Doctoral Dissertation

The Pedagogical Purposes of the Use of Virtual Learning Environments and Web 2.0 Tools in Tertiary Language Teaching in a Blended Learning Environment

Réka Asztalos

Supervisors: Kata Csizér, PhD, habil., Éva Major, PhD

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Eötvös Loránd University
Faculty of Education and Psychology

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Abstract

The main aim of this mixed-methods study was to investigate the possibility of integrating a virtual learning environment (VLE) and web 2.0 tools into language teaching at a college in Budapest. The first three phases of the research explored students’ dispositions (N=91) towards the use of computers and the Internet, teachers’ use of VLEs and web 2.0 tools and their dispositions towards technology at the college (N=44), as well as at other higher education institutions (N=10) using quantitative questionnaires and qualitative interviews. In the fourth phase a longitudinal case study was conducted for three academic terms to gain in-depth experience about the use of a wiki and web 2.0 tools with two groups of students (N=31) studying English for Specific Purposes. The course also included elements of gamification in the form of a personalized evaluation system, which aimed to encourage individual learning paths. The results of the research showed that students’ use of the internet was confined to entertainment and communication. Moreover, the blended course had no impact on full-time students’ disposition towards language learning on the internet, which was equally low before and after the project. However, they perceived the use of the wiki, the web 2.0 tools and the evaluation system increasingly positively at the end of each term. Students’ language development was indicated by the results of self-assessment questionnaires and proficiency tests. Although no cause-and-effect relationship may be established between the use of the wiki and the group’s language development, the use of the wiki seems to be at least as efficient in language development as a traditional course. Based on the findings of the research, a set of principles was also formulated to guide the integration of technology into the classroom.
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1 Introduction

As the use of computers and the internet is becoming increasingly important in every aspect of today’s world affecting the ways of working, socializing and communication, there is great pressure on teachers and schools to prepare students for their future life by new ways of teaching, including the integration of technology into education (Buabeng-Andoh, 2012; Szüts, 2014). A second reason for the integration is to suit the needs of students, who are considered to be digital experts (Bessenyei, 2010; Brown, 2000; Frand; 2000; Gaston, 2006; McNeely, 2005, Oblinger & Oblinger, 2005; R. Tóth & Molnár, 2009). As a result, the use of technology in teaching in general, as well as in language teaching, has become widespread in the developed countries (Golonka, Bowles, Frank, Richardson, & Freynik, 2014). The ubiquity of technology in language teaching is illustrated by Hoopingarner (2009), who compares language instruction without technology to teaching natural sciences without a laboratory. The internet and the wide variety of web-based tools and computer applications have given a new dimension to English language teaching (Kaya, 2015). Hence, the question today is not whether to use technology in the classroom but how to use it to enhance teaching. The present research describes the development of a project that attempts to answer this question in a particular context, at a higher education college in Budapest.

1.1 The aims of the research

The main aim of this study is to investigate the possibility of integrating a virtual learning environment (VLE) and web 2.0 tools in language teaching at a college in Budapest. Since there is general consensus among researchers that new tools and methods need to be introduced gradually with utmost care and after extensive preparation (Archee, 2012; Bonk, Lee, Kim, & Lin, 2009; Ducate, Lomicka Anderson, & Moreno, 2011; Martinsen & Miller, 2012; Väljataga & Fiedler, 2009; Zorko, 2009), it is essential to consider all the factors that
influence the use of technology including students’, as well as teachers’ perceptions in order to maximize its potential in the classroom. Thus, a mixed-methods research design was applied in the present study with a development function, in which qualitative and quantitative methods were used “sequentially so that the results of the first method inform the development of the second” (Dörnyei, 2007, p.147). In the case of my research, the results of the first three phases informed the development of the fourth phase, which was the main phase investigating the possibility of integrating a virtual classroom and web 2.0 tools in language teaching. The findings of the first three phases of the research were not only used to guide the design of the main phase but also provided information about the possibilities of the integration of technology at the college. While in Phases 1 to 3 the research methods included quantitative surveys and qualitative interviews, in Phase 4 a longitudinal case study was conducted applying multiple instruments. The aims of the four phases were

- to explore students’ dispositions – Phase 1 (2010)
  - towards the use of computers and the Internet
  - towards attending a blended course
- to explore teachers’ use of VLEs and web 2.0 tools and their dispositions – Phase 2-3
  - to find out how they use the VLE at the college – Phase 2 (2011)
  - to investigate best practices of language teachers using VLEs and web 2.0 tools in higher education – Phase 3 (2012)
  - to find common pedagogical purposes behind the use of VLEs and web 2.0 tools in higher education – Phase 3 (2012)
- to gain in-depth experience about the use of VLEs and web 2.0 tools and about students’ dispositions – Phase 4 (2012-2013)
1.2 Rationale and the research niche

Garrett voiced the importance of case study research conducted by a teacher-researcher in her seminal article as early as in 1991 and suggested that research should answer the following question: “What kind of software, integrated how, into what kind of syllabus, at what level of language learning, for what kind of language learners, is likely to be effective for what specific learning purposes?” (p.75). In an update to her 1991 article, she still promoted the same question, only substituting the word “software” for “technology-based learning activities” (2009, p. 721). In a review of research on technology-enhanced language learning, which included the use of VLEs and web 2.0 tools, Egbert, Huff, McNeil, Preuss and Sellen (2009) also called for incorporating context and the experiences of teachers into research. They argued that data collection in specific learning environments could provide rich and meaningful data, especially if a combination of factors affecting student outcomes were investigated sufficiently. This would help increase the amount of information about the efficacy of the use of technology in language instruction, which is very limited today, in spite of the abundance of studies in the field. A similar stance was voiced by Stockwell (2007), who emphasized the importance of the inclusion of the context and the role of the teacher in empirical research. Lafford (2009) even suggested replacing comparison studies with qualitative case studies of specific aspects of using technology in local contexts, including teachers’ voices and observations, as well as learners’ attitudes and abilities.

In the Hungarian context, although there is a considerable amount of research on the use of technology in teaching (e.g. Buda, 2007, 2010, 2013a; Fehér, 2004; Fehér & Hornyák, 2011; Hunya, 2007, 2008; Hunya, Dancsó, & Tartsayné Németh, 2006; Hunya, Kőrösné Mikis, Tartsayné Németh, & Tibor, 2011; Kárpáti & Ollé, 2007; Molnár, 2011; Molnár & Kárpáti, 2012; R. Tóth & Molnár, 2009; Török, 2008), case studies in specific contexts are scarce. These have focused on different subjects such as intercultural communication
(Molnár, 2009), Hungarian language and literature (Csekő & Ollé, 2004), statistics (Nikolov & Ottó, 2010), multimedia design for computer programmers (Béres, Magyar, & Turcsányi-Szabó, 2009) and teacher training (Dorner & Kárpáti, 2008; Dorner & Major, 2009; Lakatosné Török, 2010; Tartsayné Németh, 2007). Moreover, even fewer studies have been conducted so far in the context of language teaching. While Eszenyi (2006) investigated the effects of including chat tasks in English language teaching at a secondary school in her PhD research; Kétyi (2008, 2009, 2011) explored the use of technology in teaching business German at a Budapest college. Still, the area of integrating technology into language teaching in tertiary education has been scarcely researched in Hungary. Consequently, the present research can not only be a valuable contribution to context-based empirical classroom research on the use of technology in language teaching advocated by several researchers (Egbert et al., 2009; Garrett, 1991, 2009; Lafford, 2009; Stockwell, 2007) but it can also help fill the gap in the Hungarian research context by providing a deep description of integrating technology in language teaching.

1.3 The organization of the thesis

The present dissertation consists of eight chapters. Chapter 2 provides a brief overview of the background of the study, including definitions for concepts used in the study and the theoretical background of using technology in the classroom. Firstly, the concept of 21st century learning, the role of technology in education and Computer Assisted Language Learning are discussed. Secondly, a short overview of current research on the use of technology in education in general and in language teaching is provided. Thirdly, issues influencing the implementation of technology are outlined, such as students’ and teachers’ dispositions. Finally, the potential pedagogical purposes of using Virtual Learning Environments, Personal Learning Environments, web 2.0 tools and wikis are discussed, followed by the introduction of the concept of gamification.
While Chapter 3 describes the overall research design applied in the four phases of the study, Chapter 4 to 7 detail the four phases including the research questions, the methods employed in each study, the results and the conclusions. Finally, in Chapter 8 the findings of the four phases are summarized and discussed, as well as considering some pedagogical implications. The limitations of the study are also presented along with directions for further research.
2 Background

In this chapter first definitions will be provided for terms used in the study, after that the theoretical background of using technology in the classroom will be discussed, including the concept of 21\textsuperscript{st} century learning, the role of technology in education and Computer Assisted Language Learning (CALL). As 21\textsuperscript{st} century learning should involve innovative teaching and learning practices that exploit the use of technology (ITL Research, 2011), it is relevant for grounding my research. Similarly, the role of technology in education can provide information about the goals the implementation of technology can serve in teaching. The overview of research on CALL offers insight into the use of technology in language teaching, which is the context of my research. Subsequently, research on important issues influencing the successful implementation of technology will be outlined, such as students’ and teachers’ use of technology and their dispositions towards it. As a major argument for the implementation of ICT tools in teaching is the digital native generation of students who demand it, as opposed to the digital immigrant teachers, who are incapable of satisfying this need (Prensky, 2001a, 2001b); it is essential to review empirical evidence on these areas to judge whether this dichotomy exists. Finally, potential pedagogical purposes of tools that are implemented in my research will be described, including Virtual Learning Environments, Personal Learning Environments, wikis and web 2.0 tools, followed by the exploration of the concept of gamification, which played an important role in guiding my research.

2.1 Definitions

Although technology can include overhead projectors, cassette recorders, video players and film projectors; in recent research the word is used for digital technology. (e.g. Egbert, 2007; Garrett, 2009; Grgurovic et al., 2013; Hoopingarner, 2009; Kaya, 2015; Kern, 2006; Lam, 2000; Turney 2009; Zhao 2003). Its meaning encompasses a range of different
tools such as computers, mobile and portable devices, the internet, web 2.0 tools, virtual learning environments and classroom-based technologies. Similarly, the word computer does not only denote the machine but all the different digital and online tools and applications that can be used on the computer, including portable devices. The expression Information and Communication Technologies (ICT) originates from the name of a school subject that deals with computers, electronics and telecommunications. In research, it is mostly used synonymously with technology and computers (e.g. Kétyi, 2009; Lund, 2003; Suwannasom, 2010; Zhao, 2003). Computer Assisted Language Learning is not simply the use of computers in language learning but “designates a dynamic complex in which technology, theory and pedagogy are inseparably interwoven” (Garrett, 2009, p.720).

The use of technology can take different forms of delivery. While online courses are provided completely on the internet, blended or hybrid learning combines online elements with traditional or face-to-face components which require the physical presence of teacher and students (Tallent-Runnels, Thomas, Lan, Cooper, Ahern, Shaw, & Liu, 2006). Online and blended courses are usually delivered in a virtual learning environment (VLE), which is a web-based platform for the organisation of teaching and learning. VLEs can be personalized and developed into personal learning environments (PLE) (Wilson, Liber, Johnson, Beauvoir, Sharples, & Milligan, 2007) by integrating various web 2.0 tools, which are tools that allow users to generate content and interact with each other (O’Reilly, 2007). Since there is no widely accepted definition for web 2.0 tools (See Chapter 2.6.3), this research will rely on the definition provided by Thomas (2009) for research and second language learning, emphasizing their potential for enhancing collaboration, participation and community building. An example for web 2.0 tools is a wiki, which is a website which allows its readers to freely add and edit content and to create new pages and links between different pieces of
content (Leuf & Cunningham, 2001). A list of terms and definitions used in this dissertation is provided in Table 1.

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<td>web 2.0 tools</td>
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2.2 Theoretical underpinnings of technology use in the classroom

Networked information and communication technologies have changed life tremendously in the developed world. Not only has the way people live and communicate changed, but also the nature of work and the types of skills needed. If schools and universities
aim to prepare students for life and work in the globalized and knowledge-based economies of the 21st century, these skills must be taught (R. Tóth & Molnár, 2009). In the following chapter 21st century learning will be discussed including the new skills students need. After that, the role of technology in education will be discussed including why and how it can be applied, as well as a brief history of Computer Assisted Language Learning (CALL) and research on its effectiveness.

2.2.1 21st century learning

Education has changed in the last decades as a result of easier access to a wider range of technologies (European Commission, 2013). However, this transformation seems to be considerably slower than changes in the society due to the inflexible and conservative nature of education (Kajtár, 2006). Although buzzwords such as lifelong learning, global learning, collaboration and student-centred learning have become common, pedagogical innovations often remain at a theoretical level and classroom practices reflect a traditional teacher-centred approach (Buda, 2010; Ertmer & Ottenbreit-Leftwich, 2010; Gabriel, Campbell, Wiebe, MacDonald, & McAuley, 2012; Lakatosné, 2010; Lakatosné & Kárpáti, 2009; Lim & Chai, 2008; Waycott, Bennett, Kennedy, Dalgarno, & Gray, 2010). The rapidly changing social, economic and technology environments have transformed work environments and organizational cultures. Employees need to adapt to these changes and be prepared for learning new aspects of their jobs throughout their careers. It is not only important what they know but also whether they are willing to and capable of broadening their knowledge to accommodate new trends and methods. According to a recent study which analysed 14.8 million job postings in the US (IDC research, 2013), the most required skills for high-growth or high-wage positions are not occupation-specific. They include a set of soft skills, such as oral and written communication skills, attention to detail and problem-solving ability, as well as presentations skills. In the list of the top twenty skills further cross-functional skills can be
found (organizational skills, self-motivation, working independently and in a team, time management), as well as some specific software-related skills (e.g. Microsoft Office). The study stresses the importance of CIP skills (Communication, Integration and Presentation), which include synthetizing and evaluating multiple sources of information to make informed decisions and solve problems, summarizing and interpreting data to form an opinion and present findings and evidence in a convincing way. A similar but smaller-scale study commissioned by Budapest Business School (BBS Research, 2010) investigated the requirements of 177 companies, which are potential employers of BBS students. The findings of the Hungarian study differ from those of the American study in that the top expectations include occupation-specific skills, such as professional knowledge and experience, practical foreign language knowledge, as well as computer skills. Further skills correspond with previous results, including team work, problem-solving skills, working independently, the ability to learn, proper understanding of tasks and performance orientation. Openness to the world and new experiences, creativity and digital competences, and the ability and willingness to work are top priorities for employees, while teamwork has been identified as a skill that most candidates lack. Similar skills have been found by a study on innovative teaching and learning (ITL Research, 2011) as necessary for 21st century students in order to succeed in the world of work. Apart from the skills already discussed (collaboration, skilled communication, problem-solving and ICT use), knowledge building, self-regulation and assessment, innovation and global awareness are also described as key skills. Considering that the development of reflective and critical skills, as well as collaboration are also defined as learning objectives by the European Commission (2009), it seems that the enhancement of these skills should be part of tertiary education, including language classes. One of the proposals to accomplish these objectives is that universities should offer innovative curricula, teaching methods and training programs, which include employment-related skills. Thus, one
of the aims of my research is to investigate the possibility of developing 21st century skills, including knowledge building, teamwork and reflective thinking by the integration of technology into higher education.

The concept of lifelong learning emerged at the end of the 20th century as a response to the rapidly changing world and the need for up-to-date knowledge that cannot be provided by formal education (Kajtár, 2006). Lifelong learning is the responsibility of the individual and includes formal education within and outside the school system, as well as informal learning. The European Framework for Key Competences for Lifelong Learning defines eight key competences necessary for “personal fulfilment and development, active citizenship, social inclusion and employment” in a knowledge society (European Council, 2006, p.13). Besides traditional key competences, such as communication in the mother tongue and foreign languages, mathematical competence and basic competences in science and technology, as well as cultural awareness and expression, these include four transversal, i.e. transferable skills: digital competence, learning to learn, social and civic competences, and sense of initiative and entrepreneurship. Further skills, such as critical thinking, creativity, initiative, problem solving, risk assessment, decision making and constructive management of feelings play a role in all eight competences. As the use of ICT for education can support lifelong learning (European Commission, 2008), a further aim of my research is to explore the potential of technology to prepare students for language learning beyond the obligatory three terms at the college.

2.2.2 The role of technology in education

Information and Communication Technologies (ICT) play a key role in the modernization of education (European Commission, 2008). According to a study (ITL Research, 2011), education today should offer innovative teaching, which should entail ICT integration, student-centred and personalized teaching, and extending learning beyond the
classroom. It is important to note that ICT use is not an objective in itself but a tool to broaden learning opportunities and support students’ development of the skills they will need for life and work in the knowledge society, as well as lifelong learning. In a report on the use of ICT to support innovation and lifelong learning (European Commission, 2008), the capacity to support informal learning is identified as one of ICT’s main strengths, by which skills and competences can best be obtained. The document emphasizes the need for using ICT not only as a basic education tool, but also as an enabler of lifelong learning and a key driver for creativity and innovation. These aims can be achieved by integrating ICT tools into teaching, learning, management and administration (pedagogical innovation), by supplying innovative learning tools and resources (technological innovation), as well as enhancing innovation and change in the core functions of education (organizational innovation). Further benefits of technology use include enhancing the digital literacy of teachers and students, as well as supporting different learning styles (Schmidt & Brown, 2004). Besides the objectives and advantages described above, the use of ICT can support language teaching in several other ways. The acquisition of communicative skills can be fostered by authentic learning tasks which are stimulating and engaging, as well as by interactive and collaborative learning (Felix, 2002). The benefits of integrating specific tools will be discussed in the Chapter 2.4.

However, the use of technology alone does not guarantee a higher effectiveness of teaching (Hoven, 2002; R. Tóth & Molnár, 2009). Only if it is used to fulfil the objectives listed above in a pedagogically grounded way can its potential be realized to enhance learning. Certain conditions can promote innovative teaching (ITL Research, 2011), such as teacher collaboration to share materials and practices, professional development focusing on relevant hands-on experiences and supportive and encouraging school culture. Although examples of innovative teaching practices are present in classrooms, the findings of the research show that a coherent and integrated set of conditions is very rarely present. Felix
(2002) emphasizes a further key factor: a creative and enthusiastic teacher, whose dedication is needed to fulfil technology’s potential to enhance the learning experience beyond even the best classroom experience. The role of teachers in integrating technology successfully will be discussed in Chapter 2.3.

Although there is general consensus that the pedagogically grounded use of technology has the potential to enhance the learning process (R. Tóth & Molnár, 2009), there are very few empirical studies which provide evidence to support this claim. One of the main reasons for the lack of empirical evidence is the difficulty of setting up a true experimental study with a control group that uses no technology at all (Grgurović, Chapelle, & Shelley, 2013). The wide range of technological tools also presents difficulties of comparisons. The use of ICT in teaching is mostly researched qualitatively (Molnár, 2011), which often focus on teachers’ or students’ perceptions of the integration of technology and its effectiveness. While the findings of studies about the effect of certain types of technologies on learning will be summarized in Chapter 2.2.3, students’ or teachers’ perceptions will be discussed in Chapter 2.4 and 2.5 respectively.

2.2.3 Computer Assisted Language Learning

According to Chapelle (2010), Computer Assisted Language Learning (CALL) includes a wide variety of technology uses for language learning, such as CD-ROMs, software, online reference material, electronic communication tools and social media. Although the precise teaching and learning practices might have changed considerably over time and in parallel with the appearance and development of new tools, she emphasizes the most important aspect of the definition, which never changes: “work in CALL as inquiry which includes the activities of development, discovery, selection, use, and evaluation of language learning activities that draw upon technology” (p.68). Kern (2006) raises the question if CALL should still be called CALL today when the use of technology is ubiquitous
in language learning. He claims that technology has three roles: as a tutor by providing instruction, feedback and testing, as a tool by offering access to materials, and as a medium by being a channel for communication and publication. There is consensus in CALL research (e.g. Chapelle, 2010; Garrett, 2009; Kern, 2006) that the use of technology does not guarantee improved language learning. It is the particular uses of technology for particular purposes based on sound pedagogies that can enhance learning. The role of pedagogy is emphasized by Garrett (2009), who regards pedagogy, theory and technology as the three major components of CALL, which are equally important. However, CALL does not represent one method but can be integrated into various pedagogical approaches and paradigms (Kern, 2006). These approaches will be described in the following chapter.

The more than fifty years’ history of CALL can be roughly divided into three distinct stages according to paradigm shifts in language teaching: behaviouristic or structural CALL in the 1960s and 1970s, cognitive or communicative CALL in the 1980s and sociocultural, sociocognitive or integrative CALL from the 1990s (Kern & Warschauer, 2000; Lund, 2003; Murphy, 2000; Warschauer, 1996a; Warschauer & Healey, 1998). Behaviouristic CALL was characterized by two types of repetitive drill and practice software for individual use. While pre-packaged materials could not be manipulated or modified by the teacher, authoring packages contained generic task types (e.g. cloze tests, multiple choice), which could be filled in by the teachers. Although this model was criticised because of its rigidity and sterility, today these tasks enjoy a revival on the internet, which has provided flexibility for their use (Lund, 2003). In the second era, cognitive or communicative CALL, the computer was regarded as a tool and a provider of resources, which learners could utilize. Typical software included word processors, grammar guides, dictionaries and concordancers, which facilitated communication and language production but not collaboration (Lund, 2003). The third period, sociocultural or sociocognitive CALL shifted the emphasis from learners’ interaction with
computers to interaction with other people via the computer (Kern & Warschauer, 2000). The appearance of the internet made synchronous and asynchronous communication possible and provided access to a massive amount of information and authentic material. This era has been termed integrative CALL by Warschauer (1996a), because it integrated various skills (e.g. listening, speaking, reading and writing) and also incorporated technology more fully into the language learning process with the help of the internet and multimedia technology. Murphy (2000) emphasized the situated and collaborative aspects of this period, (Technology-Enhanced Language Learning (TELL) in her words), which was characterized by activities constituted by the interplay of technologies, users and contexts. She referred to 21st century language learning as the Digital Approach, which relied on constructivist principles. In parallel with the three eras, Warschauer (1996a) applied a tutorial metaphor. While in behaviouristic CALL the computer acted as a tutor, and in cognitive CALL as a pupil, in sociocultural CALL its role could best be described as a tool.

Table 2

<table>
<thead>
<tr>
<th>Framework</th>
<th>Behaviouristic or structural</th>
<th>Cognitive or communicative</th>
<th>Sociocognitive or integrative</th>
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<tr>
<td>Approach</td>
<td>Audio-Lingual Method, Direct Method</td>
<td>Communicative Language Teaching</td>
<td>The Digital Approach</td>
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<tr>
<td>The principal role of computers</td>
<td>To provide unlimited drill practice, tutorial explanation, and corrective feedback</td>
<td>To provide language input and analytic and inferential tasks.</td>
<td>To provide alternative contexts for social interaction; to facilitate access to existing discourse communities and the creation of new ones social and cognitive processes principally qualitative, discourse analysis, analysis of socio-cultural context</td>
</tr>
<tr>
<td>Orientation</td>
<td>product</td>
<td>cognitive processes</td>
<td></td>
</tr>
<tr>
<td>Research methodology</td>
<td>quantitative, experimental, control comparisons</td>
<td>both quantitative and qualitative</td>
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As can be seen in Table 2, early research on CALL aimed to prove its effectiveness by comparing the learning outcomes of an experimental (CALL) group and a control (classroom) group. Although a wide range of qualitative studies are present today, the need for comparison studies still prevails. However, several problems can arise when evidence is sought after to prove that the use of technology increases learners’ performance. Firstly, there are several threats to the validity of these studies, due to the fact that many variables cannot be properly controlled (Garrett, 1991, 2009). Secondly, today that the use of technology has become ubiquitous, it is extremely difficult to find a control group that uses no technology at all (Chapelle, 2014; Garrett, 2009). In addition, even if the effectiveness of CALL is proven, studies often fail to provide information about how and why the learning took place through technology (Chapelle, 2010, 2014). According to Garrett (1991, 2009), the question whether using technology promotes language learning is also too general, and does not consider the fact that the computer is a medium or an environment and not a particular method. A further reason for the inadequacy of experimental studies lies in the objectives of using technology in the classroom described in Chapter 2.2.2. Since the main aim of its integration into teaching is not necessarily to increase the level of performance but to help learners acquire 21st century skills and competences, comparison studies focus only on one small segment of the learning experience.

Although CALL cannot be adequately investigated with the help of comparison studies, attempts have been made to provide evidence for its effectiveness to persuade administrators that the cost of technology is worthwhile, especially in developing countries (Garrett, 2009; Grgurović et al., 2013). Reviews of effectiveness studies have identified a number of common problems in CALL research (Golonka et al., 2014; Grgurović et al., 2013; Zhao, 2003) including the lack of systematic and well-designed studies, the poor choice of variables, the lack of data about participants, the limited settings (higher education), the
limited number of languages studied (Western European languages) as well as the dominance of short-term experiments and small-scale studies. In spite of these problems, the three meta-analyses of effectiveness studies found that the overall results indicated a positive effect of technology on language learning. Zhao’s (2003) review included nine empirical CALL studies in the period 1997-2001 and showed that CALL can be at least as effective as traditional instruction if not more so. He concluded that technology can be effective in different areas of language teaching, such as providing feedback, enhancing the quality of input, as well as the authenticity of communication. Grgurović et al. (2013) analysed thirty-seven studies from 1984 to 2006 and found that overall results favoured CALL pedagogy. In studies applying rigorous research designs, CALL groups performed statistically significantly better than non-CALL groups. The largest-scale review of 350 studies from 1993 to 2009 (Golonka et al., 2014) revealed that the evidence of efficacy was limited and there was only moderate support for the claim that the use of technology changed the process of learning. In certain areas (the use of chat, computer-assisted pronunciation training and automatic speech recognition) they found strong evidence for an increased language production, while in others the findings of moderate support were based on qualitative, self-reported and observational data. Learners were found to enjoy using technology, tended to be more engaged and had a more positive attitude to learning, which could lead to deeper engagement with the task and thus to increased proficiency.

2.3 Students’ use of technology

A major argument for applying technology in teaching is to suit students’ needs, who are supposed to be experts at using computers and the internet. Prensky (2001a, 2001b) described today’s students as “digital natives” (p.1) because they have grown up with digital technology, which has become an integral part of their lives. He argued that they are different from the previous generation in several, positive and negative, ways. As they have been
receiving a huge amount of information since early childhood, they think and process information much faster and are used to multi-tasking. A similar view was voiced by Tapscott (1998, 1999, 2009), who called today’s students the Net Generation, whose intensive use of digital technologies has an impact on the way they access information and how they learn. Oblinger and Oblinger (2005) described the same generation as digitally literate, connected, social, and non-traditional learners. The differences between digital natives and previous generations have been emphasized by several researchers (Bessenyei, 2010; Brown, 2000; Frand, 2000; Gaston, 2006; McNeely, 2005; Oblinger & Oblinger, 2005; R. Tóth & Molnár, 2009). Today’s students are characterized as having little patience for long tasks and getting bored easily, but preferring discovery-based, experiential and active learning and immediate feedback (Prensky, 2001a, 2001b; Tapscott, 1998, 1999, 2009). However, their teachers, who were not born in the digital age, are “digital immigrants”, who struggle to teach them (Prensky, 2001a, p.2) and would need a radical change in methodology and even in learning content if they wanted to teach digital native students effectively (Brown, 2000; Gaston, 2006; Prensky, 2001a, 2001b; R. Tóth & Molnár, 2009; Tapscott, 1998, 1999, 2009). These researchers argue that new ways of teaching is demanded by students as well, who consider their education not worth paying attention to. However, the idea of a digital native generation and its consequences for education have aroused considerable debate in recent years, in which the division between digital native students and digital immigrant teachers has been criticized by several researchers for oversimplifying a complex phenomenon (Bayne & Ross, 2007; Brown & Czerniewicz, 2010; Buda, 2013a; Hockly, 2011; Stoerger, 2009; Zur & Zur, 2011). As one of the major arguments for integrating technology into teaching is the demands of the digital native generation, it is essential for teachers to gain insight into their students’ use of technology and their dispositions towards it. Thus, in the following section an attempt will be made to review studies that challenge this idea and to summarize the results of empirical
research on students’ use of technology in and out of the classroom, as well as their perception of its implementation.

Most of the researchers discussed above described today’s students and teachers as heterogeneous groups. Zur & Zur (2011) found that both groups fall into three different categories with avoiders at one end and enthusiastic users at the other and suggested that people’s relationship to the digital world should be described as a continuum rather than a binary opposition. Similarly, Brown and Czerniewicz (2012) described people’s digital competence along a continuum towards being a “digitizen” (p.366), who has a full spectrum of digital capabilities. They found the term native especially problematic and offensive in South Africa, where it reminds of colonialism and apartheid. Bayne and Ross (2007) highlighted the negative connotation of the term digital immigrant, which symbolizes the subordinate position of the old and obsolete, who is forced to change, while digital native stands for the new and progressive. Buda (2013a, 2013b) proposed six groups according to the quality of digital technology use: digital hermits, digital explorers, digital nomads, digital migrants, digital settlers and digital conquerors, which can all include students and teachers as well, who can move between groups as their competence develops. According to Stoerger (2009), the digital native – digital immigrant metaphor might have been useful about an emerging phenomenon but has become inaccurate and dangerous over time. She suggested using the term “digital melting pot” (p.1), which integrates all users with low and high competencies. She also reminded of the fact that the devices and environments used by digital natives have been created by digital immigrants; hence they must have high digital competences. In a more recent article, Prensky (2009) argued that the distinction between digital natives and digital immigrants has become less relevant and proposed a new concept digital wisdom, which can be acquired and possessed by any individual regardless of their age. All these metaphors suggest that the idea of a homogeneous digital native generation who
demand the use of technology in teaching is non-existent. In the following section empirical evidence about students’ use of technology will be provided, which also supports the heterogeneity of the group.

Access to some core technologies, such as mobile phones, computers and the internet has been found to be almost universal among today’s students, who tend to use a range of communication tools, such as email, instant messaging and texting very frequently (Bennett & Maton, 2010; Bullen, Morgan, & Qayyum, 2011; Hargittai, 2010; Jones & Shao, 2011; Kennedy, Krause, Judd, Churchward, & Gray, 2008; Kennedy et al., 2009; Kvavik, 2005; Margaryan, Littlejohn, & Vojt, 2011; Oliver & Goerke, 2007; Sánchez, Salinas, Contreras, & Meyer, 2010; Selwyn, 2008). In recent studies social media has appeared as a widely used tool as well (Gabriel et al., 2012; Jones & Shao, 2011; Margaryan et al., 2011). More advanced technologies associated with web 2.0, which require active participation, such as blogs, wikis, content creation activities or 3D virtual worlds are used by a minority of students (Bennett & Maton, 2010; Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Margaryan et al., 2011). Many students were even found to be unsure what exactly some tools, such as wikis and blogs were (Kennedy et al., 2009). In the same study, engagement in game playing tended to be less popular than might be expected. Bullen et al. (2011) reported that the use of a limited set of ICTs was driven by three factors: familiarity, cost, and immediacy. Hungarian studies conducted in primary, secondary and tertiary education have yielded similar results (Fehér & Hornyák, 2011; Ollé, 2011; Papp-Danka, 2013). While Papp-Danka (2013) investigated mainly secondary school students, whose use of the internet was dominated by the social media, Ollé (2011) surveyed 12-13-year-old students living in small towns in Hungary and found that they used the internet mostly for communication. Similarly, Fehér and Hornyák (2011) discovered that Hungarian students primarily use it for communication via instant messaging or communal pages, while applications requiring higher
level skills or the educational use of the internet are very rare although they spend considerable time using the internet, most of them more than two hours a day.

Considering that the digital native generation’s use of computers and the internet is mainly confined to lower-level applications, such as communication and social media, it seems no surprise that their technological skills have been observed to show considerable variation (e.g. Brown & Czerniewicz, 2010; Hargittai, 2010; Kennedy et al., 2008, 2009, 2010; Kvavik, 2005; McNaught, Lam, & Ho, 2009; Selwyn, 2008). Differences have been found in their multi-tasking abilities, as well as in the appropriate digital skills and preferences in various settings and several countries, which will be discussed below. The results of large scale studies carried out at higher education institutions in the UK (Selwyn, 2008), Australia (Kennedy et al., 2008, 2009, 2010), Hong Kong (McNaught et al., 2009), South Africa (Brown & Czerniewicz, 2010) and the US (Hargittai, 2010; Kvavik, 2005) demonstrate great variation within the net generation. Similarly, a qualitative project with 20 Chilean students has found no shared traits of the students (Sánchez et al., 2010). Digital native students have been found to comprise a heterogeneous group by Hungarian researchers as well (Buda, 2013a; Fehér & Hornyák, 2011; Hunya, 2008; Török, 2008; Voglné Nagy, Lippai, & Nagy, 2014). Whereas research conducted in secondary schools in the US (Levin & Arafeh, 2002) found that only 30-40% of students were technologically savvy; another survey in a similar setting three years later (cited in McHale, 2005) showed that most students were adept at multitasking and using technology with little variation. The majority of students perceive themselves to be competent users of technology and the internet (Kvavik, 2005; Selwyn, 2008); however, moving to more complex tasks seems to be problematic (Kvavik, 2005). Lorenzo and Dziuban (2006) found that students’ information literacy skills including the ability to select and judge information and critical thinking are far from perfect. Similarly, Kennedy et al. (2010) established four categories of students according to their technology
skills and preferences: power users, ordinary users, irregular users and basic users. While power users made up only 14% of the sample, the largest group was basic users with 45%.

