

# ENTREPRENEURIAL MINDSETS IN ENTREPRENEURIAL SCHOOLS

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## Abstract

Schools should be active partners in the process of building entrepreneurship as well as fostering entrepreneurs, new heroes for the future! The role of the educational leader is important to reflect on this aspect of the major changes. Can the leader turn apparent problems into challenges, and challenges into creative opportunities? This paper is a presentation of results from research based on interviews with school leaders who have also been students at courses in pedagogical entrepreneurship. The course has been designed with a special purpose in mind: the implementation of entrepreneurial measures at the student's own school in order to help promote entrepreneurship at the school.

The importance of the ability to exercise entrepreneurial activity in society is that it forms the basis of achieving economic growth and social security. This well-documented principle applies both to industrialised countries and to countries that are undergoing intensive development. Within the commercial sector it is not unusual even today to see entrepreneurship defined narrowly in terms of establishing companies. But research also demonstrates important links between education, creative business development and production quality. When it can be documented that entrepreneurial training yield an increase in entrepreneurs who can produce qualitatively better results, this will naturally be an important justification for new investment.

This paper is also based on a concentrated survey of literature in addition to an empirical study. So – our research question is: *What kind of leadership needs an entrepreneurial school?* Entrepreneurship is on the agenda in various contexts within the Norwegian society. However this is not typical for Norway, but because of a lack of an entrepreneurial culture, and the importance to have a leading edge in this development, a goal must be to strengthen the competitive ability in schools through emphasising entrepreneurship. Entrepreneurship is a mindset as well as a force behind developing activities in schools and society. In Norway curriculum for entrepreneurship has been a growing field of interest among politicians, in universities, colleges, and in public school. To start a discussion on entrepreneurship in schools, it should be useful to look at definitions of entrepreneurial education. How is *entrepreneurship education* defined, and what are the critical components of entrepreneurial training in different contexts? Entrepreneurship education needs to be defined more broadly than business management in that it includes *fostering creativity and innovation*, traits not normally nurtured in a standard business environment.

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**Keywords:** Entrepreneurship, entrepreneurial cultures, mindset, creativity, education, innovation

## Introduction

Within the definition of education in the field of entrepreneurship in Europe, emphasis is now placed on the extension of the concept much further than simply learning

how to start up a new company. If we accept that entrepreneurship can be rooted in other places than merely pure economic and commercial contexts, this will enable us to gain an understanding of the school's role in fostering future entrepreneurs.

### **Fostering an entrepreneurial mindset**

Entrepreneurship is firstly a mindset. As attitudes take shape already at an early age, school education can greatly contribute to fostering entrepreneurial mindsets, starting from primary school to the University level. The growth of entrepreneurship education and the associated research regarding the impact of such education present several important policy questions. (Raposo et.al.2009)

According to Raposo and do Paco, the important thing is to create entrepreneurial attitudes and skills amongst children and young people, both in terms of creativity and personal development. Such concepts can be defined and quantified as in the case of, for instance, the Norwegian strategy plan for entrepreneurship in education and training (Ministry of Education and Research 2004).

The educational system has a role to play in stimulating attitudes and behaviour that promote the capacity for collaboration, creativity and innovation in children and young people. This must take place through long-term work with satisfactory progression. The young must be allowed to believe in their own creative powers and the ability to see and utilize local resources as a basis for creating values, developing workplaces and taking responsibility in their local community... Entrepreneurship in the education system shall renew education in this and create quality and multiplicity in order to foster creativity and innovation. (Ministry of Education and Research (MER), 2004:3)

The national curriculum for primary, secondary and adult education in Norway introduces the idea of a wide learning perspective.

