

On the Issue of TPD (Teachers' Professional Development) in an OLC (Online Learning Community) as TEL (Technology Enhanced Learning)

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It is sometimes assumed that teachers in an informed way shall embrace TEL (technology enhanced learning) in their practices. In this article, it is argued that TPD (teachers' professional development) for this purpose can be a part of their engagement in an OLC (online learning community), and we ask the questions—How can professional development be understood in relation to TEL? For what contents and in what form can TPD in an OLC have a potential to transform teaching? It is suggested that OLCs have the potential to through TEL make teachers implement technology in their practices to enhance learning and that this is an effective form of TPD, since teachers in an OLC at first hand answer to their own demands or that from colleagues. In this article, we elaborate on the possibilities and limitations of the OLC for TPD in terms of content and form. Six different OLCs for TPD are chosen to serve as examples on the diversity of forms and contents possible to focus.

Keywords: digital competence, Nordic countries, OLC (online learning community), TPD (teachers' professional development), TEL (technology enhanced learning)

Introduction

It is sometimes assumed that teachers through the informed use of ICT (information and communication technology) should embrace TEL (technology enhanced learning) in their school practices. Their teaching should promote a digital literacy, and teachers should therefore consequently also display a digital competence. For this purpose, teachers need to both develop their own use of technology and integrate them in practices relevant to schools (Rosado & Bélisle, 2006). Teachers seem to be in need of professional development for this purpose (Ottenbreit-Leftwich, Glazewski, Newby, & Ertmer, 2010). In this short article, it is argued teachers engagement in an OLC (online learning community) can serve their need for professional development for this purpose, and in the article, we are guided by the questions—How can professional development be understood in relation to TEL and can TPD (teacher professional development) in an OLC have the potential to transform teaching with technology? We put forward that OLC can contain this potential and TPD through OLC can contribute to making teachers implement technology in their practice in order to enhance the pupils' learning. In the OLC, teachers can develop digital competencies, and through the use of the OLC as an example of TEL, they can also increase their understanding for how TEL can be of high relevance to their profession. TPD

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through OLC contributes to the teachers being more than just knowledgeable in using technologies for communicative and administrative purposes.

In policies at an EU (European Union) level, digital competence has been described and related to digital literacy. Gilster (1997, pp. 1-2) defined “digital literacy” as:

The ability to understand and use information in multiple formats from a wide variety of sources when it is presented via computers. The concept of literacy goes beyond simply being able to read; it has always meant the ability to read with meaning, and to understand. It is the fundamental act of cognition.

Rosado and Bélisle (2006), following Gilster’s definition, analysed 10 different frameworks for digital literacy and they conclude by saying that teachers face a challenge to change their understanding of their activities to a constructivist approach and have a socio-cultural understanding. The question of digital competence and the related question about TEL and the importance of TPD in order for the teachers to embrace technology in their teaching have been discussed rather intensively the last ten years or so in the Nordic countries. But what can be said about the current situation in Nordic schools regarding both teachers’ use of ICT and their digital competence? In the inter-Nordic study, e-learning Nordic 2006 impact of ICT on education, one of the major findings were that pupils, teachers as well as parents believed that ICT had a positive impact on improving pupils’ performance. In general, ICT was said to have a positive impact on teaching and learning, but, and most importantly, its revolutionary impact on teaching and learning processes in schools was also expected to be greater. It might be concluded that this is due to the teachers’ digital competence being on a not satisfactory level. In Sweden, the Knowledge Foundation has continually investigated pupils, teachers and school leaders’ attitudes toward ICT and the use of ICT in schools. The Knowledge Foundation’s (2006) study showed that only half of the teachers themselves assess their knowledge on ICT to be good enough. Of the teachers, more than a half use computers during their lectures at least once a week or more, but eight of ten teachers used computers daily outside of lectures. This might suggest that teachers’ use of ICT is different outside of the classroom. Especially, the C in ICT, communication, had increased greatly. Communication via e-mail between teachers and pupils were reported by seven of ten teachers and communication with the parents via e-mail by six of ten teachers. This suggests that in relation to informed choices needed in complex pedagogical settings, teachers have the knowledge about ICT, but lack the knowledge of how to use ICT for pedagogical purposes, and especially how to facilitate TEL. In relation to informed choices needed in complex pedagogical settings, there seems to be little guidance. What seems to be needed in order to develop the use of ICT in schools is an understanding of how to use ICT for pedagogical purposes in relation to a specific content matter and develop a critical and reflective attitude towards the available sources for learning (compare Mishra & Koehler, 2006). One crucial question is how this can be brought about. Instead of relying on large-scale initiatives from a governmental level for this to be brought about, we suggest that support for a digital competence for teachers can include supporting their engagement in OLCs for cultural, social and/or professional purposes, in planned and unplanned, formal as well as informal settings.

