Research Article

Implementing blended learning, in the form of a learning network, to enhance social learning

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Abstract

This study is an extended professional project exploring how new employees perceive the benefits and challenges of a blended learning approach, the ways in which a learning community can contribute to this and what the implications of using such an approach implies for my practice as a trainer. This research is conducted within the context of the *Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding* (VDAB), or the Flemish Employment and Vocational Training Agency, which is the public employment service of Belgium's Dutch speaking region. The project involved the basic pedagogy of one specific course, and a specific employee group of new instructors, as part of their mandatory training. The blended learning approach is a combination of face-to-face with online learning. The latter includes synchronous sessions, namely *Hangouts*, as well as asynchronous learning, involving an online learning community. The research followed the exploratory single case study methodology and involved two stages: a preliminary survey to obtain participants' background information; and a qualitative content analysis of the online community, involving participant-observations and semi-structured interviews. The study showed that a blended course not only requires more preparation time, but also different trainers' skills. Although some benefits were acknowledged, i.e. user-friendliness and time- and place independency, it was the lack for socialization, i.e. direct and informal interactions with peers, that was disliked mostly. With regard to the learning community the teacher's predominance was striking. The implications of this for improving the employees' digital skills are discussed and some specific recommendations are made.

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Introduction

The extended professional project described in this article took place within the context of the *Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding*, in short VDAB, or the Flemish Employment and Vocational Training Agency (VDAB 2013). VDAB is part of the Flemish Government Administration and is the public employment service of Belgium's Dutch speaking region (VDAB 2014). VDAB has an own learning and development (L&D) department, called *Spoor 21,* which is part of the HR department. Its main mission is to enhance all VDAB employees' professional competences (VDAB Spoor 21 2014b). One of the courses I focus on, being a member of this department, is the basic pedagogy course for new instructors. Since 2010 VDAB has a growing interest in using e-tools for its services. The technological possibilities increased along with the improvement of the IT-infrastructure and the implementation of the Google Apps for Business. These tendencies resulted in new opportunities for the organization, e.g. for *Spoor 21* to explore blended learning methods for some courses in the near future. This extended professional project was a first comprehensive attempt to transform the basic pedagogy course for new instructors (VDAB Spoor 21 2014a) into a blended learning approach in order to provoke the learning from peers, i.e. to enhance social learning.

Research questions

This research focused mainly on the perceptions of the involved participants and trainers with this new approach, resulting in the following three research questions:

1. What are the perceived benefits and challenges of blended learning for the development of the pedagogical skills of new instructors at VDAB?
2. What do participants understand to be the ways in which a learning community can contribute to a blended learning approach?
3. What are the implications of using an online learning environment for my own practice as a trainer?

Key concepts

The general aim of using a blended approach is to enhance social learning, i.e. emphasizing the relevance of learning with and from others. The rise of social software in the last decade created new opportunities, which can enhance the way employees learn (Shirky 2008, Minocha 2009, Sloep et al. 2011). As social learning includes many formats or methods, this research focused on

creating a learning network (Drijkoningen 2012 Sloep et al. 2011, Hart 2014), which seems to have some similarities with a Community of Practice (Wenger, McDermott and Snyder 2002, *Situated Learning* 2014), but also has some distinct differences. The learning network used here contained some activities in the traditional classroom, but supplemented with an online (asynchronous) community and online synchronous learning sessions (Steed 2011), thus creating a powerful blended learning concept (Wolpert-Gawron 2011).

General tendencies

In general there is a growing interest in social learning or new ways of learning to increase formal, non-formal and informal learning in the workplace, due to the impact of knowledge on the economies that changed rapidly in the past decades (OECD 1996, Sloep et al. 2011). Consequently there is also a shift from lifetime employment to employability (Sloep 2008), which implies that the knowledge worker has to learn fast and continuously in today's rapidly changing workplace environment (Sloep et al. 2011). Another tendency is the exponentially evolving information technologies in response to the new demands for the knowledge-based economy, and thus for learning (OECD 1996, Pallof and Pratt 2007). The evolution of the web from 1.0 into 2.0, made it possible to explore new ways of learning, hence the Web 2.0 offers options to improve knowledge sharing, networking, collaborating and active participating (Hulsebosch and Wagenaar 2011).

Learning theories

These tendencies paved the way for a growing focus on the social aspect of learning, which became an increasingly thread in the ever changing learning theories over the years. Behaviourism (Ally 2008, Lowerison 2004) mainly stressed that learning only occurs when an observable change in behaviour is noticeable, thus implying a trainer-centred approach. In this setting technology had only a facilitative part to play.

