Individual and flexible: Working conditions in the practice of Swedish distance-based teacher education

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This article reports on the working conditions within Swedish ICT-supported distance-based teacher education. Data collected from teacher trainees are analysed and discussed in relation to Swedish governmental policies concerning teacher education and distance education and theories emphasising the importance of social aspects of education. The findings indicate working conditions that are mainly controlled by the teacher education program, and that teacher trainees to a high degree are fostered into individualism. Exceptions are in group work, which on the other hand seems to be given only minor attention in teacher education. This raises questions related to the intentions of teacher education. First, there are questions concerning issues of flexibility and choice, more precisely about what aspects are flexible or not. Second, there are questions concerning possibilities of teacher education providing an education that enables teacher trainees to develop the competencies needed to be able to teach.

Teacher education, working conditions, flexible learning, online learning community, Sweden

INTRODUCTION

In the current debate concerning teacher education in Sweden, two issues have been in focus. One is the expected shortage of educated teachers. In trying to solve this dilemma, teacher education institutions have in recent years increased the number of programs offered on a distance basis. Relying on distance education, intentions have been to attract future teachers that otherwise would not attend a teacher education programs due to, for example, geographical location and family situation. Another issue is the teacher education reform of 1999, that has just recently been evaluated by the National Agency for Higher Education. In the evaluation report teacher trainees are claimed to have been left without much guidance in their choices of courses, and questions concerning their competencies have been voiced in the Swedish media. All in all, the universities providing teacher education programs have been questioned in the evaluation study about the possibilities for future teachers both to get jobs, despite the expected shortage, and to be able to work as teachers, despite the fact that student control over courses and their future competencies are specified in the reform of 1999. The reports discussed on this article are directly related to the current debate in Sweden, since they concern aspects of the working conditions in an Information and Communication Technology (ICT)-supported distance-based teacher education program. Furthermore, this article has a more general value from an international perspective, since it concerns the possibility of providing for vocational education, such as teacher education, through a distance education mode and through programs that rest on assumptions of flexible delivery of learning experiences. Questions concerning flexibility and choice as well as competencies and

skills of prospective teachers become contextualised in the Swedish system, but at the same time they highlight problems at a more general level. However, in order to make the article understandable, it is necessary that a few words are said on the Swedish context and on the assumptions of the teacher education program in question.

Teacher Education in Sweden

Commissioned by the Swedish State, the Swedish Teacher Education Committee presented in 1999 a proposal in the Swedish Government Official Report Series for teacher education reform (SOU 1999:63). In the proposal the Swedish society is described as being in a phase of transition, in which unpredictable changes occur quickly. Teacher education must, as a consequence, also change. Teacher education today is supposed to give teacher trainees considerable freedom to create their own individual teacher education programs by choosing from the courses available. This choice seems to have two purposes. The Swedish State should both have control over certain common aims and objectives and at the same time allow each university enough freedom for local diversity and difference. Individual teacher trainees should have the possibility to develop unique competencies in order to be adequately prepared to meet a flexible and dynamic future society. This form of organisation also allows possibilities to adjust in a flexible way the program in accordance with local needs, something which applies to on-campus as well as off-campus education, in this case distance-based teacher education.

ICT-supported Distance-based Teacher Education

During recent years the rapid development and increased use of ICT has led to new options within all Swedish distance education programs. The flexibility in distance education has been presented as an example of how citizens can be given greater possibilities to educate themselves. The Swedish Distance Education Committee (SOU 1998:57; SOU 1998:83; SOU 1998:84) states that the aims of flexible learning include placing the control over where, when and how studies are to be conducted as far as possible with the students. This means that semesters, schedules and other forms of teacher control can be questioned and education can be undertaken and provided from different geographical locations. The interaction between the students and their teachers should be adapted to different conditions, to different places, times and to different media. Distance-based teacher education could then accommodate a number of different needs that individual teacher trainees might have. In the proposals it is emphasised that a significant degree of responsibility has to be placed on the individual. It is stated that no student can be forced to learn, and that it is the student who intends to study who should, in principle, decide by choosing between different alternatives. Consequently, it is up to the individual to take responsibility for making the right choices (SOU 1998:84).

Communication in distance-based teacher education has been increasingly conducted through the use of web-based learning environments. With ICT used both to conduct seminars and transmit lectures, an even higher degree of flexibility regarding geographical location and numbers of on-campus gatherings is assumed to be achieved. The increased use of computer-mediated communication (CMC) is, according to the rhetoric in the proposals (SOU 1998:83; SOU 1998:84), a contributing factor to this development. ICT is claimed to have the possibility to transform distance education that is based on the assumptions of flexible learning through individual studies at a distance and membership of a learning community. Thus the social aspects of education could influence the practice of distance-based education, which in relation to a vocational program such as teacher education would seem highly appropriate. A question arises, however, concerned with how the social aspect of education should be understood?