OLC (Online Learning Community)

In the past decade, ICT has continued to develop. The emerging of the Internet and Web 2.0 today allows people to socialize with others using, for example, Twitter, Facebook, Blogs and Wikis, tagging and sharing information. The personalization of the Web, the possibilities to reach out to and become a part of the world

now take place in ways unprecedented two decades ago. This makes technology a means for creating new forms of being together in what we can describe as OLCs. Trying to understand what constitutes an OLC seems not to be an easy task (Preece & Maloney-Krichmar, 2003). One way is to consider its basic constituents, which could be considered as, people, purposes and policies (De Souza & Preece, 2004) and activities and tools (Carlén & Jobring, 2005). Teachers participating and communicating with others in an OLC are, in one way or another, active in a process of professional growth and development. From this position, there are apparent possibilities for an OLC to foster its members and for a membership in an OLC to harbor processes of learning and development. The OLC is characterized by flexibility in time and space, providing teachers an arena for dialogue and meaning-making concerning teaching practices. Structure, project form, or demands for participation from others than the teachers seem to be of less importance. In an OLC, the teachers at first hand answer to their own demands or that of colleagues. According to Vrasidas and Glass (2004, p. 3), “Innovative professional development for teachers will involve opportunities for teachers to share their expertise, learn from peers, and collaborate on real-world projects”. OLC and TPD could, therefore, be seen as endeavors for both understanding TPD, framed within OLCs and understanding the design of virtual arenas in which teachers have possibilities to develop into what Triggs and John (2004) called an “enabled professional”, i.e., “One who has the capacity to respond to changing conditions, anticipate future technologies and re-define their practices, so that they are enabled rather than constrained by external policy agendas” (p. 427). A kind of arenas in which teachers through the use of TEL themselves also can embrace an understanding of how TEL can be implemented in their school practices. One issue in need of more elaboration is the OLCs possibilities and limitations in terms of content and form when it comes to contribute to teachers’ professional development in their practice.

Six Examples of Online Learning Communities for TPD

In this short article, we elaborate on OLC in terms of content and form (from a framework inspired by Fraser, Kennedy, Reid, and McKinney (2007) and Villegas-Reimers (2003)). In relation to the content of professional development, two dimensions are used: (1) personal, social and professional; and (2) a continuum from transmissive, through transitive to transformative. And they also are coupled with an understanding for the content as being: (1) a part of a process in a specific context; (2) closely related to school reforms; and (3) professional development can be diverse in different contexts. In relation to the form of TPD, we use the two dimensions: (1) formal-informal; and (2) planned-unplanned, together with teachers’ professional development being: (1) based on constructivism rather than transmission; (2) professional development as an on-going collaborative process; and in which (3) teachers are understood as being reflective practitioners.

Here, six different OLCs for TPD are chosen to serve as examples on the diversity of forms and contents possible to focus. The six OLCs comprise three cases described in Lindberg and Olofsson (2010): The IFL (Inquiry Learning Forum) (Scheckler, 2010), TTP (Transformation Teachers Programme) Haringey CLC (City Learning Centre) (Pachler, Daly, & Turvey, 2010) and FOR-PD (Florida Online Reading Professional Development) (Zygouris-Coe & Swan, 2010), and three cases from other sources: Lektion.se (Olofsson, 2010), MirandaNet Fellowship (Preston, 2008) and Peda.net—skolnätverk (school network) (OECD, 2008).

