve oneself, may be seen as connected with neoliberal values and ideals of employability. The discourses of entrepreneurial learning emphasise highly appreciated qualities and competencies, which may be valuable in future societies. The "entrepreneurial logic" that has been introduced to the school system seems to be fostering an enterprising self (Peters, 2005). So on the one hand, entrepreneurial learning seeks to challenge traditional, authoritarian ways of teaching. But on the other hand, it appears to be a necessity to develop entrepreneurial abilities. There is thus a tension between emancipation and obligation (Dahlstedt & Hertzberg, 2012).

A similar tension is visible in the students' texts. The students express how they find it difficult to achieve a balance between freedom and control. Students perceive school activities as being clearly framed, and that they need to conduct their teaching within these frames. The school context becomes a limitation in terms of planning for creativity. A successful lesson is associated with structure and silence, which seems difficult to connect with thinking "outside the box" and working creatively. Our data shows that it becomes difficult to strike a balance between the established frames and the free and innovative approach which is here called creativity.

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