Emphasising a Social Aspect of Education – The Learning Community

Over the last decade educational theory has increasingly focused upon the social aspects of education. Learning is, accordingly, claimed to occur in collaboration (for example, Dillenbourg, Baker, Blaye and O'Malley, 1995) with others in some kind of social situation or context (for example, Lave, 1997), which education programs have to construct or reconstruct. Wenger (1998) has elaborated upon this in the concept of Community of Practice (CoP). According to Wenger (1998) a community could be defined as "a way of talking about the social configurations in which our enterprises are defined as worth pursuing and our participation is recognisable as competence" (p. 5). The learner must be given a possibility to participate in a community in order to create meaning and understanding through a process of negotiation that has inherent social, relational and temporal aspects. Practice is according to Wenger (1998) "a way of talking about the shared historical and social resources, frameworks, and perspectives that can sustain mutual engagement in action." (p. 5). Participation in social practices shapes both the experiences of the human beings and the nature of the communities in which the experiences are drawn.

As a consequence of the development of the internet, distance education can today be understood as an interactive learning experience supported by the use of ICT (for example, Vrasidas and Glass, 2002). This shift implies that the concept of a learning environment can be considered to include a virtual dimension that laid down the ground for a web-based learning environment. This shift also marks the change from the use of ICT in educational settings as a tool for downloading educational material towards enhancing participation with others in a social context (for example, Bonk and Cunningham, 1998; Haythornwaite, 2002). Participation, both in a synchronic and asynchronic mode (for example, Kowch and Schwier, 1998), is enabled through web-based learning environments (for example, Bonk, 1998; Stephenson, 2001).

In discussions focused upon web-based learning environments, providing working conditions that enable participation in a social context is often emphasised, and it has also recently become a question in research on how such learning environments can foster the building and upholding of Online Learning Communities (OLC) (for example, Carlén and Jobring, in press; Haythornwaite, 2002; Lock, 2002; Seufert, Lechner, and Stanoevska, 2002). The community is here considered to be located on the internet and face-to-face meetings are reduced or even non-existence. One important feature in the OLC, concerns the creation of feelings of belonging to the community (cf. Palloff and Pratt, 2003) and how to distinguish membership among the members of the community (Haythornthwaite, Kazmer, Robins and Shoemaker, 2000). In the development of a joint group identity, characteristics are based on negotiated meanings integrated in to the practice of the community (for example, Schwier, Campbell and Kenny, 2004; Selznik, 1996). In other words, central to membership of an OLC is the sharing of history, ideas and values that create mutual engagements (cf. Wenger, 1998). These are all elements of importance when the concept of OLC is placed within the context of higher education and 'recurrent education' (to use a term proposed by Torsten Husén and advanced by Olof Palme) and particularly in relation to teacher education where the mutual engagement can be said to be directed towards the practice of teaching.

The educational framework considered in this article is an ICT-supported distance-based teacher education program in Sweden organised in terms of a flexible learning mode within the field of higher education and recurrent education. The aim, then, is to present a possible understanding of the working conditions, specifically understood as 'working method's, 'examination forms', and 'students' influence over their studies', and to examine this understanding within the context of national steering documents governing the teacher education and theories emphasise the social aspects of education.

METHOD

In this study, data are analysed using a hermeneutical approach (for example, Gadamer, 1988, Ricoeur, 1995; Vattimo, 1997), with interpretations brought about by the use of a particular theoretical frame of reference. This approach is used, mainly based on beliefs that there are no objective facts to discover, instead research is based on interpretations that involve dimensions of uncertainty, which are hard to separate from each interpreter's own prejudices concerned with the issue under consideration (for example, Gadamer, 1988). The use of a theoretical frame of reference is inspired by Held (1996) who claims

> For the framework we bring to the process of interpretation determines what we 'see', what we notice and register as important. Accordingly, particular interpretations cannot be regarded as *the* correct and final understanding of a phenomenon; the meaning of a phenomenon is always open to future interpretations from new perspectives. Interpretations are, therefore, always open to challenge. (p. 9)

In the following sections the data collection and procedures employed, participants and context, and the theoretical analytic tool are described.

