Keisanen, T., E. Kärkkäinen, M. Rauniomaa, P. Siitonen & M. Siromaa (toim.) 2013. AFinLA-e Soveltavan kielitieteen tutkimuksia 2013 / n:o 5. 113–122.

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Historical bodies meet mobile devices in the English classroom

This study is part of research that explores how the introduction of mobile technologies affects the social actions and interactions in an English-language classroom in a Finnish lower secondary school. The focus of the study is on the data provided by a questionnaire survey conducted before the mobile devices were introduced into the classroom. The other data collected include classroom observations over a period of several months, as well as the pupils' technological timelines prepared later after the mobile devices were introduced. The pedagogical approach is informed by sociocultural and ecological viewpoints into language learning. The classroom actions, as well as their historical trajectories, are analyzed through nexus analysis. The practical goal of the study is to find pedagogical practices of language learning and teaching that exploit the affordances provided by mobile technologies. The paper concludes with a discussion on the pedagogical implications of the study.

Keywords: EFL, nexus analysis, mobile learning, affordances for learning

1 Introduction

During the past few years the use of mobile technologies has become part of everyday classroom practices in an increasing number of schools, also in Finland. Projects have been launched to develop new pedagogical practices that exploit the solutions of mobile information and communication technology.[1] However, although numerous studies on the use of mobile technologies in language learning have been conducted worldwide, there is hardly any research into mobile language learning among pupils aged 13–16. Most reported projects on the use of mobile devices in foreign language learning concentrate only on a certain aspect of language learning (e.g., vocabulary or listening skills), ignoring the complexity of language learning as a social process. Furthermore, the applications are often designed merely to support existing pedagogical practices. Thus, in many of the studies there is no actual pedagogical innovation involved. Rather, it seems that current pedagogy is still largely teacher- and textbook-centred and there is a clear boundary between classroom activities and pupils' technology-rich everyday practices outside school. The full potential of mobile technologies is not yet utilized for transcending the classroom walls (see e.g., Ilomäki & Lakkala 2011).

The present study is partly motivated by these gaps in research and partly by the need to look for new kinds of language pedagogies afforded by new, mobile technologies. The focus of the analysis is on the social/mediated actions and their historical trajectories in a lower secondary school English classroom, observed through the lens of nexus analysis (Scollon 2001; Scollon & Scollon 2004). The object is to examine how the arrival of mobile devices in the classroom affects these actions. The main data consist of a questionnaire survey conducted before the introduction of the mobile devices in October 2012, but the study also relies on classroom observations over a period of several months, as well as on the pupils' technological timelines prepared over three months after the mobile devices were introduced. The study draws upon sociocultural and ecological perspectives on language learning (e.g., van Lier 2000), which emphasize the learners' active participation in social interaction and engagement in their learning environment.

In the following, recent conceptualizations of mobile learning as well as sociocultural and ecological perspectives informing the pedagogical choices in the classroom will first be discussed (section 2). Next, the data collection methods and the methodological perspective of nexus analysis will be introduced (section 3). Preliminary

1 Examples include projects such as *Sormet* (http://www.sormet.ejuttu.fi/), *The Personal Mobile Space* (https://www.jyu.fi/tutkimus/hankkeita/agl/pelinomainenoppiminen/projektit/amob/) and *MobiLearn* Mobiilisti (http://www.mobiilisti.com/).

findings of the study will then be considered (section 4). The paper will conclude with a discussion on the pedagogical implications of the research results.

2 Mobile learning

There have recently been attempts to theorize the concept 'mobile learning'. According to Sharples, Amedillo Sanchez, Milrad and Vavoula (2009), mobile learning may be characterized by learners' context-awareness, learner mobility and learner-generated contexts and contents. Thus, learners have an active role as creators of not only knowledge but also their learning contexts. Mobility refers not only to physical aspects but also to the learners' independence of time and space (see also Kukulska-Hulme 2012). On their mobile phones or other mobile devices learners can have access to other people and digital learning resources across time and place, but also to local information and resources (context).

Kukulska-Hulme (2010a, 2010b) claims that the pervasiveness of mobile technologies is generating a distinct mobile learning culture. In this culture, learners' individual needs, circumstances and abilities become central issues in the design of learning environments. This challenges educators to become more aware of how learning takes place beyond the classroom and also of the learners' previous use and experiences with mobile technologies. Kukulska-Hulme and Jones (2011) suggest that researchers should, however, challenge their assumptions about generally used descriptions such as digital natives or net generation. They propose that more attention be paid to "the changing context for learning, a distinction between place and space and an understanding of how the different levels of educational systems interact with mobile and networked technologies" (Kukulska-Hulme & Jones 2011: 57).