When the use of technology and skills of net generation and non-net generation students were compared, no differences were found between the age groups (Bennett, Maton, & Kervin, 2008; Bullen et al., 2011; Kennedy et al., 2009; Kvavik, 2005; Selwyn, 2008). Nevertheless, the results of two large-scale studies carried out in Spain (Gros, Garcia, & Escofet, 2012) and the UK (Ramanau, Hosein, & Jones, 2010) indicate that young students use technology more actively in communication and leisure activities, while older students are more focused on activities related to academic purposes.

On the other hand, differences between certain groups of students have also been highlighted. Recent evidence suggests that age is only one factor among others that can influence students’ use of technology and their ICT skills. Students at face-to-face universities and online universities seem to differ both in terms of technology use and perceived competence with online students regarding ICT use more positively (Gros et al., 2012). However, place-based university students have been found to spend at least an hour more per day on ICT than distance-learning students (Ramanau et al., 2010). A difference between domestic and international students has also been demonstrated (Kennedy et al., 2009, Margaryan et al., 2011), whereas mixed results have been found about the influence of the subject discipline. While Kennedy et al. (2009) suggested that the subject did not seem to affect technology use and skills, Margaryan et al. (2011) found that engineering students used more tools in socializing and learning than social work students. Besides the type of university and course, students’ background has proved to be an important influencing factor. Brown and Czerniewicz (2010) have revealed a considerable digital divide within students’ access, opportunity and experience of using ICT in South Africa. Similarly, socioeconomic status has been identified as a key factor by Hargittai (2010), who found that students of lower
status, as well as students of Hispanic origin and African Americans exhibited lower level internet skills. Her results have also demonstrated that women are less skilled in using ICT than men. Although gender seems to be relevant according to other researchers as well, it does not influence students’ skills but the type of technology they use (Kennedy et al., 2009, Sánchez et al., 2010).

**Students’ use of technology for educational purposes**

Results of several surveys suggest that students use technology mainly for social and entertainment purposes in some contexts (Fehér & Hornyák, 2011; Jones et al., 2011; Oliver & Goerke, 2007; Selwyn, 2008; Schulmeister, 2010). Overall, differences can be found in students’ use of technology for leisure and academic purposes (Jones & Shao, 2011; Ramanau et al., 2010). Moreover, the intensive use of technology in their free time does not mean that they transfer those behaviours to educational contexts (Bennett & Maton, 2010; Oliver & Goerke, 2007; Schulmeister, 2008, 2010). Core technologies, such as word processing and email are widely used for study purposes (Gabriel et al., 2012; Kvavik, 2005; Papp-Danka, 2013; Schulmeister, 2010). As for the educational use of the internet, the results of most studies indicate that students rarely use pedagogical software or websites created for self-study language learning (Bordonaro, 2003; Duggan, Hess, Morgan, Kim, & Wilson, 1999; Fehér & Hornyák, 2011). The majority of students’ conscious educational use of the internet is limited to researching content areas (Fehér & Hornyák, 2011; Gabriel et al., 2012; Kvavik, 2005; Sánchez et al., 2010; Selwyn, 2008) or term paper research (Duggan et al., 1999). More sophisticated tools, such as blogs, 3D virtual worlds or mind maps are only used by 10-20% of students, while the majority does not know them (Papp-Danka, 2013). At the same time, language learning is fostered by reading and understanding English websites; watching English videos and films; and listening to English songs (Bordonaro, 2003; Hoshi, 2002). Selwyn (2008) has found important variations across students’ age, gender and discipline in
their use of ICT for educational purposes. His analysis of survey data from 1222 undergraduate students in the UK has revealed that female students and students of medicine, social studies, law and business seem to use the internet more for information searching than male students, as well as students of creative arts, architecture and the humanities.

Several researchers investigated how students perceived the use of technology for educational purposes. (Garcia & Qin, 2007; Gros et al., 2012; Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Margaryan et al., 2011; Ramanau et al., 2010; Schulmeister, 2008). While some studies focused on students’ opinions about the implementation of technology in theory in the future, others examined students’ dispositions towards tools that have already been used in teaching. The two types of studies yielded different results, which will be summarized in the following sections. A major argument for a radical change in education is that the digital native generation of students demand a completely new way of teaching (McNeely, 2005, Oblinger & Oblinger, 2005; Prensky, 2001a, 2001b; Tapscott, 1998, 1999). Internet-savvy students made up 30-40% of the participants of a study conducted in secondary schools as early as in 2001 (Levin & Arafeh, 2002), who insisted that schools and teachers should use technology and the internet more for teaching. However, the findings of recent empirical research suggest that most students at higher education institutions prefer traditional ways of teaching (Garcia & Qin, 2007; Jones & Shao, 2011; Kennedy et al., 2009; Margaryan et al., 2011) and would prefer moderate use of technology in the classroom (Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Ramanau et al., 2010; Schulmeister, 2008). While Kennedy et al. (2009) found that none of the technologies included in their surveys was universally accepted by students for educational purposes, Margaryan et al. (2011) pointed out that students favoured the use of established tools within conventional pedagogies, which might be attributed to the fact that their expectations of learning is more influenced by their prior experience of formal education situations than by their use of
technology for entertainment (Gros et al., 2012). Although age can influence students’ perceptions (Garcia & Qin, 2007; Ramanau et al., 2010), several further factors have been found that affect their attitudes to ICT use in education. Online students regard the use of technology in teaching more useful than face-to-face students (Gros et al., 2012), while engineering and business students are more in favour of its use than students of other disciplines. The way teachers integrate technology into their classes is an important factor affecting students’ preferences, as well (Jones & Shao, 2011; Margaryan et al, 2011). Interestingly, the most technologically savvy students were found to have mixed feelings about its use in the classroom (Kvavik, 2005). Students still value live teaching and charismatic instructors very highly (Schulmeister, 2010), while some students view the intensive use of technology in teaching even negatively; either because they see it as an intrusion into their private life (younger students) or because they do not regard technology as a learning tool (older students) (Ramanau et al., 2010).

Several studies investigated students’ dispositions towards the integration of technology in retrospection, after taking part in a course, which included different elements of ICT (Bordonaro, 2003; Bray, Aokyi, & Dlugosh, 2008; Hsu, Wang, & Comac, 2008; Kung & Chuo, 2002; Murday, Ushida, & Chenoweth, 2008; Ottó & Nikolov, 2010; Rosell-Aguilar, 2004; Sagarra & Zapata, 2008; Vig, 2008; Yaghoubi, Malek Mohammadi, Iravani, Attaran, & Gheidi, 2008). Most researchers examining students’ perceptions of digital technology reported positive attitudes in various settings. Students indicated positive perceptions towards online courses in various subjects in Japan (Bray et al., 2008) and Iran (Yaghoubi et al., 2008), as well as a statistics course at a Hungarian university (Ottó & Nikolov, 2010), where 57% of the students found the online course more enjoyable and 50% easier than a traditional course. Students performed at the same level in a hybrid language course, where face-to-face and online instruction were both applied, as their traditional counterparts (Murday et al., 2008).
They were also generally satisfied with their course, although they reported that they needed additional motivation and self-regulation to keep focus. Perceptions were also reported to change over time in a large-scale longitudinal study conducted at several Hungarian higher education institutes by Vig (2008). His findings showed that students’ attitudes became increasingly positive between 2002 and 2007, probably influenced by the improvement of internet connection and access. Similarly, students had an overall positive attitude towards computers and the internet for homework and self-study in various language courses. Advanced ESL students in the US displayed positive feelings towards computers in self-directed learning outside the classroom with convenience, comfort and safety being the most important positive features (Bordonaro, 2003). High-beginner EFL students in Taiwan enjoyed the use of five websites for self-study and homework (Kung & Chuo, 2002), as well as Spanish learners in the US, who found the online workbook accompanying their course useful for language learning, especially for grammar and vocabulary acquisition (Sagarra & Zapata, 2008). They rated the accessibility of the material, user-friendliness and instant error feedback as the most important benefits. Moreover, Spanish learners in Britain were found to have extremely positive feelings for the use of the web for information searching and reading tasks, which were believed to enhance their learning (Rosell-Aguilar, 2004). The use of computers and the internet in the classes generated a similarly positive disposition in various settings. Learners appreciated the use of audio blogs in an ESL class in the US and believed they can assist their language learning (Hsu et al., 2008). Beginner Spanish students in the US perceived that cultural knowledge, listening and reading skills, as well as independent learning skills were developed through the use of various internet activities and online resources (Stepp-Greany, 2002). Akbulut (2008) and Warschauer (1996b) found that students displayed positive feelings towards learning with computers in EFL and ESL academic writing classes. Felix (2004) compared secondary and tertiary students’ experience of web-
based language learning in Australia, including online quizzes, listening and reading tasks, as well as cultural projects. She found general satisfaction in both groups with some differences in students’ perceptions. Although secondary school students felt more comfortable on the web and worked longer hours, higher education students showed a stronger preference for web-based activities. The few records of negative perceptions include technical problems (Felix, 2004; Kung & Chuo, 2002), the amount of time needed (Kung & Chuo, 2002; Sagarra & Zapata, 2008), the lack of interaction and isolation (Bordonaro, 2003), as well as the lack of personal contact with the tutor (Ottó & Nikolov, 2010). Stepp-Greany (2002) found that students were divided in their perceptions about the value of the individual components of the course with some students preferring more traditional ways of teaching and testing.

A number of factors related to computer use have been observed to be influencing students’ perceptions. Computer access at home (Akbulut, 2008; Yaghoubi et al., 2008), as well as Internet access and frequency of use (Vig, 2008; Yaghoubi et al., 2008) seem to be positively related to students’ perceptions. Besides frequency, Duggan et al. (1999) reported that the range of features played an important role in affecting perceptions, and claimed that the more features of the Internet students used, the more favourable attitude they had towards it. Furthermore, self-rated computer knowledge and experience were found to be influential (Bray et al., 2008; Toyoda, 2001; Warschauer, 1996b; Yaghoubi et al., 2008). However, Toyoda (2001) also found that although students’ perceptions vary according to their level of computer literacy, these may be modified through positive or negative relationships with other students in language classes. Bordonaro (2003) found further, non-computer-related factors that influenced students’ perceptions of using the computer for language learning: the conditions of learning, the learners’ strategies for learning and the students’ approach to learning. Similarly, students’ approach to learning was reported to be crucial for Japanese independent EFL learners (Hoshi, 2002). The students who used a content-focused approach
to access information in English had more positive attitudes towards the internet because they were highly motivated to understand the content they were interested in. In contrast, students who focused on the language to improve their English perceived English websites as merely another tool for learning and often found them difficult to understand and learn from. Additionally, the role of the teacher was found to be crucial by Kung and Chuo (2002) for encouraging students to use the recommended websites. Although students regarded the sites interesting and useful, they did not visit them again unless they were told what to do there. Finally, Bray et al. (2008) identified three further predictors for learner satisfaction besides computer knowledge: students who could persevere despite the challenges, students who could easily interact with instructors, as well as students who did not prefer social interaction with other students perceived online learning more positively.

**Students in higher education in Hungary**

Several Hungarian researchers have highlighted the change in the skills and motivations of students today in Hungary, due to the expansion of higher education (Csillik & Daruka, 2015; Győrfyné Kukoda, 2012; Lencse, 2010; Ollé, 2009; Voglné Nagy et al., 2014). Considering that the number of students has almost tripled between 1990 and 2014, while the number of teachers has increased by a mere 22% (Hungarian Statistical Office, n.d.), teachers have to cope with significantly more students today. Challenges have been caused not only by the higher numbers but also by the heterogeneity of the group. Although teachers in higher education might expect their students to be ambitious, motivated and self-regulated learners, today they are rare in higher education (Győrfyné Kukoda, 2012; Ollé, 2009). The majority of students today is mostly motivated by tests and exams and only prepare for them before the deadline (Ollé, 2009). Frequently, they are only interested in topics and tasks if they are compulsory and will be tested (Lencse, 2010). Consequently, their main concern is to obtain a degree by the least amount of effort possible (Győrfyné Kukoda, 2012; Lencse, 2010).
Although it is a challenge to engage these learners, attempts can be made to raise their interest. Lencse (2010) suggests that teachers should apply innovative methods, such as cooperative learning, which might motivate students. Differentiation and personalization are suggested by Csillik and Daruka (2015), when students are provided with control to select tasks that are relevant to them, as well as to determine their learning paths. Innovative methods include the use of technology as well, which can serve to engage students to the best of their abilities (Egbert, 2007).

2.4 Teachers’ use of technology

As it was pointed out in Chapter 2.4, teachers, similarly to students, cannot be described as a homogeneous group. Their use of technology for personal and entertainment purposes vary greatly and sometimes overlap with students’ use (Waycott et al., 2010). In Hungary, they possess computers and have broadband internet access in a significantly higher number than the national average (Buda, 2007). At the same time, their use of technology in the classroom shows a complex picture ranging from using basic technology for traditional teaching purposes to implementing web 2.0 tools for constructivist purposes. In the following chapter the results of empirical research will be summarized about what technologies are used in the classroom and how they are applied.

Although the conditions for successful technology integration, such as access to technology, teachers’ technological competence and support from school administration are generally present in schools in the developed world, a surprisingly low number of teachers use high-level applications in the classroom (Ertmer, 2005; Ertmer & Ottenbreit-Leftwich, 2010; Garrett, 2009; Hoopingarner, 2009; Mueller, Wooda, Willoughby, Ross, & Specht, 2008). Several researchers found in different contexts that currently technology’s potential is not fully exploited in the classroom. Similar findings emerged in three studies carried out in the US. Arnold (2007) surveyed 173 foreign language teachers at higher education institutions,
who used computer technology at a very basic level mostly for practical, but not pedagogical purposes. Kim (2008) reached similar results when she investigated 10 EFL/ESL teachers’ use of technology and their perceptions in New York. Classroom technology use was found fairly low among 177 primary and secondary school teachers as well by Vannatta and Fordham (2004). In a more recent review of literature (Buabeng-Andoh, 2012) ICT integration in teaching was found to be limited in developed countries in spite of the considerable investment in school infrastructure. The results of a comprehensive study carried out in Europe surveying 190,000 students, teachers and head teachers in over 11,000 primary and secondary schools in 31 countries in 2011-12 (European Commission, 2013) indicate that the European situation is similar: most teachers use ICT for preparation but very few use it to work with students during the lessons and only to a limited extent. There is considerable reluctance in the use of computers in class by Iranian English language teachers at universities (Hedayati & Marandi, 2014) and at secondary schools (Bordbar, 2010), similarly to primary school teachers in Singapore (Lim & Chai, 2008) as well as primary and secondary teachers in Korea (Baek, Jong, & Kim, 2008) and in China (Li & Walsh, 2011). The situation in Hungary seems to resemble the European situation, although teachers’ ICT usage in the classroom is below the European average (European Commission, 2013). Most teachers use computers for class preparation and approximately 50% of primary and secondary school teachers claimed that they had used computers in class (Hunya, 2007, 2008; Hunya et al., 2006). Based on questionnaires filled in voluntarily by 367 primary and secondary schools, Hunya and her colleagues (2011) found that digital tools were very rarely used in the classroom. Most schools were characterized by very low (51%) or low (26%) level of ICT use, with only 3% of schools who claimed to integrate ICT at a high level. Their findings correspond to results of a survey carried out among 1,146 primary or secondary school
teachers from nearly 400 towns or villages in Hungary (Buda, 2010), who had positive attitudes towards computer use but applied it in teaching to a very small degree.

The use of technology usually means the use of basic tools such as email, word processing, PowerPoint presentations, and authentic materials from the web (Garrett, 2009; Li & Walsh, 2011; Parker, Bianchi, & Cheah, 2008; Usluel, Askar, & Bas, 2008; Vannatta & Fordham, 2004; Waycott et al., 2010). Some teachers in higher education use the internet for submitting assignments (Suwannasom, 2010), for posting materials online (Arnold, 2007) and use electronic databases for teaching (Gabriel et al., 2012). The only study that yielded results that indicate a higher level use of technology was carried out in the UK by Jenkins, Browne, Walker and Hewitt (2011), who surveyed 74 higher education institutions. They found that teachers had started to use new tools: podcasting, e-portfolios, e-assessment, blogs and wikis, streaming media, mobile computing, podcasting and web 2.0 for delivering course content. However, pedagogic approaches did not seem to have changed and new tools supported traditional teaching methods. Hungarian teachers use computers mostly for preparation, administration and communication out of the classroom (Buda, 2007; Hunya, 2007, 2008; Török, 2008). When they use it in class, it is for testing, illustration and projecting results (Buda, 2007; Buda, 2010; Hunya, 2007; Hunya et al., 2006). Molnár and Kárpáti (2012) found that besides illustration, some teachers used the computer for revision and project work. Wikis, blogs, virtual learning environments and smart boards are very rarely integrated into teaching (Hunya, 2007; R. Tóth & Molnár, 2009), similarly to the preparation, editing and sharing of digital learning materials (Hunya et al., 2011). In a European project, where teachers took part in a professional development course about ICT, they used computers and the internet regularly in class after the course, but mostly for illustration (Lakatosné Török, 2010; Lakatosné Török & Kárpáti, 2009).
There is general consensus among researchers that the use of technology in the classroom, whether it be low-level applications or more sophisticated tools, mostly support traditional, teacher-directed instruction (Ertmer & Ottenbreit-Leftwich, 2010; Gabriel et al., 2012; Lim & Chai, 2008; Waycott et al 2010). Technology is used to supplement current instruction (Arnold, 2007; Parker et al., 2008; Suwannasom, 2010) and the implementation of new tools does not change pedagogic approaches (Jenkins et al., 2011). Some teachers apply technology in teaching in response to external forces and do not consider raising the quality of learning (Baek et al., 2008); others use it mostly for mechanical repetition with very few constructivist elements, such as small research projects (Lim & Chai, 2008). Similar findings emerged from studies in the Hungarian context, where Lakatosné (2010) and Lakatosné and Kárpáti (2009) found that the integration of new technologies in class did not significantly change traditional methodologies, even within a group of teachers, who had high ICT competence and took part in a special ICT project. Teacher-centred instruction is still very common (Buda, 2010; Molnár & Kárpáti, 2012), although there is a need for change among teachers. However, teaching approaches change very slowly, partly because best practices are not publicised (Fehér, 2004; Molnár & Kárpáti, 2012). Further reasons can be the lack, or perceived lack of school infrastructure and the fact that ICT implementation has only been part of teacher education for a few years (Molnár & Kárpáti, 2012). As for development in teachers’ use of computers for teaching, the European Commission survey (2013) found that the number of teachers who have used computers in class has increased from 70% to 80% since 2006. However, the percentages of teachers who have used ICT in more than 25% of lessons have stagnated or even decreased in some countries. In Hungary there has been a decrease in all three grades examined (Grade 4: 39% to 20%, Grade 8: 42% to 31%, Grade 11: 55% to 22%).
There is general agreement that teachers play a crucial role in integrating technology in teaching (Kim, 2008). In order to maximise technology’s potential in teaching it is vital that teachers have the methodological background, as well as a positive disposition towards using it. Furthermore, it is essential that teachers perceive technology as a tool to enhance teaching and promote learning (Cope & Ward, 2002; Kim, 2008; Lam, 2000; Lund, 2003; Savery, 2002; Suwannasom, 2010). It is also generally accepted that technology provides mere tools, and it depends on the teachers how they use these tools. Carmean and Haefner (2002) compare virtual learning environments to chalk, or chairs and tables in a classroom, where it depends on the teacher how they use them. A similar idea is expressed by Hoven, who describes a learning environment as an „intangible conflux” (2006, p. 248) of teachers, learners and physical resources, where learning takes place in the network of these three essential components. Research results on the factors that influence teachers’ use of technology are discussed in the following sections.

The lack of equipment and facilities can be a barrier to the use of ICT in the classroom (Arnold, 2007; Bordbar, 2010; Buabeng-Andoh, 2012; Buda, 2007; Hedayati & Marandi, 2014; Korte & Husing, 2007; Molnár & Kárpáti, 2012; Suwannasom, 2010). Some researchers suggest that ICT facilities have a strong effect not only on ICT usage but also on perceived attitudes (Usluel et al., 2008). A Hungarian study revealed that although the technical background can foster the spread of ICT, it is not a determining factor in teachers’ use of technology in the classroom (Fehér, 2004). On the contrary, the results of the European Commission survey (2013) indicate that there is no relationship between school equipment and teachers’ use, confidence and attitudes. While the use of computers and broadband internet access is ubiquitous in European schools, there are considerable variations between countries in the number of computers per 100 pupils, with 4-7 students on average. There is a trend towards laptops and mobile phones, and interactive whiteboards are present more
extensively than in 2006. According to the European Commission survey, Hungary is close to the average with 6-8 students per computer depending on the grade. However, Tóth, Molnár and Csapó (2011) found a considerably worse ratio in a representative survey carried out in primary schools with 15 students per computer, or even 19 if computers older than 6 years are not counted. The differences between schools seem to be huge depending on the size of school and town or village. According to Molnár and Kárpáti (2012), school equipment is still a problem, as well as the fact that the computers at schools are outdated. On the contrary, results of a non-representative survey filled in voluntarily by 367 primary and secondary schools (Hunya et al., 2011) suggest that school infrastructure is suitable for ICT use in the classroom. The reasons for differences in the findings probably lie in the different research methodologies, as the voluntary online questionnaire was possibly filled in by schools, whose computer use is higher than the average.

Findings of several studies support the claim that teachers’ beliefs influence their way of teaching, as well as their choice of methodological tools including the use of technology (Chen, 2008; Chen, 2010; Ertmer, 2005; Ertmer & Ottenbreit-Leftwich, 2010; Kim & Rissel, 2008; Lam, 2000; Levin & Wadmany, 2006; Li & Walsh, 2011; Lim & Chai, 2008; Mueller et al., 2008; Suwannasom, 2010). Kim and Rissel (2008) found in a case study about three ESL language instructors in a postsecondary context in the US that teachers’ beliefs in the benefits of computer use had a stronger influence on their classroom practices than their technological expertise. To change teachers’ practices it is essential either to fit technology use with existing beliefs or to influence their beliefs (Ertmer, 2005). However, as it is immensely difficult if not impossible to change beliefs, it seems to be easier to change classroom practices first then educational beliefs (Ertmer, 2005). Levin and Wadmany’s findings (2006) of a longitudinal study with 6 primary school teachers in Israel indicate that teachers’ beliefs changed substantively following 3-year experiences in technology-based
classrooms. At the same time, this change appeared to be an individual process, unique to each teacher. Another way to alter teachers’ beliefs is during teacher education, which should take existing beliefs into consideration and integrate technology use into the curriculum and demonstrate it in the classroom.

While several researchers argue that beliefs determine teachers’ classroom practices, others have found inconsistencies between teachers’ beliefs and practices (Chen, 2008; Lim & Chai, 2008). Almost all teachers in the two studies (twelve high school teachers in Taiwan and six primary school teachers Singapore) claimed to believe in constructivist principles in teaching, which meant that they regarded teaching as the facilitation of the learners’ active knowledge construction process but practised teacher-centred traditional methodologies. External factors were found to influence teachers’ behaviour, such as the syllabus, the pressure of exam and test preparation and limited access to computers in one of the schools. The teachers’ improper theoretical understanding of constructivism could also be a reason for the inconsistencies. Similar findings emerged from three Hungarian studies (Buda, 2007; Buda, 2010; Molnár & Kárpáti, 2012), in which teachers favoured innovative methodologies and the use of technology in the classroom in theory but used traditional tools, such as the blackboard, chalk and course book, as well as traditional ways of teaching. A similar tendency was observed in the European Commission survey (2013). Although most teachers claimed to be confident in using ICT in the classroom and positive about its relevance and impact on students’ learning, their use was limited to lesson preparation and very rare classroom application. Teachers’ perception of technology as a means to enhance students’ learning emerged from several other studies (Arnold, 2007; Bordbar, 2010; Cope & Ward, 2002; Jenkins et al., 2011; Li & Walsh, 2011; Savery, 2002; Waycott et al., 2010). However, Suwannasom (2010) found that teachers believed in technology’s power to promote communicative language learning but they also believed that their classroom curriculum was
more important. While some teachers regard computers as a supplemental and instructional tool to support traditional teaching (Kim, 2008); others believe that technology should be one of a variety of teaching methods and should only be used when needed (Almekhlafi & Almeqdadi, 2010). As the wide range of perceptions and beliefs that emerged from the studies suggest, teachers have a diversity of beliefs and attitudes, which influence their behaviour and which are affected by several factors (Cope & Ward, 2002; Levin & Wadmany, 2006; Lund, 2003; Suwannasom, 2010).

Besides school infrastructure and teachers’ beliefs and perceptions several other factors have been identified to influence classroom technology use (Almekhlafi & Almeqdadi, 2010; Buabeng-Andoh, 2012; Chen, 2010; Fehér, 2004; Kim & Rissel, 2008; Korte & Husing, 2007; Lund, 2003; Neyland, 2011; Suwannasom, 2010). These include external factors, which refer to the institution and its environment, as well as internal factors, which originate from the teachers’ personality and experience. Institutional support has been found to be an important factor in determining technology use in the classroom (Buabeng-Andoh, 2012; Fehér, 2004; Kim & Rissel, 2008; Korte & Husing, 2007; Neyland, 2011; Suwannasom, 2010) and the sustainability of an innovative course or project (Lund, 2003). Support from colleagues (Lund, 2003), peer pressure (Kim & Rissel, 2008) and technical ICT maintenance (Korte & Husing, 2007) also have an influence on teachers’ classroom practices. Further factors include the type of subject and curriculum (Almekhlafi & Almeqdadi, 2010; Ertmer & Ottenbreit-Leftwich, 2010; Suwannasom, 2010), the type of university (Arnold, 2007), the cultural environment (Bordbar, 2010) and students’ skills and abilities (Suwannasom, 2010). Results of only two studies indicate that external factors are less influential. While Chen (2010) found that contextual factors had moderate influence, teachers were not significantly affected by the support of their institution (Mueller et al., 2008).
As for internal factors, several aspects have been identified to affect the use of technology in the classroom. At the same time, findings are controversial and seem to be context and situation specific. The results of some studies indicate that older teachers appear to use technology less frequently, either because they do not see the benefits (Arnold, 2007; Korte & Husing, 2007), or they are less interested in technology (Buda, 2010). Arnold has also found that younger teachers are less worried about the time-consuming nature of ICT. On the contrary, findings of a non-representative study of more than 3,700 primary and secondary school teachers (Hunya, 2008) imply that age has no effect on the use of technology. Most studies confirm that gender has no significant impact on teachers’ choice of ICT, except for one conducted in the United Arab Emirates (Almekhlafi & Almeqdadi, 2010). They found that female teachers have more experience and knowledge of applications, while male teachers think that technology should be part of the curriculum and they should receive awards for its integration. Although the number of years of teaching experience has not been found influential (Arnold, 2007; Mueller et al., 2008), positive teaching experiences with computers seem to have a positive effect (Bordbar, 2010; Mueller et al., 2008). Teachers’ technological skills (Bordbar, 2010; Buabeng-Andoh, 2012; Chen, 2010; Lund, 2003; Neyland, 2011) can influence their use of technology, as well as their confidence and self-efficacy (Chen, 2010; Ertmer & Ottenbreit-Leftwich, 2010; Neyland, 2011). However, self-efficacy was proved to have no impact on teachers’ use of computers in two studies (Mueller et al., 2008; Vannatta & Fordham, 2004). Most researchers agree that it is a combination of external and internal factors that determine classroom technology use and the diversity of the results of research summarized above shows that teachers’ technology use is a highly complex issue with no clear-cut evidence for influencing factors.

Several studies have also been conducted on factors that discourage teachers’ use of technology and the results seem to be less diverse than those of research focusing on
encouraging factors. The lack of time has been identified as one of the main barriers to technology use by many researchers (Arnold, 2007; Bordbar, 2010; Jenkins et al., 2011; Jones, 2004; Lam, 2000; Li & Walsh, 2011; Lund, 2003), as well as the lack of support (Arnold, 2007; Bordbar, 2010; Hedayati & Marandi, 2014; Jones, 2004; Lam, 2000; Li & Walsh, 2011; Lund, 2003). The lack of appropriate equipment, resources and materials is still a problem in some countries (Arnold, 2007; Bordbar, 2010; Buabeng-Andoh, 2012; Buda, 2007; Hedayati & Marandi, 2014; Jones, 2004; Korte & Husing, 2007; Lam, 2000; Molnár & Kárpáti, 2012; Suwannasom, 2010). A further external barrier can be the rigid curriculum and the need to prepare for exams and tests (Bordbar, 2010; Buabeng-Andoh, 2012; Lim & Chai, 2008; Suwannasom, 2010). The expectation of or the fear from technical problems has only been found to prevent teachers from technology use in a few studies (Almekhlafi & Almeqdadi, 2010; Buda, 2013a; Jones, 2004). Similarly, students’ low language or digital proficiency (Hedayati & Marandi, 2014; Suwannasom, 2010) and the large number of students in one class (Almekhlafi & Almeqdadi, 2010) are only perceived to be a barrier by a low number of teachers. Besides external barriers, teachers’ personality and their beliefs can prevent the integration of ICT in the classroom. Their lack of skills or pedagogical knowledge (Arnold, 2007; Buabeng-Andoh, 2012; Buda, 2007; DelliCarpini, 2012; Korte & Husing, 2007; Molnár & Kárpáti, 2012), as well as the lack of confidence or self-efficacy (Buabeng-Andoh, 2012; Buda, 2013a; DelliCarpini, 2012; Jones, 2004; Lam, 2000) can cause teachers to avoid using technology. The lack of adequate training has also been identified as a barrier (Almekhlafi & Almeqdadi, 2010; Arnold, 2007; Buabeng-Andoh, 2012; Hedayati & Marandi, 2014; Jones, 2004; Li & Walsh, 2011). Teachers beliefs and attitudes that may prevent them from using ICT include the lack of its perceived usefulness (Almekhlafi & Almeqdadi, 2010; Jones, 2004; Korte & Husing, 2007), teachers’ resistance to change (Hedayati & Marandi, 2014; Jones, 2004) and the perception that there is no reward for their efforts (Arnold, 2007).
However, pedagogical obstacles seem to be less common today than earlier (European Commission, 2013).

A generally recommended way to facilitate teachers’ use of technology is the integration of technological applications into teacher education (Baek et al., 2008; Bordbar, 2010; Chen, 2010; Ertmer & Ottenbreit-Leftwich, 2010; Kim, 2008; Lakatosné Török, 2010; Lakatosné Török & Kárpáti, 2009; Molnár, 2011; R. Tóth & Molnár, 2009). Professional development for in-service teachers is also proposed (Almekhlafi & Almeqdadi, 2010; Chen, 2008; Cope & Ward, 2002; DelliCarpini, 2012; Ertmer & Ottenbreit-Leftwich, 2010; European Commission, 2013; Gabriel et al., 2012; Jenkins et al., 2011; Kárpáti & Ollé, 2007; Kim, 2008; Lam, 2000; Li & Walsh, 2011; Lund, 2003; Mueller et al., 2008; Suwannasom, 2010). Both of them should include the provision of examples and opportunities for positive experiences in everyday teaching practice (Chen, 2010; DelliCarpini, 2012; Ertmer & Ottenbreit-Leftwich, 2010; Kim & Rissel, 2008; Mueller et al., 2008; R. Tóth & Molnár, 2009; Suwannasom, 2010), as well as context-specific instruments and methods (Bordbar, 2010; DelliCarpini, 2012; Suwannasom, 2010; Török, 2008). Parallel to hands-on practical experience, it is equally important that teachers should receive theoretical knowledge about how technology can be effectively integrated into teaching and what effect it can have on students’ learning (Cope & Ward, 2002; Ertmer & Ottenbreit-Leftwich, 2010; Kim, 2008; Lam, 2000; Li & Walsh, 2011; Mueller et al., 2008). A further opportunity for professional development is the communities of colleagues (Lund, 2003) and the collaboration between schools (Almekhlafi & Almeqdadi, 2010). Critical conversations at universities and schools (Gabriel et al., 2012) and reflection about teaching practices (Suwannasom, 2010) can promote a more effective way of using technology. Besides professional development, better technical and pedagogical support is needed (Buda, 2010; Chen, 2008; European Commission, 2013; Hunya et al., 2006; Kim & Rissel, 2008; Török, 2008). Finally, the
integration of technology-enhanced materials into the curriculum (Molnár, 2011), as well as the freedom for teachers to select and cover curriculum materials (Almekhlafi & Almeqdadi, 2010) can encourage the use of ICT in the classroom.