Scheckler (2010) described the ILF as an online community of practice for professional development. Between 1999 and 2006, ILF was financially supported and designed for the purpose to meet the needs of pre-service and in-service teachers who were interested in using inquiry pedagogies in their math or science

classes. Initially, an analysis was carried out by researchers involved in the IFL which indicated that teachers wanted to visit the classrooms of other teachers, but time constraints made such visits nearly impossible for the active teacher. For that reason, the ILF was designed around the metaphor of TPD as visiting the classrooms of teachers already using inquiry pedagogies. In the IFL, its members can choose to visit classrooms, a library of inquiry resources, lounges in which to discuss teaching problems and solutions, rooms to learn about and practice inquiry skills, and storage space to share and work on joint lesson plans.

Pachler et al. (2010) described the TTP as an ongoing continuing professional development initiative in the London Local Authority of Haringey which started in 2007. According to the researchers, it seeks to build a collaborative learning community among teachers. It shall enable teachers to get familiar with and use technologies in order to enhance pupils' learning. Within the TTP, technologies are understood as playing an important role for TPD and for making an impact on the teachers' beliefs about technology, but this cannot happen without a "transformed" workforce, capable of harnessing the potential of technologies in new and creative ways. TTP brings together teachers from a range of curriculum areas. What they all share is that they have been identified by their school leaders as outstanding practitioners, but not with any particular expertise in using technologies in their teaching. The aim is to facilitate a programme by which the teachers become a part of a learning community which fosters and supports their own TPD and is part of a wider pattern of networks which bring about change in their schools related to, for example, TEL.

Zygouris-Coe and Swan (2010) described the FOR-PD (Florida online reading professional development) as Florida's first large-scale statewide online professional development project. The most important aspect for FOR-PD is to function as a delivery mechanism for improving teaching methods in pre-K-12 reading instruction. It was carried out in form of an online course which was designed to enable pre-K-12 teachers to keep up with emerging standards, current scientifically based research, best instructional practices and the ever-changing literacy needs of an increasingly diverse group of pre-K-12 students. The mission of the FOR-PD project is summarized by Zygouris-Coe and Swan in five points: (1) supporting the FLDOE (Florida Department of Education) in its statewide implementation of a reading professional development system using online delivery; (2) serving as a model for reading professional development online delivery; (3) translating and effective strategies to help all children learn proficiently; (4) increasing teachers' knowledge about reading; and (5) improving curriculum, reading instruction and student learning.

Olofsson (2010) described Lektion.se as the largest informal OLC for teachers, teacher trainees, school leaders and other stakeholders in Sweden. Members of Lektion.se share an interest of different issues concerning, in a broad meaning, the practice of school. It started in 2003 and originally this OLC was built for one main reason—to make possible for teachers to publish, search and download lesson plans. Activities have already from the beginning been provided free of charge. It has always been member driven and can be described as flexible in time and space. Discussions in the forums are built up as threaded discussion. As a discussant, you have the possibilities to get a notice every time and a new message is written in those forums you follow. Additionally, there is the possibility to create your own page and private networks or groups.

Preston (2008) described the professional organization MirandaNet Fellowship as an independent organization. The fellowship was established in 1992 and since then, members from education, government and industry have joined MirandaNet Fellowship due to their passion for using digital technologies in the transformation of teaching and learning in schools. Although these so-called fellows are focusing on the uses of digital technologies in education, Preston described that it has taken nearly a decade to establish what can be

understood as effective online learning within the community. According to Preston (2008), UNESCO (United Nations Educational, Scientific and Cultural Organization) has also described MirandaNet Fellowship as a successful “community of practice” that currently effects change in teaching and learning worldwide. The fellowship awards scholars a fellowship when they publish in the knowledge base, a “shared practice” that is stored in several ways in the Web knowledge-base which is open to visitors. Much of the day-to-day communication takes place in the listserv, the so-called mirandalink. This listserv is though not open to non-members. In order to capture ongoing developments in seminars and debates, MirandaNet Fellowship for instance uses webcasts and online forums. Summaries of the internal discussion are also archived on the listserv for later use.