Participants and Context

Participants were teacher trainees attending a Swedish teacher education course organised as a distance-based program in which ICT was used for administration, communication and support. The program under investigation was three and a half to four and a half years long, depending upon the teacher trainees' choice of examination. In the program, a web-based learning environment (WebCT) was used. The education provided was intended to be independent of space and time, and only to a minor degree dependant on physical meetings, called gatherings. The number of gatherings on campus differed from 1 to 4 per semester depending on semesters and courses. Teacher trainees worked in smaller groups, sometimes with a tutor from the university who, together with the teachers in each course, assisted the teacher trainees through their education. The number of teacher trainees enrolled at the time of data gathering was 77. The whole group was asked to participate and a total of 55 teacher trainees did so, thus approximately 71 per cent of this class f teacher trainees also worked together in smaller groups, with occasional help from tutors.

Data

Data were collected by the use of a questionnaire. The intentions in the construction of the questionnaire was to include areas or activities that could be understood as common and central features of the program under investigation, in order to supply data that provided an understanding of the working conditions involved in the program. The questionnaire contained different claims or questions to which answers were to be given in five categories. In the construction phase, the questionnaire was tested on other teacher trainees (n=23), and on university colleagues (n=5). After testing, the categories were adjusted and the questionnaire was altered not to include open questions. Depending upon the theme involved, the categories were 'never', 'seldom', 'a few times', 'often', and 'always', or, 'do not agree at all', 'to some extent do not agree', 'don't know', 'to some extent agree', and 'totally agree'.

Procedure

The questionnaire was published on the internet and all teacher trainees were approached through their web-based learning environment with a question about their participation. The questionnaire was reached through a hyper-link, protected by a password. Before the deadline for answering, a

reminder was sent. After the deadline had expired, ordinary mails encouraging the teacher trainees to answer within a week were sent to those who had not already filled in the questionnaire.

The Approach to Data Analysis

The procedure employed for the analysis of the data was built upon two dimensions with a bearing on education, conceptualised as a field of inquiry shown in Figure 1. The two dimensions of the field of inquiry involved two philosophical questions about humans, namely, a) the origin of human becoming, and b) the possibility of human agency. The questions were formulated in the following words.

1. Are humans individually or socially conceived?

2. To what extent do humans have possibilities to act and affect what he or she is becoming?

These two questions were captured in the field as the dimensions, individual – social and pre-determined – uncertain. The field enabled interpretations of how the working conditions in the program stressed these questions in different ways.
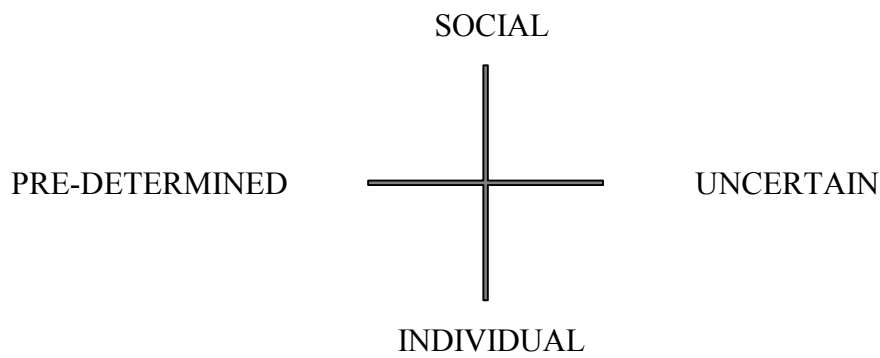
SOCIAL

PRE-DETERMINED ———————+——————— UNCERTAIN

INDIVIDUAL

Figure 1. The two-dimensional field used in the analysis

ANALYSIS AND RESULTS

The three themes included here contained a total of 16 questions. The themes were: 'Working methods', 'Examination forms', and 'Students' influence over their studies'. Answers to the questions and the frequency of response categories for each question within the themes are presented in Tables 1, 2 and 3, where N=77 and n=55. The data used in the analysis is deliberately recorded in a form where neither the mean nor median value, nor any other statistical measure is used. The reasons for doing so are that the response patterns for each alternative are to be understood in relation to each other. Our focus is not, even if that were possible within other approaches, to conduct the analysis by using, for example, statistical significance.

Working Methods

The first theme is concerned with working methods, and it was examined using five different questions. The questions were intended to cover working methods believed to be common in the program investigated. Answers and frequencies are presented in Table 1.