In response to Behaviourism came Cognitivism (Ally 2008, Lowerison 2004), which changed the focus to the learning processes in the learner's brain, the different possible learning styles and the importance of and differences in motivation. Technologies became more important as they gave the learner the necessary tools to structure information but it hardly changed the view on the social perspective.

The role of peers is important for learning, hence the rise of theories that stress the social perspective. Constructivism added context (McMahon 1997) as an important condition for

learning and established the ultimate shift from a more individual approach of learning into a social approach. Thus constructivism emphasizes learning as a dynamic process and a more learner-centred approach. This later evolved into the social constructivist learning theory that placed the emphasis specifically on the social context of learning, where technologies act as a facilitator for collaborative learning and offer new possibilities for the learner to create content.

In the scope of this study, social constructivism offered a solid base for social learning, already emphasizing some important characteristics such as learning of peers, the importance of the social context, in this particular case the workplace context, and the facilitative role of technologies in the learning process. Other contemporary theories still elaborate on these social constructivist insights:

- Situated Learning (2014) argues that learning is not inseparable from the specific context and therefore actual learning should be situated in "a specific context", also referred to as the apprenticeship model.
- Collaborative learning emphasizes the social dimension in learning (Pritchard & Woollard, 2010) as collaboration with peers leads to learning.
- Connectivism (Siemens 2004 and 2008, Downes 2008 and 2011) acknowledges specifically the changes in learning in the digital era and sees learning as a network-based pedagogy, where learning is not structured, controlled or processed and learners are expected to be able to manage a complex and rapidly changing environment.

These theories emphasize either the importance of a specific context, such as a workplace, the role of the trainer, as well as the role of peers in a social and collaborative context and the usefulness of networks in the learning process.

Emerging technologies, pedagogy and roles

The rising attention for social learning seems to be intertwined with the growing technological possibilities. Social software makes it easier to achieve social learning (Shirky 2008, Minocha 2009, Sloep et al. 2011). However, not all authors agree (Shana 2009, Bingham & Connor 2010, Drijkoningen 2012, Hart 2014) and caution that social software tools play an important role but always subordinate to the pedagogy.
The social learning theory and the rise of social software seem to be inseparable and thus have an impact on pedagogy. Many authors describe the current changes as a shift in learning (Jennings

and Wargnier 2011, Hart 2014), especially when it involves younger generations (Veen 2006, Prensky 2011) or learners who prefer to learn digitally (Downes 2008 and 2011). Other authors are more reluctant and see no change in the core of the pedagogy (De Leeuwe 2008, Drijkoningen 2012). However, they all agree on the following: the IT improvements open up opportunities to change learning activities and enhance in-depth learning adjusted to the learning style of the learner and the learning content.

Another implication of the described changes is the emerging role of the trainer from provider to facilitator of learning (Jennings and Wargnier 2011). Wenger, White and Smith (2009) specifically add the technology steward as the main novelty for the future digital trainer. Changing roles imply changing skills (Pallof and Pratt 2007) but it does not necessarily imply a change in the learning culture as is often assumed. Nevertheless, it does mean a shift from push to pull training (Jennings & Wargnier 2011), where learners can govern their own learning (Hart 2014).

Community of practice or learning network?

A good way to support blended learning, and thus enhance social learning, is the use of an online community. When referring to a community two interpretations are commonly used, i.e. communities of practice (Wenger, McDermott and Snyder 2002, Situated Learning 2014) and learning networks (Sloep et al. 2011, Drijkoningen 2012, Hart 2014).
The theory of Communities of practice (CoP) is related to the situated learning (2014) theory earlier described. A CoP has generally three essential elements: a shared knowledge-domain, a group of people and a shared practice.

Describing a learning network is a lot harder, hence all authors have differing opinions. For Hart (2014) there is a distinct difference between a CoP and a learning network: CoPs are part of informal training and thus voluntary, focusing on practice improvement, whereas learning communities are a part of a formal training, thus with an explicit purpose of learning.

Key data collection methods

The scope of the research is an exploratory, qualitative research of perceptions and not a pure theoretical, experimental type of research, thus opting for the case study methodology (Yin 2014), including a triangulation of data collection methods (Verschuren 2003, Bell 2009, Yin 2014). The evidence matrix in Table 1 summarizes how the different methods are related to the research questions:

Research Questions	Preliminary survey	Semi-structured interviews	Participant-observation	Online content analysis
Key questions				
What are the perceived benefits and challenges of blended learning for the development of the pedagogical skills of new instructors at VDAB?	x	x	x	x
What do participants understand to be the ways in which a learning community can contribute to a blended learning approach?		x	x	x
What are the implications of using an online learning environment for my own practice as a trainer?		x	x	

Table 1: Research questions and methods

The research methods mentioned here are not concurrent. On the contrary, the preliminary survey is the first stage at the start of the project, of which the initial analysis will serve as a starting point for the other methods. The content analysis, observations and interviews are the second stage.

