Bridging the Distance in Teacher Education: Teachers' Perspectives on Process-Based Assessment

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Abstract:

This paper reports on a research project in which a group of teachers in a pre-school teacher education programme based at a "satellite" study centre in a distant rural area used a student-centred learning approach as a means to bridge the distance in the social relationship. A qualitative approach was taken that aimed to develop a greater understanding of the teacher-student relationship through research questions addressing the student role, the learning process and the assessment process. A didactical design for process-based assessment was developed and structured into three phases involving questions about the students' previous knowledge, reflections and learning. Data were collected through in-depth interviews. The material was analysed using inductive thematic analysis. The underpinning principles of power and control were helpful for understanding the social relations in the teacher-student relationship in this online context. The results indicate a conflict between the student-centred curriculum and traditional beliefs in the teacher-student relationship.

Key Words:

teacher education, ICT, process-based assessment, professional development planning.

Introduction

Bridging the distance in the social relationship associated with student-centred learning in online environments is a major challenge because, traditionally, teacher education has been designed as campus-based learning. Teachers face fundamental challenges as they change the curriculum towards process-based assessment (Bergström, 2011). However, understanding and redefining teacher educators' beliefs about teaching, learning and assessment is fundamental for the successful implementation of new activities and ICT (Granberg, 2011). Taking the teachers' perspective, this paper reports on a project for educational development with regard to

issues related to bridging the distance in the online teacher-student relationship. The research in this development process emerged from teachers' didactical design and practice.

Background

In rural areas, distance is a real issue concerning access to higher education. An effort to address this issue in the northern part of Sweden has involved relocating teacher education programmes. In this context, a programme that has been relocated from the university to the neighbouring municipality is described as a "satellite" programme. A satellite group is connected to the campus-based teacher education programme, and students can carry out their studies while remaining in their hometown. The satellite model builds on the need to raise the level of competence in the municipalities. One example is the need to increase the level of competence in the pre-schools by offering groups of child-minders a pre-school teacher programme. These groups include people who are raising families, and such programmes allow them to take a distance teacher education programme. The municipalities' educational infrastructure is based on study centres for collaboration and communication. Moreover, the broadband infrastructure in Sweden and the availability of high-speed Internet also make it possible to work from home (Fransén et al., 2011). In satellite groups, students can be located at study centres 100-350 km from the university. Study centres are nodes for group teaching, but they also create the basis for a dispersed model of teacher education. However, the challenge for teachers in a satellite project is to bridge the distance and strengthen social relationships with and among students.

The satellite project discussed in this paper was funded by the European Commission's regional/structural funding and the participating municipality. The course of study focused on the interdisciplinary theme of "fundamental values and sustainable development", which the students studied for five weeks. The teachers organised a blended-learning approach since teachers were mostly located at the university and students were located in a neighbouring town 130 km from the university. However, teachers did travel for workshops and some lectures, and they developed their blended-learning approach from face-to-face teaching (Garrison & Kanuka, 2004). In order to limit the amount of travelling, some lectures at the university were streamed online and made available to the students that way. Furthermore, other ICT resources were made accessible, including a web-based video-conferencing tool for synchronous communication (Adobe Connect), a communication and collaboration platform (Firstclass), and an asynchronous tool for personal development planning (PDP) and documentation (Unikum).

During this process of educational development, a central issue emerged from the teachers' design and use of digital PDPs as a tool for teaching, learning and assessment. The background literature that follows presents perspectives on policy decisions with regard to PDPs in order to consider the wider context of PDP use across educational institutions. Moreover, in this context PDPs are considered tools for student-centred teaching, learning and assessment. The concept of process-based assessment is introduced based on the development of student-centred learning in teacher education. The difficulties associated with integrating the methodology of

process-based assessment and digital PDPs into teacher education are also considered.

Relevant literature

PDPs are seen as an approach to student-centred learning that changes the practice of teaching. In the United Kingdom, a PDP is required for all students in higher education (Quality Assurance Agency [QAA], 2001). The PDP guidelines set the agenda for a student-centred curriculum activity: "Students can monitor, build and reflect upon their personal development" (QAA, 2001, p. 8). Across Europe, similar developments in student-centred curriculum activities have occurred in compulsory school, for example, personal learning planning in Scotland (Hutchinson & Hayward, 2005) and individual development planning (IUP) in Sweden (Vallberg Roth & Månsson, 2006). The concept of IUP is the Swedish equivalent of PDP. Hereafter, the international concept of PDP will be used in this paper.

