Comparing online mentoring cases in educational contexts in Finland, Australia and Japan

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New understanding and forms of mentoring

- An evolving information society challenges the narrow scope of traditionally mentoring definition (face-to-face interaction between two individuals) (Bierema & Merriam, 2002)
- Mentoring as supporting learning and development as well as sharing of expertise may open up new models for implementing mentoring
- Innovative educators are combining the concept of mentoring with the reach and convenience of new technology (Goldman, 1997)
- Technological advances offer the potential for enhancing the mentoring process: distance mentoring and group mentoring and electronic interaction tools (Mitchell, 1999; Zachary, 2005)
- Online mentoring may take place between peers, one-to-one, one mentor may work with a team, or students may even provide mentoring to their mentors (Bierema & Merriam, 2002)
- New understanding of mentoring is required; mentoring must become less hierarchical, less individualistic, more wide-ranging, and more inclusive in its orientation (Hargreaves & Fullan, 2000)
Online mentoring

- Online mentoring as a relationship between the mentor and the mentee using electronic communication, intended to develop and grow the skills and knowledge of the mentee to help him/her succeed (Garrett-Harris, 2006).
- Mentoring as a partnership between two or more people who want to share and develop a mutual area of interest (Välijärvi, 2006).
- Online mentoring as a broadly understood process of shared expertise, learning and growth that promotes interaction and support for the various parties in a virtual environment.
- Virtual environment is a place for mentoring activities that are supported and facilitated through web-based technologies, tools and applications. It enables synchronous and asynchronous interaction as well as collaborative and expansive learning through the communities of practice.
- A key challenge is to establish the human connection (Zachary, 2000).
- Main benefits: a boundary-free configuration, no geographical limitations, time efficient, more flexible, more time for reflection and learning (Miller, 2000; Megginson et al, 2006; Bierema & Merriam, 2002).
New demands for expertise: From vertical expertise to horizontal expertise, which is rapidly becoming increasingly relevant for the understanding and acquisition of expertise. (Tuomi-Gröhn et al, 2003)

Expertise not only as one individual’s skills, but as a communal know-how of teams and networks (Hakkarainen et al, 2004) and through communities of practice (Wenger 1998).

Expertise is expansive, broader, multi-dimensional, poly-contextual, networked and is built up in many kinds of encounters and collaboration, including crossing borders. (Tuomi-Gröhn et al, 2003)

The development of online mentoring models is based on shared expertise as a reference frame: Virtual environments offer a forum for the meeting of experts and a channel for sharing expertise, problem solving through dialogue and the construction of a shared understanding between the various parties (Helenius & Leppisaari, 2004).

The development of professional expertise in a virtual environment demands new, border crossing and collaborative learning, teaching and mentoring forms and operating modes based on a socio-constructivist paradigm.
Expansive learning and boundary-crossing

- The concept of expansive learning from cultural-historical activity theory (Engeström, 1987) recognises horizontal dimension of expertise and learning, and boundary crossing between communities of practice (Tuomi-Gröhn et al, 2003).

- *Boundary crossing* refers to the act of transcending a settled community and working together with other actors outside the community. Boundary crossing is risky because it requires dialogical problem-solving instead of top-down decision-making (Tuomi-Gröhn & Engeström, 2003).

- Horizontal movement across boundaries is developmentally as important as the vertical movement from incompetence toward competency (Engeström, 2005).

- The development of expansive learning is a challenge for the development of e-learning practices – from an encapsulated learning environment to open environments (Makino, 2006).
Qualitative comparative case study

- A need for further research and development of online mentoring
- Our study aims to describe and compare online mentoring models we have developed and implemented in different educational contexts, and highlight the similarities and differences and the learning enhancing factors.
- Comparison requires each case to be classified under common concepts. The themes to be compared have been established abductive on the basis of online mentoring literature (Miller, 2000; Megginson et al, 2006).
- ‘Understanding’ as method of approach: in the comparison it is important to allow a multilayered context and the multivoices and uniqueness of the cases to ‘speak out’ without forcing them into the one mould.
- The contextual factors include the cultural context the researcher brings with him/her and the unconscious assumptions that relate to the research theme, and difficulties translation presents in maintaining the meaning while the language changes. (Jokinen & Kovala, 2004.)
Online Mentor Project (AVERKO)

Open Online University of Applied Sciences - AVERKO / Central Ostrobothnia University of Applied Sciences - COU

Irja Leppisaari
Riina Kleimola
Project Goals: develop a leverage model with working life orientation, for meaningful online teaching and learning purposes, and support the collectivity and sharing of expertise.
THE STAGES OF THE PROJECT

12 online mentors (working life experts) were recruited to the 10 AVERKO online courses

Online mentors were trained (1,5 cr.) to share their working life expertise on an online course that corresponds to their expert knowledge. The orientation training was carried out as blended learning.