In the answers regarding working methods, the two most common methods according to the teacher trainees are what can be called traditional forms of organising education. The most frequently used form, which 87 per cent of the teacher trainees describes as 'often' or 'always occurring', is the teacher talking and asking questions to which a single teacher trainee answer. This is followed by working in groups on assignments, which 79 per cent of the trainees describe as occurring 'often' or 'always'. Slightly less common is that the teacher trainees' works on their

own with the same assignments, since 69 per cent describe this as occurring 'often' or 'always'. Teacher trainees also seem to work on their own conducting investigations, not as often as in the previous question, but 'fairly often' according to 56 per cent. Least common seems to be discussions between the teacher trainees and the teacher, 'often' or ''always' according to 47 per cent of the trainees. The teacher trainees seem to be left much on their own, with part of their work done in collaboration with other teacher trainees, and the teachers seem to rely on a high degree of teacher control when interacting with the teacher trainees.

Table 1.   Frequency of ratings (%) in different categories on the questions in the theme 'Working methods'

Questions	Never	Seldom	A few times	Often	Always
1. The teacher talks and asks questions, single students answer	0	2	11	69	18
2. The teacher and the students discuss together	0	13	40	45	2
3. Students work in groups on assignments	0	4	18	75	4
4. Students work on their own with the same assignments	2	7	22	67	2
5. Students conduct investigations of their own	0	7	36	56	0

When these results are analysed in relation to this field, the tendency by teachers to control the education is made explicit in that the most common way of working is when the teacher talks and asks questions to which a single teacher trainee answers. Consequently, the working methods still seem to be built upon a metaphor of transmission, from teacher educator to teacher trainee. Pre-determined working methods with a strong emphasis on the individual appear to be frequent, while those that imply social oriented aspects characterised by uncertainty seem to occur less often.

Examination Forms

The second theme concerned examination forms and contained seven questions. Each question gave an example of one examination form and when combined they were considered to be forms used in different degrees in the program investigated. Responses ad their frequencies are presented in Table 2.

Table 2.   Frequency of ratings (%) in different categories on the questions in the theme 'Examination forms'

Questions	Never	Seldom	A few times	Often	Always
6. Oral examination	20	29	42	7	2
7. Written examination	0	7	33	49	11
8. Group examinations	0	9	45	44	2
9. Written home assignment	0	2	24	65	9
10. Accounts of individual work	0	22	35	36	7
11. Discussions in the study group	7	11	49	29	4
12. Drama, film or likewise	4	60	35	2	0

On the question of form of examination, the main form used seems to be relying on written text. Oral examinations, discussions and drama and other forms are reported as the least common. Written home assignment and written examination task, in terms of 'often' or 'always' occurring in the program is described with the percentage of 74 and 60 respectively. What is also apparent is the high degree of individual examination forms, group examinations, oral examinations and discussions in the study group only occur a few times according to almost half of the teacher trainees. Drama, film or likewise as well as oral examinations have 64 per cent and 49 per cent respectively occur 'never' or 'seldom'.

When the results concerning examination forms are related to the field of inquiry, the same pattern evident for working methods is apparent. Often individual teacher trainees are examined in

ways in which the examination is based on written text. Tasks that are less conventional and uncertain forms of presentation, for example, drama or informal discussions together with teacher trainees on the same course seem to occur 'seldom'. This implies a strong emphasis on more traditional forms of examining individual teacher trainees by using relatively pre-determined methods of examination, that is, individual examination seem to occur most often.

Students' Influence over Their Studies

The third theme was concerned with teacher trainee influence and involved four questions. The questions concerned both influence over informal as well as formal working conditions. The responses and their frequencies are presented in Table 3.

Table 3. **Frequency of ratings (%) in different categories on the questions in the theme 'Students influence over their studies'**

Questions	Do not agree at all	To some extent do not agree	Don't know	To some extent agree	Totally agree
13. We students decide who to work with in group exercises	2	29	2	55	13
14. How we students should work with assignments is decided by us	4	35	2	56	4
15. We students decide the number of examinations	96	4	0	0	0
16. We students can decide what literature is used in the program	93	5	2	0	0

On the question of influence, it is apparent that the teacher trainees have most influence over the informal parts of their courses in teacher education, like regarding who they work with. As many as 68 per cent and 60 per cent respectively agree with this 'totally' or 'to some extent'. With respect to what content to work on and how the content is examined, the trainees there seem to have almost no influence at all. Thus 98 per cent of the teacher trainees responded that they 'totally' or 'to some extent agree' to have no influence over the literature used, and 100 per cent 'totally agree' or 'to some extent agree' that they have no influence over the number of examinations. There is at least more than half of the teacher trainees claiming to have some influence over the informal parts of their program of study, but most noticeable is the large number of teacher trainees who feel that only parts of these aspects are open to their influence. For instance almost 40 per cent feel that there is no room for influence on how they work on assignments.