Clegg and Bradley (2006) argue for diversity in practice based on local interpretations of PDPs. To explain the models of practice, they used ideal types in the process of data analysis. Clegg and Bradley (2006) found three ideal types, pure in theory but intertwined in practice: professional, employment and academic. In Sweden, these models of practice are reflected in the process of educating teachers with the support of PDPs. In a Swedish context, Hudson et al. (2007) report on a local project on PDPs in teacher education in response to the curriculum reforms in schools and the theoretical process of becoming a teacher. This research outlines the practice of process-based assessment as cyclical, reflecting Hattie's (2009) overarching questions "Where am I going?", "How am I getting there?", and "Where to next?" (Hattie, 2009, p. 176). Taking a similar approach, Bergström and Granberg (2007) discuss theoretical considerations of the possibilities of combining the two purposes of formative and summative assessment (Taras, 2005). Accordingly, with the approach of process-based assessment, the teacher role became complex in relation to the blurred boundaries of formative and summative assessment. This is because the formative purpose highlights teachers' guidance in students' learning process, in contrast to teachers' summative assessment for certification. Even if students learned a lot and made impressive strides, the grade was not necessarily elevated. In contrast to the purposes of formative and summative assessment, process-based assessment emphasises cycles of assessment, student documentation and reflection on the learning process over time (Hudson et al., 2009).

Changing the curriculum towards process-based assessment and PDPs is complex. The complexity highlights the importance of teachers' ontological beliefs, as their adoption and use of digital PDPs is created in relation to traditional methods developed in campus contexts. Carlgren (2011) points out the importance of reconceptualising the concept of teaching when the emphasis is shifted from teacher-centred teaching to student-centred learning. Another researcher demonstrates this relationship as a symbolic power relationship (Granberg, 2009). The power relationship was found between colleagues who praised digital PDPs and those who did not regard PDPs (for example by using reflections) as an established academic method. In contrast to established academic methods like face-to-face teaching, the core of the PDP process

is underpinned by reflections (Clegg, 2004). However, if teachers pay attention to students' reflections, they also face the problem of shifting from reproductive learning to productive learning (Thompson et al., 2009). The culture of reproductive strategies has roots in the school system, with learners being performance-oriented (Leathwood, 2005; Price et al., 2010). Moreover, teachers need to overcome contextual changes in the shift from face-to-face teaching to online teaching and also in the move to an online environment. In addition to the perspectives on changing curriculum, it is useful to illustrate the ideas of practice and the orchestration of the learning process by picturing the didactical design for process-based assessment.

Didactical design for process-based assessment

The figure below (Bergström, 2010) illustrates the didactical design for process-based assessment in digital PDPs in the course of study. The process takes its starting point in the three phases aimed at covering and capturing the students' learning process during the course.
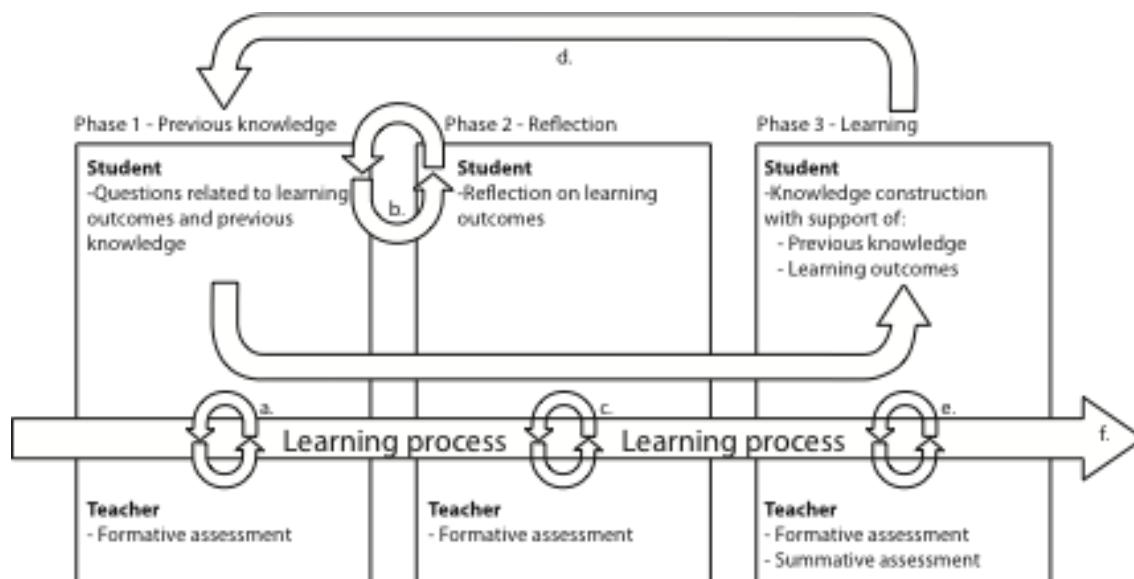