The results of empirical studies conducted in several countries and contexts provided in the previous sections have not supported the existence of a homogeneous, technologically savvy Net Generation, who need and demand new ways of teaching. Although the great majority of students have access to core technologies and use basic devices and the internet for leisure and communication purposes frequently, researchers have found great variation within their skills influenced by several factors. Besides, they only use a limited set of ICT in educational contexts and seem to prefer traditional ways of teaching with moderate use of technology in the classroom. The assumption that there is a divide between digital native students and digital immigrant teachers that makes teaching difficult (Prensky, 2001; Tapscott, 1998, 1999) has also been questioned on the basis of the results of empirical research comparing the two groups. Similarly to students, teachers have been found a heterogeneous group with different experiences and preferences for technology use (Kennedy et al., 2009; McNaught et al., 2009). Students and teachers have been observed to apply the same technologies in everyday life at two Irish secondary schools (Benini & Murray, 2013) and at an Australian university (Waycott et al., 2010). Differences between students’ and teachers’ use may be attributed to their different roles as students and staff, rather than their age (Benini & Murray, 2013; Waycott et al., 2010), while some teachers seem to exhibit a greater digital competence than their students (Buda, 2013a). Nevertheless, teachers’ use of technology has been characterized by the dominance of low-level applications mostly supporting traditional, teacher-directed instruction influenced by internal and external factors (Ertmer, 2005; Ertmer & Ottenbreit-Leftwich, 2010; Gabriel et al., 2012; Garrett, 2009; Hoopingarner, 2009; Lim & Chai, 2008; Mueller et al., 2008; Waycott et al., 2010).
However, this does not mean that technology should not be applied in teaching. On the contrary, there is an opportunity for teachers to integrate students’ tools and experience into the classroom. The fact that the majority of students displayed positive perceptions towards various types of technology implemented in their courses also indicates that their preference for traditional learning can be overcome. However, the way new tools are integrated is crucial and several researchers have formulated recommendations about how to make it successful (Bullen et al., 2011; Frand, 2000; Gabriel et al., 2012; Hockly, 2011; Jones & Shao, 2011; Kennedy et al., 2009; Margaryan et al., 2011; McNeely, 2005). Teachers should select appropriate technologies for their teaching approach and style, as well as their subject area and content (Frand, 2000; Jones & Shao, 2011), which should also suit their students’ learning style (Frand, 2000). The use of technology must be relevant, practical (McNeely, 2005), clearly integrated into the course (Kennedy et al., 2009) and should meet the needs of specific programs (Bullen et al., 2011). Decisions about the use of technologies for teaching should be based on their educational value and how they can improve learning (Margaryan et al., 2011) and should involve critical conversations at the institutions (Gabriel et al., 2012). The fact that students’ skills are varied needs to be taken into consideration, as well. They also need training in the educational use of technology including computer and digital skills (Hockly, 2011; McNeely, 2005), problem-solving skills (Kvavik, 2005), collaboration (Kennedy et al., 2009) and the evaluation of online resources and filtering information (Hockly, 2011; Kennedy et al., 2009).

2.5 Pedagogical purposes of using VLEs and web 2.0 tools

In this section the focus will shift to the two areas within technology that will be investigated in the present research: virtual learning environments and web 2.0 tools including wikis. First, VLEs and web 2.0 tools will be described briefly, after that some directions of their implication in language teaching will be outlined. Research on wikis is often included in
studies about VLEs, as they can also be used as learning environments; consequently it is not always possible to separate the two areas.

### 2.5.1 Virtual Learning Environments

Virtual Learning Environments (VLE), which are sometimes called Learning Management Systems (LMS), Online Learning Environments (OLE) or Course Management Systems (CMS), are web-based platforms for the organisation of teaching and learning, which can be used for different purposes. Some of these environments are free (e.g. Moodle), while others have to be paid for (e.g. Blackboard, CooSpace). One of their most popular functions is the administration of the teaching process, missed classes, grades and other aspects of school life. However, they can be much more than a mere administrative tool and recent research on VLEs has focused on different aspects of their integration into teaching, such as enhancing communication and collaboration, personalised learning and learning styles, as well as fostering autonomy. Their use can also support the constructivist learning paradigm, thus has great potential for teaching in the 21st century (Hunya, 2005). According to Carmean and Haefner (2002) VLEs can encourage deeper learning, which is social, active, contextual, engaging and student-owned, as well as develop lifelong learning skills. Nevertheless, their success depends on the teachers, who should choose the appropriate features and adapt them to fit their pedagogy and teaching style. The opportunity to transform the language learning process by using a VLE is emphasized by Von der Emde, Schneider and Kötter (2001), who list the pedagogical benefits of VLEs for language teaching: authentic communication and content, autonomous, student-centred and individualized learning, experimentation and play.

Several researchers consider VLEs as a platform for communication and collaboration among teachers and students, which can facilitate the collaborative knowledge building process (Béres et al., 2009; Dorner & Major, 2009; Hunya, 2005; Murugaiah & Thang, 2010; Schwienhorst, 2002; Yu, Sun, & Chang, 2010). A further possible area where it can be
applied is student-centred and personalised learning that can suit different learning styles (Béres et al., 2009; Broad, Matthews, & Mcdonald, 2004; Kétyi, 2008, 2011; Pleasance, 2010). Finally, a number of studies focus on VLEs as platforms that may foster autonomy (Murugaiah & Thang, 2010; Sanprasert 2010; Schwienhorst, 2002). Most of the results indicate that there is a potential in using a VLE to provide learners with an opportunity for autonomous learning, however, it depends on several factors whether this potential is realised. These include the particular type of activity used, the amount of teacher support, the learning situation and students’ perceptions.

In spite of the wide range of benefits described above, the two most popular functions of VLEs seem to be administration and the provision of course material and resources, which supplement traditional teaching practices. Similarly to the results of research described in section 2.4, the use of technology does not necessarily change teachers’ practices or lead to innovation. In a study covering 85 higher education institutions in the UK, Browne, Jenkins and Walker (2006) found that 95% of the institutions use VLEs but mostly as a repository for course materials. A similar tendency was revealed by Limniou and Smith (2010), who surveyed 33 teachers and 108 students in engineering education in the UK. The teachers in their study used the VLE for delivering learning material, announcements and assessments to students and saw the greatest advantage of VLEs in limiting the lecture time. Although most of the 23 members of academic staff interviewed at a new university in the UK (Heaton-Shrestha, Edirisingha, Burke, & Linsey, 2005) used the VLE for similar purposes, some of them reported that it had altered the way they prepared materials and their relationship with students. However, the VLE did not affect their overall teaching approach significantly. While most of the 53 college English teachers surveyed in Taiwan (Yu et al., 2010) used the VLE primarily for uploading news and announcements, some of them utilized more functions and even brought in additional internet resources.
While most students reported positive views about the use of VLEs in different settings (Kétyi, 2008; Limniou & Smith, 2010; Naveh, Tubin, & Pliskin, 2010; Nikolov & Ottó, 2010; Palmer & Holt, 2009; Pleasance, 2010; Yu et al., 2010); teachers appeared to have mixed attitudes towards them. Kétyi (2008) surveyed 84 students of business German at a Hungarian university, who regarded the VLE very positively and found it easy to use. Similarly positive views were expressed by 11 students of English as a second language at a further education college in the UK, who believed that the use of the VLE enhanced their learning (Pleasance, 2010), as well as by 31 students of an online statistics course in English at a Hungarian university, who found the use of the VLE more enjoyable than a traditional course (Nikolov & Ottó, 2010). The 108 engineering students of a study carried out in the UK (Limniou & Smith, 2010) liked the VLE as well, but they suggested that the teachers adopt a more interactive and student-centred teaching approach with more collaboration tools. In a large-scale representative longitudinal study of 156 teachers and 2,908 students at an Australian university (Palmer & Holt, 2009), the students showed greater satisfaction with the VLE and rated it as more important than the teachers. After one year of use almost all ratings were higher, although teachers regarded the VLE mainly as a means for the delivery of course materials. Another large-scale Australian study revealed students’ and teachers’ contrasting priorities (Weaver, Spratt, & Nair, 2008). While teachers focused more on technical, administrative and workload issues; students reflected more on the quality of teaching. Consequently, only students who experienced a well-designed unit reported a positive experience. Although some teachers viewed VLEs positively (Pleasance, 2010), others found the use of the VLE time-consuming and sometimes complicated (Kétyi, 2008; Nikolov & Ottó, 2010).

Several researchers argue that the use of VLEs has the potential to enhance learning. However, most studies only report a perceived improvement and attempts to provide
empirical evidence on language development gained through the use of VLEs have been scarce. Mogus, Djurdjevic and Suvak (2012) found that the activity logs of 224 students of teacher education at a Croatian university correlated with their final exam marks. The results suggest that the more often students used the VLE the higher was their exam mark. The performance of two groups of psychology students in Switzerland was compared by Stricker, Weibel and Wissmath (2011), with one group of 80 students who used the VLE voluntarily to support the learning process, and another group of 82 students who did not use it. The findings indicate that ‘heavy’ VLE users, who spent two or more hours on the VLE performed better in the final exam than non-users. However, there was no significant difference between the grades of non-users and average VLE users. As the use was voluntary, it is possible that students who chose to use the VLE were more hard-working than non-users and simply spent more time preparing for the exam. The researchers also observed that some students used the VLE as a last minute exam booster and concluded that the use of the VLE as an addition to a face-to-face lecture is beneficial. Contrasting results have been found by Broad et al. (2004), who observed no significant differences between the performance of students using the VLE and those not using it. However, the new approach seemed to engage the students, who preferred this way of learning. Similar conclusions were drawn by Béres and her colleagues (2009) after two terms of using a VLE with 156 information technology teacher trainees and students of mathematics. Their learning environment included different tasks for students with different learning styles, which were received highly positively by the students. Although no significant differences were found between the groups of students, they seemed to become more self-confident and had exceptionally good theoretical and practical knowledge at the end of the course. Mixed results have been obtained by Kétyi (2009, 2011) when he compared the performance of two groups of students. In his first study he found that the performance of students in the research group increased more intensively than in the control group. However,
in his second study students who used the VLE only had better results in the reading comprehension part of their test, and the difference between the two groups diminished when surveyed again.

Several factors have been identified in recent research to influence the successful implementation of a VLE. The key variable seems to be the teacher, who should select the appropriate functions for the students (Kétyi, 2008) and use the VLE to suit the students’ needs (Pleasance, 2010). It is also necessary that teachers perceive the VLE useful (Heaton-Shrestha et al., 2005) and its use should be the choice of the lecturer (Weaver et al., 2008). Challenges on the teacher’s side include increased workload and preparation time (Heaton-Shrestha et al., 2005; Kétyi, 2008, 2009; Pleasance, 2010), as well as greater visibility enforced by the VLE (Heaton-Shrestha et al., 2005). Perceived support for the use of the VLE seems to be a significant factor for both teachers and students (Palmer & Holt, 2009). Students appear to miss personal contact and immediate help (Nikolov & Ottó, 2010) and a course book (Kétyi, 2009). The quality of teaching with the VLE and the course content are crucial for students’ satisfaction (Naveh et al., 2010; Weaver et al., 2008). Two further factors identified to have an effect on the benefit to students of VLE use is student involvement, i.e. the personal relevance of the VLE to students and perceived teacher involvement (Klobas & McGill, 2010).

The use of VLEs in higher education has become widespread in developed countries in recent years. Similarly to any kind of technology, its introduction in the classroom needs careful planning. Professional training for teachers is essential, and should include technical and pedagogical aspects, which are context-specific and relevant for the target audience (Murugaiah & Thang, 2010; Naveh et al., 2010; Pleasance, 2010; Weaver et al., 2008; Yu et al., 2010). On-going technical support is also necessary (Naveh et al., 2010; Palmer & Holt, 2009; Weaver et al., 2008), as well as student training (Dorner & Major, 2009; Pleasance,
2010; Weaver et al., 2008). Further support for staff can include team teaching (Murugaiah & Thang, 2010), as well as resource sharing and collaboration between teachers and institutions (Pleasance, 2010).

As an increasing number of institutions have started to use VLEs in higher education, they have also attracted considerable criticism. Allen (2013) pointed out that VLEs are virtual classrooms with all the traditional restrictions and fail to acknowledge current trends, such as the use of web 2.0 technologies and social media. They have also been criticized for their inflexibility and rigidity (Garcia-Penalvo, Conde, Alier, & Casany, 2011; Godwin-Jones, 2009; Wilson et al., 2007) and for serving the needs of the institution rather than the learner (Garcia-Penalvo et al., 2011; Torres Kompen, Edirisingha, & Mobbs, 2008). Moreover, VLEs are mostly used for sharing material, provide restricted tools for collaboration and their use is limited to a period of time (Garcia-Penalvo et al., 2011, Wilson et al., 2007).

2.5.2 Personal Learning Environments

As a response to the criticisms described in the previous section and to acknowledge emerging trends such as lifelong learning, student-centred learning and the spread of web 2.0 technologies, Personal Learning Environments (PLE) emerged around 2001 and became widespread from 2004 (Dunlap & Lowenthal, 2011; Garcia-Penalvo et al., 2011). They were first mentioned by Olivier and Liber (2001), who developed a learning environment for students at a university in Wales to store their personal learning records. PLEs are flexible environments which integrate services and resources from multiple contexts (Buchem, Attwell, & Torres, 2011; Wilson et al., 2007) and provide students their own space to learn by connecting resources, contexts and tools they use in everyday life (Attwell, 2007). PLEs do not need to be tied to courses, thus they can enhance informal and lifelong learning (Godwin-Jones, 2009). Torres Kompen and his colleagues (2008) emphasize that a PLE is not a particular site or tool but a framework that can incorporate tools chosen by the teacher and the
students, as well as useful links to websites and blogs (Rahimi, Van den Berg, & Veen, 2013, 2014). Besides educational tools and experiences, it can also include work and leisure activities and provide a highly individualized context (Wilson et al., 2007).

PLEs should provide universal access and a uniform interface for the students of an institution, as well as the possibility to integrate external tools. There are different ways to create an environment to fulfil these criteria. It is possible that the VLE of the institution and the PLE exist in parallel, the former as the formal and the latter as an informal environment. Another way is to open up the VLE to integrate web tools; alternatively, external tools can be integrated into the VLE by the institution (Garcia-Penalvo et al., 2011). A further radical solution would be to eliminate the VLE and only use an external site that serves as a PLE (Godwin-Jones, 2009), which can be wiki-based (e.g. Google sites), social network-based (e.g. Facebook), social aggregator-based (e.g. Netvibes) or browser-based (e.g. Flock). A great diversity of tools can be integrated into PLEs. They include communication tools (e.g. MSN chat, Skype or Viber), tools for publication (e.g. blogs, Twitter, Wikispaces), resource sharing (e.g. Flickr, Slideshare, Delicious), social networking (e.g. Facebook), digital media (e.g. Audacity) and document co-creation (e.g. Google docs).

One of the main advantages of using a PLE is that it can not only provide an environment and tools but also prepare for lifelong learning as it encourages reflection and collaboration, provides motivating learning activities and helps develop student responsibility (Attwell, 2007; Drexler, 2010). As Net Generation learners are not familiar with using web 2.0 tools for formal learning, using a PLE can help them to discover these tools (Attwell, 2007). It also has the potential to integrate formal and informal learning and to serve as an e-Portfolio for students, which they can access after the end of their formal studies, as well (Attwell, 2007; Wilson et al., 2007). Furthermore, it can support self-regulated learning and group learning (Drexler, 2010; Wilson et al., 2007), as well as different learning styles.
(Attwell, 2007). Finally, PLEs can enhance student-centred and individualized learning since they can be customized by students, who can choose the tools that best suit their needs, which can also be constantly updated (Attwell, 2007).

Although PLEs can provide great benefits for the users, several problems may arise about their implementation. Most of these overlap with their advantages and institutions have to choose their priorities before deciding if and what type of PLE they want. The parallel existence of a formal VLE and an informal PLE means that students have to register twice and might have to do double work. Moreover, it is difficult to draw the boundaries between the two environments and to decide what should go into which one. If the official VLE of the institution is opened up to integrate external tools by the teacher or the students, security and privacy issues can arise, as the great number of different tools makes it impossible to moderate or check materials (Archee, 2012; Attwell, 2007; Godwin-Jones, 2009; Torres Kompen et al., 2008). There can also be integration difficulties between tools and contexts (Garcia-Penalvo et al., 2011) and the institution might not be able to provide technical support for all tools (Attwell, 2007; Torres Kompen et al., 2008). Finally, students might not be prepared for the complexity of a PLE and feel confused by the information overload (Archee, 2012; Väljataga & Fiedler, 2009), as well as the multiple accounts and registrations (Dunlap & Lowenthal, 2011; Kétyi, 2010).

As PLEs are relatively new in education, not much research has been conducted on their effects or reception. Allen (2013) surveyed 10 secondary school English teachers after they had been using a set of various web 2.0 tools as a PLE for one year. The teachers had started to move away from a course-book driven approach and used some of the tools, mostly social and digital media. However, more complex tools, such as collaborative writing or information management were not applied. A model to develop PLEs was proposed by Rahimi and his colleagues (2013) and tested by ten teachers in a secondary school in the
Netherlands. The teachers were overall positive about the potential of the model to improve the educational process. Another secondary school study carried out in the US focused on 15 students’ opinions about the web 2.0 tools integrated into their VLE (Drexler, 2010). Most students were successful with their teachers’ support and expressed positive views about their experience including greater control of the learning process. Similarly positive opinions were voiced by 55 students of computer education at a Turkish university (Uzunboylu, Bicen, & Cavus, 2011), who used Windows live spaces as a VLE with several web 2.0 tools incorporated. No official VLE was applied at an Estonian university in a course of Self-directed learning with social media with 26 students (Väljataga & Fiedler, 2009). Students had a personal learning contract about their objectives, as well as complete freedom and full responsibility for selecting and combining tools for their own purposes. In spite of the short time of the course, students seemed to gain considerable knowledge about social media and the selection of tools and regarded the personal contract procedure very useful.

As PLEs offer more flexibility but greater complexity at the same time, they need to be introduced gradually and after careful consideration (Archee, 2012; Väljataga & Fiedler, 2009). Training and support is necessary for students and teachers (Dabbagh & Kitsantas, 2012; Rahimi et al., 2013, 2014), including setting clear objectives and expectations (Dunlap & Lowenthal, 2011). The choice of tools and services should be made by the teacher and the students based on their teaching and learning objectives.

2.5.3 Web 2.0 tools

Although the term web 2.0 tool is widely used in research, its technical definition has been the subject of debate (Thomas, 2009; Wang & Vásquez, 2012; Warschauer, 2009). While it was first used by DiNucci in 1999, it only became popular after the O'Reilly Media Web 2.0 Conference in late 2004 (O'Reilly, 2007). The difficulty of providing a definition may lie in the fact that web 2.0 does not have well-defined limits (O'Reilly, 2007). As a
consequence, concepts, practices and tools within the scope of web 2.0 have been described by researchers instead of a definition (Alexander, 2006). The first attempt to establish the differences between Web 1.0 and Web 2.0 by O’Reilly (2007) can be seen in Table 3. Three key ideas characterize the descriptions of web 2.0 technologies, including the role of users as contributors or co-developers, whose participation in creating content is emphasized, its potential for collaboration or sharing data, as well as for community building and networking (Anderson, 2007; O'Reilly, 2007; Thomas, 2009; Warschauer, 2009).

Table 3

<table>
<thead>
<tr>
<th>Web 1.0</th>
<th>Web 2.0</th>
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<tr>
<td>DoubleClick</td>
<td>Google AdSense</td>
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<tr>
<td>Ofoto</td>
<td>Flickr</td>
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<tr>
<td>Akamai</td>
<td>BitTorrent</td>
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<tr>
<td>mp3.com</td>
<td>Napster</td>
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<tr>
<td>Britannica Online</td>
<td>Wikipedia</td>
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<td>personal websites</td>
<td>blogging</td>
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<tr>
<td>evite</td>
<td>upcoming.org and EVDB</td>
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<tr>
<td>domain name speculation</td>
<td>search engine optimization</td>
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<tr>
<td>page views</td>
<td>cost per click</td>
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<tr>
<td>screen scraping</td>
<td>web services</td>
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<tr>
<td>publishing</td>
<td>participation</td>
</tr>
<tr>
<td>content management systems</td>
<td>wikis</td>
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<tr>
<td>directories (taxonomy)</td>
<td>tagging (&quot;folksonomy&quot;)</td>
</tr>
<tr>
<td>stickiness</td>
<td>syndication</td>
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</table>

Web 2.0 tools that have a potential to enhance education have been categorized into three groups by Dede (2009): sharing (communal bookmarking, photo and video sharing, social networking and writers’ workshops) thinking (blogs, podcasts and discussion forums) and co-creating (wikis and collaborative file creation, mash-ups and collective media creation and collaborative social change communities). Although the author agrees that this categorization is somewhat arbitrary and depends on the particular application of the tools, it can help reduce the vast number of tools. As for the educational use of web 2.0 tools, Warschauer (2009) views them as powerful tools that may both have positive and negative effects and therefore must be applied carefully considering learners’ needs, teachers’
capacities and local contexts. The importance of the specific teaching situation is also highlighted by Duffy (2008), who considers the strength of these tools their collaborative and creative power. The revolutionary impact of web 2.0 tools on teaching is not caused by enhancing efficiency but by extending the relations between students and teachers to multidimensional networks that are similar to the world we live in (Thomas, 2009). Although web 2.0 tools are currently not widely employed in formal education, there is a vast number of local initiatives in Europe (Redecker, Ala-mutka, Bacigalupo, Ferrari, & Punie, 2009), as well as around the world (Thomas, 2009). Researchers emphasize that web 2.0 tools have a potential to enhance education by promoting innovation despite the fact that the great number and variety of tools do not allow to draw conclusions easily (Franklin & van Harmelen, 2007; Redecker et al., 2009; Thomas, 2009). In a review of 43 empirical studies between 2005 and 2010 on the use of web 2.0 tools in language learning, Wang and Vásquez (2012) found that blogs, wikis, social networking sites and podcasting are most widely spread in language teaching with the most empirical research conducted on blogs and wikis. They identified the main benefit of these tools for language teaching as fostering the favourable language learning environment. The review has also discovered a lack of studies that examined students’ learning progress and learning outcomes. Since then, a few attempts have been made to investigate the educational benefits of web 2.0 tools. Laru, Näykki and Järvelä (2012) conducted a case study of students in higher education, who were supported by multiple social software tools and concluded that they contributed to increasing students’ knowledge acquisition during the course. In a quasi-experiment in an EFL class at a Spanish university Monje (2014) found that the use of forums, collaborative glossaries, social repositories with annotated past papers, podcasts, social bookmarking, a wiki and a blog enhanced the development of students’ reading and writing skills, although the students preferred oral practice through podcasts. She concluded that the main benefits for language teaching were
the entertainment the tools provided, as well as the possibility of personalized feedback and the sense of belonging to a community. There is consensus among researchers that the integration of web 2.0 tools in teaching requires further empirical research to understand the benefits they can provide for students and teachers (Duffy, 2008; Greenhow, Robelia, & Hughes, 2009; Wang & Vásquez, 2012). Franklin and van Harmelen (2007) recommend that experimentation is needed at higher education institutions in order to take full advantage of web 2.0 tools. The role of teachers is highlighted by Kárpáti (2009), who should become role models for students in their use of the social web, as well as facilitate innovative learning practices (Redecker et al., 2009). As in the present research a wiki will serve as a personal learning environment for the students, research on the integration of wikis will be reviewed in more detail in the following sections.

2.5.4 Wikis

The first wiki was developed in 1995 by a software developer, Howard Cunningham and has been getting more and more popular in educational settings since the early 2000s (Lund, 2008). Its name comes from the Hawaiian phrase “wiki-wiki”, which means “quick” (Li, 2012). It is a website which allows its readers to freely add and edit content and to create new pages and links between different pieces of content. As opposed to traditional websites, contributors do not need to possess any programming skills to be able to edit a wiki, which makes it suitable for use in any classroom. What distinguishes it from virtual learning environments (VLE) is its dynamic design and open architecture. Whereas VLEs have a predetermined and fix arrangement, a wiki’s structure emerges as a result of participation (Lund, 2008). Karasavvidis (2010) calls the former a one-to-many, while the latter a many-to-many type of technology that can promote democratic and not hierarchical learning. The wiki’s ability to replace the traditional linear approach of presenting course content is also emphasised by Papadima-Sophocleous and Yerou (2013). As the authors and creators of
content are students, wikis can promote student-centred learning and knowledge sharing, which can grow over time (Godwin-Jones, 2003). To highlight their collaborative nature and the possibility of updating information anytime, Lamb (2004) defines wiki content as “egoless, timeless, and never finished” (p.38). Warschauer (2010) compares wikis to email and chat, which enhance informal, author-centric and personal communication, as opposed to a more formal, topic-centric and depersonalised exchange on the wiki. Today there are several wiki websites available such as Socialtext, PBworks, Wikia and Wikispaces, which can be used with any web browser. Wikis can be fully open to read and edit by anyone and thus they are applicable for large projects involving a public audience. However, it is also possible to protect them with a password to make them read-only by the public or entirely closed for their members, which makes them suitable for school and class projects as well. Whichever way they are used, wikis are highly suitable for providing a personal learning environment for students.

**Wikis used for collaborative writing**

Wikis’ main area of application is collaborative writing and peer correction, which can make students work with more care and attention (Warschauer & Grimes, 2007). It is a powerful digital tool for collaborative writing and collective knowledge development as each edit makes a contribution to a joint written product (Warschauer, 2010). Since contributions and authors can be tracked and the comparison between different versions of edits is possible, individual students’ work can also be assessed. The trackability of the different stages of text production can shed light on the writing process as well. Wikis have been used for collaborative writing projects in various courses. They are particularly suitable for information technology and other related subjects, because IT students are probably accustomed to using computers and web 2.0 tools. Elgort, Smith and Toland (2008) and Cole (2009) described two similar projects, where students had to produce a collective knowledge
repository in an Information systems and technologies course. Two different types of wiki tasks (weekly extension question tasks versus semester long group projects) were compared by Bower, Woo, Roberts and Watters (2006) in two Masters of IT subjects, as well as by Larusson and Alterman (2009) in a Computer Science course (a tightly coupled collaborative team project versus a loosely coupled learning activity). Su and Beaumont (2010) evaluated the use of wikis in a final-year dissertation course of IT students, who constructed literature reviews on the wiki. The wiki use of two classes of IT major student teachers creating digital learning resources was investigated by Lai and Ng (2011). Guo and Stevens (2011) described an Information systems in business course, in which students had to use a wiki for their weekly workshop assignment and their group case study assignment for collaborative learning. Hadjerrouit analysed students’ experiences with collaborative writing in two Web 2.0 technologies courses in teacher education (2011, 2012). On a similar course (Learning with information and communication technologies) students had to complete a collaborative assignment on the wiki and the researcher’s aim was to identify the problems they experienced (Karasavvidis, 2010). Three cross-institutional and cross-country projects were described by Bonk and his colleagues (2009), in which master's and doctoral students had to produce a wikibook collaboratively in a Web 2.0 and emerging learning technologies course. The authors analysed the ways of collaboration and the problems and challenges students faced while working together with students from other institutions.

Two further studies, which were conducted in teacher education, focused on peer assessment. While Xiao and Lucking (2008) investigated students’ satisfaction with peer assessment in a collaborative online text project, De Wever, Van Keer, Schellens and Valcke (2011) examined the reliability of peer assessment in an Educational sciences course, where students had to create 3 wikis collaboratively. The aim of the wiki created by FL teaching assistants for various languages (Arnold, Ducate, Lomicka, & Lord, 2009) was not only to
create class resources but also to serve as a possible reference for other language teachers. Collaboration in two courses (a *Graphic design* and a *Learning technologies* course) was compared by Hughes and Narayan (2009). Vassell, Amin and Winch (2008) evaluated the use of collaboratively produced wikis in three different *Business* courses, whereas Grant (2009) explored the extent to which students were able to collaborate during a joint *History* and *ICT* writing project in a secondary school.

**Wikis used for collaborative writing in language teaching**

As teaching writing is an essential part of language teaching and wikis are highly suitable for that purpose, wikis have been widely used in second and foreign language teaching. In a review of current literature on wikis in second or foreign language teaching, Li (2012) has found that most of the twenty one case studies she investigated focused on the use of wikis for collaborative writing. The majority of the studies about their integration into teaching have been conducted in higher education settings, probably because it requires basic ICT skills as well as the ability of independent learning to use them successfully. An exception is Woo, Chu, Ho and Li’s research (2011), who examined primary-five students’ group writing of a non-fiction text on the wiki. Another study was carried out in a secondary school by Mak and Coniam (2008) about the production of a school brochure on the wiki. Finally, teenage students’ collaborative writing was investigated by Franco (2008) in a Brazilian language school. All other studies in language teaching reviewed here were conducted in higher education.

The most frequent language in focus is English with only a few studies about German (Arnold, Ducate, & Kost, 2012; Kost, 2011), Spanish (Elola & Oskoz, 2010; Lee, 2010; Martinsen & Miller, 2012; Moreno, 2009) and German, Spanish and French within one study (Ducate et al., 2011). The use of wikis for English for Academic Purposes (EAP) and English for Special Purposes (ESP) has also been examined by some researchers. Various
collaborative writing tasks were implemented in a course of Effective Communication in English (Kuteeva, 2011), in an ESP course for software engineering students (Bradley, Lindström, & Rystedt, 2010; Bradley, Lindström, Rystedt, & Vigmo, 2010), sociology students (Zorko, 2009) and students of accountancy (Alyousef & Picard, 2011). Papadima-Sophocleous & Yerou (2013) used a wiki in a blended ESAP course for English for Commerce, Finance and Shipping with various tasks including a report written by students in pairs about the financial situation of a company. A similarly blended course was developed by Kovacic, Bubas and Zlatovic (2008) for ESP business and EFL English courses, which was based on 23 various wiki-based activities (e-tivities) including writing tasks in pairs and groups.

Wiki-based collaborative writing projects included tasks based on the topics of the course and the course book (Al Khateeb, 2013; Bradley, Lindström, Rystedt, & Vigmo, 2010; Lin & Yang, 2011), summary or essay writing on the wiki (Bradley, Lindström, & Rystedt, 2010; Elola & Oskoz, 2010; Kost, 2011; Kuteeva, 2011; Turgut, 2009; Wang, Lu, Yang, Hu, Chiou, Chiang, & Hsu, 2005; Wichadee, 2010), writing emails and letters (Kovacic et al., 2008) and report writing (Alyousef & Picard, 2011; Papadima-Sophocleous & Yerou, 2013; Zorko, 2009). Two studies described the production of an online picture book and a children’s book on the wiki (Lee & Wang, 2013; Moreno, 2009), while two projects involved writing about culture (Kessler, 2009; Kessler & Bikowski, 2010). A wiki about the cultural background to a novel was examined by Arnold et al. (2012), whereas Chao and Lo (2011) investigated the production of a story script. Students could choose from several meaning-focused open-ended tasks in a project by Lee (2010). Some researchers compared the effect of different tasks on the wiki (Aydin & Yildiz, 2014; Ducate et al., 2011; Wang, 2014) and tasks written on paper and tasks written on the wiki (Martinsen & Miller, 2012). The majority of the studies described projects involving 30-50 language students, who took part in various
collaborative writing projects. While only three research projects involved fewer than 10 students (Alyousef & Picard, 2011; Elola & Oskoz, 2010; Kost, 2011) and one investigated six instructors’ reflections on wiki-based collaborative tasks; there were four studies involving more than 70 students (Bradley, Lindström, Rystedt, & Vigmo, 2010; Kovacic et al., 2008; Lee & Wang, 2013; Martinsen & Miller, 2012).

In a review of empirical research studies about the use of wikis for collaborative writing conducted from 2005 to 2011, Ansarimoghaddam, Tan, Yong and Kasim (2012) found mostly positive results as well as some limitations and problems, which is in line with the findings of the studies reviewed here. Almost all the results suggest that wikis can be applied in teaching, particularly language teaching for collaborative writing successfully. At the same time, several problems and limitations have also been discovered, as well as factors which influence the implementation of wikis. As for types of collaboration, Zorko (2009) has found that the wiki promoted different types of it: learning from each other and communicating with the teacher but it was less successful in facilitating other types of collaboration: communicating with peers and co-constructing products. Similarly, the students preferred live meetings and other ways of online communication in the projects conducted by Bradley, Lindström, Rystedt and Vigmo (2010) and Hadjerrouit (2012). A varied degree of success was found by Bonk et al. (2009) in the three consecutive wikibook projects, from very little participation in the first one to full collaboration in the third project. In the cross-institutional projects students perceived collaboration across the institutes challenging. Arnold et al. (2012) found that students utilized both collaborative and cooperative strategies to make formal revisions, but they worked more cooperatively when making content changes. Participants seemed to have developed several skills according to Lai and Ng (2011) during the wiki project, such as IT skills, collaboration skills and organizational skills. Collaboration on the wiki was found to have improved students’ writing skills in two projects (Lee, 2010;
Turgut, 2009), independent of the quality of the final product (Kessler & Bikowski, 2010). The only negative results were found by Hadjerrouit (2011, 2012) and Grant (2009). In his first study with nine students Hadjerrouit observed that wikis were motivating but collaboration was done in a relatively simple, uncritical, and unsophisticated manner, and contributions were not evenly distributed. Students were also more inclined to cooperate not to collaborate and postpone work until deadline (2012). He concluded that training would be needed in order to apply wikis more successfully. Grant (2009) has discovered little evidence of collaboration and students seemed to import practices of individual written tasks, probably because of the individual assessment at the end of the project. Some students experienced problems with collaboration in other studies as well but the benefits seemed to outnumber these (Bonk et al., 2009; Karasavvidis, 2010; Lee & Wang, 2013).