While mobile learning emphasizes individuality, it also underlines communal learning where learners rely on mutual support or act as co-creators of resources. Although learners may increasingly become designers of their own learning, their pedagogical expertise is necessarily limited. According to Kukulska-Hulme (2010a), the new learning culture should therefore be a shared project between learners and teachers.

In the sociocultural and ecological view (e.g., van Lier 2000), learning is seen to be emerging in interaction between the active learner and his/her environment. This relationship creates affordances for learning. The more motivated and engaged the learner is, the better he/she will perceive these affordances and the more likely he/she is to use them. Indeed, a switch between pedagogic and research perspectives has been suggested by Jarvis and Achilleos (2013) from computer assisted language

learning (CALL) towards mobile-assisted language use (MALU). L2 learners, in the same way as native speakers, may use mobile devices for accessing and/or communicating information, regardless of time and place, for a range of social and/or academic purposes, not only for conscious learning (Jarvis & Achilleos 2013, see also Hockly 2012). Pachler, Cook and Bachmair (2010) see learning using mobile devices as an ecology of interrelationships between agency (one's capacity to act on the world), cultural practices (the routines people engage in in their everyday lives) and the socio-cultural and technological structures that govern their being in the world. All in all, the issues connected with the notion of mobile learning are complex and require a research approach that allows exploring such complexity. In the following, the data and the methdology applied in this study will be explicated.

3 Data and methodology

This study is part of a seven-month (10/2012–04/2013) research venture. The aim of this venture is to explore how the introduction of mobile technologies affects the social actions and interactions among the pupils (17 seventh-graders, aged 13) in their English-language classroom, in a northern Finnish lower secondary school, where the author of this paper works as an English teacher. The study will utilize the first questionnaire the pupils answered in October 2012 before the mobile devices were introduced into the classroom, and classroom observations made mainly between October 2012 and January 2013 – although later observations will also be discussed. The lessons included activities such as creating a digital story on the basis of a picture (the pupils' first task) and communicating with three foreign exchange students on Facebook, followed by a face-to-face meeting in the classroom. Also, the timelines drawn by the pupils on their technology use will shortly be referred to. These timelines were drawn in January 2013, and they reach to the participants' personal histories with different information and communication technologies.

The methodological framework for this study is comprised of nexus analysis (Scollon 2001; Scollon & Scollon 2004). In nexus analysis the object of study consists of the social, mediated actions taken by an individual. All actions are considered inherently social and carried out via symbolic (e.g., language) and material (e.g., an individual's body, a computer) mediational means. A social action in the classroom (e.g., the teacher handing out an exam to a pupil, a pupil answering a question or downloading a file on his/her tablet) is situated in a unique historical moment and material space that is called a 'site of engagement'. When sites of engagement are repeated regularly, they form a 'nexus of practice', which in this study is the English classroom.

As a nexus analyst the researcher is not only interested in the real-time actions in the classroom but also in their historical trajectories that intersect in our nexus of practice. This is to get a better overall picture of the classroom events and to understand the motives behind the actions. It is also easier to detect the constraints imposed by the present classroom practices and to decide which practices are worth keeping and which should be discarded. In the following, I will try to clarify the analyst's work by explaining the terms 'historical body', 'interaction order' and 'discourses in place'.

The concept of 'historical body' refers to an individual's history of personal experiences that he/she carries with him/her (Scollon & Scollon 2004: 13). In the current research it means exploring the pupils' histories as language learners, as users of mobile technologies and as school goers, for example. 'Interaction order' refers to the way we arrange us socially to form relationships in social interactions (Scollon & Scollon 2004: 13). Who controls the discourse topics and turn exchanges, who has the right to use technologies or move around the classroom, how are the desks arranged – all display interaction order in one way or another.

All places, such as schools, are complex aggregates of many 'discourses in place' that circulate through them (Scollon & Scollon 2004: 14). In the classroom certain topics are usually foregrounded, but they may be irrelevant in a conversation between pupils in the school corridor during a break. Many of these discourses have submerged into practice and we do not give much thought to them. Also the school building, the classrooms, the desks and other objects are part of the discourses. These objects and places carry with them a history of cultural practices that have their roots in the Finnish school system, and lead us to behave in a certain way (interaction order). For example, pupils entering the classroom know they are supposed to go to their desks and wait for the teachers' instructions; they cannot just sit on the teacher's chair or start writing on the blackboard without permission.

