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## LEARNING EFFECTIVENESS – A CASE STUDY ON CRITICAL THINKING AND COLLABORATION WITHIN HIGHER EDUCATION

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### Introduction

The dominating theme of this paper is the contribution of ODL in teaching students within higher education to become critical thinkers and collaborators. An increasing demand on higher education today is to take on the challenge of 21<sup>st</sup> century skills. In Europe as well as worldwide they are described as essential skills in a knowledge-based society. Generally speaking you could say that developing 21<sup>st</sup> century skills aim at “learning to collaborate with others and connect through technology” ([www.atc21s.org](http://www.atc21s.org)). As a senior lecturer in educational sciences I teach and direct courses, which are offered to Erasmus students. A didactical challenge in this context is to meet with the students’ pre-understanding of the Swedish educational context. Generally the Erasmus students experience the Swedish educational context as ‘strange’ in a positive sense. They look forward to experience something ‘new’ and the overall driving force tends to be to learn ‘better’. This is in alignment with the Swedish Higher Education Act that stipulates that students are to develop the ability to “make independent and critical assessments, identify, formulate and solve problems autonomously” ([www.uhr.se](http://www.uhr.se)). Hence, teaching and learning turns into a question of both addressing the subject content and to critically inquire into it.

In my teaching I have used a blended course design (Glazer, 2012) for some years. This means that the students are put into a teaching context, which involves two mediums: a face-to-face classroom situation and a web-based learning management system called Blackboard. In a blended learning course the teacher aims at linking, or blending, “what happens in each medium so that face-to-face and online activities reinforce each other to create a single, unified, course” (Glazer, 2012, p.1). In short, teaching takes place both online and face-to-face. I have taught in both mediums and I have come to the conclusion that my students tend to think of face-to-face and online teaching as teaching media that oppose each other. A dominating pattern is that they prefer face-to-face teaching, and describe on-line teaching as “difficult”, or strange in the sense that they are not sure about what to do, or how to do it. This came as no surprise to me. It is well known that many students connect online teaching with different kinds of communication problems (Hara, 2010), while face-to-face teaching is assumed to involve getting more help and learning more (O’Neil & Horng Sai, 2014). In order

to empirically inquire into this tension between face-to-face and online teaching, I took on the researcher's gaze (Rodriguez, 2001).

As a researcher I systematically documented both the study result of the students, and the opinions they express in the course evaluation. One outcome of this documentation was that the students seemed to experience a complex and sometimes confusing learning situation. They looked forward to studying in an educational context, which was different from their home university. However, they assumed that the teaching would take place on campus, and as a reaction to the online context they were inclined to ask for teacher-directed face-to-face activities. Also, I found that the blended course design seemed to create a tension between the face-to-face teaching methods that the students described as “real teaching”, and the online activities, that they referred to as “writing texts and reading texts”. To take on the tension between (teaching) methods and (learning) content (Ramsden, 2003), I decided to re-design one part of the course. An overarching ambition was to find out more about the contribution of ODL in teaching students to become critical thinkers and collaborators.

My point of departure was to challenge the belief that teaching means transmitting knowledge in a face-to-face context; from teacher to student, and that students learn best when the teacher tells them what to do and how to do it. Paul Ramsden's (2003) claim that by shifting focus from teaching and learning as a question of (the best) technique to a matter of meaning and understanding, a teacher-centred conception of information as knowledge and teaching as transmission can be challenged. This was my source of inspiration for going fully online. My objective was twofold. I wanted to challenge the ideals of the face-to-face classroom. Also I wanted to use an online environment as a tool for directing the students' attention towards learning effectiveness as a question of meaning and understanding. In this process the skills critical thinking and collaboration were of special importance.

## **The case study context – the Course Teaching and Learning, a Comparative Perspective**

The course “Teaching and Learning – a Comparative Perspective” is set within a Swedish teacher education tradition and is mainly directed to international student teachers doing their Erasmus studies at Örebro University. Consequently, it is one of the courses the university offers as “international courses” in the ECTS-catalogue. The course is on an intermediate level and it is open to student teachers and teachers in pre-school, primary and secondary school.