Education must be dedicated to the personal qualities we wish to develop and not solely to subject matter. The key is to create an environment that provides ample opportunities for children and young people to evolve social responsibility and practical capability for their future roles as adults. (MER 2004:32)

Is it possible to nurture an entrepreneurial culture in schools? What could be described as entrepreneurship in the educational system for children and youths in the age range 6 to 18 years? Will this school be different from the school we traditionally know from the Norwegian education system – and why should entrepreneurship be a theme in the primary and secondary school system at all?

### **Theory - literature**

Our theoretical references are learning philosophy and constructivist theory. The theory for learning – whether explicitly expressed or held implicitly – usually includes a view of what knowledge is. The building up of knowledge occurs both as an individual and as a social process, in that the personal acquisition of knowledge happens whenever an individual interprets another's utterance. An assertion will, according to constructivist theory, be interpreted in accordance with the background (cultural context) of an individual's understanding of the topic, and will be taken in to the individual recipient's system of concepts. Knowledge, therefore, is not "transferred" unaltered from one individual to another or from one school to another, but is mediated, and "construed" anew by the recipient. Mason claims that successful online-based learning must build upon a constructivist theory of knowledge. The social-constructivist approach emphasises that the construction of knowledge is not an individual but a collective process, with language as the bearer of the collective understanding and cultural innovation. (Imsen 2000, Lund 2005, Mason 2003, Schøn 1987)

In order to create a picture of how it is possible to transform a traditional school into an entrepreneurial school we are analysing data with the help a conceptual framework that may be used to transform organisations. It may be necessary to define the concept of school development, since this can have multiple meanings. A necessary question in our context is therefore how we can understand school development in an entrepreneurial context (El Sawy 2001, Patten 2004)).

Bogotch, Miron and Biesta (2007) relate the concept historically to two different directions, both of which are analysed in research terms – *school effectiveness* and *school improvement*. The first can be understood as results directed and connected to quantitative analysis and with little focus on examining the content and methodology of the school teaching. Bogotch, Miron and Biesta demonstrate that this has often led to an emphasis on finding the right technology to yield the best-possible test results.

We discuss the understanding of different strategies and operational plans as curriculum and renewing the Norwegian school system by means of focussing on entrepreneurship as a mindset. Another important school-development skill will be to transform national curricula into something relevant to the local learning context – and thus create local curricula. These should not replace the national plans but give them a *local relevance* on the basis of the various local conditions. When the school leaders attempt to conceptualise entrepreneurship in school on the basis of conditions in their local communities we understand this as a form of local curriculum development in entrepreneurship.

### **Schools at a crossroad**

Peter Drucker (1985) describes an entrepreneur as a person who sees change as the norm who searches constantly for opportunity and then exploits that opportunity. The entrepreneur *practises* innovation in a *disciplined and systematic* way, combining existing resources in new and more productive ways. Entrepreneurship is difficult to attain. Rosabeth M. Kanter (1984) says that entrepreneurs are guided by *the future*, not the past. They measure themselves not by the standards of the past, but of the future – thinking not of what they have achieved, but of how far they still have to go. Peters and Waterman (1982) see entrepreneurship as creating total customer responsiveness eliminating bureaucratic rules and developing an inspiring vision. Cultures which support entrepreneurship can be created, and people can be liberated, inspired and empowered to face an uncertain future with optimism, to seize the opportunities it offers, and to develop creative solutions to its problems.

### **Leadership**

The school leadership at creative and innovative schools is a key factor. Crowther and Caldwell give seven distinctive characteristics of those educational leaders who demonstrate entrepreneurial flair (1991). We will use these characteristics to reflect on the leadership quality.

- 1 *Loving change*. Entrepreneurs love change, seeing it as an exciting challenge which presents them with opportunities to create new ideas, products or processes.
- 2 *Future orientation*. Entrepreneurs have a future orientation, and are continually searching their environment for new trends and emerging concepts.
- 3 *A problem is an opportunity*. Entrepreneurs have a confidence in their ability to respond to problems; they tend to view “problems” as opportunities to generate new ideas, products or processes.
- 4 *New combinations*. Entrepreneurs are able to think laterally, combining existing resources, skills and knowledge into new configurations and thereby finding solutions that others cannot see.
- 5 *Visions*. Entrepreneurs are passionately committed to the pursuit of their vision.

