Virtual Communities of Practice in Web-Based Second Language Learning: Fiction or Reality?

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Abstract- **The work of Lave and Wenger on learning in 'communities of practice' has evoked a considerable response in e-learning environments through-out the world including Denmark in the last few decades. Within the development of web-based second language learning, the ideas of learning in communities of practice and of situated and collaborative learning have deeply inspired educators and teachers and, to a certain degree, become the theoretical and practical framework for developing web-based learning platforms, while findings from this research indicate that students perceive e-learning as a far more individual process. The aim of this paper is to investigate aspects of the Danish development of e-learning platforms and, especially students' and teachers' very differing perceptions of e-learning and the concepts behind it. The analysis is based on student and teacher interviews, research on language interaction and case studies of e-learning language platforms within the area of teaching Danish as a second language for adult foreigners. The concepts of communities of practice are also discussed and developed.**

Keywords- Communities of practice. E-learning in communities of practice. Second language learning. Cognitive approaches in e-learning. Learner centred approaches.

Introduction

The overwhelmingly rapid promulgation of e-learning, coupled with the pedagogical potential of the Internet and other information technologies, raises a range of important questions regarding, how teachers and students respond to this development.

Theoretically and pedagogically, in the last few decades, the research and concepts of the American anthropologist Lave and the Swiss researcher Wenger on learning in 'communities of practice' (Lave and Wenger 1991; Wenger, McDermott and Snyder 2002) have elicited a considerable response in e-learning environments throughout the world from the United States (Palloff and Pratt 1999) to Australia (Thomas 2005) to South Africa (Czerniewicz and Carr 2005;

Czerniewicz and Hodgkinson 2005) to the United Kingdom (Edwards 2005) to Denmark (Nielsen og Kvale 1999; Bang og Dalsgaard 2005) and elsewhere. In addition, their approach has been adopted by UNESCO in 1998 and led to the establishment of a range of global community of practice projects (UNESCO 2008 n.d.).

Furthermore, Lave and Wenger's theories – as it is evidenced in the previous article in this book - appear to act as guiding principles in the development of e-learning with respect to educational task based approaches in virtual e-learning environments (Agertoft 2003, 2003a). Within e-learning and web-based adult DSOL[1] teaching in Denmark, the concepts to a certain degree have become the theoretical and practical framework for developing web-based learning platforms (LVUbladet 2007).

The aim of this article – in continuation of former research on teacher reflections on e-learning introduced in the first article above in this book – hence is to investigate whether the reactions and reflections of the students, - e.g. adult immigrants participating in the particular web-based DSOL language-learning classroom - are similar to teachers'[2].

Starting points

The paper begins with a short terminological introduction before describing the particular case study, research findings and their implications.

The terms 'computer assisted language learning' (CALL) (Levy 1997) and 'computer supported collaborative learning' (CSCL) (Silverman 1995) were introduced in the 1980's and 1990s (Warschauer 1996).

[1] The term DSOL is an abbreviation of 'Danish for speakers of other languages' and DSOL teaching refers to the rather well developed educational system of language schools providing DSOL teaching for adult learners/immigrants all over the country in Denmark. In the year 2012 about 52 language schools provide DSOL teaching in Denmark (Dedanskesprogcentre.dk 2012).

'E-learning' expanded the concepts of CALL and CSCL to include network-enabled transfer of skills and knowledge and the introduction of virtual learning environments (VLE) such as web-based learning, virtual classrooms and digital collaboration (see Picolli, Ahmad and Ives 2001).

The concept 'communities of practice' was developed by Lave and Wenger (1991) as part of their overall learning theory. Based on socio-cultural approaches (Vygotsky 1962 1978; Bruner 1985), theories of scaffolding (Wood, Bruner and Ross 1976) and Lave's ethnographic fieldwork in West Africa (1988), Lave and Wenger (1991) developed three central concepts: the idea of 'legitimate peripheral participation', the theory of 'situated learning' and the understanding of learning through participation in communities of practice. Lave and Wenger linked the concept of communities of practice to a description of the *conditions* of the learning processes taking place:

> 'A community of practice is a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice. A community of practice is an intrinsic condition for the existence of knowledge, not least because it provides the interpretive support necessary for making sense of its heritage.' (Lave and Wenger 1991: 98)

Wenger (1998, 2002) continued to develop the term and linked it to collaborative and collective learning: 'Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor' (Wenger 2007) and are '…groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly' (ibid.).