Online mentors worked on 2 to 4 online courses during a year together with the HE teachers. They made their skills available, for example, in theme discussions, mentor forums and feedback on work-based learning tasks. The mentors got paid based on their own hourly pay rate, and allocated, for example, ten hours' pay to those who mentored a course of two credits.

Online pedagogical research was conducted on the project

5. Result Distribution (8/2005-)
ONLINE MENTORS & COURSES

• **Professional Growth (2 cr.):** Work Supervisor / City of Kokkola
• **Health and Safety at Work (2 cr.):** Occupational Health Nurse / Joint Municipal Board of the Health Centre of Kokkola Region Työplus
• **Basics of Social Work for Intoxicant Abusers (5 cr.):** Project Manager / Intoxicant Rehabilitation Unit Ventuskartano
• **Multicultural Issues (3 cr.):** Refugee Counsellor / Immigrant Office, City of Kokkola
• **Multicultural Issues in the Field of Social and Health Care (5 cr.):** Midwife / Central Ostrobothnia Central Hospital, gynaecology ja maternity ward
• **Marketing Services (3 cr.):** Entrepreneur / Advertising and Marketing Agency Heinäkuu
• **Quality Management (8 cr.):** Quality Manager
• **Setting Up a New Business and Planning Business Activities (4 cr.):** 2 Entrepreneurs / Pedrina’s Restaurant

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**Logistics (5 cr.):** Area Manager / Finland Post
**Electronic Commerce (8 cr.):** System Designer / RegWeb, Zonarius Oy
Mentoring as a rewarding and challenging learning experience

• **Benefits:**
  - new theoretical perspectives on a mentor’s practical work
  - opportunity to develop oneself during the process professionally
  - improvement in the online mentors’ communication skills
  - establishment of useful networks with HE institution and its participants

• **Challenges**
  - finding time for mentoring, time management skills
    - The need for "lighter mentoring model", the online mentor available for one or two weeks in a special online mentor forum
  - commitment to communal work
  - the low level of collaboration beween the online mentor and the HE teacher
MENTORING AS A WAY TO DEVELOP NEW PARTNERSHIPS IN TEACHING

• **Benefits:**
  - sharing the expertise and responsibility of guidance
  - improvement in the quality of teaching and guidance
    • As the online mentor was responsible for online discussions, the teacher had more time to give personal feedback, to organise teaching and to guide students in learning the course contents.
  - new ideas for teachers to develop teaching profession and individual skills and to update the online course
  - deeper understanding on expert cultures and prevailing thinking

• **Challenges:**
  - the working with the online mentors was rather individual, side-by-side action rather than a real collective teaching
  - teachers’ insufficient resources for mentoring activities
  - the online mentors were unfamiliar to the teachers
  • Participants should be introduced to each other and their duties well in advance.
Mentoring as an interesting element and a motivating impact

**Benefits:**
- increasing the students’ interest in their subject matter area
- familiarising with real-life expertise and experiences
- improvement in the students’ study motivation and interaction
- new acquaintances and networks with skilled working life experts
- deeper level of authenticity in learning environments
- closer school-work connections and contacts

**Challenges:**
- confusions in identifying and separating the tasks and roles of online mentors and HE teachers
- understanding the potential significance of mentoring and the differences between mentoring and teaching

- The goals of mentoring as well as the roles of the teacher and mentors should be clarified to the students in order to bring added value to their learning experience
Content Production Team Mentoring (ViPoly)

Finnish Virtual Polytechnic

Irja Leppisaari
Central Ostrobothnia University of Applied Sciences

Leena Vainio
Häme Polytechnic, University of Applied Sciences
Online pedagogical support for content producers