**Wikis used for peer review and assessment**

Peer review and assessment on a wiki is a research strand frequently present in recent research. Most results suggest that wikis can be implemented as platforms for peer review and correction. Students have found peer-correction on the wiki awareness-raising about the writing process (Franco, 2008), motivating and providing a sense of achievement (Chao & Lo, 2011), as well as confidence (Su & Beaumont, 2010). The majority of participants took part in correcting their fellow students’ work and felt they had benefitted both from reviewing and being reviewed (Xiao & Lucking, 2008). In fact, Kessler (2009) has found that students were more willing to edit their peers’ writing than their own, especially when correcting formal mistakes. Several researchers have reported a gradual improvement in the willingness and the quality of peer editing (Chao & Lo, 2011; De Wever et al., 2011; Su & Beaumont, 2010). The feasibility of peer assessment based on rubrics has been investigated by De Wever et al. (2011), Lai and Ng (2011) and Xiao and Lucking (2008). All three studies confirmed that peer assessment can be applied on the wiki effectively. De Wever et al. (2011) found the
reliability of the rubrics developed by the instructors rather high, improving with the number of occasions peer assessment was performed. Although assessment rubrics were developed by the students with some difficulty in the second study (Lai & Ng, 2011), they found them easy use, profitable and capable of improving their assessment skills. In a quasi-experimental study Xiao and Lucking (2008) compared two types of peer assessment: rating score and qualitative feedback (experimental group) versus rating score feedback only (comparison group). The experimental group showed greater improvement in their writing and were more satisfied with the peer assessment method than the comparison group.

A number of studies have investigated the type of feedback students provide to each other. Bradley, Lindström, Rystedt and Vigno (2010) found that most students provided either form-oriented or content-focused feedback, while only a few students applied the combination of both types. Several researchers concluded that the type of task influences the type of feedback given. Learners attended to meaning more than form in open-ended and meaning-focused tasks (Aydin & Yildiz, 2014; Kessler, 2009) and cognitively more demanding tasks produced more peer-corrections (Aydin & Yildiz, 2014). Students in a study by Mak and Coniam (2008) were found to be reluctant to correct any formal mistakes. However, these findings were not confirmed by Lee (2010), who found that students did pay attention to form during meaning-driven activities. On the other hand, Lin and Yang (2011) reported that students’ feedback only focused on grammar and was very limited on content and organisation. Similarly, students in a study by Arnold et al. (2012) felt less inhibited to correct formal mistakes than to make content-based revisions.

Problems and negative outcomes were only found in a few studies, mostly along with positive results. Although students benefitted from giving feedback, they did not feel comfortable correcting each other’s mistakes (Lee, 2010). Similarly, feedback was found highly valuable by students in a study by Hadjerrouit (2011), although most of the feedback
focused on editing, formatting and technical aspects. Bonk et al. (2009) discovered that while students accepted an internal critique partner easily, they had reservations about an external one from another institution. Wang et al. (2005) investigated the relationship between the frequency of editing and students’ performance in the final exam and found that students with low editing usage performed better. Nevertheless, no causality was implied and the need for further research was announced. Finally, secondary school students performed very little editing on others’ pages (Grant, 2009) and did not view the ability of peer review as useful or desirable.

Students’ perceptions

Students’ perceptions of wikis and wiki-based collaborative writing are one of the most examined areas in recent research (Li, 2012). It includes their perceptions about collaboration and about the benefits and challenges of using wikis. Results concerning students’ perceptions of collaboration and group work vary greatly. Several studies reported an overall positive experience about collaboration on the wiki (Aydin & Yildiz, 2014; Lin & Kelsey, 2009; Miyazoe & Anderson, 2010; Wichadee, 2010; Woo et al., 2011). Participants enjoyed working together and were in favour of more collaborative writing activities in other classes (Kost, 2011) and found working on the wiki positive and motivating (Lee, 2010; Papadima-Sophocleous & Yerou, 2013). Chao and Lo (2011) found that students considered writing on the wiki more interesting than on paper and were more aware of their language use and content creation. Some researchers reported mixed perceptions about the use of wikis. Lin and Yang (2011) found that students had positive perceptions about wikis but faced some functional and psychological obstacles to using these new tools. Students also found wikis enjoyable and useful for learning and perceived an improvement in grammar and vocabulary in a study by Ducate et al. (2011). However, they viewed work distribution and time management negatively and some students preferred working alone. Similarly, some students
disliked group work and group assessment (Elola & Oskoz, 2010; Moreno, 2009), although they perceived the quality of their writing better collaboratively (Elola & Oskoz, 2010). This is in line with Alyousef and Picard’s (2011) finding that students favoured cooperative learning over collaborative learning. In two postgraduate Master’s level university courses a significant number of students felt they could have written the assignment better on their own, although they viewed the wiki as a valuable tool for collaboration (Elgort et al., 2008). Hughes and Narayan (2009) examined two courses and came to different results. In the first course, where the wiki was used as a course content glossary, students perceived the wiki as positively supporting collaboration and learning. However, in the second course, where students used wikis to develop, share, and edit project assignments, they perceived the wiki as not supporting collaboration, and they had modest perceptions of the wiki. Lee and Wang (2013) reported positive perceptions of the students but they found no relationship between students’ perceptions and their engagement in the project. Cole (2009) described a failed experiment, in which students did not make any contributions on the wiki. She concluded that web 2.0 technologies and wikis were perceived as fun and consumption and not suitable for learning.

Knowledge building and sharing on the wiki

Wikis are perfect for creating a collection of links and ideas, thus they are a powerful digital tool for knowledge development and sharing (Lamb, 2004; Warschauer, 2010). According to Godwin-Jones (2003), the main aim of wiki sites is to create a continuously growing repository of knowledge. Although the most prominent areas of research concerning wikis are collaborative writing and peer review, a wiki as a collective knowledge base has also attracted the interest of several researchers. Students found wikis useful for arranging information and sharing knowledge when producing a knowledge base in a course for Information Systems and Technologies, as well as when creating a web based guide to online
resources in a course for *Advanced Reference Services* (Elgort et al., 2008). In a project conducted in a secondary school, Lund (2008) found that the students’ collection titled ‘Our USA’ is more than the sum of individual contributions and the wiki affords and supports collective production. Heafner and Friedman (2008) reported the results of another study in a secondary school, where some students created wikis about a topic, while others learned the same content in a traditional way. Eight months after the project students who created wikis showed greater content retention and understanding than their peers who took part in the teacher-directed instruction only. The ways how an authentic learning community is constructed through the use of a wiki for knowledge sharing are discussed by Lin et al. (2007). In the community, each member had a different role for their homework and collected different information, which resulted in the increase of the participants’ academic knowledge. Constructing knowledge in a holistic learning environment was the objective of an ESAP course by creating and editing ESAP glossaries, sharing homework, projects and photos, as well as creating internal and external links (Papadima-Sophocleous & Yerou, 2013). Results indicated that the use of the wiki enhanced students’ learning of English in the areas of Computer Literacy, Academic English, Professional English and Social Skills and also increased their motivation. Kimmerle, Moskaliuk, & Cress (2011) examined processes of learning and types of knowledge building on wikis in psychology. They concluded that working on a wiki seems to enhance the development of conceptual knowledge and accommodative knowledge building more than the development of factual knowledge and assimilative knowledge building. All findings so far have been positive about wikis’ potential to be a platform for successful knowledge building and sharing. However, a few negative results have also been reported. Grant (2009) found little evidence of a knowledge-building network in a secondary school project. Similarly, hardly any contributions were made by
students in a course for Information systems on the wiki, which was intended to serve as a module-level knowledge repository (Cole, 2009).

**Self-regulation and autonomous learning on the wiki**

Little research has been conducted about self-regulation and the development of autonomous learning on the wiki. Chao and Lo (2011) suggest that the collaborative writing project they carried out appeared to enhance self-regulation through peer reviewing and editing. Similarly, the wiki seemed to foster students’ motivation to be self-regulated not only by the peer interaction but also by the individual accountability, as well as by the encouragement to make choices in the wiki-based collaborative work (Lee, 2010). Su and Beaumont (2010) analysed the progress students made towards becoming self-regulated critical learners, who are able to provide and receive criticism and identified indicators of progression. The majority of students perceived a similar development of their initiative in learning independently. Students’ ability to learn autonomously was investigated by Kessler (2009) and Kessler and Bikowski (2010). The results of the first study suggest that students were able to meet the knowledge and skills subcomponents of ability within Littlewood’s (1996) autonomy framework, but lacked the motivation subcomponent of willingness. In other words, they were able to perform autonomously but did not strive for grammatical accuracy. Kessler and Bikowski (2010) developed a framework for collaborative learner autonomy in computer-mediated learning environments and maintain that technology may provide opportunities for autonomous language learning. Therefore it is essential to prepare students not only for the linguistic expectations of the task but also for working in an autonomous environment.

**Problems of using the wiki**

Although the majority of studies discussed here evaluate the implementation of wikis in education positively, they also discuss challenges that students encountered using the wiki.
Several studies reveal technical problems, such as formatting problems or slow network (Chao & Lo, 2011; Ducate et al., 2011; Hadjerrouit, 2012; Lin & Yang, 2011; Lund, 2008; Woo et al., 2011; Zorko, 2009), which may discourage students from using the wiki. Another issue that may influence the successful implementation of wikis is time. Some students complained about the time pressure (Cole, 2009), and suggested that the task had taken up too much time and energy (Karasavvidis, 2010). The wiki, as an asynchronous communication tool, was regarded by some students as not convenient because of the time lag between the answers (Lee & Wang, 2013; Lund, 2008). Hadjerrouit (2012) reported that students had made contributions on the wiki just before the deadline, which made collaboration and task completion difficult. The limited time available was a problem for students in a cross-institutional project as well, because they could not get to know their partners well and so collaboration was not easy for them (Bonk et al. 2009). Some researchers reported problems with students’ dispositions towards wikis (Cole, 2009; Elgort et al., 2008; Kessler, 2009). Elgort et al. found that although students regarded working on the wiki useful, they may interpret working there as requiring less academic rigour. Similarly, Kessler concluded that one of the reasons for students’ lack of attention to form was the perceived informal context of the writing environment. Finally, the reason for Cole’s failed experiment was similar: students regarded the wiki as other web 2.0 tools and social media, which are for personal use and fun and not for learning.

Factors influencing the implementation of wikis

Several researchers agree that teachers play a crucial role in the successful implementation of wikis in education (Bonk et al., 2009; Cole, 2009; Grant, 2009; Guo & Stevens, 2011; Zorko, 2009). Teachers must plan very carefully how to integrate wiki projects into the curriculum (Bonk et al., 2009), as well as train students and assign roles and responsibilities (Arnold et al., 2009). Their prompt feedback and encouragement can motivate
students (Zorko, 2009), while their attitude towards technology can influence students’ use of the wiki (Guo & Stevens, 2011). Not only teachers’ but also students’ attitude towards the use of wikis affects their use. In order to use wikis successfully, students must understand the aim of the project including collaboration and peer review (Bonk et al., 2009) and regard it as helpful (Guo & Stevens, 2011). Lee & Wang (2013) investigated factors that influence students’ involvement in a wiki project and found that students’ perception of the project not necessarily affected the degree to which they were engaged in it. A further factor that can highly influence students’ participation is the type and frequency of assessment. Frequent assessments are needed to encourage students to engage in the activities on the wiki (Cole, 2009; Hadjerrouit, 2011; Zorko, 2009). Finally, the type of task can be a determining factor for the successful implementation of a wiki. Task authenticity can impact students’ contribution (Bower et al., 2006; Grant, 2009), which can be enhanced by a real audience (Mak & Coniam, 2008). According to Bower et al. (2006) wikis are suitable for tasks requiring negotiated meaning and a single product, rather than subjective and less integrated tasks. Lee (2010) found that students were satisfied with open-ended tasks that allowed them to be creative but at the same time they concentrated on form. On the other hand, students in another project promoting EFL collaborative writing attended to meaning more than form in open-ended and meaning-focused tasks (Aydin & Yildiz, 2014). Even problems in collaboration can be traced back to the type of the task. Alyousef and Picard (2011) found that students’ preference for cooperative over collaborative work was perhaps due to the cooperative nature of the task.

Similarly to the integration of other technical tools, such as VLEs and PLEs, the introduction of wikis in the classroom needs careful planning (Bonk et al., 2009; Ducate et al., 2011; Martinsen & Miller, 2012; Zorko, 2009). The preparation should include selecting user-friendly wiki software, a clear organization of the wiki and providing all the necessary
resources (Zorko, 2009); as well as suggestions for patterns of contribution for students (Bower et al., 2006). Tasks should be selected with utmost care because the type of task can influence students’ activities (Bower et al., 2006; Grant, 2009). Besides task design, setting a time limit and a deadline for tasks is essential (Al Khateeb, 2013). The continuous revision and review of the wiki project can ensure that the tasks meet the students’ needs (Hadjerrouit, 2011). Students’ training and on-going technical support is equally important (Al Khateeb, 2013; Arnold et al., 2012; Bower et al., 2006; Cole, 2009; Ducate et al., 2011; Hadjerrouit, 2012; Karasavvidis, 2010; Li, 2012; Zorko, 2009), including useful tips (Lee, 2010). Training can involve the assigning of roles and responsibilities (Arnold et al., 2009) and the preparation of students for peer-review (Lin & Yang, 2011). A further aspect of training should concentrate on the awareness-raising of students. Teachers need to help their students understand the objectives of the wiki project and accept it as a way of learning (Bonk et al., 2009; Guo & Stevens, 2011; Martinsen & Miller, 2012). Finally, the assessment of the process and the product of students’ work should be clarified at the beginning, including individual and group assessment (Bower et al., 2006; Cole, 2009; Grant, 2009; Li, 2012; Zorko, 2009).

2.6 Gamification

Besides the pedagogical purposes grounding the integration of technological tools into teaching, the present research also relies on the concept of gamification. Despite the relative novelty of the idea in education, two distinct interpretations can be identified. One strand of research defines gamification as the implementation of computer games into teaching, which can involve already existing games or games developed for education in general or specifically for one educational context (Csapó, Lőrincz, & Molnár, 2012; Debreczeni, 2014; Fromann, 2014; Gee, 2009; Molnár, 2012; Pásztor, 2013; Tartsayné Németh, 2012). As well as providing enjoyment, the use of computer games in teaching might have the potential to
increase motivation and group cohesion, to strengthen the relationship between students and teachers, and to serve the needs of the digital native generation (Bessenyei, 2010; Fromann, 2014; Pásztor, 2013; Tartsayné Németh, 2012). Although games designed for specific educational purposes have been observed to foster basic reasoning skills of young children (Csapó et al., 2012; Molnár, 2012), empirical evidence for the enhancement of student achievement is scarce (Debreczeni, 2014; Pásztor, 2013; Young et al., 2012). The importance of games design based on pedagogical principles, supported by research in specific contexts is emphasized to investigate the potential efficiency of games implemented in education (Debreczeni, 2014; Pásztor, 2013). The other direction of research, which my study is also based on, regards gamification as the integration of game-like features into the teaching process (Csillik & Daruka, 2015; Johnson, 2012; Nádori, 2012; Pievara, 2013; Rab, 2013; Werbach, 2015). Advocates of this interpretation emphasize that instead of using computer games in the classroom, principles of computer games should be incorporated into activities in order to enhance the motivation and engagement of learners, as well as help them become more independent learners (Csillik & Daruka, 2015; Nádori, 2012; Pievara, 2013; Rab, 2013; Werbach, 2015). Elements of games that can promote learning include personalization, interaction, immediate feedback and establishing short-term and long-term aims. Personalization in this context means that the students can follow different learning paths and have the opportunity to select tasks that suit their needs and interests (Csillik & Daruka, 2015; Nádori, 2012; Pievara, 2013). The few examples of gamification in education include a social media course in higher education in the US (Johnson, 2012), and the integration of game-based principles in natural science (Nádori, 2012) and English classes (Pievara, 2013) in a secondary school in Budapest. Students in the social media course pursued a Quest designed by their professor that encouraged self-paced learning by self-selected activities that were rewarded by points and badges. Student achievement could be followed on a
leaderboard and students who made significant efforts had the opportunity to enter a new level every week. The positive feedback by the students at the end of the course suggested that gamification can motivate students in a college classroom. Nádori and Prievara applied a similar system in a secondary school in Budapest and developed guidelines on its successful integration. They suggest that the school year or academic term should be divided into two or three-week periods, in which students set goals for themselves based on their needs and abilities with the help of the teacher, who can also assist them to find resources and tasks to complete. It is also essential to document their learning process, which can be done in the form of a blog or a Facebook post. Similarly to games, immediate assessment should allow mistakes and be based on points, which can be calculated into marks at the end of term (Csillik & Daruka, 2015; Nádori, 2012; Prievara, 2013; Rab, 2013). Due to the novelty of this system, Nádori and Prievara warn that its introduction in teaching should be preceded by careful planning and should happen in small steps. As a possible problem they identify the students’ lack of independence, which might prevent them from appreciating the freedom of choice. Additionally, it can increase teachers’ workload if they have to evaluate a variety of tasks and learning paths the students follow. In spite of the initial problems of introducing gamification, there is general agreement that it can enhance the learning process by engaging and motivating students (Csillik & Daruka, 2015; Johnson, 2012; Nádori, 2012; Prievara, 2013; Rab, 2013; Werbach, 2015).

2.7 Conclusion

This chapter has reviewed literature on the theoretical background of the study, including 21st century learning, the role of technology in education and Computer Assisted Language Learning. An attempt has also been made to summarize empirical evidence on key issues related to the integration of technology in education, such as students’ and teachers’ use of technology in and out of the classroom, their perceptions towards its use and barriers that
can prevent its successful application. Finally, empirical research on specific tools that will be investigated in the study, i.e. Virtual Learning Environments, Personal Learning Environments, web 2.0 tools and wikis have been presented and discussed. In reviewing the literature, an abundance of empirical data investigating the issues related to my research has been found. However, certain limitations of previous research and the necessity for collecting more data in particular situations have also been identified, which will be detailed below together with the main findings of previous research.

The evidence presented in this chapter suggests that today’s digital native generation of students form a heterogeneous group, with a universal access to core technologies and a frequent use of communication tools and social media. Nevertheless, they have been found to use more advanced technologies very rarely, while their technological skills have also been observed to show considerable variation. Accordingly, most of them seem to prefer traditional ways of teaching and would prefer moderate use of technology in the classroom, although their perceptions towards the use of ICT tools seemed to be overall positive in retrospection after attending a course. Similarly, great diversity has been reported in the teachers’ use of technology, as well as their technological skills. Although the conditions are generally present in schools in the developed world, only a low number of teachers use high-level applications in the classroom and traditional teaching methods still seem to prevail. The considerable diversity in students’ and teachers’ use of technology demonstrated by empirical research also carries implications for the present research project. As a consequence, the integration of technology into teaching must be done after careful planning that considers all these aspects, including the collection of data about students and teachers in a particular context.

As for the implementation of VLEs, PLEs, web 2.0 tools and wikis in teaching, the results of previous research reviewed in this chapter revealed considerable differences between the tools. Similarly to technology in general, the use of VLEs seems to be mainly
confined to administration and the provision of course material and resources, which support traditional teaching practices. However, PLEs, web 2.0 tools and wikis have been observed to serve more innovative purposes, such as collaboration, knowledge building and sharing, as well as personalized learning. A possible explanation for this might be the difference in teachers’ motivations for using the tools. While VLEs are implemented by institutions and a large number of teachers use them as an obligatory tool in teaching; PLEs, web 2.0 tools and wikis are mostly selected voluntarily by teachers who seek innovation. Furthermore, the diversity of web 2.0 tools, the scarcity of empirical research on PLEs and the importance of context for the integration of technology in the classroom necessitate case studies conducted in specific settings. My investigation of the integration of a VLE and web 2.0 tools into language teaching at a Hungarian college not only aims at providing the background for the successful implementation of technology, but also attempts to contribute to the research area by examining the relatively under-researched Hungarian higher education context.

Based on the review of literature it can also be concluded that the integration of technology into teaching is a highly complex issue, whose success depends on several factors. Considering the literature on the theoretical background and the results of empirical research, a set of principles can be formulated:

The implementation of new tools in language teaching needs

1. to be grounded theoretically and pedagogically
   a. following constructivist guidelines
   b. preparing students for 21st century life and employment
   c. encouraging lifelong learning
2. to consider students’ skills and needs including their
   a. learning style
   b. digital skills
c. language proficiency

3. to be perceived useful by teachers

4. to be carefully planned including
   a. the selection of appropriate tools, tasks and resources
   b. decisions about assessment and feedback
   c. time management for the teacher and the students

5. to be accompanied by training and support based on the students’ needs including
   a. technical training
   b. training in group work and peer review
   c. evaluating resources
   d. helping them understand the objectives of the project

6. to be reviewed and revised continuously.

In the next Chapter the design and methodology of the present research will be discussed. First the research questions will be presented, followed by the design, participants, instruments and procedures for each of the four phases of the research described in Chapter 1.2 will be provided.
3 Research design

This chapter provides an overview of the design of the four phases of the research that I conducted in order to investigate the possibility of integrating a virtual classroom and web 2.0 tools in language teaching at a higher education college in Budapest. A mixed-methods design with a development function (Dörnyei, 2007) was applied to explore the different components of the issue. Thus, the results of the first three phases helped to develop the design of the fourth phase. In Phase 1 first-year students’ use of technology was explored, as well as their dispositions towards the use of computers and the internet and towards attending a blended language course at a college in Budapest. The results were expected to provide information about the feasibility of integrating technology into a course at the same institution and about the preparation needed to introduce new methods. Phase 2 and 3 focused on teachers’ use, investigating language teachers’ use of a VLE at the same college (Phase 2), and technological expert language teachers’ use of technology at different tertiary education institutes in Budapest (Phase 3). The results of these two phases were intended to inform the researcher about the problems concerning the use of the VLE and reasons for its limited exploitation, also shedding light on some best practices of using technology in the Hungarian context in tertiary education. This information was used to design the framework and the activities in the last phase. The aim of Phase 4 was to gain in-depth experience about the use of VLEs and web 2.0 tools in language teaching at a higher education college in Budapest by conducting a longitudinal case study of a three-term blended English language course for two groups of first-year students. In the following section the research questions will be presented, while the description of the four phases of the research will be discussed in Chapters 4 to 7.
### 3.1 Research questions

The present study was guided by the following main research question:

**RQ** For what pedagogical purposes and how can virtual learning environments and web 2.0 tools be applied in language teaching in tertiary education in a blended learning environment at one particular college?

The main question is broken up into several sub-questions, which focus on an area that is crucial for the successful implementation of VLEs and web 2.0 tools. A summary of the sub-questions, aims, methods of data collection and analysis is presented in Table 4.

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<thead>
<tr>
<th>Research questions</th>
<th>Aim</th>
<th>Methods of data collection</th>
<th>Data analysis</th>
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</table>
| 1 What is first-year students’ disposition towards the use of computers and the internet at a Budapest college?  
1a Are first-year students at the college ‘digital natives’?  
1b Is there any difference between regular and distance course first-year students’ dispositions towards computers and the internet in language learning at the college?  
1c Is first-year students’ disposition influenced by any other individual characteristics at the college?  
1d Are there any variables that predict first-year college students’ willingness to take part in online language courses at the college? | to find out if students would be interested in using technology in language learning | questionnaire study with 91 first-year students | statistical analysis |
| 2 What characterizes language teachers’ use of a virtual learning environment and their dispositions towards e-learning at the college?  
2a How often do language teachers use CooSpace and which functions do they use at the college?  
2b What influences language teachers’ use of CooSpace at the college?  
2c What do language teachers feel about using CooSpace and e-learning at the college? | to find out if the use of a VLE means blended learning | questionnaire study with 46 language teachers and follow-up interviews | statistical analysis and thematic analysis of the interviews |
| 3 What motivates language teachers’ use of virtual learning environments and web 2.0 tools teaching at different tertiary institutions in Budapest?  
3a What web 2.0 tools and features of VLEs do language teachers use at different tertiary institutions in Budapest? | - to find common pedagogical purposes behind the use of VLEs and web 2.0 tools | interview study with 10 language teachers at different | thematic analysis of the interviews |

(table continues)
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<tr>
<th>Research questions</th>
<th>Aim</th>
<th>Methods of data collection</th>
<th>Data analysis</th>
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<tr>
<td>3b For what pedagogical purposes do language teachers use VLEs and web 2.0 tools at different tertiary institutions in Budapest?</td>
<td>- to find out about best practices of language teachers &lt;br&gt;- to use their experience for designing my own course</td>
<td>colleges and universities with follow-up questionnaires</td>
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<tr>
<td>4 How can VLEs and web 2.0 tools be integrated into teaching ESP to two groups of first-year students at a Budapest college?</td>
<td>- to gain in-depth experience about the use of VLEs and web 2.0 tools and about students’ dispositions</td>
<td>longitudinal case study &lt;br&gt;- student surveys &lt;br&gt;- student interviews &lt;br&gt;- teacher’s diary &lt;br&gt;- wiki statistics</td>
<td>statistical analysis and thematic analysis of the interviews the diary and statistics</td>
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<td>4a What is first-year students’ disposition towards computers and the internet before and after a course using technology at the college?</td>
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<td>4b What characterizes first-year students’ use of the wiki and their dispositions towards the wiki project at the college?</td>
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<tr>
<td>4c What impact does the use of VLEs and web 2.0 tools have on participants’ language use at the college?</td>
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</table>
4 Phase 1 – The investigation of students’ dispositions towards computers and the internet

This phase of the research aimed to explore college students’ computer and internet using habits, as well as their dispositions towards technology and its application in language learning at a Budapest college. The rationale behind this was to find out if students would be interested in a future online or blended language course offered by the college. The results were also used to guide the planning and design of the longitudinal study in Phase 4.

4.1 Research questions

The first phase of the research was guided by one main research question:

RQ (1) What is first-year college students’ disposition towards the use of computers and the internet in language learning at the college?

In order to investigate students’ computer and internet using habits and their dispositions towards technology, the following sub-questions were formulated:

RQ (1a) Are first-year students at the college digital natives?

RQ (1b) Is there any difference between regular and distance course first-year students’ dispositions towards computers and the internet in language learning at the college?

RQ (1c) Is first-year students’ disposition influenced by any other individual characteristics at the college?

RQ (1d) Are there any variables that predict first-year college students’ willingness to take part in online language courses at the college?

4.2 Methods

The main instrument of the research was a questionnaire I developed to explore college students’ use of computers and the internet, as well as their dispositions towards it.
My choice of quantitative research methodology was motivated by my intention to collect information specified in advance of the study (Creswell, 2003). Applying a quantitative method also enabled me to analyse a relatively large amount of data, which was expected to provide information about first-year students of the college. In this section first the general and computer-related characteristics of the participants will be described. Then the detailed description of the questionnaire and its development will be provided, as well as the procedures of its administration and data analysis.

4.2.1 Participants

The participants of the study were 91 first-year students of the college. The sample consisted of two subsamples: 52 full-time students and 39 distance students. Their level of English ranged from pre-intermediate to intermediate (B1-B2 on the CEF scale). All students (full-time and distance) who specialize in tourism and catering need to pass an intermediate level (B2) special language exam in tourism and catering in two languages, one of which can be replaced by an advanced level (C1) general language exam. Full-time students can take language classes for 6 terms, generally 3 terms per language. Those who choose to study English learn general business English in the first two terms and English for tourism and catering in the third term. Distance students can take up languages for 4 terms; in English they study 2 terms business and 2 terms tourism and catering English. They have one optional week for consultation before the end-of-term exam. Since the questionnaire was administered to students in the first term, when they had just started learning business English, questions about professional English (business or tourism and catering) were not included.

As one of the aims of the study was to find out if there are any differences between these two populations, data will be provided separately about the participants’ characteristics in each subsample. As can be seen in Table 5, while gender distribution is similar in the two groups and there are no great differences in the length of English studies either, they differ in
age significantly. The majority of full-time students are between 18 and 23, whereas this age group is represented by only 20% of distance students, where almost half of the students are between 24 and 29 and 30% over 30.

Table 5

Participants of Phase 1

<table>
<thead>
<tr>
<th></th>
<th>Full-time students</th>
<th>Distance students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>26.9</td>
</tr>
<tr>
<td>Female</td>
<td>38</td>
<td>73.1</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-23</td>
<td>51</td>
<td>98.1</td>
</tr>
<tr>
<td>24-29</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>Over 30</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>English studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 years</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td>3-5 years</td>
<td>6</td>
<td>11.8</td>
</tr>
<tr>
<td>6-10 years</td>
<td>22</td>
<td>43.1</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>21</td>
<td>41.2</td>
</tr>
</tbody>
</table>

If we look at students’ characteristics related to computers (Table 6), we can see that computer and internet access is universal among college students. This indicates that college students are significantly above the Hungarian average, which was 58.4% of households with internet access in 2010 (Hungarian Central Statistical Office, 2010) when the data was collected. Broadband access was over 76% in both groups compared to the Hungarian average of 50.5% in 2010; thus the finding of the World internet Project Report (Galácz, 2007) that the internet is the technology of young and educated adults was confirmed. The only significant difference between full-time and distance students concerning computer use is in their use of mobile devices for internet access (Cr’s V=0.289; p=0.006). The greater number of distance students using these might be due to the fact that they need to travel more and mobile devices can be used anywhere. The fact that 3.8% of full-time students and 7.7% of distance students do not use CooSpace, the virtual learning environment applied at the college, is surprising, considering that several teaching materials are only available there. Especially for distance students CooSpace would be essential as a platform for communication.
Table 6
*Computer related characteristics of participants in Phase 1*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Full-time students</th>
<th>Distance students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Computer use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-6 years</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>Over 6 years</td>
<td>40</td>
<td>76.9</td>
</tr>
<tr>
<td>Computer access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>51</td>
<td>98.1</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>internet access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>52</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>internet access type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broadband</td>
<td>40</td>
<td>76.9</td>
</tr>
<tr>
<td>Modem</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I don’t know</td>
<td>11</td>
<td>21.2</td>
</tr>
<tr>
<td>Mobile internet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>7</td>
<td>13.5</td>
</tr>
<tr>
<td>No</td>
<td>45</td>
<td>86.5</td>
</tr>
<tr>
<td>College wifi use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>9</td>
<td>17.3</td>
</tr>
<tr>
<td>No</td>
<td>43</td>
<td>82.7</td>
</tr>
<tr>
<td>CooSpace use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>50</td>
<td>96.2</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>3.8</td>
</tr>
<tr>
<td>Need for internet for studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>52</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### 4.2.2 Instrument

I developed a questionnaire with 78 questions on the basis of existing questionnaires (Akbulut, 2008; Vig, 2008; Warschauer, 1996b). As Vig’s questionnaire focused on the general use of computers and the internet, while Akbulut’s and Warschauer’s only on computer-assisted writing, additional aspects of language learning needed to be incorporated. Furthermore, the questions had to be adapted to the Hungarian context. When constructing the questionnaire I followed the checklist provided by Dörnyei (2010, p. 127), including questionnaire content, number and type of questions, as well as wording the items and the instructions. As all participants were Hungarian, the questions were in Hungarian to make sure that students understood them.

The initial set of items was piloted and peer-checked carefully. First two students at the college (a male and a female) were asked to think aloud while filling in the questionnaire. Problematic items, which included some questions, instructions and scale labels, were
rewarded. The most difficult point seemed to be the first part of the questionnaire with the questions about the Hungarian and English use of particular applications. Especially for questions 1 and 2 regarding the production of a text by a word processor or a presentation, it was not clear before the rewording if the question was about the language of the text or the software.

The final questionnaire contained 24 Likert-scale questions about computer habits, 42 Likert-scale questions about students’ dispositions towards computers and the internet and 12 questions about their background. For the first 24 questions, students had to mark on a 5-point Likert scale how often they used the computer and the internet for various purposes, ranging between very often (5) and never (1). For the first 18 questions, two answers were required for each question, one for the use of the particular task or application in Hungarian and one in English. Thus, the 18 questions generated 36 variables. The following 6 questions (19-24) were about frequency of applications, for which Hungarian or English use cannot be differentiated, for instance, use of an online dictionary or listening to music. For questions 25-66, students had to indicate on a 5-point Likert scale to what extent they agreed or disagreed with the statements. These questions were intended to cover the following nine constructs:

(1) *Value of the internet* – the perceived usefulness of the internet (questions 25, 43, 48, 50 and 60). Example: Question (Q) 25. Today it is not possible to live without the internet.

