Towards Creative Tutoring – Challenging Teacher Educators to Use Digital Resources and OER

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1. Introduction

Teacher educators ought to be at the forefront of using new technology. They should encourage their students to understand and interpret children's digital habits and communication patterns. Unfortunately it is often the other way around. Children are front users, students are catching up and teacher educators are still lacking far behind. One explanation is that progress of technology-enhanced teaching at universities and professional schools has been slow and not well supported.

Teaching and teacher education is to a certain extent bound by traditional local practice and does not rely very much on research to develop teaching methodologies. Teacher trainers may thus have poor experience of technology-enhanced teaching and learning i.e. using digital resources in order to facilitate course-planning or assessment. An exception can be found within distance education, where teacher educators develop new ways of tutoring, sometimes working more as moderators with the students than lecturers. To understand how teacher educators may develop their skills and habits of technology-enhanced teaching and tutoring it is important to take the nature of teaching and teacher education itself into account as well as the possibilities of digital technology. How may the options of technology then alter conditions for teacher educators? Could a repository with digital and open resources serve as a supportive scaffold to develop innovative behavior? The three nodes of the didactic triangle (Kansanen 1999), the teacher, the student and the content may help visualizing the idea of how using digital content may change the conditions for tutoring.

2. Discussion

2.1 Focusing on didactics

The character of teacher education and teaching is complex and involves a blend of theory, of content and of pedagogical practice. It is important to apply all angles to make an issue or a subject clear and relevant to teaching and learning situations. I suggest that there are specific demands on the pedagogic/ didactic content within teacher education. The display of deep content knowledge is not sufficient to make an issue comprehensible. However it is not enough to have a didactic approach without any relation to content and subject matter either. I propose with Kansanen and others that didactics is the science of Teacher education but it still has to related to a subject. Kansanen (1999) describes the core of subject didactics as the teacher´s pedagogical relation to a further relation, that between the student and the content. This is the didactic relation – how the student meets the content to be learnt, which of course is fundamental to learning. This relation is invisible by nature. The organization of this relation belongs to the expertise of the teacher. The student´s learning is supposed to occur in the didactic relation of the instructional process.
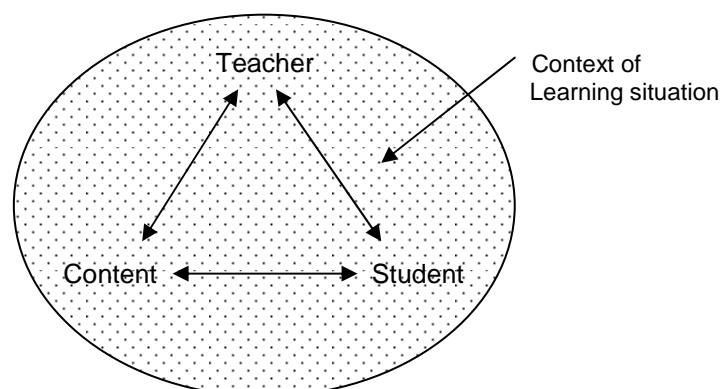

Figure 1. The didactic triangle (Kansanen 1999)

A further concern is how we recognize the context where learning is taking place. Learning is here understood as situated. This is a common and well researched idea in social science, which means that thinking as well as learning and production of knowledge is always embedded in a context and a culture (Suchman1987). This

means that if we wish to design or understand the learning processes we have to take into account and comprehend the contexts or environments where they take place. This idea may then have implications for teacher educators tutoring as well as their using and producing digital resources.

2.2 Digital content – changing conditions for teaching and learning

We may then consider how information technology in a general way may change the conditions for tutoring and how specifically interactive, digital content may change the nature and means of instruction and conditions for learning. The digital components and processes which can be integrated in and change the didactic relation are all well known and practiced in e-learning and distance learning:

- interaction through computers, mobiles, i.e. organized in learning platforms
- new means of documentation and documentation: e-portfolios, blogs, wikis, image collections
- communicating and sharing in social media, various networks, Facebook, linked-in, twitter, flickr

However the more profound changes of information technology are firstly a matter of different structural modes of communication and which content may be conveyed by a screen in forms of images and texts. Secondly it´s about the new ways we use the content we communicate, the text and the visual modes, images movies etc. Thirdly the content is often embedded in new contexts such as networks i.e. Facebook etc. All these changed conditions have of course an impact on teaching and learning. To a certain extent the competencies for the new networked literacy we need to acquire are deeply embedded in the conditions and possibilities of the technologies we use i.e. social web etc (Olsson 2008; Säljö 2005)) .