The theme of the course is the relation between teaching and learning. An overall course objective is to deepen students' understanding of how different meanings of the relation between teaching and learning emerge from three different theoretical perspectives. These are an educational theoretical perspective, a democracy perspective and a literary (historical) perspective. What does it mean to learn? How can teaching promote learning? What factors facilitate learning? These questions point to the relation between teaching and learning, which is described, compared and discussed throughout the course. The role of fictional literature in

teaching, and in our ideas on learning, provides a recurrent aspect. It is the introductory part of the course, which inquires into education as a recurrent question within national and global schooling, which provides the empirical context in this paper.

The students who are part of the empirical material that this paper builds on, they come from Spain, Austria, Germany, Poland, Belgium, Luxemburg and Italy. Most of them are studying to become primary school teachers, and some have a more general interest in educational sciences. You could say that (primary) school and education in institutional settings dominate the students' (educational) interests. It is in this context, between a familiar course content on the relation between teaching and learning, and a foreign Swedish educational context, that students' openness and resistance to assignments that involve critical thinking and collaboration take shape.

### ***The aim and research question of the case study***

This paper deals with a case study, which is set in a higher education context and the quest for learning effectiveness. The empirical material of the case study is students' online conversations within the teaching unit: "Education as a recurrent question of national and global schooling". The overall aim of the paper is to inquire into the contribution of ODL as a means for developing the skills critical thinking and collaboration, and consequently, for learning effectiveness. The research question is: How does ODL contribute to the development of the skills critical thinking and collaboration?

### **A theoretical understanding of the skills critical thinking and collaboration – the concepts to question and community of practice**

A main assumption in this paper is that the ODL context challenges a traditional classroom context. As such it provides the driving force for students to develop the skills critical thinking and collaboration. This means for instance that in the online context the student's attention is directed towards the course content, the assignments and fellow students rather than to face-to-face meetings with the teacher. ODL as a tool for learning effectiveness implies in this case study the use of the online tools Discussion, wiki- and blog-writing provided by the learning management system Blackboard. All student assignments involve asking questions. Theoretically, this builds on an understanding of learning as acquiring a new experience. It is in the process of asking questions, and to question, that we put ourselves in a situation where we can see, or experience, the world in a new light. This means that we have the possibility to learn and, with Hans-Georg Gadamer, to become experienced. In other words, learning effectiveness means to ask questions to become experienced and to be open to new experiences (Gadamer, 1975/2004).

The theoretical understanding of the skills critical thinking and collaboration builds on a hermeneutic phenomenological perspective where the process of learning is understood as the interplay between the world as in the course content, and human beings as the students and teachers who are involved in the course (van Manen, 1991; 1997). Living in the world we

experience the world as something. What is familiar to us we tend to take for granted and refer as the world that 'is'. However, now and then we find ourselves in strange situations where we do not know what to do or what is expected of us. Strangeness in the context of this paper presents a possibility to learn. Critical thinking is understood as the ability to question the familiar world that is the world we already know, while to collaborate involves openness to the experience of other people, and the courage to risk the world that 'is'.

Developing the skills critical thinking and collaboration in the sense of asking questions and to question involves learning by participating in communities of practice (Lave & Wenger, 1991). A community of practice is: "a set of relations among persons, activity and world over time and in relation with other tangential and overlapping communities of practice" (Lave & Wenger, 1991, p.98). In the empirical context of this paper the communities of practice take shape in two ways. There are five study groups with five to six students in each. All groups have the same assignments to accomplish, i.e. writing a group-wiki and a blog. The assignments include a presentation of the result of the group work to other groups, as well as to give comments to each other. The comments are to be critically reflective, creative and to inspire further inquiries into the course content. In short, the students both collaborate within their own study group, and by sharing their work, within and between groups. Thus, practising the skills critical thinking and collaboration within communities of practice by using the ODL tools is an integrative part of the course.