- 6 *Innovation.* Entrepreneurs have a passionate belief that their solution is of benefit to their supporters, their industry, their nation or their fellow humans.
- 7 *Inspire.* Entrepreneurs are able to inspire champions and patrons who support them and are able to win support for them in the community.

Can characteristics like this be nurtured in students and teachers at school? We have to examine that. The opportunity may lie in the creation of *a school culture that values entrepreneurial spirit* and actually supports its development by valorising entrepreneurial spirit.

Research questions: If entrepreneurship in education is to have the twin perspectives of the future entrepreneurial skills of the students and of renewing the education system to create quality, and multiplicity that will foster creativity and innovation, we will address the following questions that will be answered partly theoretical, partly by empirical results. Our main question is:

*What impact do the leadership have and how can traditional schools be changed into entrepreneurial schools?*

Research questions like these will be empiric examined: How do leaders understand their own role as leaders of such innovation processes and how do they assess the effects of the pedagogic entrepreneurship course in relation to this?

## **Method**

Our research has been conducted as a process of text analysis performed in two major steps. The first step was to analyse interviews with 6 school leaders, the action group in this study. The second step was to do a similar analysis of the categories in relation to the selected theories.

The approach to all text material was to a great extent built on the principles of “Grounded Theories” (Glaser & Strauss 1985, Spilling 1998)), from the principles of abduction (Blaikie 2000), from the principles of hermeneutic studies (Gadamer 1997, Lund 2005) and from general principles of qualitative text analysis (Kvale 1997). Such analysis involves a process of changing focus between the texts in their entirety to the basic unit of analysis.

Using Glaser & Strauss (1967/1970) we will adapt a process of text analysis in three phases; open coding, axial coding and selective coding. Open coding is the first phase, in which the phenomenon is identified. This phenomenon may be concrete, like things and activities, or of an abstract character like emotions, relations and organisations. Axial coding is then phased in where relationships between those phenomena identified in the first phase are discovered. In the basic principles of Grounded Theory the researcher is recommended to focus on relationships of the type nexus of cause and effect. Selective coding is used in the last phase where a core category is chosen. This is a category to which other dimensions will be related. As a narrative this could be described as findings, or as a "storyline" that brings meaning to the material.

## **Selection – study group**

Five school-cases, represented by six leaders, participated in the empirical study. The six subjects simultaneously participated in a school-development project designed as a formal 2-year higher qualification within pedagogic entrepreneurship (PE) with the goal of implementing entrepreneurship in the school in accordance with the Strategic Plan [16]. The intention of the project is therefore to contribute to the development of understanding the characteristics of an entrepreneurial school. Data collected through reports and tasks during the course of the project, joint discussion (audit) and a final semi-structured interview.

*Design and method:* Action-directed school development with elements of evaluation carried out in the process and in the final evaluation. The evaluation is in respect of the school's identity and self understanding as an innovative and entrepreneurial school.

*Qualitative analysis:* Interpretation and analysis of data is based on methods mainly used within grounded theory. The main findings are drawn out through selective analyses for which the goal is to develop the concepts of what marks a school and the leadership as entrepreneurial.

*Reliability and validity:* The results from the study are analysed and discussed with the intention of developing an understanding the characteristics of an entrepreneurial school: content, working patterns, leadership, qualifications, structure and strategies. The empirical concepts are also theoretically validated by means of comparisons in the discussion section, using data from the literature and theory.

The material used in the survey consists of a) data from interviews with six school leaders who have higher qualifications in pedagogic entrepreneurship, b) data from supervisory discussions with the same school leaders during the course, c) analyses of written reports submitted by the leaders in this connection, d) data from a discussion with staff at four of the five schools.