- Four hundred and fifty teachers in 50 production teams are producing learning objects in production teams arranged by educational area and specific subjects during 2004-2006.
- The *Online pedagogy and research project* (2005-2006) pilots and develops an online mentoring model to support the production of pedagogically high quality learning objects.
- 13 online mentors with experience in online pedagogy were recruited from companies and polytechnics to act as pedagogical mentors.
- Eleven production teams (11/50) made use of mentoring.
- Quality criteria were developed for LO and course modules, which support content producers and mentors.
- Learning objects (LO) are individual and compact multimedia and hypermedia based 'teaching material segments', or curricula, which can be used in different learning processes and at different stages of the learning process (Silander, 2003).
Online mentoring as a pedagogical support

- Pedagogical support in this context means the collective analysis of pedagogical questions, phenomena, and observations in order to further develop thinking about online pedagogy and LO

- Online mentoring is
  - seen as a means of development and improvement, dialogue, and formulator of best practices
  - defined as the interactive guidance and support given by a competent and experienced worker to polytechnic teachers at a turning point in their careers as they find themselves in the online education development process

- The mentor is a discussion partner in the identification and solving of questions relating to pedagogical quality of LO

- The mentor distributes specialist knowledge and experience in the interactive process taking place within the virtual environment

- Orientation meetings were used to train mentors for their task and with the help of monthly mentor meetings via TeamSpeak mentors were able to make use of each other's experiences and support
VIRTUAL WORKING: logi, web portal, Internet telephones, e-mail

ONLINE MENTORING MODEL

(Leppisaari & Vainio 2006a)
Regular structured sessions in establishing the relationship

- Key factors in maintaining the mentoring process were regular, well prepared mentoring sessions.
- The effective online mentoring sessions are of necessity more structured and that the best results were achieved via Internet telephones.
- Mentoring has been especially successful when both mentor and mentees have worked in a goal-oriented way and have been committed to establishing the relationship.
- Commitment to the mentoring process and effective communication are possible through virtual tools.
- A personal meeting between the mentor and the group at the start of the mentoring process can speed up the process, but is not a prerequisite for an effective mentoring relationship.
- The work practices of production teams should be developed so that they facilitate online group mentoring.

(Leppisaari & Vainio 2006a; 2006b)
A blended mentoring model seems to support the pedagogical needs of several production teams more effectively than online mentoring alone. Partly this may be a question of unfamiliarity with a new work culture, and guidance on creating a working model for an online mentoring scheme is needed.

There is a need in online mentoring to increase the use of synchronous discussion tools, which would strengthen interaction.

The challenge now is to combine multimodal communication forms to promote richer interaction in the mentoring process.

The task developed the online mentors' professionally and it was felt to have a transferable effect into the mentors' actual work and work community.

A dynamic mentoring interaction that works and is based on the motivation and sharing of expertise by both parties and the situation-specific discovery of appropriate work habits online become significant challenges in this pilot. (Leppisaari & Vainio, 2006a; 2006b.)
City to Surf (CityS): Online Collaborative mentoring in Australian schools

Elizabeth Hartnell-Young
University of Nottingham
City Surf to the mentorschool the protege school
the mentor school

LEARNING * FRIENDS * COMMUNITY
City to Surf (CityS)

- In this Australian project between two primary schools, one, in the suburbs of Melbourne (City), had a long history of computer use, while the other, 150 kilometres away on the coast (Surf) had less experience but the necessary computer resources and the motivation to use them purposefully.
- The mentors (principal, teachers and students) came from within City school, and each related to a peer at Surf school.
- Teachers opened their classrooms to researchers who were invited to observe and document.
- Both principals crossed their institutional boundaries, communicating regularly by email and video-conference to plan, manage and evaluate progress within a strategic framework, and opening themselves to new ideas from outside.
- Similarly, teachers from both schools worked together to plan a unit of inquiry which could be undertaken collaboratively by students, and maintained a peer mentoring relationship throughout.
- The boundary objects that supported this practice included the statewide curriculum frameworks with their common language, the telecommunications infrastructure that supported voice and data transfer and the schools’ selection of compatible software such as Microworlds and NetMeeting. (Hartnell-Young, 2006.)
Levels of Online Collaborative Mentoring

- Principal – Principal
  *(modelling, giving authority, reflecting)*
- Teacher-Teacher
  *(planning, implementing, learning)*
- Student – Student
  *(collaborating, learning)*

Tools of Mentoring

Desktops, Webcams, NetMeeting, Local intranets, Internet, PPT
Sharing teaching and learning roles