An action can be thought of as a moment in space and time in which the historical bodies and the interaction order of the pupils and the teacher, and the discourses in place intersect. These cycles of people, places and discourses each have their history that leads to the moment of an action. It is the analyst's task to track the most relevant of these cycles.

In nexus analysis the analyst is engaged in the nexus of practice and usually aims at solving a problem or correcting a shortcoming he/she has noticed (see Scollon & Scollon 2004: 154). In order to do this, the analyst needs to find ways in which to transform the actions and discourses eventually into new practices, thus changing the whole nexus of practice. However, the analyst cannot dictate the changes, but it is a negotiation process between all the social actors in the nexus of practice. In this study, the practical goal is to find new pedagogical practices that better support learning as

defined in the sociocultural and ecological perspective towards language learning. In other words, the idea is to reduce the teacher-centred practices that put the pupils in a passive role of consumers of knowledge, and turn the English classroom into a nexus of practice where pupils are active designers of their own learning.

4 Preliminary findings

The study was carried out in the English classroom in a lower secondary school in northern Finland, where the author of this paper works as an English teacher. In the following, the findings of the first questionnaire survey conducted in the beginning of October 2012 will be presented. Next, the pedagogic approach applied in the English lessons, as well as classroom observations made over a period of seven months, will be discussed.

4.1 Questionnaire

The questionnaire survey was carried out in October 2012 before the computer tablets were introduced into the classroom. The purpose was to gather information about the pupils' historical bodies concerning their views on language learning and language proficiency, and their use of mobile technologies outside school.

Sixteen out of the seventeen pupils answered the questionnaire. All of the pupils used mobile phones (fifteen reported daily use), but computer tablets were not as widely and frequently used: six pupils had never used a tablet and only three pupils used it on a daily basis. The use of laptops was slightly more common, four pupils reporting a daily use and only two pupils claiming they never use a laptop.

There were slight differences between the different mobile devices with regard to the purpose of use. Playing games and using social media (mainly Facebook) were the most popular ways to spend time with mobile technologies among the pupils. Surfing the Internet was almost as frequent, and actually the laptops were used more for this purpose than for playing games, and in tablet use surfing the net was more popular than logging on Facebook.

As fifteen pupils reported using mobile phones daily and the same number used it for games, it can be safely claimed that the pupils spend more time on this activity when using mobile technologies than on any of the other activities they reported. This is supported by observations in the school corridors during breaks. Among other uses of the mobile devices reported by the pupils were studying, downloading and listening to music, using mobile phone as a camera and watching movies.

The pupils were also asked how foreign languages can be learned best. Five pupils thought playing games was a good way to learn a foreign language. This contradicts the information received from the pupils' timelines of technology use that they prepared a few months after the questionnaire. In their timelines there were no indications that they had played games or otherwise used mobile technologies to learn foreign languages. Six pupils mentioned studying/doing exercises or learning at school. Listening was considered to lead to successful language learning by three pupils, and reading and watching films without subtitles each by two pupils. Speaking was mentioned three times and playing games five times. It seems, then, that the pupils see themselves as consumers (reading, listening, watching) rather than creators of knowledge or active participators in the language activity (speaking, writing). Thus, they appear to favour traditional views and practices of language learning, seeing language learning as acquisition rather than as participation. It is difficult to say whether playing games should be seen as active participation or just affording acquisition, as the pupils did not specify what kind of games they had in mind, and there was no information on this in their timelines.

Interestingly enough, the pupils emphasized communicative skills when defining language proficiency. Seven pupils thought that language proficiency meant being able to speak the language well and four pupils considered understanding the language important. Writing skills were mentioned by only one pupil, and knowledge of grammar and vocabulary and pronunciation were all referred to twice. Two pupils could not define language proficiency at all, and the same number thought it meant having a good command of several languages.

It may be difficult to interpret the pupils' answers and one may easily come to wrong conclusions. By relying on classroom observations and other information sources (timeline of technology use) one may get a more accurate overall picture. It seems that the pupils are not really in the habit of pondering such issues as language learning and language proficiency. They expect the teacher to lead the way and most of them have probably given their answers on the basis of their previous experiences at school. The popularity of games probably reflects the pupils' expectations for the future lessons with the mobile devices, rather than their experiences or visions as language learners. Playing games is cool and the pupils will also have fun during the lessons! In fact, pupils repeatedly ask if they can use the computer tablets for playing games, but they are not very eager to do project work or to create and share contents on the net. This may partly be due to the fact that they are not familiar with the applications that have been used during the lessons and, consequently, they have encountered a number of difficulties in their classroom work (see below).