Before I go on to describe the methodological considerations of the case study I want to state that the hermeneutic phenomenological understanding of critical thinking and collaboration, as depicted above, applies to both the empirical context (the course "Teaching and Learning", as it is shaped in the course syllabus and its ODL design) and the scientific aim and research questions of this paper.

### ***Methodological considerations***

The case study is set in an ODL context and the university course "Teaching and Learning, a Comparative Perspective". The students are 'international' in the sense that they study in Sweden within the Erasmus programme ([www.esn.org](http://www.esn.org)). They live close to the university campus, and they have the possibility to meet face-to-face should they choose to do so. The course is announced as a "campus course", and it is not until the students have registered that they get to know that the course is didactically organized in the learning management system Blackboard, and that the first part of the course is taught fully online. The teaching includes seminar discussions and student assignments. More concretely, the ODL context involves reading and writing texts online, for instance in the collaborative project of writing a group-wiki. The student is also asked to phrase questions and reflections to other students' texts, for instance when reading and commenting student blogs. All group assignments involve an agreement on how to organize the work.

The empirical material of the case study consists of student online conversations. They are made up of student discussions on how to take on course assignments, as well as how to deal

with and understand the course content. The concepts to question and community of practice are used as tools of analysis for identifying the ODL contribution to the development of the skills critical thinking and collaboration.

## **Critical thinking and collaboration – ODL as questions, comparisons and openness**

This paper aims at inquiring into the contribution of ODL as a means for developing the skills critical thinking and collaboration learning, and consequently learning effectiveness. The empirical material of the case study shows that it is by (i) asking questions, (ii) comparing their experiences, and (iii) opening for ‘strangeness’ that the students develop the skills critical thinking and collaboration. A main conclusion is that the use of online teaching tools enhances learning effectiveness. When teacher-directed learning activities are put into play, the teaching content, rather than the teacher, provides the core of the student’s learning activities. The online teaching tools contribute to the development of the skills collaboration and critical thinking by framing student collaboration in communities of practice where they share experiences, write texts and solve problems together. In this process personal experiences are used as a frame of reference, and a starting-point for comparison and inquiries into the course content. Also, when ‘strangeness’ emerges, for instance when the students encounter new information or new concepts, the ODL context provides the common ground for negotiating different understandings.

### ***Educational systems and the Sami school – ODL contribution: to question to learn***

The first part of the course “Teaching and Learning, a Comparative Perspective” focuses on schooling and education in Sweden. As a first step, the students look for information about the Swedish education system on the Internet. They go on to write down questions and their reflections on what they have found out, and finally each student writes a text, which is published in the online group room. After having read and commented upon each other’s texts, the group is to decide on a theme for their group-wiki-writings. To develop the skills critical thinking and collaboration the students are asked to use questions as a tool for further inquiries into the teaching content. Also they are asked to question the information they find. The ODL context provides a group discussion forum, and that is where the following online conversation between takes place. The conversation focus on the Sami school:

- I have never heard about the Sami school. But I think it is a school for special nation in Sweden. I’m looking forward to learn more about this school.
- While reading about Swedish education system I was also surprised that Sami have their own type of school. I was wondering if the curriculum for Sami pupils is much different then curriculum for Swedish student who attend normal compulsory school.

While looking for information about the Swedish educational system both students found information some about the Sami school. This was something they found ‘strange’. They had not heard about it before, and they are not sure about what it means. While sharing this

information they use words like wonder and surprise, and together they try to make sense of the information they found. You could say that they collaborate by reacting to the content of the information, and in this process, they use the skill critical thinking. A reasonable claim is that the ODL context directs the student's attention to the process of communication. The students both express themselves and 'listen' to each other, and the outcome of the online conversation is that they decide to find out more about the Sami school, and how it relates to the curriculum to finding for "normal compulsory school".

### ***Educational goals and national contexts – ODL contribution: to compare to learn***

In sharing information about the Swedish educational system, and together choosing the course of direction for further inquiries, the students use their national (home) context as a frame of reference. What is described as interesting or surprising tends to relate to something that the student sees as 'strange' in comparison to their home context. Sweden, and the Swedish educational system, takes shape in comparisons between familiar problems in the home country and strange rules and practices in Sweden. In the following excerpt the students are comparing the Swedish grading system to the grading system 'at home':

- I cannot avoid noticing more on those things that are supposed to be correct in Sweden, but in my country are not covered.
- I was also surprised when I read that all the pupils in Sweden have the same goals, and that there is no difference between them! That's one of the points that our country need to learn, every child should have the same opportunities.