Findings

The preliminary survey indicated that almost none of the participants had previous experience with blended learning, even though the high score for blended learning as learning preference seems to contradict this. The former, however, was confirmed during the interviews, which was somehow expected, except not to this extent. Moreover 80% of the participants indicated their digital skills as average or less, hence they did not look forward to, and even felt insecure about learning online, which was, according to them, related to age or limited typing skills. Apart from the participants, this project involved a rather inexperienced trainer, which was known from the start, notwithstanding her positivity towards blended learning and her eagerness to learn. The relationship to age, could not be proven in this research. Moreover I could not identify significant differences in the perceptions of the different age ranges.

One of the enhancing tools for the learning network was the use of an online community. For some it offered opportunities for discussing and interacting with peers (Hart 2014), however this was not followed by those who prefer other more personal and direct forms of communication. The trainer agreed with the user-friendliness (Sloep et al. 2011) and considered it most useful for learning purposes (Hart 2014), but acknowledged the fact that the community was used too much for information sharing and not enough for other engaging activities (Salmon 2002). The community's content analysis proved this teacher presence predominance clearly.

Even though it was a first experience, it leaves a relevant question: if *Spoor 21* continues to follow the chosen blended learning path and if participants get more acquainted with this approach, would that change the current perceptions? In this study four Hangouts were planned, deliberately to rule out conclusions based on one single session. Nevertheless it was assumingly still insufficient to allow participants, and even the trainer, to give it more thorough perception. Especially when it is linked to a learning community, a longer period of time might be necessary, which was not possible considering the time limit of this project. How to support and reinforce this, is definitely a crucial element for further discussion and exploration.

To conclude, this case study also showed that implementing social learning and thus using social software for learning, in this case in the form of a learning network, does change the pedagogy (De Leeuwe 2008). It is not easy to transform the content and methods of an existing form to an online context (Steed 2011), which explains the extended time invested in it. Moreover doing a blended course does not only require more time for preparation, but also for e-moderation (Salmon 2002) and technical support (Wenger, White and Smith 2009), thus clearly showing the changing roles of trainers and learners. The latter is a difficult issue, as it means changing the current way of learning, which is something that requires time and effort from the participant on the one hand, but more importantly from the facilitators on the other hand (Steed 2011).

Recommendations and future work

This extended professional project is based on a single case study research, which has some limitations regarding generalisability. If a similar research would take place, it would be wise to organize an embedded case study research (Yin 2014), where different employee groups can partake in complementary cases. What was not researched in this study is the actual skills and knowledge a trainer needs in order to become an excellent online facilitator. And conversely the

same applies for the participants' perspective. Defining these various skills and knowledge could benefit further actions regarding the inclusion of the employees' digital skills.

The project showed that implementing blended learning is complex and challenging (Garrison and Kanuka 2004) and the blended design used here is only one of many possibilities. Therefore future projects should include different formats, to explore which are most useful in a workplace related context such as VDAB. Findings also indicate that moderating a learning community is iterative and it requires time to get acquainted with this form of learning . Therefore a remaining issue is how learning communities can evolve more rapidly, so a higher stage in the scaffold (Salmon 2002) is feasible within a reasonable time.

Bearing the limitations in mind, the tendencies described do have the potential to influence further discussion and exploration within the organization, and lead to the following recommendations, in the first place for myself, but also for the L&D team:

- Keep doing similar projects, by conducting more and different cases, involving other groups, more trainers, other blended formats and other stakeholders, in order to contribute to self-governance and performance-centricity (Hart 2014).
- Provide the necessary time for trainers to adopt the newly required trainer skills, i.e. combining the facilitative and technical aspects (Salmon 2002, Wenger, White and Smith 2009).
- Start using learning communities more actively to get a better understanding on how it can contribute to social learning, preferably during a longer period of time to assess its long-term potential.
- Keep setting an example, which is a role that *Spoor 21* already often takes. By doing this a greater awareness for social learning can be created.
- Keep an open mind when reviewing the blended learning opportunities and explore other social software options.

If *Spoor 21* carries out these recommendations, there are most likely also implications for the whole of VDAB. Therefore the following are also recommended:

- The decision makers in the organization have to give further and constant attention to the enhancement of the digital skills of its employees. Getting acquainted is not enough, but further guidance in the exploration of the professional advantages is necessary.
- Using social software has implications for the current hardware. An accelerated adaption of the hardware, could have a positive impact on the acceptance of these tools.

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