(2) *Perceived ease of internet use* – the extent to which students find the use of the internet easy (questions 33, 34, 42, 44 and 65). Example: Q42. I find it easy to use the internet.

(3) *Writing on the computer* – students’ dispositions towards writing with a word processor (questions 28, 38, 45, 53 and 64). Example: Q28. I like writing essays on the computer.
(4) Value of emails – students’ opinion about communicating by email (questions 26, 37, 41, 52 and 59). Example: Q41. It is convenient to keep in touch via emails.


(7) Peer correction – students’ dispositions towards peer correction (questions 30, 40, 58 and 61). Example: Q30. In my opinion it is useful to correct each other’s work.

(8) Exams on the computer – students’ dispositions towards exams carried out on computers (questions 29, 49, 56 and 63). Example: Q56. I would like to take an exam on the computer.

(9) Online course willingness – students’ willingness to try online language learning (questions 32, 47, 54 and 66). Example: Q47. I would like to take part in an online English language course.

Although variables (6) and (7) (Group work and Peer correction) have no direct connection to computers, they were included because group work and peer correction are important in online language learning (Béres et al., 2009; Dorner & Major, 2009; Hunya, 2005; Molnár, 2009; Murugaiah & Thang, 2010; Schwienhorst, 2002; Warschauer & Grimes, 2007; Yu et al., 2010). In the last part of the questionnaire (questions 67-78), students were asked background questions about their computer use and access. The Hungarian original version and the English translation of the questionnaire can be seen in Appendix A and B.

4.2.3 Data collection

The final version of the questionnaire was administered to full-time students during their regular classes by their English teachers in April, 2010. First, the aims of the research
were explained to the teachers, then instructions were given about the administration process. Finally, the time and date were fixed, when the students filled in the questionnaires. Distance students, who have no regular classes, were more difficult to reach. One option was to upload the questionnaire to CooSpace, the college’s virtual learning environment, and ask students to fill it in there. However, in this case, the results would have been biased, because students who use CooSpace regularly probably have a more positive disposition towards computers and the internet. Therefore this option was rejected, and the students filled in the questionnaire after a written English language exam with the assistance of the researcher and another teacher. The fact that they had just finished writing an exam might also have influenced the results, and possible effects will be described in the Results section.

4.2.4 Data analysis

All the questionnaires were computer coded and SPSS (Statistical Package for Social Sciences) 17.0 was used to analyse the results with the significance level set for $p<.05$. First, Cronbach Alpha internal consistency coefficients were computed for the 11 scales to calculate their reliability. Second, the descriptive statistical measures, i.e. the mean scores and standard deviations were established for the scales. Third, the mean scores were compared with the help of independent sample t-tests. Then, to find out if individual characteristics have an influence on the students’ dispositions towards computers and the internet independent samples t-tests for questions with two possible answers and one-way ANOVA tests for questions with three choices were carried out in the two subsamples. In order to analyse relationships among the scales, correlation analyses were carried out. Finally, multiple regression analyses with a stepwise approach were carried out, with Online course willingness as the criterion variable to find out which scales predict students’ willingness to take part in an online course.
4.3 Results and discussion

4.3.1 The reliability of the scales

On the basis of the nine constructs described in 4.2.2, nine scales were created. Two further scales, Hungarian internet use and English internet use, were added from items 1-24, from the Hungarian and the English use of the various applications. Cronbach Alpha internal consistency coefficients were computed for the 11 scales (Table 7). The reliability coefficients of the majority of the scales were high, which made further analysis possible. The scale with the lowest Cronbach Alpha and with the greatest difference between the two subsamples was Exams on the computer. The very low coefficient for distance students might have been caused by the fact that exam-related questions were asked immediately after an exam. Therefore, the scale was excluded from further analysis, although it would be interesting to see if reliability changed when administered at a different time.

Table 7
Reliability coefficients in the two subsamples

<table>
<thead>
<tr>
<th>Scales</th>
<th>Full-time students</th>
<th>Distance students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of the internet</td>
<td>.78</td>
<td>.65</td>
</tr>
<tr>
<td>Perceived ease of internet use</td>
<td>.67</td>
<td>.63</td>
</tr>
<tr>
<td>Writing on the computer</td>
<td>.64</td>
<td>.59</td>
</tr>
<tr>
<td>Value of emails</td>
<td>.71</td>
<td>.76</td>
</tr>
<tr>
<td>Language learning on the internet</td>
<td>.86</td>
<td>.88</td>
</tr>
<tr>
<td>Group work</td>
<td>.85</td>
<td>.80</td>
</tr>
<tr>
<td>Peer correction</td>
<td>.67</td>
<td>.74</td>
</tr>
<tr>
<td>Exams on the computer</td>
<td>.64</td>
<td>.44</td>
</tr>
<tr>
<td>Online course willingness</td>
<td>.91</td>
<td>.89</td>
</tr>
<tr>
<td>Hungarian internet use</td>
<td>.67</td>
<td>.79</td>
</tr>
<tr>
<td>English internet use</td>
<td>.80</td>
<td>.89</td>
</tr>
</tbody>
</table>

4.3.2 Most frequently used computer or internet applications

To answer Research question (1a) whether first-year students at the college are digital natives, all applications with a mean score above 3.5 in one of the subsamples were selected. Table 8 shows the applications most frequently used by the students and the mean scores for the scales Hungarian internet use and English internet use. The top six are similar for full-
time and distance students: writing emails, listening to music, using a search engine, a word processor and communal pages are frequent for both groups. However, full-time students use instant messaging very often (M=4.33), while the mean value for distance students is only 3.59 with a significant difference between the two groups. There are four functions that are used frequently by full-time students but not distance students: chat and forums, films and videos in Hungarian and in English, and search engines in English. Nevertheless, listening to the radio is significantly more characteristic of distance students. The differences in use between the groups might be attributed to their age differences. While instant messaging, chat and films are more typical of younger participants, reading newspapers and listening to the radio are more typical of older people.

Table 8

<table>
<thead>
<tr>
<th>Purpose of internet use</th>
<th>Full-time students</th>
<th>Distance students</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>St. dev.</td>
<td>Mean</td>
<td>St. dev.</td>
</tr>
<tr>
<td>Email H</td>
<td>4.54</td>
<td>.69</td>
<td>4.71</td>
<td>.73</td>
</tr>
<tr>
<td>Listening to music</td>
<td>4.42</td>
<td>1.04</td>
<td>4.10</td>
<td>1.14</td>
</tr>
<tr>
<td>Search engine H</td>
<td>4.33</td>
<td>1.00</td>
<td>4.53</td>
<td>.72</td>
</tr>
<tr>
<td>Instant messaging H</td>
<td>4.33</td>
<td>1.02</td>
<td>3.59</td>
<td>1.41</td>
</tr>
<tr>
<td>Word processing H</td>
<td>4.27</td>
<td>.95</td>
<td>4.51</td>
<td>.80</td>
</tr>
<tr>
<td>Communal pages H</td>
<td>4.19</td>
<td>1.10</td>
<td>3.90</td>
<td>1.23</td>
</tr>
<tr>
<td>Chat, forums H</td>
<td>4.06</td>
<td>1.09</td>
<td>3.26</td>
<td>1.55</td>
</tr>
<tr>
<td>Online dictionary</td>
<td>3.98</td>
<td>1.02</td>
<td>4.10</td>
<td>1.02</td>
</tr>
<tr>
<td>Films, videos H</td>
<td>3.94</td>
<td>1.04</td>
<td>3.49</td>
<td>1.21</td>
</tr>
<tr>
<td>Films, videos E</td>
<td>3.87</td>
<td>1.20</td>
<td>3.37</td>
<td>1.38</td>
</tr>
<tr>
<td>Search engine E</td>
<td>3.81</td>
<td>1.30</td>
<td>3.47</td>
<td>1.54</td>
</tr>
<tr>
<td>Newspapers H</td>
<td>3.38</td>
<td>1.24</td>
<td>3.64</td>
<td>1.35</td>
</tr>
<tr>
<td>Radio H</td>
<td>2.96</td>
<td>1.43</td>
<td>3.62</td>
<td>1.37</td>
</tr>
<tr>
<td>Hungarian internet use</td>
<td>3.09</td>
<td>.38</td>
<td>3.11</td>
<td>.55</td>
</tr>
<tr>
<td>English internet use</td>
<td>2.15</td>
<td>.44</td>
<td>2.26</td>
<td>.68</td>
</tr>
</tbody>
</table>

Note: *H stands for Hungarian. *E stands for English.
* indicates a significance level below .05.

The most frequently used functions match those observed in earlier studies indicating that students mostly use the internet for communication and entertainment (Bennett & Maton, 2010; Bullen et al., 2011; Fehér & Hornyák, 2011; Hargittai, 2010; Jones & Shao, 2011; Kennedy et al., 2008, 2009; Kvavik, 2005; Margaryan et al., 2011; Oliver & Goerke, 2007;
Ollé, 2011; Papp-Danka, 2013; Sánchez et al., 2010; Selwyn, 2008). More advanced technologies, which require active participation, such as writing a blog, making a website or processing images or videos have been observed to be used very rarely by both groups with mean scores below 2.0. These results are also consistent with data obtained in previous studies (Bennett & Maton, 2010; Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Margaryan et al., 2011). The low scores for using the internet even in Hungarian (just above 3) might be caused by the large number of different applications, which were included to cover all possible uses of the internet. As for the use of the internet for study purposes, the results of previous studies that students’ conscious educational use of the internet is limited to researching content areas and word processing, and rarely use pedagogical software or websites created for language learning (mean scores below 2.0) were confirmed (Bordonaro, 2003; Duggan et al., 1999; Fehér & Hornyák, 2011; Gabriel et al., 2012; Kvavik, 2005; Sánchez et al., 2010; Selwyn, 2008), with the exception of online dictionaries. However, which dictionary they use could be the focus of a future study. Anecdotal evidence suggests that college students tend to use bilingual dictionaries available on the internet, some of which are not the best quality and prompt students use inappropriate vocabulary. These findings do not support previous results (Gros et al., 2012; Ramanau et al., 2010) that distance-learning students use ICT more for educational purposes than students at face-to-face universities. A possible explanation for this might be that the type of course is only one factor influencing technology use. As suggested by Gros et al. (2012), the applied teaching methodology, the requirements of the course and the technologies recommended by the teachers also have a considerable impact on students’ use of technologies. As these aspects were not investigated in the present study, their effect cannot be determined.
4.3.3 Students’ dispositions towards computers and the internet

To answer Research question (1b) if there is any difference between full-time and distance course first-year students’ dispositions towards computers and the internet in language learning at the college, mean scores for the eight scales were calculated and compared with the help of independent sample t-tests. Table 9 presents the descriptive statistics of the scales in the two subgroups and the comparison of the groups’ mean scores. For both samples, the two scales with the highest mean values (around 4.5 on a 5-point scale) were Value of the internet and Perceived ease of internet use, which shows that students have positive dispositions towards the internet and its use. All the other scores are below 4 for full-time students, most of them even below 3.5, while the mean scores for distance students are higher for each scale. The difference between full-time students and distance students is significant for six scales, with the greatest difference (1.12) for the scale Online course willingness. A reason for this might be the fact that distance students use the computer for writing and communication more often in their studies than full-time students, which makes them feel more comfortable about its use and more open to online learning as well.

Table 9
Descriptive statistics of the scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>Full-time students</th>
<th>Distance students</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of the internet</td>
<td>4.48 (.57)</td>
<td>4.61 (.41)</td>
<td>-1.127</td>
<td>.263</td>
</tr>
<tr>
<td>Perceived ease of internet use</td>
<td>4.53 (.55)</td>
<td>4.53 (.47)</td>
<td>-.015</td>
<td>.988</td>
</tr>
<tr>
<td>Writing on the computer</td>
<td>3.93 (.70)</td>
<td>4.29 (.53)</td>
<td>-2.743</td>
<td>.007*</td>
</tr>
<tr>
<td>Value of emails</td>
<td>3.48 (.86)</td>
<td>4.01 (.74)</td>
<td>-3.174</td>
<td>.002*</td>
</tr>
<tr>
<td>Language learning on the internet</td>
<td>3.19 (.87)</td>
<td>3.84 (.84)</td>
<td>-3.596</td>
<td>.001*</td>
</tr>
<tr>
<td>Group work</td>
<td>3.67 (.82)</td>
<td>4.03 (.70)</td>
<td>-2.227</td>
<td>.028*</td>
</tr>
<tr>
<td>Peer correction</td>
<td>3.16 (.75)</td>
<td>3.60 (.80)</td>
<td>-2.640</td>
<td>.010*</td>
</tr>
<tr>
<td>Online course willingness</td>
<td>2.74 (.95)</td>
<td>3.86 (.88)</td>
<td>-5.74</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Note: * indicates a significance level below .05.

Standard deviation is the highest in both groups for the scale Online course willingness, which seems to indicate that students have differing views on taking an online course. The finding that distance students regard the use of the internet more positively for
general and for educational purposes is consistent with previous research (Gros et al., 2012). To find out if students would take part in an online language course organised by the college, answers to question 66 were analysed. With a very high mean score (4.05) and 64.1% of the answers either 4 or 5, distance students would clearly be interested in taking an online language course. Full-time students, however, would not consider this option. The mean score for them is 2.65, which is very low, and only 25% gave a 4 or a 5 as an answer. While no distance students chose 1 on the 5-point scale, 17.3% of full-time students did. These results are in accord with recent studies indicating that most full-time students at higher education institutions prefer traditional ways of teaching (Garcia & Qin, 2007; Jones & Shao, 2011; Kennedy et al., 2009; Margaryan et al., 2011) and would prefer moderate use of technology in the classroom (Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Ramanau et al., 2010; Schulmeister, 2008).

4.3.4 Individual characteristics influencing students’ dispositions

To find out if any of the eleven individual characteristics, which were asked about in the last part of the questionnaire, have an influence on the students’ dispositions towards computers and the internet (RQ 1c), independent samples t-tests for questions with two possible answers (Table 10) and one-way ANOVA tests for questions with three choices (Tables 11) were carried out in the two subsamples. For full-time students, two factors were found to be influencing their answers on one scale. Male students and those who use the college wifi gave significantly more positive answers regarding computer use for writing.

<table>
<thead>
<tr>
<th>Table 10</th>
<th>Individual characteristics’ influence on the scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale affected: Full-time students Writing on the computer</td>
<td>Individual characteristics</td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
</tr>
<tr>
<td>Female</td>
<td>38</td>
</tr>
</tbody>
</table>

| Scale affected: Full-time students Writing on the computer | Individual characteristics | N | Mean | St. dev. | t | p |
| Wifi yes | 9 | 4.52 | .30 | 4.838 | .000 |
| Wifi no | 43 | 3.81 | .70 | |
Although gender has been observed to influence students’ use of ICT by some researchers (Kennedy et al., 2009; Sánchez et al., 2010; Selwyn, 2008), no previous studies have found a difference in male and female students’ perceptions towards technology. Therefore, further research would be required to investigate the effect of gender in other contexts. The use of the college wifi can possibly be attributed to students who use technology more, which might explain their more positive views on computer writing. Distance students’ use is only influenced by one characteristic. The effect of age is interesting, since students over 30 are significantly more positive about taking an online language course than students between 24 and 29, who have the lowest scores for this scale. The youngest students between 18 and 23 are in the middle with a mean score of 3.75, which is significantly higher than full-time students’ mean (M=2.75). Since full-time students are between 18 and 23 with only one exception, this is a clear sign that the difference between distance and full-time students is not caused by their age difference but possibly by the different nature of their courses. This finding is in line with those of Gros et al. (2012), who found that the educational model (face-to-face or online) had a stronger influence on students’ perception of usefulness regarding ICT support for learning than students’ age.

Table 11
The influence of further individual characteristics on the scales

<table>
<thead>
<tr>
<th>Scale affected</th>
<th>Individual characteristics</th>
<th>N</th>
<th>Mean</th>
<th>St. dev.</th>
<th>F</th>
<th>p</th>
<th>Sequence&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance students</td>
<td>1. 18-23</td>
<td>8</td>
<td>3.75</td>
<td>1.01</td>
<td></td>
<td></td>
<td>2,1&lt;1,3</td>
</tr>
<tr>
<td>Online course willingness</td>
<td>2. 24-29</td>
<td>19</td>
<td>3.58</td>
<td>.88</td>
<td>3.252</td>
<td>.050</td>
<td>2,1&lt;1,3</td>
</tr>
<tr>
<td></td>
<td>3. over 30</td>
<td>12</td>
<td>4.36</td>
<td>.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: <sup>a</sup> Sequence was calculated by Duncan post hoc test.

4.3.5 Relationships among the scales

In order to analyse relationships among the scales, correlation analyses were carried out. Table 12 and Table 13 show significant correlations within the two subsamples. As one of the aims of this study was to find out about students’ dispositions concerning online
language courses and their willingness to participate in them, relationships between the scale *Online course willingness* and the other scales are important. While for full-time students *Online course willingness* is related only to *Language learning on the internet* and *English internet use*, for distance students seven scales show a significant relationship with it. It is only *Writing on the computer* and *Hungarian internet use* that are not related to *Online course willingness* in this subsample.

Table 12

<table>
<thead>
<tr>
<th>Scale</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Value of the internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perceived ease of internet use</td>
<td></td>
<td>.302*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Writing on the computer</td>
<td></td>
<td></td>
<td>.396**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Value of emails</td>
<td></td>
<td></td>
<td></td>
<td>.330*</td>
<td>.382**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Language learning on the internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.303*</td>
<td>.314*</td>
<td>.338*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Group work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.312*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Peer correction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.293*</td>
<td>.537**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Online course willingness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.629**</td>
<td></td>
</tr>
<tr>
<td>9. Hungarian internet use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.313*</td>
<td>.278*</td>
<td></td>
</tr>
<tr>
<td>10. English internet use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.450**</td>
<td>.274*</td>
</tr>
</tbody>
</table>

*Correlation is significant at the .05 level.

**Correlation is significant at the .01 level.

The observed relationship between *Online course willingness* and *Language learning on the internet* seems to be self-explanatory: students who regard language learning on the internet positively would take part in an online language course. A possible explanation for the correlation between *English internet use* and *Online course willingness* may be that a more frequent use of the internet in English can be attributed to students with a higher level of English proficiency, who less require the presence of a teacher. As for distance students, the
significant correlation between *Online course willingness* and seven other scales may indicate that the relationship between students’ use of the internet, their dispositions towards it and their willingness to take part in an online course is stronger for them than for face-to-face students.

Table 13
*Significant correlations among the scales for distance students*

<table>
<thead>
<tr>
<th>Scale</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Value of the internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perceived ease of internet use</td>
<td>.504**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Writing on the computer</td>
<td>.395*</td>
<td>.555**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Value of emails</td>
<td></td>
<td>.411**</td>
<td>.518**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Language learning on the internet</td>
<td>.683**</td>
<td>.450**</td>
<td>.332*</td>
<td>.331*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Group work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.376*</td>
</tr>
<tr>
<td>7. Peer correction</td>
<td>.361*</td>
<td>.514**</td>
<td>.514**</td>
<td>.535**</td>
<td>.437**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Online course willingness</td>
<td>.479**</td>
<td>.478**</td>
<td>.408**</td>
<td>.800**</td>
<td>.446**</td>
<td>.560**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Hungarian internet use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.321*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. English internet use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.335* .363* .574**</td>
</tr>
</tbody>
</table>

* Correlation is significant at the .05 level.
** Correlation is significant at the .01 level.

4.3.6 Relationships between the scales and the criterion variable

In order to find out which scales predict students’ willingness to take part in an online course whether there any variables that predict first-year students’ willingness to take part in online language courses at the college (RQ 1d), multiple regression analyses with a stepwise approach were carried out, with *Online course willingness* as the criterion variable. The results are summarized in Table 14 for full-time students and Table 15 for distance students.
For both groups only one scale, *Language learning on the internet*, contributed significantly to *Online course willingness*, although it was a stronger contributor for distance students.

### Table 14
**Results of the regression analysis for full-time students**

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>Scale</th>
<th>B</th>
<th>β</th>
<th>R square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online course willingness</td>
<td>Language learning on the internet</td>
<td>.690</td>
<td>.629</td>
<td>.396</td>
<td>32.779</td>
</tr>
<tr>
<td>Language learning on the internet</td>
<td>English internet use</td>
<td>.878</td>
<td>.450</td>
<td>.203</td>
<td>12.713</td>
</tr>
<tr>
<td>English internet use</td>
<td>Hungarian internet use</td>
<td>.605</td>
<td>.520</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English internet use</td>
<td>Language learning on the internet</td>
<td>.157</td>
<td>.306</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As the next step, further analyses for the scale *Language learning on the internet* were performed with different results for the two groups. For full-time students *Language learning on the internet* was related to *English internet use*, while for distance students it was related to *Value of the internet* and *Peer correction*. Further analyses of *English internet use* showed that *Hungarian internet use* and *Language learning on the internet* act as predictors for full-time students. For distance students *Peer correction* is related to *Language learning on the internet, Value of emails* and *Group work*.

### Table 15
**Results of the regression analysis for distance students**

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>Scale</th>
<th>B</th>
<th>β</th>
<th>R square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online course willingness</td>
<td>Language learning on the internet</td>
<td>.836</td>
<td>.800</td>
<td>.640</td>
<td>65.797</td>
</tr>
<tr>
<td>Language learning on the internet</td>
<td>Value of the internet</td>
<td>1.151</td>
<td>.563</td>
<td>.562</td>
<td>23.060</td>
</tr>
<tr>
<td>Language learning on the internet</td>
<td>Peer correction</td>
<td>.351</td>
<td>.331</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer correction</td>
<td>Language learning on the internet</td>
<td>.288</td>
<td>.305</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer correction</td>
<td>Value of emails</td>
<td>.406</td>
<td>.379</td>
<td>.479</td>
<td>10.722</td>
</tr>
<tr>
<td>Peer correction</td>
<td>Group work</td>
<td>.312</td>
<td>.279</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It seems that for full-time students the frequency of internet use in Hungarian and English predict their perceptions of language learning on the internet and their willingness to
attend an online course. This confirms previous findings that the frequency of use influences students’ perceptions (Duggan et al., 1999; Vig, 2008), although only for full-time students. Distance students’ willingness to take part in an online course is predicted by their perception of the internet in general and emails in particular. To explain the influence of Peer correction and Group work further research is required.

4.4 Conclusion and implications

This phase of the research aimed at exploring college students’ computer and internet using habits and their dispositions towards digital technology and its application in language learning. The results confirmed previous studies’ findings (Akbulut, 2008; Bennett & Maton, 2010; Bullen et al., 2011; Duggan et al., 1999; Fehér & Hornyák, 2011; Hargittai, 2010; Jones & Shao, 2011; Kennedy et al., 2008, 2009; Kvavik, 2005; Margaryan et al., 2011; Oliver & Goerke, 2007; Sánchez et al., 2010; Selwyn, 2008; Vig, 2008; Warschauer, 1996b) that writing emails, browsing on the internet and instant messaging are most frequently used among students, with instant messaging only for full-time students. A further function that is often applied is the use of online dictionaries, which did not emerge in previous studies. This result indicates that even if Prensky’s (2001a, 2001b) description of today’s students as digital natives might be true of the participants of this study in L1 communication, however, that does not mean that they use digital tools for language learning. This is also supported by the fact that neither applications requiring higher level skills nor creativity such as writing blogs, making websites or the educational use of the internet are very frequent among students, which is in line with several researchers’ findings (Bennett & Maton, 2010; Fehér & Hornyák, 2011; Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Margaryan et al., 2011). The results also support previous results that ‘digital natives’ constitute a heterogeneous group (Bayne & Ross, 2007; Brown & Czerniewicz, 2010; Buda, 2013a; Hargittai, 2010; Hockly, 2011; Stoerger, 2009; Zur & Zur, 2011).
Although students’ dispositions towards the internet are positive in general, only distance students are positive about language learning on the internet and online language courses. The results are consistent with the findings of earlier research that students prefer traditional ways of teaching (Garcia & Qin, 2007; Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Margaryan et al., 2011; Schulmeister, 2008). Not only their willingness but also the scales that predict it differ greatly. Although the key predictor variable for both groups was Language learning on the internet, for full-time students English and Hungarian use of the internet were also predictors. For distance students the relationships between the scales were stronger overall and more scales influenced their willingness to take part in online language courses. Apart from Language learning on the internet, Value of the internet, Peer correction, Value of emails and Group work all acted as predictor variables. At the same time, distance students’ willingness to take part in an online language course organised by the college shows that there is an interest among students in this new way of learning. Previous findings that frequency of use influences students’ perceptions (Duggan et al., 1999; Vig, 2008) were only confirmed for face-to-face students.

As for implications for the design of the longitudinal study in Phase 4, the findings of this phase of the research that full-time students’ perceptions about language learning on the internet are not very positive and they would not take part in an online course suggest that integrating technology into teaching should be done with utmost care and preparation. In the particular setting of the college, the students have been found to use the internet mostly for browsing and L1 communication and only distance course students would be willing to take part in an online language course. However, earlier research has also reported students’ positive perceptions of the integration of digital technology in retrospection, after taking part in a course, which included different elements of ICT (Akbulut, 2008; Bray et al., 2008; Felix, 2004; Hsu et al., 2008; Kung & Chuo, 2002; Murday et al., 2008; Ottó & Nikolov, 2010;
Rosell-Aguilar, 2004; Sagarra & Zapata, 2008; Stepp-Greany, 2002; Warschauer, 1996b; Yaghoubi et al., 2008). Thus, it seems that students’ dispositions can be affected by their experience of the integration of technology in their courses.
Phase 2: The investigation of language teachers’ use of a VLE

This phase of the research aimed to explore language teachers’ use of the virtual learning environment called CooSpace used at our college and their dispositions towards it. CooSpace is a VLE created by a Hungarian team, which has been available for all the three faculties since September 2007. As opposed to open-source systems, such as Moodle, it is a commercial solution, which is continuously supported by the developers. Its functions are similar to other VLEs, although it does not encourage cooperation and collaboration. New functions and applications can be added at the request of the users, who can express their comments in a customer satisfaction survey at the end of each term. The specific functions will be discussed in Section 5.3.2. The results of this phase of the research were used to obtain information about practices of using the VLE in language teaching, as well as to highlight problems concerning its use. The ultimate aim was to use this information to guide the design of the framework and the activities in Phase 4.

5.1 Research questions

In order to investigate these two aspects, a main research question and three sub-questions were formulated:

RQ (2) What characterizes language teachers’ use of a virtual learning environment and their dispositions towards e-learning at the college?

RQ (2a) How often do language teachers use CooSpace at the college?

RQ (2b) Which functions of CooSpace do language teachers use at the college at the college?

RQ (2c) What do language teachers feel about using CooSpace and e-learning at the college?
5.2 Methods

The main instrument of the research was a questionnaire I developed to investigate language teachers’ use of CooSpace, supplemented with semi-structured interviews. The choice of a mixed methods paradigm was motivated by my intention to examine different aspects of the problem, as well as to provide an opportunity for triangulation. The design was sequential, in which the findings of one method are expanded using another method (Creswell, 2003). Thus, data yielded by the retrospective interviews was hoped to complement and elaborate on the questionnaire data, providing underlying reasons for participants’ answers. Finally, the validity of research can be improved by using mixed methods and corresponding evidence can also increase the transferability of the results (Dörnyei, 2007). In the following section first the characteristics of the participants will be described. Then the detailed description of the questionnaire and the interview schedule along with their development will be provided, as well as the procedures of their administration and data analysis.

5.2.1 Participants

The participants for the questionnaire were 44 language teachers of the college, 31 teachers from Faculty 1 (F1) and 13 teachers from Faculty 2 (F2). The original idea was to include all three faculties of the college in the research and to compare the teachers’ use of CooSpace. However, when teachers of Faculty 3 were approached, it was discovered that neither CooSpace, nor any other virtual learning environment is used there. Consequently, only the other two faculties could be investigated. Nevertheless, proper comparison of these two faculties was neither possible, due to the low return rate of the questionnaire (26%) at F2, which prevented collecting representative data for that faculty. The high return rate of the questionnaire at F1 (84%) can probably be attributed to the fact that the researcher also works there. Table 16 shows details about the participants for the questionnaire.
Table 16

Participants for the questionnaire in Phase 2

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th></th>
<th>F2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>12.9%</td>
<td>1</td>
<td>7.7%</td>
<td>5</td>
<td>11.4%</td>
</tr>
<tr>
<td>Female</td>
<td>27</td>
<td>87.1%</td>
<td>12</td>
<td>92.3%</td>
<td>39</td>
<td>88.6%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-35</td>
<td>1</td>
<td>3.2%</td>
<td>1</td>
<td>7.7%</td>
<td>2</td>
<td>4.5%</td>
</tr>
<tr>
<td>36-45</td>
<td>11</td>
<td>35.5%</td>
<td>5</td>
<td>38.5%</td>
<td>16</td>
<td>36.4%</td>
</tr>
<tr>
<td>46-55</td>
<td>9</td>
<td>29%</td>
<td>2</td>
<td>15.3%</td>
<td>11</td>
<td>25%</td>
</tr>
<tr>
<td>Above 55</td>
<td>10</td>
<td>32.3%</td>
<td>5</td>
<td>38.5%</td>
<td>15</td>
<td>34.1%</td>
</tr>
<tr>
<td>Major</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>14</td>
<td>45.2%</td>
<td>5</td>
<td>38.5%</td>
<td>19</td>
<td>43.2%</td>
</tr>
<tr>
<td>German</td>
<td>9</td>
<td>29%</td>
<td>6</td>
<td>46.2%</td>
<td>15</td>
<td>34.1%</td>
</tr>
<tr>
<td>French</td>
<td>3</td>
<td>9.7%</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>6.8%</td>
</tr>
<tr>
<td>Italian</td>
<td>2</td>
<td>6.4%</td>
<td>2</td>
<td>15.3%</td>
<td>4</td>
<td>9.1%</td>
</tr>
<tr>
<td>Spanish</td>
<td>3</td>
<td>9.7%</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

As only two teachers volunteered for an interview in the questionnaire, two interviews were conducted. The reason for the very low number of volunteers could be that the time of the research was the busiest period of the term at the college. Details about the two participants can be seen in Table 17. In order to ensure anonymity, pseudonyms are used for the participants.

Table 17

Participants for the interview in Phase 2

<table>
<thead>
<tr>
<th></th>
<th>Sheila</th>
<th>Joan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>44</td>
<td>58</td>
</tr>
<tr>
<td>Teaching</td>
<td>22</td>
<td>36</td>
</tr>
<tr>
<td>CooSpace use</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

5.2.2 Instruments

The instruments of the current research were a questionnaire with 43 questions and a semi-structured interview schedule that I have developed. The questionnaire contained 40 questions, starting with 10 questions about the participants’ background and the use of CooSpace in general. The second part contained 14 Likert-scale questions about the frequency of use of 14 functions, while the third part 14 Likert-scale questions about their usefulness, where participants had to indicate on a five-point scale how often they use a function and how
useful they find it. In the second part two open-ended questions were asked about additional and problematic functions. As the participants were teachers of different languages, the questions were in Hungarian to make sure that all teachers understood them. The choice of language excluded one native English teacher, who does not speak Hungarian. However, as the language of CooSpace is also Hungarian, he is not able to use it anyway. I developed the questionnaire and it was peer-checked by an expert and five fellow-students at each stage of the process. As a next step it was piloted by two teachers of the college (a male and a female), who were asked to think aloud while filling in the questionnaire. Problematic items, which included some questions, instructions and scale labels, were reworded. The order of the questions was also modified to make it more logical. The paper-based version of the questionnaire and its English translation can be seen in Appendix C and D.

In the second part of the research project semi-structured interviews were conducted with two participants. As both of them are Hungarian, the language of the interviews was Hungarian. The interview questions were grouped around five topics. First, questions the teachers’ professional background and language teaching, as well as language learning experience were asked about to establish rapport. Next, teachers’ answers to the questionnaire were looked at and they were asked to clarify any ambiguous answers, as well as to provide reasons for their answers. In this part questions about their feelings about using CooSpace were also included. Then, differences between students and teaching methods in the past and today were discussed in order to introduce the topic of e-learning. In the last two parts teachers’ opinions about computers and the internet in general and their suitability for teaching including language teaching were in the focus of the questions. Similarly to the questionnaire, the interview schedule was peer-checked continuously during its development. The interview schedule and its English translation can be seen in Appendix E and F.
5.2.3 Data collection

The link to a web-based electronic questionnaire with 43 Hungarian questions was sent to the participants by email. The reason for online administration was that it can reach participants more easily and it is convenient to fill it in and send it back. Moreover, the possibility of skipping questions on the basis of previous answers makes it more user-friendly than a paper-based questionnaire. Additionally, it can save time for the researcher, because the coding and recording of the answers are automatic (Dörnyei, 2010). Nevertheless, the option of filling in the paper-based version was also offered to the participants and one teacher asked for it. An issue that had to be considered due to the mixed-mode administration was anonymity. While the web-based questionnaire was truly anonymous, the participant who chose the paper-based version could easily be identified. However, when I discussed the problem with her, she gave her consent to being identified and even volunteered for an interview.