Learning about the Swedish educational system includes facts about both the Swedish curricula and the grading system. The starting point for the student conversation above is the Swedish Education Act and the basic principle that everyone has the right to equal access to education and the right to education of an equal quality ([www.skolverket.se](http://www.skolverket.se)). One outcome of the comparison between different national educational contexts that the students are involved in is the question of what is 'correct' or 'right' when it comes to children's rights. This shows that the skills critical thinking and collaboration are developed in collective activities like sharing and comparing. You could say that to participate in the ODL context means (to learn to) collaborate. An important point here is that in the online group room the students have an equal opportunity to express their opinions, reactions and reflections. There is time and space for each student, and all group members can take part in the on-going conversation in their own pace.

### ***Educational assessment and grades – ODL contribution: to open to learn***

The expected outcome of all institutional education is learning. Higher education is no exception, and to measure the outcomes of education in national and international surveys like PISA and TIMSS is today a part of the everyday life within institutional education (Baker & Letendre, 2005). However, when students share information, experiences and opinions in the ODL context, the students direct attention to the meaning of the subject content. In the

excerpt below one student tells the other students that she has read that pupils in Sweden don't get grades until they are twelve years old. She can't believe that this is true:

- But are the knowledge requirements only starting at year 6? I mean the knowledge requirements for grades! Do children don't get grades in the years before???
- I will try to answer your question, maybe my answer is not correct at all, but our seminar mates can help us.

The conversation above takes place in the online group room, and the student who begins to answer the questions on grading in Sweden does so with reference to the other students in the group. The presence of the other students seems to be taken for granted, and what is said in the group room will be 'heard' by all the group members. "Our seminar mates can help us", the student says. Obviously, he assumes that what he is about to say will not qualify as the 'truth'. Also, the experience and knowledge of all the group members will contribute to everyone's understanding of the Swedish educational context. A reasonable conclusion here is that not knowing, not being sure or not understanding provides the point of departure for the process of learning, and that online teaching tools play an important part in this process. It is the student(s), and not the teacher, that asks the questions. To answer the questions involves critical thinking and in the ODL context collaboration provides the means for learning from each other.

## **Final remarks**

The aim of the case study presented in this paper is to inquire into the contribution of ODL as a means for developing the skills critical thinking and collaboration, and consequently, for learning effectiveness. The case study shows that the ODL context contributes to the development of the skills critical thinking and collaboration in three ways. It is by asking questions, by comparing and by being open that the students' learning becomes more effective, in the sense that they direct their attention to meaning and understanding. The case study also shows that the provided ODL context encourages students to share, to compare and to listen to each other's ideas and experiences. Throughout the online course module the students participate in an on-going conversation, which starts and ends by a student's comment on the course content. Collaboration, as well as critical thinking, builds on student activity, and these skills take shape in interaction between students, and between teacher and student(s).

This finding points to the importance of addressing the relation between teaching and learning. Paul Ramsden (2003) describes the relation between learning and teaching. Teaching, he claims, is a means of directing students' attention to learning as a process of understanding, and he states that "To teach is to make an assumption about what and how the student learns; therefore, to teach well implies learning about students' learning" (Ramsden, 2003, p.8). This statement directs attention to teachers within higher education as both teachers and learners. Hence, teaching means exploring students' experiences in order to be able to learn effectively i.e. teaching in a way that enhances learning in a desirable way. To

question, to compare and to be open develop the skills critical thinking and collaboration. These skills play an important part for learning effectiveness, and in doing so they also provide the tools for meaning and understanding. This finding suggests that it is by challenging the divide between (either) fully online education (or) face-to-face education that we as teachers and students can take on the contribution of ODL, and discuss it as a question of the relation between teaching and learning.

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