Although the social theory of learning in communities of practice originally was developed with respect to the *physical* learning environments, the concept was soon applied to *virtual* communities. Building *virtual* communities of practice in cyberspace was introduced for web-based learning in the late 1990s (Palloff and Pratt, 1999) and widely accepted as a framework for educators developing e-learning environments in the 2000s (e.g. Thomas, 2005; UNESCO 2008).

Criticism of 'communities of practice concept'

Critics have pointed out that Lave and Wenger's social learning theory focuses entirely on social and structural conditions rather than on cognitive phenomena in learning processes (Edwards 2005). Furthermore, researchers have criticised the rather broad definitions an interpretations of the concept of participation in communities of practice having been proposed and, critics have emphasised that 'the concept needs tighter boundaries' (ibid: 57). Others have pointed out, that the concept may be suitable for 'in-service' training at workplaces and, that the concept seems to be more appropriate for apprenticeship relations, researched by Lave and Wenger themselves, than for e.g. schools and educational learning environments. The concept, according to these critics, doesn't capture the complexity of other learning processes (Rasmussen 1999). These criticisms will be addressed later in this article.

Research and findings

In recent years, e-learning has become an increasingly important part of teaching in Denmark and, to some extent has replaced the traditional class-room in particular one area of adult education in Denmark, e.g. DSOL teaching and learning (Petersen 2006, 2007). Various web-based e-learning platforms have been developed and differ in their approaches to language learning.

In the case study to be presented in this article, DSOL teaching has been organised as merely web-based language learning in virtual learning environments – described as virtual classrooms in a virtual school - using specific developed e-learning platforms, only available by the learners, their teachers and administrative persons. Since the beginning of the 2000s this web based DSOL language learning platform has been extended to other schools and, in the year 2012 provides web-based language learning in an organisation of 17 of total 52 DSOL language providers in Denmark[3]. In the virtual classrooms studied in this research, the Internet is used both as a learning resource and as the host for the e-learning platform for the particular language schools providing this kind of web based learning. Apart from using the Internet as a learning resource, the Internet teachers in the particular virtual classrooms have developed their own teacher-produced learning materials. The teaching and learning is merely carried out in virtual learning environments (VLE) as web based DSOL language courses for adult learners. The research process, the e-learning language course and the research findings are presented in the following sections.

Research process

The research has been conducted in a period of four month as an electronic respectively virtual ethnographic fieldwork, or 'webservation' (Varisco 2002) of the virtual classroom. The researcher has had access to the virtual classroom, the virtual forums, exercises provided to the students, teacher and students' comments on language and the students work. In addition, the researcher has interviewed one of the teachers and, at the end of the period of the virtual observation has interviewed all students, participating in the e-learning language course. The students have

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[3] The school names itself – 'Net-dansk' (Net-Danish) and presents itself as a virtual school in 2013 (Netdansk 2013) at the following website http://www.netdansk.eu/en

completed a questionnaire. The questionnaire and the students' answers have been available to all participants in a virtual common forum and have been commented by participants, teacher and researcher. Before the period of entering the virtual classroom as an observer, the researcher has been the 'guest' of the virtual class and has answered questions from the students.

The case study – participants and set-up of web-based language learning

The ten students participating in the web-based language course were adult foreigners who have lived in Denmark for two to three years. They come from Bulgaria, Byelorussia, China, Lebanon, Mauritania (West Africa), Poland, Rumania, and Venezuela. All of the students happen to be women, ages 25 to 38 with 12 years or more education. Except for the Chinese woman, all are married. Most of the students work either half- or fulltime. This is the first experience with virtual language learning for all the students. They have participated in the web-based DSOL language courses for four to eight months.