Figure 1: didactical design for process-based assessment in digital PDPs in the course of study

Phase 1 establishes the starting point of the course. In this phase, students describe previous life, work and study experiences, upon which the teacher gives students feedback (a). In the middle of the course (Phase 2), students reflect upon their previous knowledge and the learning outcomes (b), which is followed by teacher feedback (c). When students finish the course (Phase 3), they summarise their learning in relation to previous knowledge and learning outcomes (d). The teacher provides feedback on the students' texts and makes a final assessment (e). Students focus on the documentation of their experiences, events and concepts, and over a period of time gain insight into self-awareness and learning, which constitutes the learning process (f). In this study, the students had support from the web-based IUP application, developed for working with IUP in schools. Recordings of the students' reflections and outcomes were stored in the system and accessible online.

The teachers used a PDP template they had developed for the course, following the didactical design. This course followed the reform of Swedish teacher education (SOU 1999:63), wherein institutions strived towards interdisciplinarity and thematic approaches in didactical courses. In the first phase of the template, the students were asked to describe their previous knowledge in relation to the learning outcomes in the course of study. Furthermore, the learning outcomes could be interpreted as tasks rather than objectives and criteria for a passing grade. An example of a learning outcome is: "Describe some ethical theories and concepts and relate those to the teachers' mission and the mission of the pre-school." This was achieved by guiding the students through an instruction, beginning with the Swedish pre-school curriculum and followed by two questions such as "What kind of knowledge do you have and see as important within these areas?" In the second phase, the students were guided to write their own log, reflections and comments on literature and lectures. What followed were four themes of questions, including "How can I work in daily praxis to express and transform democracy and human rights?" The students were also asked to discuss the outcome of the questions in a blog. In the third phase, the students had five questions to take home and answer. Four questions were limited to 750 words and focused on facts. The fifth question asked the students to analyse their knowledge development within the limitation of 500 words: "Take a starting point in your previous knowledge and reflect upon your knowledge development." However, from the educational development process, the role of the research dealt with questions from the teachers' perspective with regard to emergent issues of change.

Research study

The overall aim of this study was to develop a better understanding of the teacher-student relationship when emphasis was shifted from teacher-centred teaching to student-centred learning. The following research questions were addressed in relation to expectations and beliefs about teaching, learning and assessment from the teachers' perspective:

- How does the teacher expect the students' role to change compared with more traditional approaches to teaching and learning?
- How does the teacher expect the learning process to change compared with more traditional approaches to teaching and learning?
- How does the teacher expect the assessment process to change compared with more traditional approaches to teaching and learning?

However, in addition to the literature above it is important to grasp what actual conceptions are being evoked in the teacher-student relationship. For that reason, Bernstein's (1977) framework for understanding power and control is useful when considering the analysis.

Theoretical framework for analysis

Basil Bernstein established a theoretical framework for understanding the teacher-student relationship. In the analysis of the social relationship, the message system of curriculum, pedagogy and evaluation (assessment) (Bernstein, 1977) was analysed with the relative concepts of classification and framing (1977). To understand the

underpinning structure of process-based assessment, Bernstein's (1977) concepts of educational codes were applied to the analysis.

Curriculum in relation to classification

This emphasis on the social context of teachers' practice is reflected in the relational perspective on curriculum offered by the work of Lawrence Stenhouse, cited in Ruddock and Hopkins (1985). This contrasts with a reductionist and instrumental perspective through which curriculum is merely seen as a list of content to be covered, objectives to be met, or atomistic outcomes to be achieved. Stenhouse highlights the meaningfulness of curricula that should be seen not merely as ways to improve teaching but rather as expressions of ideas to improve teachers:

> Let me claim that it is a symbolic or meaningful object, like Shakespeare's first folio, not like a lawnmower; like the pieces and board of chess, not like an apple tree. It has a physical existence, but also a meaning incarnate in words or pictures or sounds or games or whatever (Ruddock & Hopkins, 1985, p. 67).