- Teachers found that the quality of interactions increased when they created more time and space for student action and reflection.
- Students were accustomed to participating in decision-making about project content, appropriate software, collaborative processes, production values and assessment of finished products, but they needed more time to discuss with the online team members. Video-conferences were lengthened to allow for more dialogue, questioning and feedback.
- The collaborate function of NetMeeting software allowed students to view each other’s developing products prior to merging them into one seamless presentation.
- An important part of the teachers’ mediating role was to reach the objective of students learning how to learn. In a community of knowledge builders everyone needs to know how to teach and how to learn, to be at times an expert, and at other times a novice.
- In the classroom communities of practice, teachers and students were consciously sharing teaching and learning roles, depending on their expertise in relation to particular tasks.

(Hartnell-Young, 2006.)
The introduction of technology had encouraged teachers to realise that they too were learners, and to relinquish some power while using their expertise in the processes of teaching.

Hartnell-Young, 2003
Crossing the boundary between communities

- Participants believed that the video-conference model was very successful, as it acted as a conduit for discussion with a peer and a window into each others’ classrooms, particularly between the two schools, thereby crossing the boundary between the individual communities. → The closed-door syndrome is out there.

- A shift in discourse was noted among teachers using the video-conferencing technology: they began to refer to this as ‘face-to-face’ communication because it was both visual and synchronous.

- Surf school made time in the week for electronic journal-writing, and the resulting journals showed participants’ varying comfort levels with the mode of reflection, as well as differing levels of reflection on substantive issues. → Through these journals, opportunities for project improvements arose, and the coordinator acted on issues as they came up.

- The City to Surf community was very strongly influenced by its champion, the coordinator at City school, however it took on flexible policies and guidelines based on experience over time. (Hartnell-Young, 2006.)
Embedded Experiential (ee)-Learning

- The experience showed that purposeful, authentic online teacher learning can be embedded in (rather than attached or added on to) collaborative curriculum projects, and that teachers and students can act as mentors for others.
A Design for Expansive Learning with Information and Communication Technology

ELICT

Yukari Makino
Kansai University
Integration of vertical and horizontal developments

- Makino (2006) developed the concept of ELICT (Expansive Learning with Information and Communication Technology) and designed an activity system in which the vertical and horizontal developments are integrated into a single curriculum.

- In the spring semester of 2005, the curriculum was implemented with 11 students in a seminar course at Kansai University in Japan.

- As vertical development, students work on message construction based on the knowledge and skills of rhetoric and then apply it to video clip making. The portion of the curriculum dealing with vertical development was performed as classwork.

- As horizontal development, they present their video clips to the public through a weblog and ask the anonymous audience for critical analysis.

- This creates an open and flexible learning environment, which includes the vertical accumulation of knowledge and skills and the horizontal movement of different communities across borders.
Anonymous mentors via weblog

- The teacher set up a personal weblog for horizontal development; she introduced the idea of a transparent classroom, explained the objective and procedure of the pilot study and invited the audience to participate in the activity system in her weblog.
  - As a result, those who were interested came together naturally.

- The teacher encouraged them to present their video clips regardless of quality in order to support learning.

- The access record of the teacher’s weblog increased to an average of 30 per day and two kinds of anonymous mentors became active participants: a team of university students who were also managing their group weblog, and a graduate student who was extremely familiar with film grammar and also owned his personal weblog.

- The teacher played the role of “mediator” by linking the students and the mentors. The multiple dialogues through these weblogs included various connections among the students, the anonymous mentors, and the teacher. (Makino, 2006)
Dialogical Connections among Students, Anonymous Mentors, and Teacher (Makino, 2006)

Horizontal Development

Vertical Development

Classwork

Students

Rhetoric

Video Clip

Teacher

Teacher’s Weblog

Video

Video

Mentor 1’s Weblog

Mentor 2’s Weblog

11 students of Kansai University in Spring of 2005
Conclusions

**Vertical Development** - Message Construction
- The students improved their knowledge and skills with regard to verbal and nonverbal message construction.

**Horizontal Development** - Learning expanded externally and internally
- The students, the teacher, and the anonymous mentors experienced and shared the outcomes of boundary crossing and networking through self-reflection.
- The human network expanded not only externally but also internally within the community; this vitalized the entire activity system.