4.2 The pedagogic approach in the classroom

The 13-year-old pupils, in all 17 in this study, have grown in a teacher-centred learning culture, where they have had quite a passive role as recipients of information. However, my purpose during the English lessons has been to encourage the children to become more active and independent, and to promote interaction between the pupils in order to help them to develop their ability to perceive and utilize the different affordances for learning around them. For example, the pupils were given a task to create a story, dialogue, poem or a short film around a picture chosen by them. The instructions were intentionally imperfect, and the only requirement was that their work should include English either in spoken or written form. The pupils therefore needed to negotiate with each other on which tools to use (they had computer tablets and their personal mobile phones in use), and they had to decide on the topic, technique and layout for their work. Consequently, they were bound to consult both the mobile devices and each other in trying to solve these problems. These interactions between the pupils, as well as between the pupils and the mobile devices, were geared towards creating affordances for learning.

To make pupils better aware of the digital and social resources for language learning made accessible by mobile technologies, we formed a closed Facebook group with three exchange students from a nearby upper secondary school, followed by a face-to-face meeting in the classroom. The pupils and students started communicating on Facebook in December 2012. In January 2013 the exchange students visited the English classroom, where they discussed and also played a Finnish board game with the pupils. The idea of all of these classroom activities was to make the pupils aware of the different opportunities for learning and to realize that foreign language learning is not only about memorizing words and grammar rules, but active participation in social interaction.

4.3 Classroom observations

The first thing to do in the English classroom after taking the mobile devices into use in early October 2012 was to re-arrange the desks in groups of three or four so that the pupils faced each other but could also easily see the front of the classroom. This was done to promote learner-centred practices and collaboration between the pupils. And of course the pupils now had the computer tablets, as well as their personal mobile phones, at their disposal. Previously, the use of mobile phones was banned during the lessons and the only technologies to be used in the classroom (a laptop and document camera connected to a smartboard) were controlled by the teacher.

These actions have led to changes in the interaction order and discourses in the classroom. The discourses in the classroom have become less focused and less teacher-controlled. The pupils have consulted mainly each other and the mobile devices, the teacher being in the background, helping and giving instructions only when necessary. The mobile devices and access to the Internet seem to have increased the number of topics discussed during the lessons. The pupils have been motivated to use both the computer tablets and the mobile phones, although not always for educational purposes.

However, not all the changes have been positive. Both the teacher and many of the pupils have previously had limited experiences with computer tablets and the applications. Thus, the pupils encountered many problems related to technical issues and their work progressed slowly. Some pupils reacted to these situations by avoiding the task and by doing something that was not part of the plan. On the other hand, other pupils consulted each other and the teacher to solve these problems. At one point one of the pupils even taught the rest of us how to download pictures by using a certain application. She projected her own tablet onto the whiteboard by using the document camera in the classroom and showed us step by step how to proceed.

For some reason, the pupils were not too eager to share anything on social media. However, the pupils told the teacher that they had been in touch with the three exchange students on Facebook in their free time.

5 Discussion and conclusion

Although the introduction of mobile devices has had a clear impact on the social actions in the classroom, the pupils' beliefs, habits and practices concerning language learning and school cannot be changed during a few lessons, as they are deeply embedded in their historical bodies.

There exists a certain resistance among pupils to connect their technology-rich free-time activities with formal learning at school. Neither do they seem to be too eager to take responsibility for their own learning, nor to find and utilize different learning affordances if it involves a lot of work. The pupils appreciate convenience and easy-to-use applications and want the teacher to lead the way. We should therefore persist in challenging them to become active designers of their own learning and encourage them to step outside their comfort zones to use boldly the different digital and human resources for learning. If the gap between formal and informal learning environments can be narrowed, it is possible, guided by sociocultural and ecological perspectives, to move towards a new kind of mobile learning culture. Glimpses of this have been detected also during this study, when the pupils used their personal mobile phones

outside the classroom during breaks, after school and even at weekends to communicate on Facebook with the teacher and with the exchange students.

It is difficult to predict what kind of changes in pedagogical practices and in the whole education system will take place as technological innovations and the users' needs seem to feed each other and further speed up the development. Given the complexity and contextuality of learning, designing learning environments will be more demanding than ever. Educators will be challenged to be more aware of learners' historical bodies and sensitive to such technological and societal changes that affect learning environments and learning needs. Thus, we need more varied expertise and sufficient financial and human resources also at school level. This also has implications for teacher education and recruitment of staff to schools.

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