In the analysis of the curriculum, the concept of classification informs us about the extent to which categories, or elements of content, are isolated from each other (Bernstein, 1977). Classification is relative, either strong or weak. A curriculum of strong classification (for example, the national curriculum) has strong boundaries in terms of what is and is not counted as content. In contrast, a curriculum of weak classification reflects principles of integration and diversity of content.

Pedagogy in relation to framing

According to Bernstein (1977), framing determines the social control in the pedagogical relationship. In pedagogy, this relationship is seen from four perspectives in the teachers' approach: the form of the context; the pedagogical relationship between teacher and student; boundaries regarding what can and cannot be sent; and the set of choices with regard to control. For example, strong framing gives the students few possibilities to negotiate the four perspectives. In contrast, weak framing in the teacher-student relationship gives a student-centred pedagogy with possibilities for student autonomy. Accordingly, the notion of control is always present, depending on which form framing takes.

Evaluation in relation to classification and framing

According to Bernstein (1977), evaluation is a function of curriculum, and pedagogy and is regarded as a relationship between classification and framing. Following this rationale, if the content is predefined and teachers regulate the context and communication, they will assess what Bernstein addresses as "states of knowing" (Bernstein, 1977, p. 102). In contrast, if there is diversity in content, communication and context, teachers assess "ways of knowing" (Bernstein, 1977, p. 102).

Educational code

Bernstein (1977) builds the idea of educational codes on the two principles of collection code and integrated code. The collection code is based on a relationship of strong classification and framing. This relationship creates hierarchical structures, which result in the notion of "keeping things apart" (Bernstein, 1977, p. 10), for example, teachers working only with teachers within a subject. In the integrated code,

classification is weak and framing can vary in strength, giving the notion of "keeping things together" (Bernstein, 1977, p. 10). An example of an integrated code is when teachers work interdisciplinary with other teachers.

Method

The study focused on a group of five subject teachers and one ICT teacher in a blended-learning course within a pre-school teacher education course at a Swedish university in autumn 2007. This study is limited in that, since it took place, the use of technology in education has increased. However, lessons from this study can be learned and brought into consideration from perspectives of the social relationships in settings based on approaches to student-centred learning. The three female teachers were over the age of 50 and the two male teachers were over the age of 40. The ICT teacher was male, over 30, with experience in distance education and process-based assessment. The female teachers had backgrounds in the humanities and experiences with distance education and process-based assessment. The male teachers had backgrounds in the sciences and no experience teaching in distance education or process-based assessment. One male teacher quit the research programme after the background interview. A statement of research ethics was agreed on between the teachers and the students at the outset. This followed the guidelines from the Swedish Research Council (2001) and addressed the aspects of beneficence, non-malfeasance, informed consent, and confidentiality/anonymity. The researcher was not involved in the course or the teaching.

Qualitative interviews

Before the interviews, the themes and questions were piloted with the help of two other teachers who had experience with process-based assessment and PDPs in distance education. This process contributed to the modification of the themes and the follow-up questions. Qualitative semi-structured, face-to-face interviews were conducted with the teachers. The first interviews were held between June and August 2007 and focused on the teachers' backgrounds as teachers. The second interviews took place three weeks after the course started in November, focusing on the work related to the students' previous experiences. A third follow-up interview with the teachers was held when the course finished, focusing on the students' reflections and learning. The interviews followed a structure of themes according to the didactical design and areas of teaching, learning, assessment, and ICT. One female teacher took part in two interviews but covered all areas. The ICT teacher was interviewed when the course was finished. The interviews were recorded digitally and transcribed, and notes were taken during the interviews. The recorded material from the interviews amounted to 17 hours.

Thematic analysis

The process of analysis was influenced by Boyatzis' (1998) approach to thematic analysis and Malterud's (2009) similar approach of systematic text condensation. The analysis followed an inductive approach by searching for essences, important signs (Malterud, 2009), episodes, comparisons, and contrastive thinking (Coffey & Atkinson, 1996) that highlighted parts that bear the core meaning of the sentences spoken during the interviews. The empirical material was read eight times, during which the

information became increasingly dense as what the interviewees were implicitly or explicitly saying was interpreted. After the fourth reading, three descriptive themes emerged. These three themes could be coded to most of the empirical material. The reliability and validity of the coding was considered in the subsequent reading of the material. In this analysis, it is very important to add my own prerequisite in brackets. As the purpose of my research was to understand the teacher-student relationship related to student-centred learning, it was necessary to take the analysis a step further. This step moved from the descriptive level to a higher analytical level by adding theory to the analysis in order to investigate what supported process-based assessment.