When these results are related to the field of inquiry, both a similar pattern and a different pattern to the responses in the previous sections emerge. Similarities are the high teacher control and pre-determined content, with little or no possibility of influence given to the teacher trainees regarding literature and examinations. Differences seem to be that some degree of choice and possibility of influence is given on working methods and content in the group work. Socially oriented features are thereby given some degree of influence, being less controlled and more uncertain. These features are, on the other hand, given less attention by teacher education through the nature of assessment. The focus of the teacher education program is on individuals who manage pre-determined content.

DISCUSSION

In this article the aim is to present, from a learner-centered perspective, an understanding of the working conditions in a Swedish ICT-supported distance-based teacher education program, specifically with respect to 'working methods', 'examination forms', and 'students' influence over their studies'.

The analysis is directed toward an understanding in which individual responsibility and choice is promoted, while shared meaning combined with a collective and learner-centered responsibility is counteracted by a strong normative approach governing the organisation of the program. However, strong elements of individualism are present in the guiding rhetoric through SOU 1999:63. In the analysis it is possible to understand individualism as one aspect of how the working conditions, used in the program, foster the teacher trainees' understanding of learning and education. For example, the educational content seems to a considerable degree already to be pre-determined by the educational organisers, and the examination forms used tend to focus on the individual. The work done in groups is less frequently used for examinations but the teacher trainees have some influence over who to work with and how they can work. A paradox that implies both a freedom to choose and the creation of individual competence just as long as it is in line with the educational organisers' interpretations of adequate competence, that is defined by the Swedish State.

This line of reasoning is also plausible when looking at group work as a working method. One interpretation of why this working method is used could be that the teacher trainees are expected to lay the foundation for teacher-teams in their future workplace. The program lays the foundations for forming a future learning community of teachers. In SOU (1999:63) the idea was expressed as "the foundation for co-operation in the future profession is laid" (p. 126) and with respect to common values this was expressed as "that the teacher trainees can develop a common view regarding the learning and socialisation of children, youth and adults" (p. 127). A view more in line with thoughts of learning as a fundamentally social phenomena (for example, Dillenbourg et al, 1995) and the importance of that type of learning process includes participation in a social context, for example, a community (for example, Wenger, 1998). If so the sharing and negotiating of meaning and values became a focus. Group work is, though, a working method rarely used as a foundation for assessment and therefore the formation of a community within the program seems to be nothing else than wishful thinking.

The lack of social aspects in the program can be understood as if the distance-based teacher education, organised in a flexible learning mode, counteracts an integration of social aspects in terms of a common view of learning and socialisation. Social aspects, for example such as those expressed by Lave (1997) and Wenger (1998), where important activities for teacher trainees should be to have ongoing dialogues and discussions concerning both individual choices of the topics within the program and the educational content of these topics. In order to realise this in a program given at a distance, the educational organiser have to use ICT actively. Providing a web-based learning environment that fosters the building and the upholding of online learning communities where the teacher trainees meet virtually accommodates these intentions. The analysis implies, though, that the teacher trainees are not given many, or even any, opportunities to develop a joint group identity characterised by negotiated meanings integrated in the practice of a community (for example, Schwier, Campbell and Kenny, 2004; Selznik, 1996). The web-based learning used does not seem to fulfil its purposes, instead the limited number of gatherings on-campus each semester seems to be more or less the only time the teacher trainees can have an opportunity to develop a community characterised by shared history, enhancing of collaboration and meaning-making among the teacher trainees and thereby the creation of a growing mutual engagement for teacher education *per se* and their future practice as teachers (cf. Selznick, 1996; Wenger, 1998).

CONCLUDING REMARKS

In conclusion, it seems that the working conditions within the program reduce the possibilities to build and maintain online learning communities that can foster a shared history and experience among the teacher trainees. Whether this is due to the flexible learning mode and its lack of social

aspects on learning and education, or due to the teacher educators understanding of how human beings learns or due to national steering documents and the establishment of individualism is beyond the scope of this article. It seems, though, that participation in an online learning community has inherent within it, the possibilities to develop common value systems that apply both to more general questions, that involve an understanding of the world of human beings, as well as more particular questions that concerns the teacher trainees' future work in Swedish schools. To work as a teacher means to embrace certain values that operate as a kind of embodied guide for how the everyday work in schools both can and need to be conducted. These aspects do not seem to be present in the program investigated.

FUTURE RESEARCH

A most interesting research question to focus upon in a future study is how to include the ethical and morally oriented features of becoming a teacher in ICT-supported distance-based teacher education programs. This research is probably going to include, not only the questions addressed in this article, but also a more deepened scrutinising of the concept of an online learning community within teacher education.

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