## Results

Data from the five schools (6 leaders at primary and lower secondary schools) have been assembled for this study. The school leaders describe their reflections around the challenges in relation to transforming their schools from more-or-less traditional institutions to what might be termed entrepreneurial schools<sup>1</sup>. But the study is based on interviews and analyses of written sources and is therefore relatively extensive and demands time-consuming textual analysis. The information is to be used to define the meaning of the term "pedagogic entrepreneurship". With the help of school leaders who are working towards implementing entrepreneurship in their schools, the goal is to acquire an empirical basis on which to limit and define the concept.

The interview subjects were asked to categorise their own school culture by answering the question: *To what extent do you have an entrepreneurial school culture in your school?*

**Table 1:** Ranking of entrepreneurial school cultures by the heads

- "to a relatively-great extent – not many who resist"	High degree - H	1	High or fairly high 3 replies
- "on the way to being fairly entrepreneurial" - "come a good way along the road"	Fairly high - FH	2	
- "little over average – have got going with processes but not a high degree of ... "	Medium - M	1	Medium 1 reply
- "a little – to some extent – and in individual areas, but not consistently"	Fairly low - FL	1	Fairly low or low degree 2 reply
- "at the lower end of the scale ..."	Low degree - L <sup>2</sup>	1	

<sup>1</sup>The closeness of the relationship between the school leaders and one of the authors of this article poses an analytical challenge. Pedersen has been responsible for most of the teaching on the entrepreneurship course and has also led courses at several of the schools. On the one hand this has provided a great deal of information over a long time period, but on the other hand it is a problem in terms of maintaining a sufficiently critical distance.

<sup>2</sup>The results are based on a small body of interviews, but they express credible assessments so far as we are familiar with the schools. Placing into categories such as "fairly high degree" or "high degree" is of course affected by subjective opinion. The Head and Deputy Head at the same school differ between "fairly high degree" and "medium".

The three heads are those who use the three highest rankings. In other words, the heads regard themselves as leading schools that have a culture of entrepreneurship. The subject who placed his own school in the lowest grouping reports of a school that is right at the start of a process of change in which the individual concerns wishes to participate, but which is also regarded as difficult and where there is a low degree of understanding of entrepreneurship amongst the staff.

### Local curriculum within pedagogic entrepreneurship

The school leaders focus on putting the national strategy and action plan into effect within a local context. This has also been one of the main emphases in the context of the course. In relation to how this is envisaged as part of a local curriculum in pedagogic entrepreneurship we can structure the findings in the following categories:

**Table 2:** Local curriculum in pedagogic entrepreneurship

Selective coding <sup>3</sup>	Axial coding	From raw data to open coding
Local curriculum	System level	<i>Entrepreneurship as a <u>framework around</u> all the activity in the school and as the glue that binds all the activities</i>
	Skills development	<i>Pedagogical entrepreneurship as a <u>key skill</u> for both school development and for learning activities and strategies in the classrooms</i>
	Learning activities	<i>Conceptual learning in cooperation with their <u>local society</u> and in a perspective of building self confidence, responsibility, innovation ability, risk willingness and creativity</i>
<b>Better schools and better learning</b>		
Better schools	Organisational development	<i>Pedagogic Entrepreneurship can be important in providing a new way in which to organise the school system and in giving us a new perspective on learning processes.</i>
	Active learning	<i>Improve the learning environment by means of focus on new, active forms of learning, new learning arenas and new forms of interaction between pupil and teacher in comparison with the traditional school</i>
<b>Skills</b>		
Skills (competence development)	Knowledge / skills	<i>Fundamental understanding for entrepreneurship and teaching</i>
	Attitudes	<i>Believe that pupils can shape their own lives</i>
	Initiator skills	<i>Have the ability to know how this can be put into practice and to be entrepreneurial in their actions</i>
<b>Course in pedagogic entrepreneurship</b>		
Course evaluation	What they are satisfied with	<i>We believed we would be ordinary students, but in fact there was mental involvement and work in relation to change. It was the right course in relation to modern school issues.</i>
	Potential for improvement	<i>Even more focus on experiencing through personal experiences</i>