Results

The results of the study are presented in the following section. To understand the teacher-student relationship in relation to the shift from teaching to learning through the research questions about the student roles, as well as the learning process and the assessment process, the teachers' narratives were explicitly and implicitly used. In order to illustrate the different perspectives, the teachers' voices are evident via numerous quotations.

Three descriptive themes of process-based assessment were found: the teachers' relationship with the students, the students' interaction with the content, and the teachers' interaction with the content. In this study, the narratives of the teachers' feedback, the teachers' thinking about the students' performance, and the teachers' analyses of their own actions were important sources for understanding the themes according to the message system of curriculum, pedagogy and evaluation (Bernstein, 1977). Through reading, rereading and listening to the interviews, I initially perceived a lack of team spirit in the teacher group and noted two sub-themes from the different subject areas. Pseudonyms are used to refer to the teachers.

Some parts of the material, such as the background interview, could not be coded to the three themes, although they are important pieces of information for understanding the entire picture. In the teachers' previous careers as teachers, a positive philosophy or a positive turning point was highlighted in their narratives by using concepts such as "portfolio", "process-oriented" and "to gain useful knowledge". In the first two weeks, the students were fully occupied with lectures and workshops with the "intention of giving the students a lot of input". One teacher, Alice, was critical of the design: "The students have a funnel on their head into which we pour the contents of the course, which we believe they should be able to comprehend." The methodology for process-based assessment was introduced for 10 minutes, and the teacher gave the students 20 minutes to write about their previous knowledge.

The five teachers did not train the students in the methodology of process-based assessment. The ICT teacher taught the students for two hours, in a session divided into two parts—one hour on the tool for digital PDPs and one hour on the video-conferencing tool. During training, he also explained the student-centred learning methodology of process-based assessment. However, the other teachers saw him as the "tech-guy", whose role was "ensuring [the students] start to use ICT".

In the presentation of the three themes below, the concepts of classification and framing have been used as the theoretical framing for analysis. To avoid theoretical jargon, the strength of classification and framing is expressed from either a student perspective or a teacher perspective. For example, strong classification is considered to be teacher-centred content and weak classification can demonstrate student-centred content. The concept of framing follows a similar rhetoric. For example, strong framing demonstrates teacher-centred pedagogy while weak framing highlights student-centred pedagogy.

The teachers' relationship with the students

The concept of classification was used to analyse the teachers' reasoning with regard to the content presented by the students. The concept of framing was used to analyse the teachers' narratives about their feedback and decisions.

Curriculum

Overall, Sue, Alice and Anthony expressed expectations concerning student-centred content. These expectations were highlighted by moods of provocation, anger or uncertainty because of the poor quality of the students' writing, which they characterised as poorly organised and limited in terms of content. Sue's anger derived from the fact that she thought "what they had written was without substance". Alice raised two considerations with regard to student-centred content. First, she said: "The student answers are very diverse, and it is the consequence of having an open assignment." Second, she explained her actions: "I am looking for how the student has accomplished the assignment. I don't care what she has written; I am not measuring anything." In contrast, Anthony indicated a teacher-centred approach by expressing the need for a list of requirements; however, the student-centred approach of the assignment allowed for diverse feedback depending on what the students had written. During the interviews, three teachers expressed a vague understanding of the students' previous experiences from work or life in relation to the course content on "fundamental values and sustainable development". In contrast, most of the students had several years of experience in primary school. The teacher-student relationship illuminates strong boundaries between the course content and the students' previous knowledge and experiences, indicating a curriculum of teacher-centred teaching.

Pedagogy

At the start of process-based assessment, the students were given questions that addressed the learning outcomes in relation to their previous knowledge. In this first step, the students had a great deal of choice regarding what they transmitted to the teacher. This approach demonstrated a student-centred pedagogy when the teachers assessed the students' previous knowledge. Three teachers, not including Alice, argued along the same lines as Sue's feedback: "In my feedback on the previous knowledge, I acknowledged students' text and offered some general thoughts … because I can't make comments there because they have what they have as their previous knowledge." The teachers' feedback was diverse, containing elements of acknowledgement (most frequently), encouragement and challenging questions. However, the teachers had fewer questions and reflections in response to how the students perceived student-

centred pedagogy. In the teachers' reflections, they perceived the students' exercise of control as counterproductive through questions such as "Do I need to do this?"