The two interviews were conducted in an office at the college which was out of use at that time, thus an undisturbed recording process was guaranteed. The interviews were recorded with the help of a mobile telephone after obtaining consent from the participants and lasted between 35-45 minutes. Although less data was yielded by the two interviews than originally expected, they can still supplement the findings of the questionnaires, especially as the two teachers represent the two ends of the spectrum: one uses CooSpace very frequently, while the other never uses it.

5.2.4 Data analysis

All the questionnaires were computer coded and SPSS (Statistical Package for Social Sciences) 17.0 was used to analyse the results with the significance level set for p<.05. First, mean scores were calculated for the frequency and usefulness scores of each function. Then paired samples T-tests were computed to compare the mean values. To find out if any of the
individual characteristics which were asked about in the first part of the questionnaire have an influence on the teachers’ use of CooSpace, independent samples t-tests for questions with two possible answers and one-way ANOVA tests for questions with more than two choices were carried out. The interviews were conducted at the college in Hungarian, then transcribed and analysed following Maykut and Morehouse’s (1994) qualitative data analysis principles. As a first step meaning units were identified in the transcripts, then they were categorized. After that an attempt was made to find emerging themes and patterns. Finally, the categories were analysed to see if the questions yielded meaningful results.

5.3 Results and discussion

In the following sections the results of the statistical analyses and the qualitative analysis of the answers to the open-ended questions in the questionnaire, as well as the interviews are presented guided by the research questions. Quotations from the questionnaires are identified by numbers representing the participants (P1 to P44).

5.3.1 CooSpace use

To answer the research question about the frequency of CooSpace use (RQ 2a), first it had to be examined how many teachers use it at the college. Since the return rate of the questionnaire was low at the faculty of F2, only data from F1 will be analysed in detail. However, all data will be shown in the tables. Table 18 shows the number and the percentage of teachers who use CooSpace.

<table>
<thead>
<tr>
<th>CooSpace use</th>
<th>F1</th>
<th>F2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>45%</td>
<td>7</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>55%</td>
<td>5</td>
</tr>
<tr>
<td>Other VLE</td>
<td>0</td>
<td>0%</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 18 Teachers’ use of CooSpace (N=44)
The fact that only 45% of teachers at F1 claimed that they use CooSpace is surprising, considering that several teaching materials are only available there. What is more, a mere 50% of full-time users employ it before each class or weekly (Table 19). Although it is possible to download these contents and send them to the students via email, it seems rather complicated. The fact that the respondents at F2 use Coospace more frequently (57.2% before each class or weekly) can probably be attributed to the low return rate at that college. As the questionnaire was administered online, teachers who prefer to use the internet more often and more willingly could have been represented in a higher percentage among the respondents.

Table 19

<table>
<thead>
<tr>
<th>Frequency of CooSpace use (N=21)</th>
<th>F1</th>
<th>F2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>before each class</td>
<td>4</td>
<td>28.6%</td>
<td>3</td>
</tr>
<tr>
<td>weekly</td>
<td>3</td>
<td>21.4%</td>
<td>1</td>
</tr>
<tr>
<td>every second week</td>
<td>4</td>
<td>28.6%</td>
<td>1</td>
</tr>
<tr>
<td>monthly</td>
<td>3</td>
<td>21.4%</td>
<td>1</td>
</tr>
<tr>
<td>once in a term</td>
<td>0</td>
<td>0%</td>
<td>1</td>
</tr>
</tbody>
</table>

The research also aimed to find out why some teachers do not use CooSpace. As it can be seen in Table 20, the two most common reasons given are that traditional ways are faster and teachers do not know how it works. Both can be traced back to the lack of knowledge or experience about the use of CooSpace. If teachers are not competent in using a VLE, it can result in a slow use, which can be discouraging. Similarly, the reasons that it would take too much time to learn it or to use it can also be linked to the lack of expertise. These findings also support previous studies’ results that the lack of time is one of the main deterrents to using any kinds of technology in the classroom (Arnold, 2007; Jones, 2004; Pleasance, 2010). An external reason for not using CooSpace is technical problems. According to one of the participants, “you can’t be expected to use CooSpace on a daily basis, as long as we don’t have enough computers at the department, and the ones we have are very slow” (P30). The moral reason of traceability was given by two teachers (P16 and P26). A comment by one of
them revealed that the fact that the head of department can follow how often teachers signed in and what they did on CooSpace was found disturbing. This is consistent with data obtained by Heaton-Shrestha et al. (2005), who identified greater visibility as a factor hindering the use of VLEs by teachers.

Table 20

<table>
<thead>
<tr>
<th>Reasons for not using CooSpace</th>
<th>College</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>traditional ways are faster</td>
<td>10</td>
<td>45.5%</td>
<td></td>
</tr>
<tr>
<td>don’t know how it works</td>
<td>7</td>
<td>31.8%</td>
<td></td>
</tr>
<tr>
<td>too much time to learn it</td>
<td>3</td>
<td>13.6%</td>
<td></td>
</tr>
<tr>
<td>technical problems</td>
<td>3</td>
<td>13.6%</td>
<td></td>
</tr>
<tr>
<td>too much time to use it</td>
<td>2</td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>the activities are traceable</td>
<td>2</td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>not useful</td>
<td>1</td>
<td>4.5%</td>
<td></td>
</tr>
<tr>
<td>students don’t like it</td>
<td>0</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>

Note: As it was possible to choose more than one answer, percentages do not add up to 100%

However, the majority of language teachers who do not use CooSpace (68%) would be interested in a training session about its application (Table 21), which means that they are open to finding out more about CooSpace. As a result of future training they might be willing to use more functions for a wider range of purposes, thus exploiting the potentials of the VLE more effectively. It is only 18% who have not taken part and would not take part in a training session, probably meaning that they will never consider using it.

Table 21

<table>
<thead>
<tr>
<th>Training participation</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training participation</td>
<td>College</td>
</tr>
<tr>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>has taken part in a training session</td>
<td>YES 11</td>
</tr>
<tr>
<td></td>
<td>NO 11</td>
</tr>
<tr>
<td>would like to take part in a training session</td>
<td>YES 15</td>
</tr>
<tr>
<td></td>
<td>NO 7</td>
</tr>
<tr>
<td>have not taken part AND would not like to take part in a training session</td>
<td>4</td>
</tr>
</tbody>
</table>
5.3.2 Functions of CooSpace

To answer Research question (2b) about the function of CooSpace the mean values for the frequency and usefulness of the 14 functions were calculated. For the frequency 1 indicates that the function is never used, while 5 is for very frequent use. Similarly, for usefulness 1 means not useful at all, while 5 means very useful. Paired samples t-tests were computed to compare the mean values of the frequency and usefulness scores of each function with the significance level (p) set for .05. Table 22 shows the mean values and the results of the t-tests. It can be seen in the table that there is only one function which is used frequently: uploading documents. Homework and news forum are the next two functions in the rank order, and the only ones that have a mean value above 3. All the others score lower than 3 with eight functions below 2. That shows that even those teachers who use CooSpace fail to exploit its potential. The functions they use are mostly for sharing information or communication, while interactive or collaborative functions, such as forum or chat, are very rare. This is in line with the results of previous studies which found that teachers regarded the VLE mainly as a means for the delivery of course materials (Browne et al., 2006; Heaton-Shrestha et al., 2005; Limniou & Smith, 2010; Palmer & Holt, 2009; Yu et al., 2010). A comparison of usefulness scores with the frequency scores of the functions shows that the former is higher for each function, where the difference is significant for 12 out of 14 functions. The two functions, diary and chat, where the differences are not significant, are the ones at the end of the frequency list and are hardly ever used. The higher usefulness scores might mean that teachers do not feel competent at using several functions, although they would find them useful. This is supported by several comments as well: “I don’t use many functions so my judgments about usefulness are just opinions” (P12), “a training session would be useful” (P15) and “it would be interesting to see what other teachers do with it” (P21). These comments illustrate the fact that the teachers’ limited use of the functions is
probably caused by their lack of knowledge, which could be changed by providing training sessions for them.

Table 22
*Frequency and usefulness of functions*

<table>
<thead>
<tr>
<th>Functions</th>
<th>Frequency</th>
<th>St. dev.</th>
<th>Usefulness</th>
<th>St. dev.</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uploading documents</td>
<td>4.00</td>
<td>1.05</td>
<td>4.85</td>
<td>0.35</td>
<td>-3.847</td>
<td>.001</td>
</tr>
<tr>
<td>News forum</td>
<td>3.00</td>
<td>1.18</td>
<td>4.00</td>
<td>0.68</td>
<td>-3.823</td>
<td>.001</td>
</tr>
<tr>
<td>Forum</td>
<td>1.65</td>
<td>1.37</td>
<td>2.60</td>
<td>0.86</td>
<td>-2.967</td>
<td>.008</td>
</tr>
<tr>
<td>Chat</td>
<td>1.00</td>
<td>0.99</td>
<td>1.35</td>
<td>1.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tasks</td>
<td>2.80</td>
<td>1.47</td>
<td>3.90</td>
<td>0.81</td>
<td>-3.240</td>
<td>.004</td>
</tr>
<tr>
<td>Tasks correction</td>
<td>2.20</td>
<td>1.43</td>
<td>3.35</td>
<td>0.73</td>
<td>-3.359</td>
<td>.003</td>
</tr>
<tr>
<td>Homework</td>
<td>3.10</td>
<td>1.31</td>
<td>3.80</td>
<td>0.6</td>
<td>-3.199</td>
<td>.005</td>
</tr>
<tr>
<td>Grading</td>
<td>1.80</td>
<td>1.46</td>
<td>3.10</td>
<td>1.18</td>
<td>-5.378</td>
<td>.000</td>
</tr>
<tr>
<td>Summarizing grades</td>
<td>1.35</td>
<td>1.47</td>
<td>2.55</td>
<td>1.07</td>
<td>-4.060</td>
<td>.001</td>
</tr>
<tr>
<td>Attendance register</td>
<td>1.50</td>
<td>1.58</td>
<td>2.35</td>
<td>1.02</td>
<td>-2.482</td>
<td>.023</td>
</tr>
<tr>
<td>Summarizing registers</td>
<td>1.40</td>
<td>1.52</td>
<td>2.30</td>
<td>1.02</td>
<td>-2.781</td>
<td>.012</td>
</tr>
<tr>
<td>Sending messages</td>
<td>2.60</td>
<td>0.95</td>
<td>3.75</td>
<td>0.59</td>
<td>-2.881</td>
<td>.010</td>
</tr>
<tr>
<td>Tests</td>
<td>1.30</td>
<td>1.34</td>
<td>2.70</td>
<td>0.93</td>
<td>-3.687</td>
<td>.002</td>
</tr>
<tr>
<td>Diary</td>
<td>1.10</td>
<td>0.97</td>
<td>1.65</td>
<td>1.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: t and p values are only shown if the difference between mean values is significant.*

To find out if any of the individual characteristics which were asked about in the first part of the questionnaire have an influence on the teachers’ use of CooSpace, independent samples t-tests for questions with two possible answers and one-way ANOVA tests for questions with more than two choices were carried out. Age, gender, the frequency of teachers’ internet use and participation in a training session about CooSpace use do not have a significant relationship with teachers’ use of CooSpace. Although teachers whose perceived internet skills are better use CooSpace more frequently, the difference is not statistically significant.
5.3.3 Results of the interviews

Data from the two interviews were analysed using the constant comparative method by Maykut and Morehouse (1994). As a first step an attempt was made to identify emerging themes and patterns (Table 23).

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Teaching</th>
<th>Students</th>
<th>E-learning</th>
<th>Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>personality</td>
<td>style</td>
<td>language skills</td>
<td>at home</td>
<td>technical</td>
</tr>
<tr>
<td>feelings</td>
<td>content</td>
<td>expectations</td>
<td>during classes</td>
<td>competence</td>
</tr>
<tr>
<td>habits</td>
<td></td>
<td>dispositions</td>
<td>teacher’s role</td>
<td>availability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>towards learning</td>
<td>students’</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>dispositions</td>
<td>time</td>
</tr>
</tbody>
</table>

Next, I focused on Research question (2c) to find out if the interviews provide answers to it. I discovered that very little data was available about teachers’ feelings about CooSpace. They talked about their emotions about e-learning and the use of computers in general, but not about CooSpace in particular, even when the question focused specifically on the VLE. However, on the basis of data collected with the interviews and the open-ended questions in the questionnaire, a few feelings could be identified. While the data yielded by the interviews are indicated by the participant’s name in brackets, quotations from the questionnaires are identified by numbers representing the participants (P1 to P44).

- **interest** – The fact that 68% of teachers would take part in a training session indicates that the participants feel interested in using CooSpace. Several comments from the questionnaires also support this: “it would be interesting to see what other teachers do with it” (P21), “I don’t know CooSpace very well but I am curious about it” (P20), “a training session would be great” (P27).

- **satisfaction** – The teachers who use CooSpace seem to be content with the functions they are familiar with: “I have no problems with the functions I use, I don’t miss anything” (P17), “the functions I use work well, the others I don’t use because I don’t
need them” (P33), “it’s very good for sharing material and convenient for distance courses” (Joan).

- **apprehension** – One reason for not using CooSpace is the fear from introducing something new and technical problems. As Sheila commented: “I could use it but it is my personal resistance to change and fear from novelties, I know it is my fault”. Two further participants indicated in the questionnaire that they are rather apprehensive of the VLE (P30 and P44).

- **reluctance** – Sheila’s unwillingness to use CooSpace can be attributed to her general reluctance to change but also to her specific fear of being monitored by the management: “I am not very secretive but I don’t like the fact that the head of department can see what I am doing on CooSpace”. Traceability has also been identified by two other participants (P16 and P24) in the questionnaire as a reason for their unwillingness to use the VLE.

As for teachers’ opinion about e-learning, both interviewees agree that e-learning has several positive aspects that could be exploited in higher education. First of all, it can suit today’s students’ needs and expectations better than any traditional method, because it provides a variety of tools that are familiar to them from their everyday life. This can be an important motivating factor for students, who come to the college after 10-12 years of studying English with not much enthusiasm. They also expect teachers to provide entertainment in the classes, as Sheila phrased it: “if I don’t jump around in front of the class or use these modern devices, they fall asleep”. A similar view is expressed by Joan, who stated that the pace of lessons has speeded up because students demand greater variety and can spend less time on one type of activity.

However, e-learning without any face-to-face lessons would not be feasible at the college for several reasons. The two teachers think that all students need the presence of a
teacher, without whom no learning is possible. In fact, Joan suggested that e-learning is only suitable for teachers when they study something, because they know how to organise their learning. On the other hand, elements of e-learning could be integrated into language teaching in different ways. Although the use of computers in the classroom could be useful, both teachers agree that this is not possible because of the lack of facilities at the college. The only aspect of e-learning that is feasible and has already been applied by the two teachers is for homework. Searching the web for information, practising grammar or vocabulary, watching videos on YouTube and talking about them in class can all help students practise language use in an authentic setting.

5.4 Conclusion and implications

The aim of this phase of the research was to investigate language teachers’ use of CooSpace, the VLE used at the college to explore their opinion about e-learning. The results indicate that less than 50% of the teachers at the college use CooSpace with a limited number of functions. The fact that the most frequent function is uploading documents shows that the VLE is regarded as a mere administrative and not as a pedagogical tool. Its collaborative nature or the opportunity of personalised learning is not familiar to teachers. The results support previous findings that the two most popular functions of VLEs are administration and the provision of course material and resources, which supplement traditional teaching practices (Browne et al., 2006; Heaton-Shrestha et al., 2005; Limniou & Smith, 2010; Palmer & Holt, 2009; Yu et al., 2010). The two main reasons given for not using CooSpace (traditional ways are faster and don’t know how it works) echo the opinions of other teachers in Hungarian higher education, who complained about the time-consuming and complicated use of VLEs (Kétyi, 2008; Nikolov & Ottó, 2010). However, the majority of the teachers have shown an interest in a training session, which indicates that their non-use also stems from the lack of knowledge and experience. This is also supported by the fact that the perceived
usefulness of most functions is significantly higher than the frequency of their use. Thus, teachers seem to be open to the integration of CooSpace into teaching but this is impossible without sufficient methodological training. This is in line with Lakatosné’s (2010) findings that the application of a new technology can only be meaningful if it has a clear pedagogical purpose which is known to the teachers as well. Therefore, context-specific and relevant training should be offered to teachers, which not only focus on technical but also on pedagogical aspects (Murugaiah & Thang, 2010; Naveh et al., 2010; Pleasance, 2010; Weaver et al., 2008; Yu et al., 2010). As for the implications for research design, the fact that the majority of language teachers’ use of CooSpace is limited to administration and the provision of course material suggests that the integration of technology into language teaching would need thorough preparation and considerable time at the college.
6  Phase 3 – The investigation of language teachers’ use of VLEs and web 2.0 tools

The third phase of the project aimed to explore language teachers’ use of virtual learning environments (VLEs) and web 2.0 tools at different tertiary level institutions in Budapest. The participants of the study were ten language teachers, who claimed to use VLEs and web 2.0 tools in teaching regularly and the main instrument was a semi-structured interview complemented by a questionnaire. The aim was to find out what tools language teachers use, what motivates them to use these tools and what pedagogical purposes they serve. The findings of the study were used to guide the design of the study in Phase 4.

6.1  Research questions

The following three research questions guided the investigation of language teachers’ motivation to use VLEs and web 2.0 tools in higher education in Budapest:

RQ (3) What motivates language teachers’ use of virtual learning environments and web 2.0 tools teaching at different tertiary institutions in Budapest?

RQ (3a) What web 2.0 tools and features of VLEs do language teachers use at different tertiary institutions in Budapest?

RQ (3b) For what pedagogical purposes do language teachers use VLEs and web 2.0 tools at different tertiary institutions in Budapest?

6.2  Methods

After identifying the aim of the investigation, I had to select the research method that best suited my inquiry. My choice of a mixed methods design dominated by the qualitative phase was motivated by the exploratory nature of the problem, which can be studied effectively by qualitative inquiry (Dörnyei, 2007). Besides, the limited number of language
teachers who claim to be expert users of technology in higher education and who were in the focus of the study, made a deeper and richer inquiry possible. Thus, to answer the research questions I developed a semi-structured interview schedule. However, to collect information about the use of specific tools, the reasons why teachers started to use them, as well as the purposes they use them for; a follow-up questionnaire was designed based on the data that emerged from the interviews. Both instruments were piloted with one expert and one participant. In this section first the characteristics of the participants will be detailed, then the interview schedule and the questionnaire will be described, followed by the administration procedures.

6.2.1 Participants

The ten language teachers who were the participants of the third phase of the research were selected by purposeful sampling so that they could provide rich data about the use of technology in language teaching. The criterion for the selection was that the teachers should have considerable experience in the integration of ICT into teaching. The participants were contacted at conferences and workshops on educational technology personally or by email. At the same time, the sampling was homogeneous from the aspect of the type of education since the aim of the project was to collect data about language teaching in higher education. However, within higher education maximum variation sampling (Dörnyei, 2007) was applied to ensure a great variety of data based on different forms of experience. Although all participants were language teachers, they were working at six higher education institutions in Budapest, teaching different subjects including German (one participant), English (general or professional) or English language teaching (ELT) methodology (eight participants). One English teacher (Rob) was not teaching at the time of the interview but was employed as an e-learning advisor. Most of the participants were Hungarian native speakers, apart from two native English teachers. The characteristics of the participants can be seen in Table 24.
Table 24
Participants of Phase 3

<table>
<thead>
<tr>
<th>Phase</th>
<th>Name</th>
<th>Age</th>
<th>Sex</th>
<th>Native language</th>
<th>Teaching experience (years)</th>
<th>ICT experience (years)</th>
<th>Subjects taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot phase</td>
<td>Sue</td>
<td>32</td>
<td>female</td>
<td>Hungarian</td>
<td>10</td>
<td>10</td>
<td>ICT methodology</td>
</tr>
<tr>
<td>Main study</td>
<td>Kim</td>
<td>63</td>
<td>female</td>
<td>Hungarian</td>
<td>40</td>
<td>15</td>
<td>general, IT and business English</td>
</tr>
<tr>
<td></td>
<td>Sam</td>
<td>37</td>
<td>male</td>
<td>Hungarian</td>
<td>13</td>
<td>13</td>
<td>business German</td>
</tr>
<tr>
<td></td>
<td>Kate</td>
<td>52</td>
<td>female</td>
<td>Hungarian</td>
<td>28</td>
<td>13</td>
<td>ICT in ELT methodology</td>
</tr>
<tr>
<td></td>
<td>Zoe</td>
<td>48</td>
<td>female</td>
<td>English</td>
<td>24</td>
<td>10</td>
<td>ELT methodology, general English and ESP</td>
</tr>
<tr>
<td></td>
<td>Jill</td>
<td>44</td>
<td>female</td>
<td>Hungarian</td>
<td>22</td>
<td>5</td>
<td>ELT methodology, general English</td>
</tr>
<tr>
<td></td>
<td>Jane</td>
<td>50</td>
<td>female</td>
<td>Hungarian</td>
<td>15</td>
<td>3</td>
<td>general, IT and business English</td>
</tr>
<tr>
<td></td>
<td>Pat</td>
<td>44</td>
<td>female</td>
<td>Hungarian</td>
<td>19</td>
<td>10</td>
<td>ESP, ICT in ELT methodology</td>
</tr>
<tr>
<td></td>
<td>Ian</td>
<td>51</td>
<td>male</td>
<td>English</td>
<td>26</td>
<td>8</td>
<td>ELT methodology</td>
</tr>
<tr>
<td></td>
<td>Rob</td>
<td>43</td>
<td>male</td>
<td>Hungarian</td>
<td>20</td>
<td>6</td>
<td>e-learning advisor</td>
</tr>
</tbody>
</table>

6.2.2 Instruments

In order to gain insight into language teachers’ motivations to use virtual learning environments (VLEs) and web 2.0 tools at different tertiary level institutions in Budapest, I developed a semi-structured interview guide. The interview started with questions about the teachers’ background, including where and what they teach, how long they have been teaching, whether they participate in teacher training and research projects. The questions in the main part of the interview were grouped around six topics: teachers’ use of the internet
and web 2.0 tools for personal purposes, the tools they use for teaching, the reasons for their use, students’ and colleagues’ reactions to the integration of technology into teaching and the future of language teaching. The semi-structured format allowed me to supplement the main questions with various probes that used what the participant said as a starting point. In this way the emergent nature of qualitative data could be enhanced (Dörnyei, 2007). In the end, teachers also had the opportunity to add anything they felt would be relevant to the topic and had not been asked about. The questions were in Hungarian as most participants were Hungarian, and then they were translated into English for the two native English speaker participants. The first draft of the interview guide was piloted with one expert who was asked to comment on the questions, which resulted in minor changes in the sequence and wording of the questions. Subsequently, a pilot interview was conducted with one of the participants. Based on her feedback, the questions were fine-tuned and finalized. The interview schedule can be seen in Hungarian and in English in Appendix G and H.

Based on the results of the interviews, I developed a follow-up questionnaire, which consisted of three sections and 41 items. The first section contained 16 Likert-scale questions about the frequency of use of 16 tools, the second section had 6 Likert-scale questions about the influences that made teachers start to apply these tools and the third section contained 15 Likert-scale questions about the purposes teachers can use the tools for. While participants had to indicate their choices on a five-point scale in the first section, questions in the other two sections offered only three options. Each section contained one open-ended question to generate any further tools, influences or purposes and the last question invited comments about the questionnaire or the interview. Similarly to Phase 1 and 2, I followed the checklist about constructing questionnaires provided by Dörnyei (2010, p. 127) during the development process. The piloting of the items followed the same procedure as the piloting of the interview schedule. First, the questions were checked by an expert, which was followed by the
rewording of problematic items, then the questionnaire was piloted by one participant, who
was asked to think aloud while filling in the questionnaire. The final form of the questionnaire
in Hungarian and its English translation can be seen in Appendix I and J.

6.2.3 Data collection

Before the interview I initiated contact with the teachers mostly by email or personally
at conferences and asked them if they would be willing to participate in an interview. After
gaining consent, I requested a visit to their institution to conduct the interview. Most
interviews including the pilot interview were held at the participating teachers’ institutions
and were recorded with a mobile phone with the consent of the participants. One interview
was carried out in the cafeteria of a library at the request of the participant. The average
length of the interviews was between 35-45 minutes. At the end of each interview I asked the
participant to complete a short questionnaire in the future about the same topic. Several weeks
after the interviews when the results were analysed and the questionnaire was developed, I
sent the link to the web-based electronic questionnaire to the participants along with an email
asking them again to fill in the questionnaire.

6.2.4 Data analysis

The interview data were subjected to qualitative content analysis using the constant
comparative method (Glaser & Strauss, 1967; Lincoln & Guba, 1985; Maykut & Morehouse,
1994) with the help of a co-researcher. The interviews were meticulously transcribed first,
then categorised and coded in relation to the research questions. As a first step meaning units
were identified and highlighted by colour codes in the transcripts, then they were categorized.
Categories and meaning units were discussed with the co-researcher and unified. At the same
time new categories were created and an attempt was made to find emerging themes and
patterns. Finally, the categories were analysed and evidence from the results of the
questionnaires were sought in support of the findings of the interviews. As only six teachers filled in the questionnaire, no quantitative analysis of the results will be provided.

6.3 Results and discussion

In the following sections the results of the qualitative analysis of the interviews will be presented together with the findings of the questionnaire. The list of the emerging themes, the recurring patterns and the final categories can be seen in Appendix K. The following sections are organized according to the final categories, which include the use of VLEs, the use of other technological tools, the pedagogical purposes for using technology, language skills development through technology, other purposes for using technology and factors influencing teachers’ use of technology.

6.3.1 Language teachers’ use of VLEs in teaching

All participants use or have used virtual learning environments in teaching which have a dominating role in their use of technology. The majority applies Moodle, but two further open-source systems, Ilias and Ning are also implemented by one teacher each, as well as one commercial VLE, CooSpace. Although the majority of the teachers use the VLE provided by their institution, a few of them have experimented with other environments. Ian has decided to use Ning instead of Moodle because it is more flexible and less controlled by the teacher. He also likes it because “it is like a little Facebook”, thus it is more appealing to the students. While Zoe uses Moodle for her university students, especially for correspondence courses, she has chosen a Google webpage for her private business English students who have no access to Moodle. However, her use depends on her students’ needs and desires because “private students cannot be forced into anything”. Jill has also experimented with a closed Facebook group as a VLE in an ICT methodology course to provide student teachers an alternative, in case they might teach in a school with no official VLE. Rob’s school has developed their own VLE, which is similar to Moodle in that it is strictly controlled by the
teacher. Although in his experience students like the system because they prefer being told what to do, they are working on a new system, which would build more on students’ creativity and would be more flexible. A wiki is used in parallel with Moodle by Sue, because it is more democratic and lets students add material and comments freely. While Sam’s school uses CooSpace as an official VLE, he has also tried Moodle and discovered the strength and weaknesses of both environments. In his opinion, Moodle has definitely more functions but CooSpace is more suitable for creating online tests and storing the questions for future use. In Jane’s institution only electronic teaching and learning materials are available for students and teachers on Ilias, which is their official VLE. Although she finds it comfortable that students are accustomed to using the VLE, she feels the need to produce exercises on paper as well, which she can bring to the classroom.

As for the functions of the VLEs, all teachers use it for uploading documents, supplementary material for home use or sharing course material including links and presentations made by the students. For the majority of the participants this is important because they want students to have everything available at home for learning. Jane and Kate also use the VLE to save paper by collecting material to project in class. The second-most popular function is the forum, which is mostly used for discussing topics but Kate and Jill also emphasized its role in ice-breaking and socializing, e.g. students put the picture of their favourite object on the forum and comment on each other’s pictures. According to Jill, forum discussions can be productive because they generate different types of comments than classroom discussions. Four teachers collect homework on the VLE (Ian, Pat, Kate and Sam) and Sam also prepares online tests on CooSpace. Ian uses Ning or other sites for uploading homework, commenting on them and for discussions. Most teachers use the VLE as a supplement to face-to-face lessons as only two of them have their classes in a computer room regularly, while another two occasionally.
6.3.2 Language teachers’ use of technological tools in teaching

Most of the teachers use some web 2.0 tools, which they defined as a tool with user-generated content as the main feature. Kate emphasized their interactivity, which means that the user can not only read the content but also write it. While network building and collaborative learning are associated very closely with web 2.0 tools by Sue and Rob; Sam, Kim and Pat perceive knowledge sharing and access to all materials uploaded by any user as a key feature. While the teachers mostly agreed on the definition, the web 2.0 tools they use vary greatly. Moreover, what they use in language teaching are often tools that cannot strictly be considered web 2.0 tools, such as interactive whiteboards or voting systems (Table 25).

Table 25
Tools the teachers use

<table>
<thead>
<tr>
<th>Tool</th>
<th>Teachers who use it regularly</th>
<th>Purpose of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>interactive whiteboards</td>
<td>Pat, Sam, Kate, Jill</td>
<td>work in class</td>
</tr>
<tr>
<td>Quizlet</td>
<td>Pat, Sam, Kate, Jill</td>
<td>learning vocabulary at home</td>
</tr>
<tr>
<td>online tests</td>
<td>Sam, Kate, Kim, Jane</td>
<td>testing vocabulary in class or at home</td>
</tr>
<tr>
<td>mind-mapping tools</td>
<td>Sue, Kate, Kim</td>
<td>brainstorming</td>
</tr>
<tr>
<td>wiki</td>
<td>Sue, Kate, Jill</td>
<td>sharing material, revision</td>
</tr>
<tr>
<td>blog</td>
<td>Sue, Pat, Sam</td>
<td>reflective writing</td>
</tr>
<tr>
<td>digital audio recording</td>
<td>Zoe, Sam</td>
<td>home assignment</td>
</tr>
<tr>
<td>Facebook</td>
<td>Jill, Kim</td>
<td>communication, as a VLE</td>
</tr>
<tr>
<td>Skype</td>
<td>Sue, Rob</td>
<td>communication</td>
</tr>
<tr>
<td>chat</td>
<td>Kate, Kim</td>
<td>communication</td>
</tr>
<tr>
<td>digital video recording</td>
<td>Sam</td>
<td>home assignment</td>
</tr>
<tr>
<td>voting system</td>
<td>Sam</td>
<td>revision in class</td>
</tr>
<tr>
<td>Twitter</td>
<td>Pat</td>
<td>communication</td>
</tr>
</tbody>
</table>

As for the tools they do not like using, Sue and Zoe named Twitter and chat, because they can only be used for writing short texts. Facebook is rejected by five participants as a learning tool (Zoe, Jill, Rob, Jane and Sam) either because it is associated with socializing and
entertainment: “I would never use Facebook for teaching because it means something totally different from a forum for learning for a lot of people” (Jill) or because of their personal mistrust towards it for any purposes (Rob and Jane). Sam has tried using blogs with his students because he writes a professional blog himself, but he admitted that they did not quite work either for him or for the students: “Blogs may be good but this writing together did not work and students did not like it, I don’t really know why”. The main problem was that only a minority of students wrote comments on the blogs and he did not want to force them.

Regarding the number of tools language teachers use, it may seem surprising that the majority of them use fewer than five tools, which seems very low, considering that these teachers claim to be intensive users of technology. While two participants (Sam and Kate) integrate more than five tools into language teaching (seven and six, respectively), and four of them (Kim, Jill, Pat and Sue) four tools, two teachers (Zoe and Jane) only use one tool. What is more, Ian and Rob do not use any of the tools discussed above. However, that does not mean that they do not integrate technology into their classes, as VLEs and the internet as a source for teaching materials are part of the lessons of almost every teacher. Moreover, the fact that they use VLEs on a daily basis and their integration into teaching relies on pedagogical principles (See Section 6.3.3) indicates that the effectiveness of using technology might not depend on the number of tools.

Three teachers emphasized the role of the particular group and situation in the selection of the tools they use. Although Zoe always uses technology with her university students, she decided not to use it with some of her business students, as they do not like using it. Sue compared the inventory of tools she uses to a hat, from which she picks the tools that seem appropriate for the group. She described the process of implementing technology as continuous action research:

When you start using a tool with a group, you must make sure that it works. There is no point in having a tool just because you like it even if it does not work in your class.
You must test it continuously and you might need to forget about it after one or two months if it does not work.

A similar view was expressed by Rob, who compared the toolkit to a basket full of vegetables: “You can choose one single vegetable to cook a very simple meal from it or prepare something very complicated that takes a lot of time but both can taste good and maybe somebody likes the simpler dish better”. The selection of the right tool for a particular group follows the principles of student-centred teaching supported by previous research (European Commission, 2008; ITL Research, 2011; Schmidt & Brown, 2004).

