Boundary crossing between school and university

Exploring the possibilities for developmental transfer in teacher education

Paper presented at the
10th Nordic congress on teacher education
The Relationship between teacher education and school development

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Distance learning in teacher education

- From the perspective of student teachers - working as teachers - in local schools in a rural district in Iceland

- The purpose of the thesis is to investigate the meaning, importance and possibilities of the programme for teacher students and local schools as well as …

- the importance and possibilities which the connection to the local schools, through the distance students, opens up for the teacher education institution

- Learning that leads to development of individuals and the activity systems in which they participate are under consideration
Context: Partnership of schools and universities in teacher education

- The problem of bridging the abyss between theory and practice
- Policy: Teacher education should be run as partnership between schools and higher education institutions
- Partnership model promoted in order to enhance teacher professionalism
- Anne Edwards: Lack of theoretical underpinning may be damaging the partnership model
- Cultural Historical Activity Theory: Work in contemporary societies is characterized by polycontextuality
- People need to learn to cross boundaries between communities
Boundary crossing

- People increasingly involved in multiple communities of practice
- The idea of boundary-crossing: emphasizes the potential embedded in transporting ideas, concepts and instruments from one c.o.p. to another
- Boundary-crossing puts emphasis on the new intellectual and practical tools that boundary-crossers or brokers bring into processes of change.
- *Wenger: brokering* describes connections that people provide when they as boundary-crossers introduce elements of one practice into another
- Shared objects that may be only partially shared by the two systems enhance transfer between them
The unit of analysis: two interacting activity systems
The research questions:

- What enhances transfer of knowledge and skills when distance student teachers cross boundaries between school and university?

- How is the relation between individual and institutional trajectories?
Methods and data

- Ethnographic fieldwork: Repeated visits to 5 schools in a rural district from April 2003 to June 2005 (data on 3 schools in this paper)

- Interviewes and observations (data on 3 student teachers in this paper)

- Four online courses enrolled the spring 2005 analysed

- Analysis focus on what and how - the content and teaching and learning methods as well as the online tools

- Unit of analysis: Two interacting activity systems local schools and online course

- Analysis aim to identify what could be possible shared objects
The analyzed online courses

- The courses are part of the initial teacher education
- Chosen to represent the diversity of knowledge in teacher education
- Ethics and spoken language is part of the core content – taught in second of four years
- Colours and shapes is part of the selective textile and craft education
- Science and creative art is part of the youngest pupils programme for primary school teachers

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<th>Students</th>
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<td>Colours and shapes</td>
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<td>Spoken language and performance (Oral performance and phonetics in Icelandic)</td>
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The tool:
Learning Management System (LMS)

- WebCT
- Threaded discussion for communication
  - Teacher – student
  - Student – student – peer communication for collaboration and feedback from students on shared assignments
- Possibility for students to publish their assignments and share it with peer students
- In 2005 the students assignments were in text and picture format (photos, drawings)
- Some of the teachers used soundfiles such as PowerPoint with talk
- Easy access to radio and television online open up for the possibility to use this as learning materials (one course)
What: the content

- Theoretical concept (scientific concepts – Vygotsky)
  - Discipline based: phonetics, physics, biology, visual arts, philosophy
  - Education/pedagogy, curriculum studies

- Procedural knowledge: (Davydov: scientific concepts have to be supported by procedural knowledge in the relevant subject domains)
  - Working methods and the use of specialized tools in the respective subject matter or disciplines
  - Become familiar with the printed curriculum and learn to plan classroom teaching
How: the teaching and learning methods

- Discussion
  - to enhance understanding
  - to clarify assignments
  - to give feedback on assignments shared on the courseweb
  - to help with technical problems

- Assignments tasks based – to practice the procedural side of theories

- Sharing assignments
  - To learn from each other
  - To enjoy participating in a community of learners
  - Practical assignments can be useful in teaching – others ideas used

- From the website:
  - Wow.
  Great ideas, I had not thought of it that way. There you see how important it is to have an opportunity to communicate. Just to see what the others are doing is turning on one’s own ideas.
  Good luck. Best regards,
  Jenny.
The role of the teacher

- Problematic if the teacher does not correct misunderstanding

- From an interview
  - I really like when the teachers encourage us to contribute in web-discussion with our own experience. [...] It gets the discussion going. And then the teacher has to interfere and bring the professional side into the discussion, link it to the learning material. And bit by bit we start to do it ourselves and say like – *I was reading this article and then I saw it was related to that and started to think*…
  - It is important when the teacher arrives doing this kind of things. In the beginning we need a freedom to talk about ourselves, to get a feeling of ownership over the space.
Lilith teaches at Waterside school