Evaluation

The teachers strongly argued that assessing the learning process was a difficult task. The relationship between the curriculum and pedagogy outlines the complexity in the assessment practice, which can be related to issues of content ownership and communication, but not questions of right or wrong. Sue explains, "Some students have written a lot … it was one of the problems for me: 'How much should I be involved because it is a process development book?' … I reflected on how much I should be involved because this is what will be examined." Yet, from the perspective of three teachers, the format did not support summative assessment, which Sue alluded to: "The student has completed a journey. I cannot say this was a good journey, or this was a bad journey." However, the teachers needed to complete a formal summative assessment in which they assessed a narrative as earning the grade "pass". For a higher grade the student needed to reflect, which Mary explained: "For the grade 'pass with distinction', they need to ask, 'What did I have? What did I change? What is my most important learning experience?'" Anthony identified his strategy as a norm-referenced assessment strategy by comparing the students' reflections in the group as a benchmark, and not the learning outcomes in the syllabus.

The students' interaction with the content

The concept of classification was used to analyse the teachers' reasoning and reflections upon the assessment. The concept of framing was used to analyse the teachers' narratives reflecting the students' communication about the content, the students' levels of performance, and the teachers' desires.

Curriculum

The teachers' desires for a changed curriculum was discovered when they talked about what to assess. All the teachers expressed a wish for student-produced content through evaluating the students' reflective and analytical skills. The teachers used different concepts for these skills with the similar intent. Sue, Alice and Mary searched for texts characterised by "deep answers" and "problematising". Anthony had a small group of students that he considered to be successful with strategies of being "structured" and "systematic" and "aware of effects".

Pedagogy

The students' interaction with the content, outlined in the teachers' narratives, highlighted framing as strong and indicated expectations of a teacher-centred pedagogy. In contrast, the female teachers argued for weak framing, or in other words, a learner-centred pedagogy. The teachers highlighted the students' mode of presenting their acquired skills as superficial, for example, they merely enumerated skills and content; gave practical suggestions about pre-school; highlighted statements from less knowledge to a lot of knowledge; gave concise descriptions; and provided texts that were unspecific. All of the teachers except Mary had expected reflections and found that the students' learning became superficial without problematising the content. The teachers expressed a problem with the students' low knowledge level, which was further investigated. The lack of an "intellectual effort" meant that, overall, the students

considered their local context without connecting to holistic perspectives, including addressing issues at a societal level. Sue was critical, saying, "The students just grab something … a small piece which they did not connect to the next piece." Furthermore, the students used methods from their learning of teacher education methods that were not adapted for children of one to six years of age. Alice was also critical: "They were always at an extreme surface level; not in the process in 'My Learning' [phase 3] … for example, I can use forum play with the children: 'Hey stop! You can't do that with children.'"

Evaluation

The function of curriculum and pedagogy in this theme highlighted the teachers' desire for a change in assessment practice that was in tacit conflict with the students' expectations. The group of teachers argued for an analysis by showing evidence of a starting point in a process of thinking; turning points in learning; showing consciousness; asking critical questions; adding summaries; and integrating the local context into societal and global concerns. Sue explained that she wanted students "to show they started to think, to understand, and to understand the complex issues from a holistic perspective. I think that is what I will assess."

The teachers' interaction with the content

The concept of classification was used to analyse the teachers' beliefs about collaboration on the content. The concept of framing was used to analyse the teachers' thinking about contexts with regard to teaching and issues of modifying the online environment.

Curriculum

Alice and Sue highlighted a consequence of the course design: the students did not have the opportunity "to sit down and work with their process." Alice stressed that the course was driven by teacher-centred content by outlining that the learning outcomes of the course were already predefined before the students' previous knowledge could be taken into consideration. The development of the curriculum showed narratives of negotiation and struggle from the teachers' different backgrounds. The negotiation started on the core concepts of the course, such as fundamental values, what they are and are not, and it continued with a necessary discussion about the various subjects in which the teachers were involved. The teachers from the humanities used language that highlighted their ontology for the subject "fundamental values and sustainable development". Their ontology was characterised by not asking for truths and frequently using the concept of "problematising". This concept indicates a student-centred curriculum because of the diverse possibilities of producing content. However, the teacher from the sciences took a teacher-centred approach. In contrast, Anthony was concerned about this gap between the different ontologies: "We need to be precise. What do we want to know about what?"