6.3.3 Pedagogical purposes of language teachers’ use of technology

Most teachers have decided to use these tools because they firmly believe that they serve pedagogical purposes and they are convinced that their integration into the classroom can enhance language learning, as Sue formulated: “I am constantly trying to search for tools to improve the given teaching and learning process”. Jill considers them so effective in “boosting language knowledge” that she “could not imagine teaching without them”. Sam is also convinced that these tools are useful, although he admits that they may not be suitable to develop all skills. Pat, Sam and Ian emphasized the need for a purposive selection of the right tool to achieve the right goals. Pat claimed that she did not have a favourite tool because each served a different purpose and her choice depended on what she wanted to achieve. Similarly, Sam demonstrated a pragmatic view on this, since he always considered the goal first and then decided “which tool is most suitable to reach that goal”. As Ian summarized it:

What’s very important is that you don’t just use tools for the tools sake and you’re driven by a technology agenda, which is separate from the pedagogical, and often it is the technology which comes first and the pedagogy comes later and what’s important is that when we use whichever tool we know why we are using them what makes it better to use that and not something else.
The view of the three teachers about the importance of the purposive selection of tools reflects the consensus in CALL research that it is the particular uses of technology for particular purposes based on sound pedagogies that can enhance language learning (e.g. Chapelle, 2010; Frand, 2000; Garrett, 2009; Jones & Shao, 2011; Kern 2006; Margaryan et al., 2011).

Several specific pedagogical purposes were listed by one or more participants, such as fostering group cohesion, collaborative learning and knowledge building, independent and reflective learning, suiting different learning styles, developing life-skills and particular language skills, such as reading, listening, writing, speaking and communication. Six teachers use the ICT tools in different ways to develop group cohesion. As Ian stressed its importance:

Because people very quickly know each other’s names and know each other’s work because they comment on each other’s work so it leads to a much more cohesive classroom and I think we should always pay attention to these things as well.

Similarly, Jill thinks that online tasks can bring together a group easily at the beginning of the term and can be followed up by further tasks during the course: “You don’t need much, just small and simple things, they learn a lot about each other that can be used in class; you can give them tasks to do in class to continue”. Finally, Kate emphasizes the role of forums in fostering group cohesion because they can be used for a lot of different purposes, for example “socializing, uploading the picture of your favourite object and commenting on others’, or some other group building task”.

Although Rob, Kim and Sue also find group cohesion important, in Kim’s opinion online work does not develop cohesion for existing groups, but it can bring together people who join an online class. Sue believes group cohesion is only a part of the most essential attainment of using ICT tools, which is collaborative learning:

I obsessively think that learning in groups is crucial, so it is important that the group can work well together but experiencing that you can add something to what two other
people created and then you work on it together or somebody helps you to understand a problem or question is a very good thing.

Collaboration is also very important for Sam, but he regards group cohesion as a less relevant issue in higher education:

I don’t give them tasks just to strengthen relationships; I don’t think the college is about matters like this, when you get new groups every term. But I use them [ICT tools] for collaboration, for example they have to translate a text together or write down the text of a long video extract in groups in a Google document. It does not work in every group, though, and when I see that it is only two students who work on it, I just leave it.

While Rob has always been interested in cooperative learning, which can be realized more easily in a virtual environment than in a traditional classroom, Pat considers the ability of working in groups a life skill that students will need in the future at work and which is not typically practised at university. This is in line with current research on skills for employment, which also emphasizes the importance of team work (BBS Research, 2010; IDC research, 2013; ITL Research, 2011). Wikis and web 2.0 tools are suitable for knowledge building as well, which is a major goal of using technology according to Sue and Rob. Rob is highly enthusiastic about the opportunities the internet provides for knowledge building, which are completely new and which he finds “absolutely fascinating”. Sue believes that collaboration and knowledge building are the two most important pedagogical purposes the use of technology can serve as she considers it essential that “everyone can add what they have and build something together”.

Although the word autonomy has not been used by the participants, independent and active learning can be enhanced through the implementation of ICT tools according to eight teachers. While Rob has always regarded active learning essential, Pat considers this particularly important today as students are not used to working independently:
I am using it [technology] because I would like to see that students at university feel responsible for their own learning, I regard them as adults, and expect much greater activity than usual. Quite often they don’t know what to do with it and want me to tell them what to do, and they have to get used to being able to have a say in what they learn and how but I think it is very important.

Besides active and independent learning, Pat emphasizes the importance of reflective and critical learning, which are skills related to web 2.0. Students should be able to “read critically and formulate fair criticism which makes sense in an acceptable way, and to give feedback”. Blogs, which can serve as learning diaries for students, are especially suitable for reflections about learning according to Sue. Ian also finds reflective teaching crucial for teachers so that they can decide which tool to use and for what purpose, and suggests that it should be taught on teacher training courses. In his opinion, the critical use of the internet including the Wikipedia and Facebook should also be practised with the students. Similarly, Kim tries to teach students to use the internet critically and selectively, which is highly difficult if not impossible because “students are used to applying the cut and paste technique, which is a catastrophe”. This reflects the findings of recent research, which emphasizes the role of critical thinking as a key competence (European Council, 2006), as well as a learning objective (European Commission, 2009), especially because students’ information literacy skills including the ability to select and judge information and critical thinking are far from perfect (Lorenzo & Dziuban, 2006).

Sue, Kate and Zoe stress the role of technology in providing opportunities for students with different learning styles and preferences, particularly for shy students, which is supported by previous research (Béres et al., 2009; Broad et al., 2004; Frand, 2000; Kétyi, 2008, 2011; Pleasance, 2010; Schmidt & Brown, 2004). Kate emphasizes the role of the forum for quiet students who can open up and can produce long texts on a different medium, while they have no opportunities to express their opinion in the classroom. Similarly, Sue and Zoe feel that
some students like the forum because they can show their knowledge much better that way. Ian and Rob like blogs because they offer a platform for peer correction, commenting and assessment. It can “make the quality of the work better if people know that they write not just for the teacher but for somebody else” (Ian). Rob also agrees that writing for an audience can put more pressure on the students to produce a better text and finds it reassuring that there is not only one grade but a much more complex assessment, which might include twenty comments: “someone hates it and someone likes it, so it is not a linear thing of one opinion but it is a lot more complex”.

Another purpose for using technology identified by Ian, Kim and Pat is developing “life-skills which are important for people or which will be important for people in almost anything that they do in their future lives” (Ian). The life-skills include social skills, “like what style do we use, how we behave, how we react, how polite we are” (Kim), collaboration and team-work (Pat) and writing for an audience (Ian). Table 26 shows the pedagogical purposes of using technology that emerged from the interviews and the teachers who referred to them.

Table 26
A summary of emerging possible pedagogical purposes of using technology

<table>
<thead>
<tr>
<th>Pedagogical purposes</th>
<th>Teachers who referred to them</th>
</tr>
</thead>
<tbody>
<tr>
<td>to enhance language learning</td>
<td>Sue, Jill, Sam, Ian</td>
</tr>
<tr>
<td>to enhance group cohesion</td>
<td>Sue, Jill, Ian, Kate, Rob, Kim</td>
</tr>
<tr>
<td>collaborative learning</td>
<td>Sue, Sam, Rob, Pat</td>
</tr>
<tr>
<td>knowledge building</td>
<td>Sue, Rob</td>
</tr>
<tr>
<td>independent learning</td>
<td>Rob, Pat</td>
</tr>
<tr>
<td>reflective learning</td>
<td>Pat</td>
</tr>
<tr>
<td>critical reading</td>
<td>Pat, Ian, Kim</td>
</tr>
<tr>
<td>to suit learning styles and preferences</td>
<td>Sue, Kate</td>
</tr>
<tr>
<td>peer correction</td>
<td>Ian, Rob</td>
</tr>
<tr>
<td>to develop life-skills</td>
<td>Ian, Kim, Pat</td>
</tr>
</tbody>
</table>

6.3.4 Language skills development by the use of technology

As for specific language skills that can be developed by using ICT tools, the majority of teachers agree that the enhancement of several skills is possible, although this is not the
main aim of using technology. Sue emphasizes the importance of collaboration again:

“Writing, reading, speaking and so on, of course, but as I have said a hundred times, it is collaboration and team learning that are the most important”. Similarly, Pat stresses the indirect effect of using technology on language skills, such as the development of writing through using a forum, which aims to foster group cohesion. Jill praises technology for providing an environment in which skills can be developed in a complex way:

It develops reading, and then if they have to write something about it, then writing, and if the reading is motivating students feel that it is worth writing about and commenting on, and they don’t write to practise writing but to communicate and that’s good.

Table 27
Skills that can be developed by using technology

<table>
<thead>
<tr>
<th>Skills</th>
<th>Teachers who referred to them</th>
</tr>
</thead>
<tbody>
<tr>
<td>all skills</td>
<td>Jill, Sam, Kim, Sue, Rob</td>
</tr>
<tr>
<td>reading</td>
<td>Jill, Kim, Pat, Sue, Zoe</td>
</tr>
<tr>
<td>writing</td>
<td>Jill, Kim, Kate, Sue</td>
</tr>
<tr>
<td>communication</td>
<td>Jill, Kim, Sue, Zoe</td>
</tr>
<tr>
<td>listening</td>
<td>Kim, Kate, Zoe, Pat</td>
</tr>
<tr>
<td>speaking</td>
<td>Jill, Kim</td>
</tr>
</tbody>
</table>

There is general agreement that speaking is the skill that is most difficult to improve by using ICT tools. Although Jill claims that using chat can be good for speaking, she admits that she has never tried it with her students. Kim believes that technology is more suitable for asynchronous communication in writing than for speaking, although speaking can also be practised via software such as Skype but technical problems can arise with that. Pat goes even further when she states that using web 2.0 tools helps students develop passive vocabulary, reading and listening skills because of the higher amount of language input but she is not sure this enhances speaking skills at all. However, according to Kate it is only the question of what technology is available for the teacher: “It is obvious that you can design more things to develop writing, or listening by films or videos, but it is only because that’s what we have at
the moment, this technology”. The specific skills that have been referred to by the participants can be seen in Table 27.

6.3.5 Other motivating factors for using technology

Apart from the pedagogical purposes detailed above, several other reasons have been given by the teachers for using technology in teaching. One major factor is the participants’ own enthusiasm for technology, which includes VLEs, web 2.0 tools and other ICT tools. Rob, Sam and Pat have all started using technology because of their own passion for new tools and gadgets, which makes them enjoy teaching more. Rob goes further in generalizing that statement and claims that today it is only teachers with a passion for technology who use it regularly in teaching. This might enhance the fulfilment technology’s potential in the classroom which requires a dedicated teacher (Felix, 2002; Kim, 2008; Lund, 2003; Suwannasom, 2010).

For some teachers the urge to keep up with the latest technology is also a reason for using ICT tools in teaching. Zoe and Jane do not like feeling left behind and that is why they try out new tools. Sam and Jane are convinced that these tools cannot be avoided because they are part of our present and future and our only choice is to try to use them for our own purposes. For Pat using state-of-the-art technology also means to be part of an international community, which is greatly important for her. Sue, Ian and Pat read blogs about ICT methodology and consider that an important part of their professional development.

The motivating power of ICT use for teachers, as well as for students was also stressed by Zoe, who claims that it can make the class more interesting for the students and for her as well, although it is possible to have a perfect lesson without any tools. Ian emphasized the importance of motivation through tools that are familiar to students in their everyday life: “It is good to use a medium which is similar to what people do anyway but to use it specifically for learning purposes”. Similarly, Kate claims that using a tool that students are familiar with
for learning purposes can be beneficial. These views echo the opinions of the researchers who support the idea of a digital native generation, who demand a new way of teaching (McNeely, 2005, Oblinger & Oblinger, 2005; Prensky, 2001a, 2001b; Tapscott, 1998, 1999).

6.3.6 Factors influencing technology use

In the interviews several factors have been referred to that have an influence on teachers’ use of technology, as well as on its effectiveness, including the role of the teacher and the colleagues, the students’ dispositions towards ICT tools, the time-consuming nature of using technology and the infrastructure available at the institutions. The importance of the teacher in presenting the tools for the students and teaching them how to use an online platform has been emphasized by Ian and Sue. How often and in what way they communicate and give feedback can make the students see the value of technology, which is essential for engaging them in an online task: “I don’t think you automatically get lots of enthusiastic students writing things on an online site devoted to learning, I think the teacher has a really important role in talking about it” (Ian). This is in line with previous research findings that the successful integration of technology into teaching depends on the teacher (Cope & Ward, 2002; Kim, 2008; Lam, 2000; Lund, 2003; Savery, 2002; Suwannasom, 2010).

Colleagues’ and department heads’ attitudes can also have an influence on teachers’ use of technology. A major change in their colleagues’ attitudes has been reported by Pat, Jill and Kate, who met with rejection when they started using technology. As Pat explained it in a vivid way:

They [my colleagues] used to think I had this deficiency which was forgivable as long as I did my job normally but this was quite frustrating for me. Some of them thought these tools were toys and I was playing around with them.

However, times have changed since then: “Today more and more colleagues use technology and even those who don’t appreciate my work ask for my opinion or advice if they
have a problem” (Pat). Kate feels that her pioneering role has contributed to the significant change in her colleagues’ attitude, who “accept the fact that today you cannot say no to technology”. Jill admits that some of the teachers in her department refuse to use ICT tools in teaching but she acknowledges the fact that “a course can be good without the use of any technology, although these teachers miss some very good opportunities.” In contrast, Sam complains that he cannot find any colleagues to work together with because “most of them don’t like these tools, especially the older ones, and some of them view technology strongly negatively”. Similarly, Kim’s colleagues lack motivation to use ICT tools, although it is expected by their school. All these views reflect the findings of previous research that support from colleagues and the institution affects teachers’ use of technology (Buabeng-Andoh, 2012; Fehér, 2004; Kim & Rissel, 2008; Korte & Husing, 2007; Lund, 2003; Neyland, 2011; Suwannasom, 2010).

As for students’ dispositions, the teachers’ accounts show a fairly mixed picture with slightly more negative experiences. Ian perceives that his students usually respond very well to the use of technology except for “the odd person who is a bit shy about sharing things” and teachers need to “be sensitive to that and to respond to that”. While Jane’s IT specialist students expect that all materials are available online and are willing to help her with any technical problem, Kim complains that her IT students are only interested in computer programming and are not open to ICT tools used for language teaching at all. Sam reports that some of his students, especially in the beginning, did not like these tools but today he has positive experiences. He emphasizes the importance of the type of task on students’ dispositions, for example making subtitles for German music videos motivated all students, even the “weakest one was highly enthusiastic”. Pat finds the low number of students who use web 2.0 tools in their private life and the high number of students who resist using the tools for learning surprising but she insists on trying to show the students the excellent
opportunities the ICT tools offer for learning. She also hopes that students’ dispositions will change positively in the near future. Zoe’s students are mostly passive, whereas Kate and Sue report a mixed disposition of their students depending on the type of course they attend. Kate sees a difference between face-to-face and correspondence students: “Correspondence students, who are usually older, show stronger resistance [towards technology], and sometimes it is because of technical problems but I often think it is only an excuse and a lack of initiative”. Most of the face-to-face students who attend her ICT methodology courses did not experience the use of technology at school for learning, so their attitudes are fairly mixed towards it. They seem to come to her classes “because they want to be convinced of its usefulness, which usually happens by the end of the course”. Most of Sue’s PhD students study social sciences and “they are used to sitting in the library and making notes” so ICT tools for learning are not familiar to them at all. Therefore it is only possible to introduce these tools to them gradually considering the needs of each group.

Most participants agree that using technology means extra work for the teacher. Classes have to be prepared more carefully, including searching for tools and materials, planning the way of presentation and anticipating problems (Rob). It also involves paying more attention to what students do in class and how they react (Kim). The teacher needs to take this into consideration when selecting tools (Kate, Sam, Jill, Jane). In spite of the additional workload, Jill and Rob emphasize that it is worth doing: “It is a challenge but it is also an amazing revelation when something works well and the students are happy and I am happy” (Rob).

6.4 Conclusion and implications

The aim of this phase of the research was to explore ten technologically expert language teachers’ use of virtual learning environments (VLEs) and web 2.0 tools at different tertiary level institutions in Budapest. The results revealed that although all teachers use VLEs
and some web 2.0 tools, the range of tools and their motivations for use are quite diverse. Previous research findings that VLEs are mostly used as a repository for course materials (Browne et al., 2006; Limniou & Smith, 2010; Palmer & Holt, 2009) were confirmed, while the only function which is regularly applied by five teachers appeared to be the forum. The fact that even teachers who claim to be technological experts do not seem to exploit the potential of the VLE to enhance autonomous, student-centred and individualized learning or collaborative knowledge building may sound surprising. However, as VLEs are very rarely integrated into teaching in Hungary (Hunya, 2007; R. Tóth & Molnár, 2009), even their limited use may be considered pioneering. A further possibility is that the participating teachers use other ICT tools for the pedagogical purposes discussed above. Nevertheless, the range of tools they use is also fairly limited: the majority integrates fewer than five tools into teaching including tools which cannot be considered web 2.0 tools, such as interactive whiteboards, online tests and voting systems. At the same time, the number of tools is less important than the purposes they are used for, as the use of technologies should always be based on their educational value (Margaryan et al., 2011). All the participants have decided to integrate ICT tools into teaching because they are convinced that language learning can be enhanced by their use. However, this conviction seems to be rather intuitive in most cases and only few pedagogical purposes have been mentioned in the interviews. While enhancing collaboration and group cohesion have been referred to by six teachers; critical reading and developing life-skills by three teachers; autonomy, knowledge building, learning styles and peer correction by two teachers each; reflective learning only by one teacher. Personalized learning and lifelong learning, which are two major goals of using technology (European Commission, 2008; ITL Research, 2011) have not been mentioned at all. On the other hand, considering previous research findings that the use of technology in the classroom mostly supports traditional, teacher-directed instruction (Arnold, 2007; Ertmer & Ottenbreit-
Leftwich, 2010; Gabriel et al., 2012; Jenkins et al., 2011; Lim & Chai, 2008; Parker et al., 2008; Suwannasom, 2010; Waycott et al., 2010); the practices of the participants seem innovative and pedagogically grounded. This is even more striking if we look at Hungarian teachers’ use of ICT tools, who mostly use them for preparation, administration, communication out of the classroom or illustration (Buda, 2007, 2010; Hunya, 2007, 2008; Molnár & Kárpáti, 2012; Török, 2008), while wikis, blogs, virtual learning environments and smart boards are very rarely integrated into teaching (Hunya, 2007; R. Tóth & Molnár, 2009).

As for students’ dispositions, the participants reported mixed attitudes of students towards ICT tools, which is in contrast with earlier more positive research results (Bordonaro, 2003; Kung & Chuo, 2002; Rosell-Aguilar, 2004; Sagarra & Zapata, 2008). The findings suggest that the integration of technology into language teaching can take diverse forms with the common requirement of sound pedagogical purposes. The range of tools teachers use may be limited but they select them to enhance the language learning process. One implication for the design of Phase 4 is that classes involving technology use have to be prepared and tools have to be chosen very carefully considering the needs of the students.
Phase 4 – The implementation of a wiki as a Personal Learning Environment

The aim of Phase 4 was to gain in-depth experience about the use of a VLE and web 2.0 tools in language teaching at a Budapest college by conducting a longitudinal case study. Two groups of students constituted the units of analysis of the case: one group of first-year commerce and marketing students for one academic term in spring 2012 (pilot study) and one group of first-year tourism and catering students for three academic terms from September 2012 until December 2013 (main study). As a VLE a password protected wiki was created, which functioned as a PLE for the groups, which was mainly used as a supplement to face-to-face classes for assignments, optional tasks and individual study.

7.1 Research questions

The research in Phase 4, which investigated the use of a VLE and web 2.0 tools in language teaching at a Budapest college was guided by the following research question:

RQ (4) How can VLEs and web 2.0 tools be integrated into teaching ESP to two groups of first-year students at a Budapest college?

To examine the different aspects of the integration, three sub-questions were formulated:

RQ (4a) What is first-year students’ disposition towards computers and the internet before and after a course using technology at the college?

RQ (4b) What characterizes first-year students’ use of the wiki and their dispositions towards the wiki project at the college?

RQ (4c) What impact does the use of VLEs and web 2.0 tools have on participants’ language use at the college?
7.2 Methods

Case study research involves the close examination of a subject by producing in-depth descriptions of a contemporary issue in a real-world context (Hays, 2004; Yin, 2014). Since this phase of the research is centred around an attempt to understand how a complex system can be integrated into teaching college students, the longitudinal case study design seemed most appropriate to explore multiple aspects of the phenomenon. An embedded single-case design was adopted (Yin, 2014), where the case was defined as the implementation of a VLE and web 2.0 tools into teaching ESP to first-year college students, and the embedded units of analysis were the two groups of first-year students, with one unit comprising the pilot study and one the main study.

As data collection in case studies should involve multiple sources of information (Creswell, 1998; Yin, 2014), the design included both qualitative and quantitative research methods. The different sources of information and the multiple instruments also served as triangulation that can increase the validity of the results (Hays, 2004; Yin, 2014). The aim of the pilot study was to collect information about the application of the wiki in teaching, students’ dispositions towards it and the problems that arise. The results were used to guide the design of the main study. In the following sections first the context of the case will be provided (language learning at the college) followed by the description of the case (the integration of the wiki in language teaching). After that the units of analysis (the two groups of students), the instruments and data collection procedures, as well as the methods of data analysis will be described.

7.2.1 The context of the case – language learning at the college

At the college students are offered classes in one language for three terms, two 90-minute lessons per week. Those who opt for English, which is the most popular language at the college, learn general business English in the first two terms and only start the
professional language of their own specializations (catering-tourism or commerce-marketing) in the third term. Considering that an intermediate level (B2) professional language exam is a requirement for obtaining a degree, students are encouraged to take a language exam at the end of their language studies. Consequently, professional topics and terminology, as well as exam preparation should be taught in one term, which might pose difficulties for weaker students. The materials which are used for teaching professional English aim to provide background knowledge in specific topics for students. The course book, *New Market Leader Intermediate* (Cotton, Falvey, & Kent, 2005) until September 2012 and *Business Benchmark Upper-Intermediate* (Brook-Hart, 2006) since then, is used in all specializations, while materials have been developed by the teachers of the college for the third term (*An Essential Guide to the Special Examination in Tourism and Catering* [Benke & Szilfai, 2005] for catering-tourism, *Econolinks* [Székely, 2011] for commerce-marketing).

As it is compulsory to start learning a foreign language in grade 4 in Hungary (Government decree 243/2003); many students attending the college have been studying English for at least nine years, some of them, who start earlier, for 12 years. Even if they learned another language at primary or secondary school, they have spent at least 4 years studying English. As a result, they can communicate reasonably well but their level of English proficiency ranges most typically from B1 to B2. Nevertheless, they perceive their knowledge as sufficient for communication and have no inspiration to learn the same topics and structures repeatedly. Additionally, as a result of the expansion of higher education in Hungary, students are less motivated and ambitious than before and lack the skills for self-regulated learning (Csillik & Daruka, 2015; Győrfyné Kukoda, 2012; Lencse, 2010; Ollé, 2009; Voglné Nagy et al., 2014). As language teaching in primary and secondary education is still dominated by traditional teacher-fronted methods (Kuti & Morvai, 2007), students are also accustomed to being given precise instructions what to do. Consequently, they cannot be
expected to perform efficient self-study activities without prior training. Finally, after such a long period of studying, students’ knowledge of English is fairly mixed, even if they are approximately at the same level, with strengths and weaknesses in different areas. A solution to this problem might be provided by personalized learning (Csillik & Daruka, 2015; Egbert, 2007) which is very hard to manage in groups with 15 students on average in the classroom.

7.2.2 The description of the case – the group wiki

A group wiki supported by web 2.0 tools was introduced for the two groups of students in the pilot and the main study to overcome difficulties stemming from students’ demotivation by the length of their English studies, the insufficient amount of time, the mixed levels of students and their inability to perform self-study activities, as well as the large classes. The choice of a wiki as a VLE was based on its potential for collaboration and knowledge sharing (Ansarimoghaddam et al., 2012; Arnold et al., 2012; Lamb, 2004; Li, 2012; Papadima-Sophocleous & Yerou, 2013; Warschauer, 2010; Warschauer & Grimes, 2007; Zorko, 2009) as well as student-centred, self-directed and personalized learning (Chao & Lo, 2011; Kessler, 2009; Kessler & Bikowski, 2010; Lee, 2010; Su & Beaumont, 2010). The main purpose of using the wiki was to engage the students more intensively, most of whom had been learning English for 6 or more years. As deeper engagement with the task can lead to increased proficiency (Golonka et al., 2014); the use of the wiki was expected to enhance language development as well. The use of ICT is also reported to support informal learning and lifelong learning (European Commission, 2008), thus the wiki was intended to help students prepare for extended language learning beyond the obligatory three terms of language studies at the college. A further aim of the enhancement of self-study and personal learning on the wiki was to compensate for the limited number of classes and the mixed levels of students. In addition, the wiki project aimed at the development of several 21st century
skills, including knowledge building, teamwork and reflective thinking (European Commission, 2008; ITL Research, 2011).

The choice of a wiki instead of CooSpace, the official VLE of the college was motivated by several reasons. One of the weaknesses of CooSpace lies in its restricted accessibility, which is typical of VLEs used in higher education. They are mostly available for only one term and although it is possible to restore them from the archives, they can only be used by the students until the end of their studies. As one of the aims was to promote life-long learning by providing a platform for students that they can use any time in the future, an alternative to CooSpace was needed. A further weakness of CooSpace is its rigid structure and the limited number of tools it provides. While CooSpace is being developed continuously and several new features were added in September 2012, such as blog and CSMS (instant messaging), it is still not possible for students to edit or co-edit content. On the other hand, a wiki is accessible for its members until the creator deletes it and any member can edit it freely after signing in. However, it is more convenient for the students to use the college’s VLE, as they use it for other classes as well, thus, they do not need to remember an additional username and password. Additionally, CooSpace is associated more closely with studying, which can be an advantage and a disadvantage at the same time. As it is an official environment students might take it more seriously than a wiki, which may be more motivating because of its more flexible nature. After considering all the pros and cons I decided to use CooSpace and the wiki in parallel for different purposes. While the VLE served as an official platform for administration, sharing information and uploading obligatory learning material and homework, we used the wiki for sharing supplementary material, working collaboratively and individualized learning.

Although there are several wiki websites available today which can be used with any web browser, it is difficult to find one which is suitable for classroom use. Some of them are
commercial (e.g. Socialtext) or only partially free (e.g. PBworks), some are free but feature
advertisements (e.g. Wikia and Wiki.Wiki), while others provide no private wiki (e.g. Orain).
Wikispaces, the wiki website I chose after careful comparison, is free for use by anyone for
educational purposes, has no advertisements and also provides password-protected wikis.
Today it also has a classroom version, which was not available in 2012, when the research
started. Its only disadvantage is that the language of the website is English, but as the
participants were at proficiency level B1-B2, this did not seem to pose a problem. In order to
use the wiki created for the two groups (Businesenglishfun for the pilot study,
Businesenglishfun 1C for the main study), the students had to register on the website with a
username and password. Once a wiki is created, it can be edited by all registered members,
and can only be deleted by its creator.

**The encouragement of self-study on the wiki**

In this section the tools and websites will be described which served to encourage self-
study. The three most important ones were the webpage Quizlet (http://Quizlet.com), and two
wiki pages: “Dictionaries” and “Grammar”. Besides these pages, several others were intended
for self-study, which will be described in the following sections.

The website and mobile application Quizlet provides learning tools for any subject but
it is especially suitable for studying vocabulary. Anyone can create a study set after free
registration and can use the study sets created by others even without signing in. Students can
learn and practise the words by flashcards, tests and three online games. Since January 2013 it
has been possible to create classes within Quizlet where all the sets of one group can be
stored, thus students can access them easily via one web link. In the two groups one volunteer
entered the new words on Quizlet with English definitions after each topic. After checking
and correcting the definitions I shared the set with the group on the wiki where they could
practise the words. To overcome Quizlet’s weakness that the words can only be practised without a context, we also spent some time in class with contextual practice.

On the wiki page “Dictionaries” students collected links to online dictionaries including monolingual, bilingual and business English dictionaries, as well as dictionaries of synonyms and collocations in the first class in the computer room. In groups a checklist for dictionaries was developed, whose final version was also added to the wiki. Students had to evaluate the dictionaries at home on the basis of the checklist and choose their favourite one:

http://dictionary.cambridge.org/ I like this page the most because it is more than one dictionary. It’s not just a monolingual one, but we can find here a Business English, an American English and an idioms and phrasal verbs dictionary as well. When we search a word, it doesn't give only the meaning of the word, but it also shows us a lot of examples and we can listen to the pronunciation (how the word is pronounced in the UK and in the USA), too. (Stefi, a student in the main study)

At the college, as the three English courses focus on professional English, grammar instruction is not part of the curriculum. Additionally, the students’ proficiency is usually fairly mixed including students with high grammatical competences. However, there are also students in almost every group who need some grammar instruction and practice, which can only be provided in a limited amount during the lessons. Thus, I decided to provide an opportunity for online practice for the students and created a page called “Grammar” on the wiki. Students had to search the internet for a website where they could practise grammar and insert the link on the wiki. As a next step, they had to try some of the exercises, evaluate the website and write a comment on the wiki. Finally, everyone had to choose a favourite page that they were encouraged to use regularly for practice:

http://learnenglish.britishcouncil.org/en/grammar-games: If you visit this page you can find grammar exercises/tests in a lot of topic, from the beginner level to advanced. You have to fill in the gaps, correct mistakes, match sentences etc. so it's varied, not only multiple choice. If you're stucked with one of the topics, there is a grammar
support block, where you can read about that grammar (Edit, a student in the pilot study).

Knowledge sharing on the wiki

Most of the wiki pages served as platforms for sharing students’ work, which were also intended to be used for self-study, including pages for specific topics, a page for students’ presentations and materials for exam preparation. The thematic pages focused on a topic which we covered in class such as recruitment, marketing and advertising, and which students would need to study later either for the language exam or for other purposes. The page “Recruitment” contained sample CVs and application letters provided by me or written by the students, as well as questions that can be asked at a job interview collected by the students. Links to YouTube videos about good and bad interviews were also added. Recruitment is not only a topic at the language exam but also an area that is relevant to all students when they look for a job and the page was intended to help them prepare for both. They also had a task to write an application letter for a job they had found on the internet. On the pages “Marketing” and “Advertising” students uploaded definitions, words, outlines and sample advertisements. The page “Christmas” was an exception because it contained texts, games, tasks and links to songs about Christmas, which we used in the last classes before Christmas in each autumn term. At the college it is a requirement for students to give a presentation in the courses Business English 2 and English for Tourism and Catering about a topic related to tourism. Thus, the page “Presentations” served two purposes on the wiki. Firstly, I collected material for the students about presentations, including tips, criteria for evaluation, mistakes and videos to help them develop their presentation skills. We covered the majority of the material in class but I also added some extra tasks and hand-outs. A further aim was to create a platform for students to share their presentation slides with each other. Since the
presentations covered topics related to tourism, students could use them later for the preparation for the professional exam as well.

In the second half of the second term the page “Exam” was added to help students prepare for the language exam with the aim of collecting all necessary information, as well as providing material for self-study. However, it was only a small part that I added to the wiki, most of the texts were written by the students, such as all contributions to the two main subpages “Exam writing” and “Topics”. While on the former sample texts including letters, emails, memos and leaflets were uploaded by the students to illustrate the different tasks that can occur at the exam, on the latter outlines for the topics were collected that students had written. The outlines were intended to help students study for the oral part of the professional exam, which includes a monologue task, in which candidates have to talk about a topic on their own for two to three minutes. Students could decide if they did the writing tasks and the outlines on their own or in groups and upload it to the wiki. Similarly to other extra tasks, they got points for it depending on the length and difficulty.

Collaboration on the wiki

Besides knowledge building, the wiki project also aimed at the development of other 21st century skills such as collaboration and teamwork. Thus, students had to complete one collaborative writing task on the wiki during each term including a letter, a summary and the translation of an article. They had other collaborative oral or writing tasks regularly during the classes but they completed the one on the wiki at home. The task was prepared in class when students chose which writing they would like to do and also formed groups. After planning and distributing work they finished the task at home. Finally, the groups looked at each other’s writing and evaluated it.
Further tasks

In the pilot group students had to complete several tasks on the wiki individually and comment on each other’s work. They had to post a short description of their favourite brand and advertisement, and a reason why they like it (“Brands” and “Advertising”) as well as a comment on someone else’s post. Similarly, they had to upload a graph illustrating a topic related to the course with a short analysis. A further task was to translate short articles about a topic and correct another student’s translation. In the main study individual tasks served either knowledge sharing or self-study, thus they were described in the previous sections.