**Future Issue** - Diversity in the horizontal development
- The online community was rather homogeneous because the critics were all university students with an interest in filming. → The diversity of the expansion was not as dynamic as the real world.
- The question of how the horizontal development can be organised more dynamically remains a future issue. (Makino, 2006)
ELICT Between School and Work

Layer 1
- Digital TV
- Mentoring by Teacher Student
- Weblog
- Core Curriculum
- Open Mentoring by Working Life Expert

Layer 2
- Broadcasting
- Return Channel

Layer 3
- Broadcasting
- Comments Trackbacks
Case comparisons

- The online mentoring projects/cases are compared in the following table
  - using the literature (Miller, 2000; Megginson et al, 2006)
  - and themes derived from earlier studies of these cases as a basis.

- Each theme is described briefly and the comparisons help the reader to find the core content of each case. (See table 1.)

- Tutkimuksemme tavoitteena on casien vertailun avulla tarkastella verkkomentororoinnin haasteita ja mahdollisuuksia in educational contexts
<table>
<thead>
<tr>
<th>Comparison themes</th>
<th>AVERKO / Finland</th>
<th>ViPoly / Finland</th>
<th>CityS / Australia</th>
<th>ELICT / Japan</th>
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</thead>
<tbody>
<tr>
<td>a. purpose of project</td>
<td>Developing a leverage model with working life orientation for online learning purposes: - reinforcing relationship between HE and working life - improving quality of online education</td>
<td>Online pedagogical consultant and quality assurance of LOs by pedagogical discussion</td>
<td>Collaborative learning for students and teachers and Leaders Improving leader and teacher practice</td>
<td>Curriculum design (integration of vertical &amp; Horizontal development into a single curriculum) Curriculum implementation (practice of the idea of transparent classroom in a university seminar course)</td>
</tr>
<tr>
<td>b. mentors and their tasks</td>
<td>Working life experts, to share their knowledge and experiences online in AVERKO courses with HE students and teachers</td>
<td>Online pedagogy experts, discussion partners in the identification and solving of LO pedagogical quality questions</td>
<td>Principals, teachers, pupils (peers) Planning appropriate curriculum activities, Coaching in technology skills, Giving feedback</td>
<td>Anonymous mentors Anonymous critic, peer critique</td>
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<tr>
<td>c. methods of mentoring</td>
<td>Online group mentoring</td>
<td>Individual / group mentoring/f-2-f and online</td>
<td>Peer &amp; group mentoring, mainly online but occasionally f-2-f</td>
<td>Open mentoring thorough dialogues on weblogs</td>
</tr>
<tr>
<td>d. role of a mentor</td>
<td>Expert on some subject matter area/ unknown to mentees</td>
<td>Expert on online pedagogy Unknown to mentee / mentees</td>
<td>Expert in computer skills/known to mentee</td>
<td>Give feedback/ Unknown to mentee</td>
</tr>
<tr>
<td>e. recruitment of mentors</td>
<td>By contacts of HE staff, by net</td>
<td>By net</td>
<td>Managed by school-based coordinator</td>
<td>Open, No selection</td>
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<td>f. Mentor paid unpaid</td>
<td>Paid</td>
<td>Unpaid</td>
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<td>Unpaid</td>
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## Case comparison