Pedagogy

The teachers from the humanities argued for the PDP as a portfolio because it collects and keeps content together as students write and reflect upon their learning. However, the relationship between teaching contexts, face-to-face and online, was differently perceived among the teachers. In the e-learning environment, the teachers

did not have a shared understanding of what could and could not be considered teaching. Three teachers demonstrated a student-centred pedagogy. Sue commented: "[They argue that] the PDP takes too much teaching time, but we always say that PDP is part of the teaching." Yet, the teacher-centred pedagogy remained: the PDP was not integrated into the course structure because the group of teachers did not use the students' reflections in the lectures.

The PDP tool communicated a technical-centred rhetoric. Once the students started their documentation, the ICT teacher was not allowed to modify the templates to meet the students' needs; in other words, changes were difficult. Moreover, the teachers from the humanities appreciated the built-in functionality of bringing achievements together, the template's structuring function of the students' texts, and the direct access to the texts. One of the teachers, Anthony, felt limited because he was unable to modify the services of the PDP tool for his particular needs. As a consequence, the static functionality resulted in a time-consuming activity of searching for students. He exemplified the dynamic functionality he was missing from another platform: "[Moodle] builds on modules … and particularly I as a teacher can feel that if something is missing then I arrange it and get it the way I want it, without detours."

Evaluation

The curriculum and pedagogy outlined the assessment practice, illuminating the difficulty in integrating two departments with different ontological positions. The forthcoming feedback was not discussed between the teachers, nor was what would merit a passing grade or passing with distinction. Alice highlighted this issue during the course: "[The group of teachers] have never investigated how we should assess those who repeat facts or how the first and third phases are connected to each other." The discussion moved more towards what the teacher should and should not comment on in the PDP. During the course, the female teachers highlighted difficulties in assessing students' texts: the superficial level of the work and the curious difficulties that arose when the students had collaborated. Mary said, "We have had a small problem because it is written [in the instructions] that they are allowed to collaborate and prepare together … some of them have interpreted it to mean that they can do everything together." Furthermore, in the teachers' planning of the course, the PDP was seen as a resource for making the students' performances individualised to avoid plagiarism, which Anthony highlighted as a goal that was achieved in this format: "I have not seen students who have written the same thing."

Discussion

From the implementation of the teachers' didactical design, this study has aimed to generate a better understanding of the teacher-student relationship when emphasis is shifted from teacher-centred teaching to student-centred learning. Here, the role of theory plays a central part for understanding what this shift is about when considering the social relations. The studied practice raised both difficulties and questions due to the teachers' different backgrounds, professions and beliefs. The teachers' beliefs about teaching, learning and assessment were studied through the message system of curriculum, pedagogy and evaluation (Bernstein, 1977). Bernstein's theory was helpful for seeing structures of social relationships that provide new insights about student-

centred learning in a teacher-centred context. In the implementation of a new design for learning, it is difficult to change the teachers to suit the intentions of the didactical design. This is not to say that change towards student-centred learning cannot occur, but valuable insights for further development became visible. The analysis of the teachers' practice highlights the symbolic issues of power and control built in to this context in particular, and to the wider context in general.

The wider context addresses the challenge, in general, of shifting the emphasis from teacher-centred teaching to student-centred learning and in particular for blended-learning contexts. For understanding this shift, the message system is used as a springboard for understanding its status in relation to traditional approaches to teaching and learning. This relationship is perceived through the regulative principle for this educational context expressed holistically as the educational code. Moreover, the actual conception of the code evoked Bernstein's (1977) principles of keeping things together or keeping things apart—the former as a collection code and the latter as an integrated code (Bernstein, 1977). The research questions reflecting the student role, the learning process and the assessment process are discussed through an analysis of the structures of power and control. These structures are understood as the underpinning principles for bridging the distance. Furthermore, Bernstein's principles of educational codes gave a framework for understanding what issues emerge when introducing student-centred learning into a traditional structure for teaching and learning.