All groups in the school should be obliged to respect the plan, that everyone should have a role to play in the work and that systematic follow-up is required that balances demands and support. They also maintain that pedagogic entrepreneurship must be made into an integrated part of the activity plan of the whole school and that the curriculum goals in the national curriculum must be connected up to entrepreneurship. The four schools which score most highly in their self-assessment of entrepreneurial culture have made a start on this.

<sup>3</sup> Main categories

The course is regarded as very important by all the subjects. The same four schools mentioned above have teachers who are taking training in pedagogic entrepreneurship or have planned this. One of the schools wishes to give its whole staff in-service training as a part of the school's development project. In addition, the school leaders mention courses in pedagogic entrepreneurship that they have held or planned for teachers as being an important element in developing a common understanding amongst the staff.

Activities mentioned as examples include cultural projects, the highlighting of pupils through externally-directed projects in which they have to extend themselves in a socio-cultural perspective, business camps run and led by the pupils themselves and including participants from other schools, pupil companies and other programmes

All schools have experiences back to the 1990's with pupil companies. Today, only two of the schools have pupil companies in the classical sense. The one school is very satisfied with the pupil company in the lower-secondary school and point to positive behavioural changes, increased motivation and greater effort as important elements. Two of the schools have a strategic wish to reduce the focus on pupil companies in favour of programmes from Young Entrepreneurship.

### **Better schools**

It was also interesting to know what the subjects regard as areas in which entrepreneurship can be significant in terms of creating a better school. The subjects strongly emphasise the. The answers can be grouped under the two following main categories: development of *the organisation* and its *learning forms*.

Pedagogic entrepreneurship is seen as important for meeting the demands of society for creativity and innovation as part of the work of the school. Learning about school-development processes is seen as an important part of the study process and teachers at the school who are qualified in pedagogic entrepreneurship are regarded as a resource group for active use as collegial mentors.

Pupils should be principal players in their own learning process. This is an important premise for good learning. They emphasise the local area and local society as important for learning and pupils must experience seeing themselves in relation to the resources, opportunities and needs of the local community. Learning in general should be regarded in relation to real life and the real world and theory should so far as possible be linked with practice.

### **Skills**

It is also important to know what kind of skills the leaders view themselves and the teaching staff as needing if they are to contribute actively to this type of school development. We wished therefore to know what they consider should be the intention of entrepreneurship training for teachers and school leadership. The subjects wish training within pedagogic entrepreneurship to give students a basis in learning theory for entrepreneurship work in the school, that they should learn about action strategies, innovation and leadership for change and to be able to read and analyse a school culture and work with processes of change.

The attitude category can again be divided into three sub-categories:

- 1) Understanding teaching and learning
- 2) Organisational development
- 3) Personal development.

The school leaders emphasise that teachers must be able to use pedagogic entrepreneurship actively as part of their work, to develop a broader register of teaching methods and to see pedagogic entrepreneurship in relation to curriculum goals. Several mention skills in project work as an important entrepreneurial skill within pedagogy.

## The course in pedagogic entrepreneurship

In relation to skills development, it has also been important to receive reports on the effect of the course of study they have followed. Pedagogic entrepreneurship differs in many respects from traditional post-qualification training, whether school-related or educational studies of one sort or another. The school leaders mentioned changes of attitudes amongst the teachers who had been students. Many of them have become resources for the school in a different sense than formerly – especially in relation to being development focussed and having a new outlook on teaching.