As Kress (2003) has suggested the possibility to use and communicate images may transform our understanding of literacy. He points out the fact that a text is sequential and that in a text the words waits to be filled with meaning and then the words are read and understood in a sequential order. An image on the other hand is spatial and full of meaning and our imagination and understanding focuses on creating the organization of the elements which are previously filled with meaning. (Kress, 2003) These changes in communication modes are of course vital for the purposes of tutoring. An understanding of these changes may be developed by using digital resources. I mean that there are urgent demands to adapt teacher educators' pedagogic/ didactics to new ways of representing subject knowledge. Any subject issue today should be presented in the most suitable mode and representation, which now is possible in digital form and rich media. Furthermore to take care of situational learning demands, social web communication can become part of teaching.

To develop an innovative perspective to tutoring the new possibilities of technology may be combined with a subject-didactic perspective which center on students learning and teachers' creative relation to content. In this case the student is the co-creator of subject knowledge. This may be defined as the learner-centered perspective. A more traditional way of defining the relation between teacher, content and student is when the teacher transfer knowledge to the student as a passive receiver of well-defined content. The pedagogical/didactical relation is of course per se independent of digitalization of content. However the possibilities to create and recreate content and communicate interactively between teacher and student simplifies for the teacher to take on a learner-centered perspective. As proposed by Baumgartner (2004) we may recognize three different modes of teaching. In the first mode the transfer of factual knowledge, "the know that", is mostly verbal, textual knowledge where the teachers role is to teach to explain. Secondly the tutor mode which conveys procedural knowledge," know-how", which demands skills and abilities of the student and which demands selection of the correct method and its use. The teachers role is to observe and to help and show. The third mode of teaching is the coach, who communicates social practice, knowing in action. This demands social responsibility of the student and the teacher role is to cooperate and support.

2.3 A repository of digital resources serving as a scaffold

To empower teacher educators to work innovatory a repository with digital resources was developed within the EU-project Sharing Digital Resources between Teacher Educators, Share.TEC 2008-2011. Several strategic issues were taken into account, such as developing skills of digital literacy, learning to learn, social competence, sense of initiative and entrepreneurship, cultural awareness and cultural expression. These skills were practiced by using different features of the Share.TEC portal where it is possible to communicate in your language. A user then increases her digital literacy by using and sharing resources. She develops her social competence by interacting with teacher educators from different cultures and they all learn from each other. The three main concepts in the portal, TAKE, USE and GIVE, contain each different level of engagement in the system. TAKE in this context means that the teacher educator can anonymously browse, search and reuse different educational resources in the repository without creating an account. By logging in the user can experience the full power of Share.TEC. GIVE means that you can share your educational resources, experiments and opinions with other users. Work in the portal was evaluated in pilots and workshops This included searching of useful materials, copy right issues, Open Educational Resources, OER in general, digital competencies, social tools and networking. Teacher educators also learned to use different digital tools to create their own resources which could be shared with others. This means that a user can create, publish, distribute, subscribe to and recreate content as well as communicate about it. Thus content is characterized by trust and openness, it is user-generated and user-controlled. This means that a user can create, publish, distribute, subscribe to and recreate content as well as

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I propose that working with content in this open dynamic way may change the way teacher educators are tutoring and how they convey what teaching and tutoring should be about. Many teacher educators may not be used to or have a positive attitude towards sharing learning resources. There are however uncertainties concerning copyright and rights of use, there is normally little support from the universities in publishing OER, infrastructure and support is often not present. Nevertheless there are licenses to use, Creative commons. The quality issue is often focused. Thus quality criteria have to be set as firmly for digital text and images as well as for print.

3. Conclusion

I recommend that teacher educators may and should develop their digital and networking literacy by focusing on creating, using and sharing digital resources, preferably OER. As a scaffold, a digital repository, such as Share.TEC may be used. Creating new rich-media content, which may be communicated to students and colleagues may be especially beneficial within teacher education, since teaching is a mixture of subject knowledge, pedagogical and didactical issues, and to some extent is more dependent on professional practice than most university subjects. To ensure media-rich digital open content and lectures to be conveyed to students would empower teacher education. I propose that he role of the teacher educator may today at its best be defined as a tutor which suggests procedural knowledge, "know-how", which demands skills and abilities of the student and which requires selection of the correct method and its use. The teachers role is to observe and to help and show. To reach the next mode of teaching and tutoring, the coaching mode, teacher educators have to take part in networked activities themselves, to understand openness and to be prepared to and give and to claim social responsibilities of the students, and to retreat to a cooperative and supportive role themselves. The restraints to developing this way of teaching may be found in the organizational technology infrastructure, in the professional and organizational culture. There are of course individual inhibitors as well. Teacher educators have to develop networked literacy and networked behavior.

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