The course is organised as a content- and task-based (Larsen-Freeman 2000) virtual language classroom with common and individual forums. The two teachers use the individual forums to correct and supervise the students' individual work, while the common forums are used for common exercises and open to all participants. The students post their work to the common forums and the teachers' comments and corrections are available for all participants to study. Each course lasts approximately three month and is subdivided into two-week periods with subjects such as 'history and culture', 'our kids', and 'travelling around', 'a day on the Internet', 'arguments', 'language learning on the Internet in the year 2011', 'what is a good exercise on the Internet?'. Every 14 days, the students write with a guest who visits the virtual class-room.

The language formats available to the students are mainly *listening* (audio and video), *reading* and *writing* exercises. All interaction among teachers and students is through writing; only a few exercises focus on spoken language. Although the teachers experimented with the spoken language at the end of the research period, this part has not been organised as thoroughly as the rest of the course.

Research findings

The research findings are based on the students' work and exercises, the teachers' and students' comments and extracts from the interviews and questionnaires, in which the one of the teachers and students were asked about their perceptions of e-learning and collaboration in the virtual classroom.

Teacher's perceptions of virtual communities of practice and efficiency of e-learning

The interviewed teacher in the virtual case study is – as described in former research presented by Petersen (2006) and published in the first article in this book - an experienced web language teacher, who has previously worked as a traditional classroom language teacher and has experienced the transition from traditional physical to virtual class-room teaching. In the interview, this teacher – as it is evidenced the first article of this book - explicitly refers to the learning theories of Lave and Wenger as *the* inspiration for his way of managing the transition:

> 'I do indeed find that the ideas about 'communities in practice' and [what Lave and Wenger call] the concept of learning through participation have been an eye-opener to me. Somehow, to me (...) [these] concepts of knowledge and learning respond to a digital approach, in which the process is a more 'circular' than a 'linear' movement.'

The teacher further relates his observations of some students' behaviour in the virtual language classroom to Lave and Wenger's theories of the relationship between a newcomer and a more advanced learner and to the concepts of peripheral legitimate participation. He emphasises that this is obvious for him and his teacher colleagues:

> '...in practice, when some of the learners in the virtual classroom lean themselves up against a certain other learner, whom they choose as a kind of 'language tutor' in the language forums. ...They follow this tutor very closely and collect and reuse his/her linguistic - lexical, grammatical and other – expressions. They may even through 'watching' this tutor acquire a sort of fluency and coherence in their own language... Furthermore, the learners sort of go through different phases - from a 'peripheral' participation to the mastering of the media, materials and the techniques.'

He also develops an understanding of communities of practice as entities:

> '…as in other communities of practice, our course develops narratives and stories in and about the earning environment: stories about project work and how difficult it is, about other learners, about persons who frequently 'turn up' in the forum, about special contributions in the forum and so on. These stories establish the communities and common repertoires.'

For the teacher, the concepts are a tool to facilitate learning conditions and to offer optimal language-learning environments. According to this teacher, web-based language learning can provide even better ways

of acquiring a new language than traditional classroom teaching.

Students' perceptions of virtual communities of practice

The students in the questions about learning language in virtual learning environments are generally positive about language learning on the Internet, describing it as 'interesting', 'efficient', 'exciting', 'wonderful' and 'good' and, many of the students emphasise that it saves a lot of time. They also find e-learning 'good' with respect to learning to read, write and listen and 'very good' with respect to the teachers' language comments about their work and that of their co-classmates.

The students, however, differ both among themselves and with the teacher about whether they collaborate and learn from each other. Some students agree with the teacher but emphasise the importance of the teacher's role as a language model:

> 'Sometimes I learn new expressions from the other participants. Besides, I can read how our teachers correct the others and I learn which errors I should not make'.

Other students feel that they collaborated with their classmates, when they read each other's work, comment on it and correspond with them; but many of the students also say that the e-learning course is 'individual' or 'extremely individual' and one student emphasises that the collaboration is non-synchronic.