Amongst points for *improvement* is mentioned a desire to learn even more initiating action. They would like more examples of good practice from other schools. In organisational terms, they would like a greater professional input during the intervals between meetings by means of more web-based teaching. This is particularly the case in respect of the course that has had nine, two-day meetings as opposed to the six, three-day meetings during the first year of study, with a greater degree of reflection and in-depth study on the other version of the course.

## Dynamic school development

When we wish to acquire a picture of how it is possible to transform a traditional school into an entrepreneurial school, we analyse data with the help of Leavitt's theory of organisational development (1965) in a modified form postulated by El Sawy (2001) and Patten (2004). The systemised interview data is shown in the table below. Pedagogic entrepreneurship is regarded as an opportunity *to re-create the local flexibility* that the school once had and to move from a text-book-based teaching style to one of learning in a local context. The school needs dynamic transforming strategies.

**Table 3:** Dynamic transformation

	Task	Structure	Technology	People
System level	<ul style="list-style-type: none"> <li>- innovation processes in joint leadership, teacher inclusion, changes in learning focus, increased collaboration with society outside the school</li> </ul>	<ul style="list-style-type: none"> <li>- changes need to be incorporated into the system (takes time)</li> <li>- changes in working-hours agreements and the traditional timetable that is currently in force (2 schools)</li> <li>- partnership agreements</li> <li>- concrete project + action-based learning</li> <li>- new organisation of the school day</li> </ul>	<ul style="list-style-type: none"> <li>- study participation</li> <li>- staff courses</li> <li>- focus on the need for change in all relevant connections</li> </ul>	<ul style="list-style-type: none"> <li>- leadership important</li> <li>- teachers must be included, supported and followed up by the leadership</li> <li>- leadership must draw attention to examples of good practice</li> <li>- leaders/entrepreneurship teachers must understand the scepticism and resistance within the staff but not allow this to stop the process</li> </ul>
Pupil and learning level	<ul style="list-style-type: none"> <li>- try out new and entrepreneurial teaching methods in new teaching arenas</li> </ul>	<ul style="list-style-type: none"> <li>- time and resources</li> <li>- information for parents and collaborative partners</li> <li>- local-authority budget for applications for good projects (LG school)</li> <li>- link curriculum goals to pedagogic entrepreneurship</li> <li>- see the general part of the 2006 national curriculum + national list of obligations for schools</li> <li>- interdisciplinary projects</li> </ul>	<ul style="list-style-type: none"> <li>- participation in courses</li> <li>- staff courses</li> <li>- project in action-based learning</li> </ul>	<ul style="list-style-type: none"> <li>- focus on areas in which teachers are successful and which the school will be able to carry out (makes it easier to present potential for improvement)</li> <li>- focus on the good examples and show that they work + reflection on why they work</li> <li>- new sense of reality for teachers and parents in respect of social change and the need for new and entrepreneurial skills to deal with future society</li> </ul>

## The role of the school leadership

In this study we are particularly anxious to establish a picture of the school leaders' understanding of their own role in the process of transformation. We would like to know something about how an entrepreneurial school leader acts by asking leaders.

**Table 4:** Defining the leadership role

Definition of entrepreneurial leadership	Substance of the role
<ul style="list-style-type: none"> <li>- someone with the courage to be open to new routes to knowledge               <ul style="list-style-type: none"> <li>- a school developer</li> </ul> </li> <li>- someone who can see opportunities and turn the development within the staff from negativity to positivity</li> <li>- someone who believes in entrepreneurship</li> <li>- someone who dares to think differently, take chances and allow the teachers freedom</li> <li>- someone who dares to invest in new ideas at the school               <ul style="list-style-type: none"> <li>- someone with an understanding of entrepreneurship both as organisational development, teaching/learning strategy and future skill for pupils</li> </ul> </li> <li>- someone who sees the need for change in the school               <ul style="list-style-type: none"> <li>- someone who includes the staff                   <ul style="list-style-type: none"> <li>- an innovator</li> </ul> </li> </ul> </li> <li>- someone who sees both teachers and pupils as co-researchers in their own practice</li> <li>- someone who is good at motivating and leading and at getting a desired development to happen</li> </ul>	<ul style="list-style-type: none"> <li>- support teacher initiatives               <ul style="list-style-type: none"> <li>- front this in relation to staff who complain that "teachers are leaking"</li> </ul> </li> <li>- be able to live within the dichotomy between external pressure for measurable results and at the same time exploring unknown waters</li> <li>- make active use of teachers and resources to attain organisational goals</li> <li>- be able to inspire new thoughts and actions</li> <li>- be able to down-prioritise some teacher tasks in order to make room for new ones</li> <li>- be able to lead processes of change and to maintain entrepreneurial attitudes</li> </ul>