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<tr>
<td>g. training and support of mentors</td>
<td>40 h, f-2-f-meetings, online environment, ongoing consult, group meetings (f-2-f)</td>
<td>6 h beforehand, consult during process, monthly meetings by TeamSpeak, few f-2-f</td>
<td>Ongoing throughout project</td>
<td>No training Teacher as a mediator with in process</td>
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<tr>
<td>h. length of a mentoring process</td>
<td>1,5-3 months</td>
<td>12-21 months</td>
<td>6-12 months</td>
<td>3 months</td>
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<tr>
<td>i. benefits of mentoring</td>
<td>Learning and networking, real working life problems and experiences as well as new ways of thinking or doing can be built in online education</td>
<td>Learning by both mentors and mentees. Discussion facilitated the setting of LO quality criteria, of benefit to all production teams</td>
<td>Learning by both mentors and mentees</td>
<td>Expansive learning through boundary crossing / a transparent classroom instead of encapsulated environment</td>
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<td>j. challenges of mentoring</td>
<td>The commitment of the mentors, need for a lighter model for working as an online mentor, clarifying the mentor's role and duties, informing the students about mentoring, training of mentees</td>
<td>Time for discussion and collaborative working in teams. Study to use communication tools. f-2-f meeting at the start of the m-process, multimodal communication forms to promote a richer interaction</td>
<td>Time to plan, time to access online communications, limitations of telecommunications infrastructure</td>
<td>The community likely to become homogeneous</td>
</tr>
<tr>
<td>k. mentoring Environment / virtual tools</td>
<td>WebCT, email</td>
<td>Logi, Web Portal, email, Internet telephones</td>
<td>Video conference, email</td>
<td>Weblog</td>
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<td>l. role of program</td>
<td>Planning and organising mentoring, training, reflecting with teachers/students/</td>
<td>Coordinating the mentor program, consulting, mentoring, documenting, producing</td>
<td>Planning, managing documenting</td>
<td>Designing an activity system for expansive learning, managed open access to</td>
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<td>coordinators/researchers</td>
<td>mentors, evaluating, documenting</td>
<td>material and training</td>
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<td>a weblog, &amp; mediating the multiple dialogues by linking mentors and learners</td>
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<td>m. mentors self-</td>
<td>Mentoring journal, group interviews and discussions</td>
<td>Mentoring journal partly, interviews, group discussions</td>
<td>Reflective journal</td>
<td>Comments on the weblog</td>
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<td>reflection</td>
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<td>n. evaluation and</td>
<td>Action research approach, conference papers, reports for steering committee</td>
<td>Action research approach, conference papers, interviews, reports for steering</td>
<td>Action research approach, Manual prepared in advance, conference</td>
<td>Assessment of learning outcome by analyzing the dialogues with rhetorical</td>
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<td>quality assurance</td>
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<td>committee</td>
<td>papers</td>
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Main differences and similarities

Differences

- Three cases have in common a curriculum-context implementation and in one case there is the issue of course material production
- Two cases (ViPoly and CityS) have a greater emphasis on the professional development of teachers
- The teachers’ mediating role (CityS and ELICT)
- Educational systems can create mentoring boundaries

Similarities

- Learning can be effectively supported through online mentoring
- The specific purpose of mentoring is to establish opportunities for insight and not disseminate information
- The mentoring model in the educational contexts is *developmental mentoring*, a question of a mutual growth process
- Mentors felt they received valuable benefits and mentoring enables the sharing of accumulated expertise
- In all cases boundary crossings occurred in some way
New openings for online mentoring

Features different from traditional mentoring

- Mentoring occurred as part of a group rather than within dyadic mentoring relationships
- A new implementation is anonymous mentoring (ELICT), which can be developed towards open mentoring
- Short-term mentoring relationships were typical
- The mentoring between educational organisations (CityS, ViPoly) and outside mentoring (AVERKO, ELICT)

Networking and boundary-crossing

- Traditional teacher and learner roles were transcended
- Online mentoring
  - gives the school access to a wider “virtual community” and this enriches the learning and the development of expertise
  - enhances situated and authentic learning and helps to integrate theory with practice
  - guides us towards integrated learning environments and open solutions
Ongoing support throughout mentoring process

Process and techniques – virtual tools and reflection

- Learning process should be allowed to evolve throughout the process, but on the other hand there is obviously a need for certain structure and techniques
- Diverse virtual tools and interaction channels, also synchronic, should be utilised → At their best virtual communication tools and techniques provide reflective space

Training, briefing and ongoing support

- Online mentors need training and ongoing support through of regular mentor support sessions or personal guidance
- Specifically the mentors’ mutual sharing of experiences and peer learning needs to be more strongly supported
- Training material for different online mentoring applications
- Both the mentor and the mentee briefing so that the mentees would have taken a more active role in the process and been able to benefit from mentoring to a greater extent.
Horizontal expertise through boundary crossings

- Online mentoring, making flexibility in time, pace, and place possible, offers a contemporary method of facilitating learning in an evolving information society.
- Learning for improvement can be achieved by the use of virtual environments and various support tools, best through a blended solution.
- A community of practice model, where the mentor is at times an expert, but at other times a novice, is helpful in analysing online mentoring contexts.
- Online mentoring seems to encourage professional knowledge sharing and cross-boundary collaboration.
- This first comparative research of our projects presents many starting points for issues we would like to investigate further; roles of mentors and mentees, training required for various participants, notion of community and working life connectedness.
- Online mentoring assists in the creation of a educational culture where the sharing of expertise will become general practice and expansive learning and horizontal development through boundary crossings will be developed.
References