When describing Peda.net, OECD (Organization for Economic Co-operation and Development) (2008) did it in terms of as a subscription-based service that emerged out of a minor, regional research and development project located at the Finnish Institute for Educational Research, University of Jyväskylä, Finland. It is said that Peda.net currently provides both municipalities and individual schools throughout Finland with access to several resources: firstly, a virtual learning environment; secondly, a portal that allows teachers to create, collect, modify and share information or materials; thirdly, a WebMagazine authoring tool; and fourthly, a tool for writing, maintaining and publishing the school curriculum. The fee for being part of Peda.net and to get a membership follows certain logics. The fees are always dependent on the size and the number of schools in a municipality or the number of pupils in an individual school. According to OECD, the Peda.net has a clearly pointed out learning curve for its users, it contains user-friendly tools and the users are continuously involved as co-developers of the technology tool set. It is also put forth by OECD that the development team involved in Peda.net comes from an academic background and that the intentions are that the tools should be “pedagogically neutral”. Peda.net is said to host effective teacher training and support and have an affordable subscription model.

With these short descriptions as a point of departure, a meta-analysis on the six OLCs with the feature of being arenas for TPD is presented in Table 1.

Table 1

The OLCs With Focus on Content and Form

OLC	IFL	TTP	FOR-PD	Lektion.se	MirandaNet Fellowships	Peda.net—skolnätverk (school network)
Content	Transformative, social, professional, mathematics and science	Transformative, social, professional and digital technology	Transformative, social, professional and reading practice	Transmission, personal, social, professional and participation-driven	Transformative, personal, social, professional, ICT and democracy	Transformative, social, professional and ICT
Form	Informal-formal, collaborative and constructivist	Informal-formal, collaborative and constructivist	Informal-formal, collaborative and constructivist	Informal and collaborative	Informal-formal, collaborative and constructivist	Formal, collaborative and constructivist

Discussion and Conclusions

It seems to be quite a few general questions worth noticing in relation to TPD. For example, how professional development for teachers shall be understood? To what extent, teachers have the possibility to be professional without governmental steering regarding the options and choices teachers that are confronted within their practices and in relation to aspects of digital competence? What is the answer from the profession

on how teaching ought to be conducted and on how TEL should be practiced? What are the answers given in the way governmental steering can be understood? All these questions, one by one, or together, are important questions for further research. In this short article, questions like these are noted and in a way tried to be understood when framed in an online arena, OLC. We have done an attempt to investigate and analyze how OLCs are possible to understand as providing possibilities for TPD in terms of TEL in order for the teachers to develop a digital competence and embrace an understanding of using TEL in their school practices.

What can be especially noted from our short meta-analysis is that one question for future research is whether the OLC, in terms of content, contain limitations and if there are forms of OLCs that might be limiting its potential, if it is open for content being personal, social as well as professional. It could also be interesting to recognize if the OLCs can function as a type of TPD through Net-based education with potential beyond the formal educational system. In line with a constructivist perspective, the OLC embraces a potential where competence is possible to validate outside formal educational contexts. One might also ask whether the OLC can be a site for TPD which already assumes a basic competence related to the use of computers and the Internet. Teachers use computers and the Internet to communicate with students and parent, and they use it more outside of teaching than within their teaching or school practice. If an OLC can support teachers to integrate ICT in teaching, an OLC might be a place for teaching to be enhanced by technology. But if so, are there digital competencies developed and are there pre-requisites in terms of technological as well as pedagogical competencies? What is a basic digital competence for the OLC? The OLC and its perhaps transformative potential might be an answer to the often failed initiatives to cultivate the teachers' digital competence through TPD, and thereby, to create a foundation for TEL in schools.

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