## Discussion

Norwegian schools have been through many transformation processes during the past decades. Not all of these have been equally well received either by the schools or amongst educational researchers. In relation to the goal of creating a school that promotes entrepreneurial skills amongst its pupils, we believe that this will be difficult to achieve if changes are not made at the same time in the school as a system. Many teachers and schools have tested out various models of entrepreneurship in the school, including through educational companies. Where this works well the educational companies can be very good arenas for learning, but this does not happen by itself.

The way in which school leaders in the study describe development work in their own schools is to a great extent an *improvement* philosophy that is highlighted in the interviews:

- pedagogic entrepreneurship can help us to meet the requirements of society for creativity and innovation as a part of the work of the school; and in that case the whole school must be engaged in this work
- effective strategies and actions are important
- mentoring in relation to staff  
(use of colleagues within the school with pedagogic entrepreneurship skills as a resource group)
- new organisation and a new learning philosophy
- we need to turn pedagogic entrepreneurship into an integrated part of the activity plan for the whole school
- link the curriculum plan with entrepreneurship activity

They also highlight elements of *effectiveness* by making demands of their own organisation relating to commitment, systematic follow-up and ensuring that the school' staff

is a partner in the process. This will nevertheless be a slightly different emphasis in terms of the concept than that with which we have become familiar from the focus over the past few years on testing and results in the Norwegian school.

In relation to our school leaders we have found that three of the five schools can essentially be said to have strong elements of such a culture of improvement. One school is somewhat behind and the last school can be described as having a small degree of this sort of cultural basis. This also corresponds with the school leaders' assessment of their own schools. When they describe their own visions for entrepreneurial development work at the school, all six however identify factors that are amongst the nine identifiers of a culture of improvement.

### **Entrepreneurial leadership for entrepreneurial schools**

A perspective that we have not touched upon so far is the extent to which the school leaders can be regarded as entrepreneurs themselves. Based on axial coding Crowther and Caldwell's seven distinctive characteristics of those educational leaders who demonstrate entrepreneurial flair, we can see that they behave entrepreneurially both within the school and in other connections (1991).

*What is the role of the school leader in the development of an entrepreneurial school?*

All the three head teachers have, or have had, various forms of leadership or development functions in establishing a private company, politics or cultural life respectively. They are good at seeing new opportunities, at being innovative and at being inspirational. One of the deputy heads also spoke of an event that can be connected to '*a problem is an opportunity*'.

The three schools score the highest in terms of entrepreneurship culture have all used the model in connection with study and have consciously worked to see these relationships. They regard the most important area as being that of people – where the staff presently are. Without placing a special emphasis on including the staff in the development processes it can be difficult to attain an entrepreneurial school. This is probably the area in which the other two schools have the most difficulty. They are having difficulty with teacher attitudes in terms of understanding the entrepreneurship concept and its relationship to the school and to learning. All the school leaders in the survey emphasise the importance of training in pedagogic entrepreneurship and personal development in local curriculum work and school development as key factors in this work. Based on our research and experiences entrepreneurial schools develop a culture of improvement within the school, develop a collaborative culture within the staff, focus' on better learning – on achieving learning goals in relation to national and local curricula – based on socio-cultural theory, interaction with global society and the workplace and through creative and innovative learning methods, focus on entrepreneurial goals connected to: national strategies and action plans, local curriculum in entrepreneurship, perspective of the pupils' futures, perspective of pupil identity and perspective of pupil learning. Interview data can be organised as shown in the text table below.