- more than 500 pupils situated in the biggest town in the area.
  - over 50 teachers
  
  Since 1993 always some teachers in the distance programme, at first only initial teacher education and later in the graduate department
    - Four to five are enrolled in initial teacher education, seven or eight in the graduate programme specializing in some areas of education

- Lilith teaches one of three classes in the 4th grade. The teachers collaborate on curriculum planning, coordinate the content and methods

- She collaborates with a teacher assistant in preparing inclusive teaching methods in accordance with official school policy

- The principal and two vice-principals collaborate on management

- The principals think that cooperation is an important forum for student teachers to develop their ideas and learn
Three local schools as activity systems

Sara teaches as Coast school

- She teaches in a middle size school with 150 pupils in a fishing industry town with little less than one thousand inhabitants
- Ca 20 teachers in the school and 2005 three of them immigrants
- From 1993 always some teachers enrolled in the distance programme. 2005 four teachers in initial teacher education, two had just finished a diploma in the graduate programme
- The principal was graduating with master’s degree
- usually one class in each grade - each teacher has had the responsibility for content and methods in her classroom.
- collaborative atmosphere has not been cultivated
- Principals were of the opinion that it was needed to enhance a more open professional discussion among the staff - important for further school development
- The classroom and parent cooperation are important for Sara to practice the procedural part of the studies
Small school of 30-40 pupils in a fishing village of ca 300 inhabitants, about 30% foreigners

5-7 teachers may be not all with a full post – 2004-2005 three of them distant student teachers

Teaching staffs very unstable – 3 principals from 2003-2006

30% of the pupils do not speak Icelandic as their first language – parent cooperation needed but not taken care of (Sam)

Sam is teaching 10-12 pupils in the 5th, 6th and 7th grade in one class. He seems to decide more or less for himself what and how to teach, has autonomy to try out methods and ideas he gets in his studies

The school supports neither collaboration nor professional discussion although the atmosphere is welcoming and caring for the pupils’ wellbeing

The ‘ideal form’ or model for professional practice absent
Zone of proximal development

- For individual development, Vygotksy stressed the importance of:
  - Interaction with people in the environment
  - Cooperation with peers
  - Adult guidance and cooperation with more capable peers
  - The role of modelling
  - The zone of proximal development presupposes ‘ideal forms’
    - Ideal forms are based on values and goals attached to the core activities in an activity system.
    - Ideal forms direct the subjects and mediate their actions on the object of activity.

- Obviously, the local schools differ a lot regarding support of this kind for the student teachers.
- ‘Adult guidance’ can be replaced by professional support here.
The schools role in supporting procedural knowlegde

- Pure verbal knowledge based on definition of concepts is insufficient (Davydov)
- The distance student teachers working as teachers are in a privileged situation as they have access to schools to practice – to ground their theoretical learning
- The affordances in the three schools as communities of practice (activity systems) are qualitatively different
- The importance of the environment for individual development
  - Vygotsky (1978) used the concept *internalization* to explain how knowledge gained by experience of participating in human society is transformed into psychological functions in the individual’s mind
Distance student teacher as brokers

- **Brokering** describes connections that people provide when they as boundary crossers introduce elements of one practice into another – many examples can be identified.

- From interview
  - Lilith also mentions, both in her contributions on the course-web and in interviews, how she spreads ideas from her studies in the school where she is teaching. One example is when a special method in teaching children concepts by visualization is presented to them she says: “Actually I have already sent the web-address to the head teacher because I think that this can be useful in all teaching nowadays.” She is clearly transferring ideas from one activity system to another.
Interdependence of individual and social development

- Vygotsky’s dialectical perspective on development: learning of individuals and their social environment is interdependent

- The concept externalization used to explain how individuals use their psychological capacity to act upon their social surroundings and change them

- Externalization is to be understood as individuals’ creative participation in culture

- Just like individual development depends on participation in social life so is development of culture dependent on creative contribution of individuals

- Distance student teachers contribute to the development of both the schools and the university programme by their participation

- Different constraints or affordances in the AT systems
Possible shared object of the schools and the online courses

- Advanced practice of individuals depends on affordances in the environment
- Advanced – or qualitatively better way of functioning of the two system has to build on collaboration on a systemic level
- Collective negotiation of possible shared object
  - Different for the three schools in my study
  - Consider collaboration and ‘ideal form’ as possible shared objects
- My study is meant to inform the kind of interventions needed to promote developmental transfer
- The distance students have prepared the soil by brokering and could be possible change agent