In the student role, the symbolic power relation was diverse with regard to the possibility of student-centred content in relation to a history of teacher-centred teaching. The students adopted a reproductive strategy for learning, which is in sharp contrast to a productive strategy for learning (Thompson et al., 2009). In this sense, the students' strategy indicates what Leathwood (2005) and Price et al. (2010) regard as a performance-oriented approach developed in the school system. Furthermore, strong classification gives strong boundaries by keeping things as they are, or as we could perceive as "the norm" for school cultures. The strong boundaries could explain the students' strategies in the didactical design, developed in a school culture of teacher-centred teaching. In the student role, it is difficult to expect student-centred learning when the formal learning outcomes point to valid content from teacher-centred teaching. There is a need for learning outcomes based on assumptions of student-centred learning. Such outcomes would have as their purpose making students aware of their learning process and competencies developed from productive learning. An important characteristic of student-centred learning is the possibility to negotiate. The action of negotiation demonstrates an aspect of productive learning when students and teachers negotiate about the necessary action as a response to formative feedback. In summary, introducing a student-centred didactical design is a sign of change, but the collection code remains. For reaching a practice based on student-centred online learning, the distinct division between the teacher role and the student role needs to be weaker. If teachers and students want change, they need to rethink the decisions about content, pedagogy and assessment.

The learning process constituted in the process-based assessment phases highlighted diverse symbolic power relationships between the informal and the formal curriculum. All educational contexts have an informal and a formal curriculum. The

informal curriculum projected a weaker symbolic power relationship when teachers' teaching was based on problematisation and reflections (Clegg, 2004) on students' content. The informal curriculum indicates an integrated code. However, the formal curriculum with explicit learning outcomes outlined the isolation between teacher-centred content and student-centred content. Thus, the symbolic power relationship between the informal and formal curriculum put pressure on the principle of keeping things apart. The symbolic power relationships between curricula become an interface for perceiving what social relationships content can create. An important issue is how teachers handle student-centred content produced by using social media. Further, the symbolic control in the pedagogical relationship was diverse, highlighted in the feedback. Students expected strong monitoring from the teachers, while the teachers expected autonomous students. One of the main problems that the analysis brings to light is the tacit debate about the contexts in which teaching can be called teaching. Similarly, Carlgren (2011) argues for the need to reconceptualise the meaning of teaching in student-centred learning environments. Accordingly, if student-centred methods like process-based assessment is to be part of education, it is important that online learning does not become devalue in relation to face-to-face teaching. The template for process-based assessment acted as a symbol for student-centred learning in terms of students becoming the experts and taking ownership of their process. Moreover, the online tool for digital PDPs has limited flexibility once teaching and learning has started. In contrast, if something is not successful in face-to-face teaching, it is possible for the teacher to elaborate on the activity during teaching. Thus, the symbolic control in the face-to-face context evokes a desire for a similar sense of control in the online context. In summary, the relationship between symbolic power and control encompasses the principles of keeping things apart in the learning process. Keeping things apart indicates a collection code represented in the teachers' approach to content and the learning environment.

Traditionally, assessment has been considered in terms of formative and summative assessment (Taras, 2005). Bernstein (1977) considers assessment as a function of the strength of the symbolic relationship of power and control. In the analysis and discussion above, the teacher-student relationship has a preponderance towards the collective code. Accordingly, the students presented what Bernstein calls "statements of knowledge" (Bernstein, 1977, s. 102), illustrated in the reproductive approach to learning. However, for student-centred learning the social relationship needs to be based on weak symbolic power and control. The weaknesses in the symbolic relationship of power and control highlighted a desire based on Bernstein's (1977) principle of moving things together, in other words, the integrated code. In order for the assessment process in student-centred learning settings to work well enough, the formative process over time would have to be different from that presented in this paper. I suggest that the negotiation in the student role needs to be raised one level to students' self-assessment of qualitative issues in learning such as turning points and problematising. Accordingly, that approach would have been better able to follow the principle of moving things together. In this code, the teacher-student relationship would be based on assessment principles as "ways of knowing" (Bernstein, 1977, s. 102).

In summary, the key findings from this study relate to an improved understanding of the teacher-student relationship regarding the difficulties in shifting the emphasis from

teaching to learning. This shift involves the student role, the learning process and the assessment process, as analysed through the lens of the collection code and the integrated code. Bringing teachers together from different disciplines is not a guarantee for an integrated code. Shifting the emphasis from teacher-centred teaching to student-centred learning is complicated because of strong structures between disciplines. Moreover, the symbolic structures of power and control help us to analyse where further efforts need to be focused for changing practices and bridging the distance. Educators need to reconsider what can be understood as content, how learning takes place with regard to reproductive and productive strategies, and what can be considered a student-centred assessment process. The traditional structures are strong and will probably take time to change. What we have learned from this study is that a shift towards student-centred learning is more likely to occur when mechanisms of power and control in the social relationship become weaker. In studying the next stage of this teacher education course, another paper will explore the students' learning of process-based assessment through the concept of variation, with the aim of understanding the significance and meaning of the didactical design and ICT.

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