Most of the students differ with the teacher about whether they learn language from each other. One student, who offers a positive answer about collaboration, says: 'With respect to the language, I don't learn anything from my classmates'. Other students, although they like e-learning, are sceptical of the collaboration concept and of the possibilities of learning in communities. One student writes:

> 'I do like to learn the language in e-learning settings, but I don't think that we collaborate as 'classmates' in the Internet classroom. I don't feel that I learn from the other participants or that they learn from me…I prefer the real collaboration in a classroom. The Internet can't substitute a direct contact'.

All students agree upon, that the e-learning course is very good for learning to write and read Danish, but they also agree that web-based language learning is less efficient for acquiring spoken language. As one student emphasises:

> 'The central point in Internet Danish is the written language, whereas it is the spoken in the [real] classroom".

Overview of research findings

Overall, the research shows that both teacher and students are very positive about web-based language learning. However, the teacher's and students' reasons for the positive perceptions of e-learning differ, especially concerning the concepts of working in communities of practice and collaboration.

While the teacher emphasises the students' learning and collaborating in communities of practice and the apprenticeship-like learning conditions among students, the students emphasise the *individual* aspects of the e-learning process and its possibilities for saving time and organising their language training around their individual work and personal situations. Even though they participate in common forums, and as such are in touch with their classmates' answers and the teachers' corrections, they mostly perceive their participation in the language classroom as individual.

In addition, the students say that they learn a lot from the teachers' corrections – a point not mentioned by the teacher. The students are far more interested in the teacher's corrections of their classmates' language and emphasise that they learn language from the teacher but hardly anything from their classmates. All students, however, indicate that they learn even more written language than in a traditional classroom because they get more individual responses from their teachers.

Interestingly, the teacher and students agree in their overall positive perception of e-learning, but they differ considerably on the importance of learning in communities of practice. While the concept of communities of practice is a core feature in the teacher's perception of virtual classrooms, the students perceived e-learning as primarily individual. The students also emphasise that web-based language learning focuses on written language, whereas traditional language teaching focuses on spoken language. This point has not been mentioned by the teacher.

Beyond communities of practice in e-learning?

The research findings suggest that teachers and students differ in their perceptions of communities of practice. While the teacher emphasised the idea of community and collective collaboration in the web-based language classroom, the students emphasise flexibility and the possibility of saving time and they perceive e-learning as an individual rather than a collaborative process.

The findings regarding the concepts of communities are interesting. It might be argued that students, regardless of their perceptions of e-learning as focusing on the individual, do in fact learn from each other as, according to themselves, the teachers' statements and the findings, they reuse expressions and language from their classmates.

However, the data from this case study only partially support Wenger's point, that 'communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor' (Wenger 2007). The students mainly see themselves as engaged in an individual process of acquiring language in the most efficient way. For them the teacher's language corrections are the focus. The teacher, however, is deeply engaged in ways of structuring the best virtual and social conditions for e-learning to take place and, as such, grasps the theory of virtual communities of practice.

The study also supports criticism of the concepts of communities (Edwards 2005). The teacher seems to focus on the social and structural conditions in e-learning, while the students emphasise cognitive phenomena in their individual language acquisition processes.

In conclusion

The concept of building virtual communities of practice has inspired a range of educators in e-learning. However, to optimise virtual learning environments, the boundaries of communities of practice need to be tightened and cognitive aspects of learning processes to be integrated. The students' perceptions of e-learning as a mainly individual process seem to indicate, that the concepts of learning in communities of practice might be further developed. Other dialogical principles that further integrate the web learner might be developed.

Organisers of e-learning and curricula for online language courses need consider how to build optimal social learning conditions, on one hand, and to consider cognitive aspects of learning processes, on the other. This may call for even more learner-centred approaches than those known today. Besides further interactive learning facilities, e-learning may include whiteboard, mobile learning, pervasive learning environments and other technological improvements.

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