### **The concept of educational entrepreneurship**

This article is primarily a contribution to conceptualising the term educational entrepreneurship. Completing a 1-2-year training course gives the participants good opportunities to work with their own understanding of the entrepreneurship concept. They spend a long period working both with their personal conceptualisation and with the relationship of this to theory and to other people's understanding of what the term means. In the evaluation they are asked to express their own reflected understanding of the

entrepreneurship concept. In this survey the opinions of the leaders can be summarised as follows:

**Table 5:** The concept educational entrepreneurship

Variation in the teaching	<ul style="list-style-type: none"> <li>- Finding other routes to learning</li> <li>- Some people enjoy exploring the world through text books, whilst others enjoy exploring the world through a meeting with reality               <ul style="list-style-type: none"> <li>- Another way of learning</li> </ul> </li> <li>- Motivation through personal discovery and overcoming challenges               <ul style="list-style-type: none"> <li>- Being open to new thoughts and ideas</li> <li>- Enrichment, growth, inner drive</li> <li>- Joined-up thinking</li> </ul> </li> </ul>
Extended learning environment	<ul style="list-style-type: none"> <li>- innovation</li> <li>- use of the local community and immediate area in learning processes</li> <li>- more use of practical learning arenas in all relevant connections within the school               <ul style="list-style-type: none"> <li>- contextual learning conditions</li> <li>- organisational development</li> </ul> </li> </ul>
Personal development	<ul style="list-style-type: none"> <li>- acquisition of entrepreneurial ways of thinking and acting</li> <li>- a personal/individual aspect within entrepreneurship that has an effect on leaders as a person</li> <li>- learning through interaction (on the basis of a socio—cultural view of learning)               <ul style="list-style-type: none"> <li>- searching for development potential and new opportunities                   <ul style="list-style-type: none"> <li>- alternative learning</li> <li>- creative learning</li> </ul> </li> <li>- learning based on understanding that all youngsters are different</li> </ul> </li> <li>- become more open-minded and pay more attention to the whole person reflection in situations of action</li> </ul>

It is important to note that no-one highlights business establishment or setting up commercial activity even though this is also a part of the curriculum. Perhaps it is related to the fact that this is the last question in a series that has had a consistent focus on school and learning or that the economic perspective has become a less significant aspect of entrepreneurship training.

## Conclusion

The entrepreneurship course is regarded as a key factor in the implementation of pedagogic entrepreneurship. Teacher attitudes are regarded as a greater challenge than structural conditions, but the subjects nevertheless focus strongly on structure: local plans with measureable processes, follow-up, information routines and partnership agreements.

In the conceptualisation of pedagogic entrepreneurship as an area of school development the economic perspective does not occupy centre stage. This means that focusing on production, organisation of pupil businesses do not occupy as prominent a role as we may be given to understand. We can understand this more as a humanistic entrepreneurship philosophy focussing on personal growth, staff, pupil and school development with a focus on creativity and innovation; all directed towards providing pupils with skills necessary for the future.

For entrepreneurship to flourish, *a supportive environment* is needed. Therefore, those who are involved in fostering entrepreneurship should not only influence local development policies, but also facilitate the development of national and regional supporting institutions.

The strengthening of local education is of great importance, and an important element within this is implementing a program for pupil enterprise in schools. This is in accordance with the statement: “*entrepreneurs are made rather than born*”. It is also important that the educational programmes are coupled up to local industry. At the same time we must educate for the future and prepare for times ahead. In this work it is important to identify what links traditions to the future.

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