The personalized evaluation system

During the piloting phase and in the first term of the main study students had the opportunity to get marks for extra tasks they carried out. One option was to put the words and definitions from the units of the course book on Quizlet. Students could also prepare a task sheet with 5 tasks for a talk they watched on www.ted.com. The web page, which contains over one thousand 5-to-20-minute talks on various topics, was introduced to them in the second class in the computer room. After exploring the page and watching one talk they had to complete a task sheet about it. They could upload the tasks on the wiki page “Ted talks” at any time during the second half of the term. To provide more opportunities for individual learning and self-study I introduced a personalized evaluation system in Group 2 in the second term. It was based on Nádori (2012) and Prievara’s model (2013), who designed the system for secondary school students in Budapest (See Chapter 2.6). At the beginning of the term students had to assess their skills and decide which skills they would like to improve as well as lay down their immediate and long-term aims. They were encouraged to select tasks freely for themselves first from given sources then from any source, which allowed them to tailor the tasks to their individual needs and learning styles. The tasks I suggested included tasks for practising grammar on any webpage, summarizing a TED talk or any article or video
in English and putting the words on Quizlet. They were also encouraged to select tasks to improve their weaknesses. Each student had a page on the wiki which functioned as a portfolio where they uploaded all the tasks they had carried out. First I looked at the task and highlighted the mistakes, which students had to correct in order to get points for it. Assessment was based on the points students earned for any task they had completed depending on the length and difficulty, which were calculated into one mark at the end of the term. Marks for the four vocabulary tests, one grammar test and a presentation were also included in the calculation. Students received one to three points for each task, as well as for each test (1 point for mark 3, 2 points for mark 4 and 3 points for mark 5). At the end of the term they had to have 8-10 points for a mark 2, 11-13 points for a mark 3, 14-16 points for a mark 4 and 17-20 points for a mark 5. Thus, students could get a 5 with no extra work if they received a 5 for all tests and the presentation but also if they failed all tests and did a lot of extra work. Students also had to take a mid-term written and an end-term oral test and the final mark was based on the marks for the two tests and the mark calculated from the points. In the third term the system was applied with the difference that points were calculated into marks twice during the term. Although this system was employed as a supplement to in-class work, where compulsory material was covered, points earned on the wiki could compensate for lower performance in class.

The implementation of the wiki

While in the pilot study the only opportunity to work on the wiki was in the two lessons in the computer room, in the main study we had a class in a room with a projector and internet access every second week in the first term and once a week in the second and third term. This made it possible to work with the wiki during the lessons as well. I discussed with the students the work they had done at home, helped them solve problems and reminded them of tasks they had not done, as well as highlighted or corrected their mistakes. However, we
did not use the wiki every week and sometimes we only spent a few minutes with it since its main purpose was to provide a platform for students for self-study at home. We also had three lessons in the computer room every term, at the beginning, in the middle and at the end of the term. During these lessons students worked on the wiki, as well as familiarized themselves with the new tools and tasks. They also had the opportunity to fill in the online questionnaires in the classroom.

In the majority of the classes the obligatory course material had to be covered, including the course book, *New Market Leader Intermediate* (Cotton et al., 2005) in the pilot study and *Business Benchmark Upper-Intermediate* (Brook-Hart, 2006) in the main study in the first term and the first half of the second term, and *An Essential Guide to the Special Examination in Tourism and Catering* (Benke & Szilfai, 2005) in the second and the third term. According to the course description, the aim of the courses is to prepare students to be able to use English at work in the different areas of the economy (Business English 1 and 2), as well as in the various sectors of tourism and catering (English for Tourism and Catering) in speaking and writing. A further aim is to enable students to develop their language proficiency on their own in the future and convert their skills into other fields. As students are required to have two B2 level language exams specialized in tourism and catering in order to get their degree and they are encouraged to take the exam at the end of their English studies, the preparation for the exam was also an important part of the lessons in the last term.

In the first week of the course I introduced the project to the students and explained that we were going to use a VLE and web 2.0 tools intensively during the three terms of their English studies. At the same time I offered them to choose another group if they did not want to participate in it. However, no one decided to opt out of the course. As a next step I created a wiki for the group on Wikispaces and also reserved a computer room for the classes to provide an opportunity to introduce the wiki and train the students how to use it. I sent
invitations to all students to join the wiki and asked them to register before the lesson so that we could start work immediately in the computer room.

7.2.3 Participants

In this section the two groups of first-year students will be introduced who constituted the units of analysis in the pilot study (Group 1) and the main study (Group 2). Although purposive sampling is recommended in qualitative research (Dörnyei, 2007), it is impossible to achieve in classroom settings, where the groups are not selected by the teacher. At the college first-year students are assigned to language groups according to the results of a placement test they have to fill in electronically on the college’s virtual learning environment. It is possible to change groups in the first two weeks of the term, after that the groups stay together for three terms. As a result of random assignment of groups to teachers, the language proficiency of the students participating in the study was higher in both groups than the average of all students studying English. While Group 1 was the group with the highest proficiency among the 8 groups of first-year commerce and marketing students, Group 2 was the third highest level group out of 21 groups studying English (Group C). Although the two groups consisted of students with different majors (commerce and marketing in Group 1, and tourism and catering in Group 2), they attended the same Business English 1 course in the first term. However, due to a change in the course material in September 2012 they used a different course book (New Market Leader Intermediate [Cotton et al., 2005] in Group 1 and Business Benchmark Upper-Intermediate [Brook-Hart, 2006] in Group 2). While the students in Group 1 enrolled at the college in September 2011 and at the English course in February 2012, the students in Group 2 started their English studies one term later in September 2012. In order to gain informed consent from the students (Dörnyei, 2007), the research project was introduced to them in the first week of their course together with the option of choosing
another group for those not willing to take part in the study. However, no one opted for changing the group.

The reason for the relatively small size of Group 1 (N=13) was that it was the group with the highest proficiency among first-year commerce and marketing students, which is usually smaller than the average. Group 2 represented the average size of a group in the first term with 18 students. As for their English proficiency, Table 28 shows that the majority of the students had studied for more than 5 years. All the students who started the course in both groups had passed a B2 level language exam and some students even had a C1 exam (four in Group 1 and three in Group 2).

Table 28

*Participants of the case study in Phase 4*

<table>
<thead>
<tr>
<th>Gender</th>
<th>1st term</th>
<th>2nd term</th>
<th>3rd term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
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<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th>1st term</th>
<th>2nd term</th>
<th>3rd term</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5 years</td>
<td>1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>6-10 years</td>
<td>7</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

In Group 2 students rated their skills on a five-point scale between 3.3 (grammar) and 3.6 (speaking) on the average and indicated that they would like to improve all skills during the course, reading the least (4.0) and grammar and speaking the most (4.5). Before the course started 17 students wrote the placement test in Group 2 with the average result of 78.5%, ranging from 75% to 80%, which was higher than the average of all students studying English (64%). Similarly to the participants in Phase 1 (Section 4.2.1), the students’ computer related characteristics (Table 29) show that computer and internet access is no problem among college students. The use of mobile internet has become more common for the participants of Phase 4 in 2012 (54.8% in Group 1 and 77.8% in Group 2) than it was for the participants in Phase 1 in 2010 (13.5% for regular students; 38.5% for distance students), probably due to the
higher mobile phone penetration and mobile broadband coverage in Hungary (Hungarian Central Statistical Office, 2012).

Table 29
*Computer related characteristics of participants in Phase 4*

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; term</th>
<th>Group 2</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; term</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; term</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td></td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-6 years</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7-10 years</td>
<td>6</td>
<td>17</td>
<td>16</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Over 10 years</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Computer access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td>18</td>
<td>17</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Internet access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td>18</td>
<td>17</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Internet access type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broadband</td>
<td>10</td>
<td>17</td>
<td>16</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Modem</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I don’t know</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Mobile internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>7</td>
<td>14</td>
<td>13</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>College wifi use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>16</td>
<td>13</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>CooSpace use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td>18</td>
<td>17</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Need for internet for studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td>18</td>
<td>17</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

One of the problems that arose in the main study was student attrition, which is a common difficulty of research carried out in school settings (Dörnyei, 2007). In Group 2 the number of students decreased from 18 in September 2012 to 16 in the second and 11 in the third term (See Table 30). This relatively high rate of attrition can be attributed to several factors beyond the language classroom, such as failing difficult exams (e.g. math and statistics), financial problems or the impossibility of managing studies and work at the same time. However, attrition from the language group does not necessarily mean attrition from the college; in the credit system students can enrol into language courses at any time during their studies. Moreover, this rate of attrition is normal in language classes, although it is higher than the average attrition (22% between the first and the third term in 2012-2013). Thus, the
final number of participants was reduced to 13 students due to the attrition in the two terms, including the two newcomers who joined the group in the second and the third term.

Table 30
Participant attrition in the main study in Phase 4

<table>
<thead>
<tr>
<th>Term</th>
<th>Number of students</th>
<th>Rate of attrition (previous term)</th>
<th>Rate of attrition (first term)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st term</td>
<td>18</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2nd term</td>
<td>16 (+1)(^a)</td>
<td>11.1%</td>
<td>11.1%</td>
</tr>
<tr>
<td>3rd term</td>
<td>11 (+2)</td>
<td>31.2%</td>
<td>38.9%</td>
</tr>
</tbody>
</table>

Note: \(^a\)The numbers in brackets represent the newcomers. 100% = first term

7.2.4 Instruments

The longitudinal case study in Phase 4 involved multiple instruments to gain in-depth experience about the integration of a wiki into teaching ESP to two groups of first-year students at our college. As the main aim of the pilot study was to assess the suitability of the wiki for classroom use including students’ dispositions towards it and the problems that arise, the main instruments were the teacher’s diary that I wrote during the term, a course evaluation questionnaire and the wiki statistics (See Table 31, Instruments 7, 9 and 10). In the main study ten instruments were employed (Table 31) to collect detailed information about the integration of the wiki. As one of the aims was to match the participants’ performances and answers on various instruments and tasks, as well as at different times; they needed to be identified. Thus, they were asked to provide their names in the questionnaires and other instruments but were ensured that their anonymity will be kept. Therefore, the names of the students have been changed for pseudonyms. The reason for the different times of administration of the instruments lies in the nature of the measured variables. The placement test, which is compulsory for all first-year students studying English, as well as the background questionnaire were administered at the beginning of September 2012. As the aim was to observe any development during the three terms, the two questionnaires which aimed to explore students’ self-assessment of their language proficiency and their dispositions
towards the internet were first handed out to the participants at the beginning of the first term, then at the end of the project. The questionnaire about the students’ self-assessment of their language development, however, was first administered in May 2013, at the end of the second term, then at the end of the project, because it aimed at evaluating the perceived language development in the first two terms and the third term. As one of the objectives of the questionnaires evaluating the course including the tools and tasks was to provide feedback and help design the next term, students were asked to fill them in at the end of each term.

Table 31
The instruments in the main study in Phase 4

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Measured variables</th>
<th>Time of administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Background questionnaire</td>
<td>students’ background</td>
<td>September 2012</td>
</tr>
<tr>
<td>2 Placement test</td>
<td>language proficiency</td>
<td>September 2012</td>
</tr>
<tr>
<td>3 Language proficiency test</td>
<td>language proficiency</td>
<td>December 2013</td>
</tr>
<tr>
<td>4 Self-assessment of language proficiency questionnaire</td>
<td>language proficiency</td>
<td>September 2012, December 2013</td>
</tr>
<tr>
<td>5 Self-assessment of language development questionnaire</td>
<td>language proficiency development, impact on the learning process</td>
<td>May 2013, December 2013</td>
</tr>
<tr>
<td>6 Questionnaire about the use and disposition towards the internet</td>
<td>disposition towards internet and web 2.0 tools</td>
<td>September 2012, December 2013</td>
</tr>
<tr>
<td>7 Course evaluation questionnaire</td>
<td>disposition towards internet and web 2.0 tools, impact on the learning process</td>
<td>December 2012, May 2013, December 2013</td>
</tr>
<tr>
<td>8 Semi-structured interview schedule</td>
<td>disposition towards internet and web 2.0 tools, impact on the learning process</td>
<td>December 2013</td>
</tr>
<tr>
<td>9 Teacher’s diary</td>
<td>all aspects</td>
<td>September 2012 – December 2013</td>
</tr>
<tr>
<td>10 Wiki statistics</td>
<td>students’ use of the wiki</td>
<td>September 2012 -</td>
</tr>
</tbody>
</table>
The semi-structured interviews were intended to supply information about the whole project, thus, they were conducted in December 2013 at the end of the last term. The language proficiency test was administered at the same time to all students studying English at the college. The teacher’s diary was written continuously from the beginning until the end of the project. Similarly, the wiki statistics, which are provided monthly on the wiki, were accessible for the whole period of the study, and even after its ending. The instruments can be seen in Appendix A, B and L to S, including sample pages from the Teacher’s diary and the wiki statistics. The only exception is the Language proficiency test, which cannot be published due to the several items borrowed from the item bank of Euro Examinations, which are confidential (Lukácsi & Hegedüs, 2014).

**Background questionnaire**

In the first week of the course I asked students to answer six questions about their language learning history and their expectations of the course, including their short term and long term goals and the ways they improve their English. I also asked them to rate their skills on a 5-point scale and also indicate which skills they would like to improve most. Although the questions were in English, I asked them in Hungarian to avoid any misunderstanding. I intended to use the answers to guide the development of the course (See Appendix M).

**Placement test**

The placement test all first-year students have to fill in electronically on the college’s virtual learning environment consists of 60 items focusing on general English vocabulary and grammar. Students have 50 minutes to complete the test, which is then evaluated automatically (See Appendix L).

**Language proficiency test**

The language proficiency test was the instrument of a research project monitoring the progress of all students of English between December 2013 and December 2014. It was
developed by four lecturers of the college and tested listening, reading and use of English skills, including grammar and vocabulary. The measured construct of the test was defined as “the foreign language ability to function in an English-speaking work environment” (Lukácsi & Hegedüs, 2014, p. 6). The Listening and the Reading paper consisted of 20 items each, while the Use of English paper had 30 items. As the participants of my research completed their English studies when the project started, their proficiency was only measured once.

**Self-assessment of language proficiency questionnaire**

The self-assessment grid for the Common Reference Levels in the Common European Framework of Reference for Languages (2001) was used for the participants’ self-evaluation. Although most students were familiar with the different levels, the grid was discussed before the students assessed themselves. As data collection was carried out in the classroom, the grid was handed out to students on paper and in Hungarian to ensure full understanding. In order to be able to compare the findings, students were asked to supply their names on the self-assessment grid.

**Self-assessment of language development questionnaire**

The seven questions about the participants’ language development were included in the course evaluation questionnaires at the end of the second and the third term. They included one question about general English knowledge, listening skills, reading skills, speaking skills, writing skills, grammar and professional vocabulary (business in the second and tourism in the third term). As students are advised to take the B2 professional language exam in tourism and catering at the end of their language studies, a further question was added at the end of the project: How well prepared are you for the language exam? Students had to indicate on a five-point scale ranging from not at all to a lot, how much their language proficiency had improved in the previous term (See Appendix O).
Questionnaire about the use and disposition towards the internet

Data about students’ use of computers and the internet and their dispositions towards their use in education were collected using the questionnaire developed and validated in Phase 1 (See Section 4.2.2). The questionnaire was in Hungarian to ensure full understanding and students were asked to supply their names on the questionnaires in order to be able to compare the findings (See Appendix A and B).

Course evaluation questionnaire

The course evaluation questionnaire was administered electronically at the end of each term, once in the pilot study and three times in the main study. The questions were in English (12 in Group 1 and 18 in Group 2), except for the Comments for each topic, which students could write in English or in Hungarian to provide a fair chance to students with lower language proficiency. The questionnaires at the end of the second and the third term were slightly different in several aspects. They included seven questions about the participants’ perceived language development; additionally, the end-project questionnaire also had some questions about the students’ language exams and their plans for exam preparation. Thus, they consisted of more questions (25 in the second and 33 in the third term). The questions for all terms can be seen in Appendix N and O.

Semi-structured interview schedule

To supplement information gained from the end-project questionnaires, a semi-structured interview guide was developed. The original plan was to conduct interviews with ten participants in December and January 2013 about their experience of the project, however, only two students volunteered for an interview. The main reason for this could be the inconvenient timing, since December and January are usually very busy with exams at the college. Most of the students took the B2 professional language exam in January, which required considerable preparation. When I approached the students for an interview, they gave
me a further explanation for their unwillingness beside time pressure. They felt that they had expressed their views about the project through the open-ended questions and comments in the questionnaire, which often yielded lengthy monologues. These answers were analysed qualitatively, similarly to data gathered from the two interviews I conducted. (See Appendix P and Q).

**Teacher’s diary**

During the whole project the events that occurred in the classroom and on the group wikis were recorded in the teacher’s diary, as suggested by several researchers (Elliott, 1991; McDonough, 1994; Miles & Huberman, 1994). According to McDonough, the main merit of keeping a diary is its ability to document the everyday working experience including individual student’s behaviour, the teacher’s feelings, students’ attitudes and the atmosphere of the class. The purpose of the journal was to record all my observations, as well as students’ reactions and comments about the different tasks and tools of the project. It also served as a source of personal reflection about the events and challenges that emerged during the course. I typed my notes that were made during the classes dealing with the wiki after the class in a Word document along with further comments. I also added notes at other times during the course when the wiki was dealt with in the lessons. The data collected this way can also serve as a source of triangulation to complement data drawn from other sources. A sample page of the diary typed and translated into English can be seen in Appendix R.

**Wiki statistics**

The statistics available on the wiki have been used to supply data about students’ activities on the wiki pages. The different types of information provided include the number of viewers for a given day or month, as well as the number of edits and messages. Data can not only be yielded about the whole wiki but also about specific pages. Furthermore, it is possible to track each group member’s activities for a given period of time. Unfortunately, the
three types of data cannot be combined, thus it is not possible to establish a connection between members and views (See Appendix S).

7.2.5 Data collection

Most of the tests and questionnaires used for data collection were administered electronically, with the exception of the questionnaire on students’ background, which they completed in the classroom in the first week of the term. The placement test that all first-year students have to fill in is an online test integrated in CooSpace, the VLE of the college. Students get a message that they have to fill in the test before the courses start in September in order to be assigned to language groups. The time allowed for completion is 50 minutes within the following week, after that the test is corrected automatically. The two questionnaires, which were administered twice, the Self-assessment of language proficiency questionnaire and the Questionnaire about the use and disposition towards the internet, were completed by the participants on paper in September 2012, but online in December 2013. The reason for this was that I decided to ask the students to fill them in during their regular classes in order to achieve 100% return, as well as to be able to explain the goals of the surveys. For the second round of administration I managed to arrange a computer room for the classes, which was not available at the first round, thus, in December 2013, the link to a Google form was put on the group wiki for the students. The Course evaluation questionnaire, which was administered at the end of each term, and the Self-assessment of language development questionnaire, which was part of the former, but only at the end of the second at the third term, were also completed online on the wiki in the computer room. Participants, who were absent at the time of administration, were asked to fill in the questionnaires in the following lesson on paper or at home online. An exception was the Language proficiency test, which was the first phase of a large-scale research project carried out at the college among all students studying English starting in December 2013. Thus, it was distributed on paper during
their English classes and students who were absent had no other opportunity to do the test. Students could work on completing the test for 90 minutes. The two interviews at the end of the project were carried out in the staff room of the Language department, in an office, which was out of use at the time. They were recorded with the help of a mobile telephone after obtaining consent from the participants and lasted between 40-45 minutes. Finally, the wiki statistics were generated automatically on the wiki and are available for analysis at any time for the creator of the wiki.

7.2.6 Data analysis

As data gained by the 10 instruments differed in nature, they were analysed applying different tools and methods. To answer Research question (4a) about first-year students’ dispositions towards computers and the internet before and after the course, the results of the two questionnaires about the use and disposition towards the internet were analysed statistically with the help of SPSS 17.0 with the significance level set for \( p < .05 \). First, mean scores and standard deviations were calculated for the scales established in Phase 1 (See Section 4.3.1). Subsequently, the mean scores from Term 1 and Term 3 were compared with the help of independent sample t-tests.

In order to answer Research question (4b) about students’ dispositions towards the wiki project, the findings of several instruments had to be analysed. First, the statistics provided by the wiki about edits and views were analysed and compared for the three terms. Then, data yielded by the three end-of-term Course evaluation questionnaires were analysed quantitatively. Mean scores, standard deviations and percentages for individual questions were calculated using Microsoft Excel 2010. Students’ comments to the questions, as well as the two interviews were subject to qualitative data analysis described in Section 5.2.4 and 6.2.4. Comments from the Teacher’s diary were used to support or supplement findings.
Finally, the results of five instruments were analysed and compared with the purpose of arriving at an answer to Research question (4c) about participants’ language use and development. Mean scores were calculated using Microsoft Excel 2010 for the findings of the Needs analysis questionnaire, the Placement test, the Language proficiency test, and the two questionnaires on the Self-assessment of language proficiency and language development. The results were then compared.

7.3 Results and discussion: The integration of a wiki in the ESP classes

In this section the results of the research will be provided and discussed guided by the research questions. Within the sections the results will be presented in a chronological order, as suggested by Yin (2014), covering the pilot study and the three terms of the main study, including problems that arose in each phase and implications for the following phase. First, students’ dispositions towards the use of technology will be compared before and after the language course, followed by the description of students’ use of the wiki, as well as their dispositions towards the wiki project. Subsequently, the impact of the wiki project on students’ language use will be examined based on the Placement tests, the two Self-evaluation questionnaires and the Language proficiency test. Finally, the portraits of three students will be provided to supplement information about the wiki project.

7.3.1 Students’ dispositions towards the use of technology

To answer Research question (4a) about first-year students’ dispositions towards computers and the internet before and after a course using technology at the college, students’ answers to the Questionnaire about the use and disposition towards the internet (Instrument 6) were compared in Term 1 and Term 3. As eleven students completed both questionnaires, only their replies were analysed. First, the most frequently used applications and functions of internet use were selected, which had a mean score above 3.5 in at least one of the terms (Table 32). Similarly to Phase 1 (Chapter 4.3.2), the most common purposes for internet use
are communication and entertainment, which are in agreement with previous research findings (Bennett & Maton, 2010; Bullen et al., 2011; Fehér & Hornyák, 2011; Hargittai, 2010; Jones & Shao, 2011; Kennedy et al., 2008, 2009; Kvavik, 2005; Margaryan et al., 2011; Oliver & Goerke, 2007; Ollé, 2011; Papp-Danka, 2013; Sánchez et al., 2010; Selwyn, 2008).

The findings that students’ educational use of the internet is limited to searching content areas, word processing and the use of online dictionaries also match data gained in Phase 1. A comparison of the results obtained in Term 1 and Term 3 has yielded no significant differences, although the mean scores for Term 3 are the same or higher (except for watching films and videos in English).

### Table 32

**Most frequently used functions**

<table>
<thead>
<tr>
<th>Purpose of internet use</th>
<th>Term 1 Mean</th>
<th>Term 1 St. dev.</th>
<th>Term 3 Mean</th>
<th>Term 3 St. dev.</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening to music</td>
<td>4.82</td>
<td>.41</td>
<td>4.82</td>
<td>.41</td>
<td>.000</td>
<td>1.00</td>
</tr>
<tr>
<td>Films, videos E&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.73</td>
<td>.47</td>
<td>4.55</td>
<td>.82</td>
<td>.639</td>
<td>.532</td>
</tr>
<tr>
<td>Communal pages H&lt;sup&gt;b&lt;/sup&gt;</td>
<td>4.45</td>
<td>.69</td>
<td>4.64</td>
<td>.92</td>
<td>-.523</td>
<td>.607</td>
</tr>
<tr>
<td>Search engine E</td>
<td>4.18</td>
<td>.60</td>
<td>4.55</td>
<td>.52</td>
<td>-1.512</td>
<td>.147</td>
</tr>
<tr>
<td>Online dictionary</td>
<td>4.09</td>
<td>.70</td>
<td>4.27</td>
<td>.91</td>
<td>-1.527</td>
<td>.604</td>
</tr>
<tr>
<td>Wikipedia H</td>
<td>4.00</td>
<td>.77</td>
<td>4.18</td>
<td>.75</td>
<td>-1.559</td>
<td>.182</td>
</tr>
<tr>
<td>Word processing H</td>
<td>3.91</td>
<td>.70</td>
<td>4.45</td>
<td>.69</td>
<td>-1.843</td>
<td>.08</td>
</tr>
<tr>
<td>Chat, forums H</td>
<td>3.91</td>
<td>1.04</td>
<td>4.27</td>
<td>1.01</td>
<td>-0.830</td>
<td>.416</td>
</tr>
<tr>
<td>Email H</td>
<td>3.91</td>
<td>.83</td>
<td>4.09</td>
<td>.70</td>
<td>-0.555</td>
<td>.585</td>
</tr>
<tr>
<td>Search engine H</td>
<td>3.82</td>
<td>1.17</td>
<td>4.64</td>
<td>.51</td>
<td>-2.133</td>
<td>.052</td>
</tr>
<tr>
<td>Films, videos H</td>
<td>3.82</td>
<td>1.25</td>
<td>3.82</td>
<td>1.15</td>
<td>0.000</td>
<td>1.00</td>
</tr>
<tr>
<td>Wikipedia E</td>
<td>3.73</td>
<td>.79</td>
<td>4.27</td>
<td>.79</td>
<td>-1.627</td>
<td>.119</td>
</tr>
<tr>
<td>Instant messaging H</td>
<td>3.27</td>
<td>1.27</td>
<td>3.91</td>
<td>.83</td>
<td>-1.389</td>
<td>.180</td>
</tr>
<tr>
<td>Hungarian internet use</td>
<td>2.95</td>
<td>.38</td>
<td>3.21</td>
<td>.43</td>
<td>-1.491</td>
<td>.152</td>
</tr>
<tr>
<td>English internet use</td>
<td>2.00</td>
<td>.43</td>
<td>2.34</td>
<td>.49</td>
<td>-1.740</td>
<td>.097</td>
</tr>
</tbody>
</table>

*Note:* <sup>a</sup>E stands for English. <sup>b</sup>H stands for Hungarian.

As for students’ dispositions towards computers and the internet in Term 1 and Term 3, mean scores for the ten scales created in Phase 1 were computed (See Chapter 4.3.1) and compared with the help of independent sample t-tests. Table 33 presents the descriptive statistics of the scales in the two terms and the comparison of the groups’ mean scores. The ranking of the scales is the same as in Phase 1 (See Chapter 4.3.3) with the majority of the
mean scores below 4. The low mean scores for *Online course willingness* in both terms are also consistent with those obtained in Phase 1 for full-time students. It seems that two years later students still prefer traditional ways of teaching as indicated by earlier research (Garcia & Qin, 2007; Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Margaryan et al., 2011; Ramanau et al., 2010; Schulmeister, 2008). Although the mean scores are higher for the majority of the scales in Term 3, no significant differences have been found between Term 1 and Term 3, similarly to the most frequently used functions. Thus, the course using technology for three terms seems to have had no significant influence on students’ use of the internet or on their dispositions towards computers and the internet. One reason for that may be that students did not generalize their experience with the wiki to other functions. Although their disposition towards the course and the use of the wiki was highly positive by the end of the third term (See Chapter 7.3.2), this did not influence their use and perception of computers and the internet. A further possible reason lies in the sample size, which may have been too small for the results to be able to reach statistical significance (Dörnyei, 2007).

<table>
<thead>
<tr>
<th>Scale</th>
<th>Term 1</th>
<th></th>
<th>Term 2</th>
<th></th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of the internet</td>
<td>4.58</td>
<td>.44</td>
<td>4.76</td>
<td>.42</td>
<td>-.967</td>
<td>.345</td>
</tr>
<tr>
<td>Perceived ease of internet use</td>
<td>4.55</td>
<td>.61</td>
<td>4.66</td>
<td>.45</td>
<td>-.462</td>
<td>.650</td>
</tr>
<tr>
<td>Writing on the computer</td>
<td>4.02</td>
<td>.75</td>
<td>4.01</td>
<td>.83</td>
<td>.040</td>
<td>.968</td>
</tr>
<tr>
<td>Value of emails</td>
<td>3.54</td>
<td>.80</td>
<td>3.93</td>
<td>.81</td>
<td>-1.124</td>
<td>.274</td>
</tr>
<tr>
<td>Language learning on the internet</td>
<td>3.07</td>
<td>.69</td>
<td>3.18</td>
<td>1.15</td>
<td>-.282</td>
<td>.782</td>
</tr>
<tr>
<td>Group work</td>
<td>3.14</td>
<td>.63</td>
<td>3.43</td>
<td>.98</td>
<td>-.823</td>
<td>.422</td>
</tr>
<tr>
<td>Peer correction</td>
<td>3.14</td>
<td>.63</td>
<td>3.43</td>
<td>.98</td>
<td>-.823</td>
<td>.422</td>
</tr>
<tr>
<td>Online course willingness</td>
<td>2.65</td>
<td>.76</td>
<td>2.40</td>
<td>.99</td>
<td>.678</td>
<td>.506</td>
</tr>
</tbody>
</table>

### 7.3.2 Students’ use of the wiki and their dispositions towards it

As students’ use of the wiki and their dispositions towards it cannot be separated, they will be discussed together in this section.
The pilot study

In the pilot study the wiki was intended to serve as a platform for knowledge sharing, collaboration and individual tasks, as well as for self-study (See Chapter 7.2.2). According to the wiki statistics, the number of edits was 226 performed by 13 members (M=17.38, SD=8.24) ranging from 6 to 37 edits by one student. The number of edits for participants can be seen in Table 34. While the number of edits performed by the students reflects their activity on the wiki, it was possible for them to use the external links to Quizlet, the dictionaries or the grammar practice pages without editing.

Table 34  
The number of wiki edits by member in the pilot study in Phase 4

<table>
<thead>
<tr>
<th>Name (Pseudonyms)</th>
<th>Number of edits</th>
<th>Name (Pseudonyms)</th>
<th>Number of edits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Áron</td>
<td>6</td>
<td>Dávid</td>
<td>17</td>
</tr>
<tr>
<td>Pál</td>
<td>9</td>
<td>Zsanett</td>
<td>20</td>
</tr>
<tr>
<td>Dénès</td>
<td>11</td>
<td>Mártta</td>
<td>22</td>
</tr>
<tr>
<td>Dorka</td>
<td>11</td>
<td>Nóri</td>
<td>22</td>
</tr>
<tr>
<td>Márk</td>
<td>13</td>
<td>Edit</td>
<td>26</td>
</tr>
<tr>
<td>Janka</td>
<td>15</td>
<td>Miriam</td>
<td>37</td>
</tr>
<tr>
<td>Réka</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Altogether</strong></td>
<td><strong>226</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Altogether 2,108 views were registered on the wiki on 9 pages not counting the home page (M=234.22, SD=147.96) ranging from 53 views (“Checklist”) to 481 (“Brands”). I decided to exclude the home page (1,354 views) as students generally started there, because it contained the links to the other pages. Thus, it seemed to provide more valuable information if the number of views were calculated without the home page. The total number of views seems to be high (Table 35), including the number per page even considering that it includes the teacher’s views, as well as the views in the computer room when most of the students were present. However, the monthly distribution shows that students used the pages considerably more often in the month when they were introduced to them (mostly February) and in May before the end of the term when they were assessed. This may be explained by
higher education students’ tendency to complete tasks before the deadline with the least possible effort (Györfyné Kukoda, 2012; Lencse, 2010; Ollé, 2009). A possible solution would be to set tasks more regularly with deadlines evenly distributed throughout the term.

Table 35
Wiki page statistics for the pilot study in Phase 4

<table>
<thead>
<tr>
<th>Pages</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertisements</td>
<td>118</td>
<td>59</td>
<td>14</td>
<td>192</td>
<td>383</td>
</tr>
<tr>
<td>Brands</td>
<td>222</td>
<td>16</td>
<td>8</td>
<td>235</td>
<td>481</td>
</tr>
<tr>
<td>Checklist</td>
<td>38</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>53</td>
</tr>
<tr>
<td>Dictionaries</td>
<td>244</td>
<td>11</td>
<td>22</td>
<td>101</td>
<td>378</td>
</tr>
<tr>
<td>Grammar</td>
<td>81</td>
<td>9</td>
<td>13</td>
<td>143</td>
<td>246</td>
</tr>
<tr>
<td>Quizlet</td>
<td>43</td>
<td>10</td>
<td>23</td>
<td>83</td>
<td>159</td>
</tr>
<tr>
<td>Tasks 17th February</td>
<td>161</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>174</td>
</tr>
<tr>
<td>Tasks 9th March</td>
<td>0</td>
<td>58</td>
<td>20</td>
<td>10</td>
<td>88</td>
</tr>
<tr>
<td>Ted talks</td>
<td>0</td>
<td>50</td>
<td>8</td>
<td>88</td>
<td>146</td>
</tr>
<tr>
<td>All Pages</td>
<td>907</td>
<td>228</td>
<td>113</td>
<td>860</td>
<td>2,108</td>
</tr>
</tbody>
</table>

To gain information about students’ dispositions towards the wiki, the data received from the course evaluation questionnaire were analysed. I received 10 answers, which represents 76.9% reply rate. The results show (Table 36) that students’ disposition was generally positive towards the wiki with 60% who found it interesting.

Table 36
Results of the course evaluation questionnaire in the pilot study (N=10)

<table>
<thead>
<tr>
<th></th>
<th>wiki</th>
<th>Quizlet</th>
<th>Dictionaries</th>
<th>Grammar</th>
<th>Thematic pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>useful</td>
<td>3</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>not useful</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>interesting</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>boring</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>easy</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>have used it</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: - the option was not available

However, only three participants found it useful. Similarly, students regarded thematic pages much more interesting (90%) than useful (20%). This is in contrast with students’ opinion about the pages “Dictionaries” and “Grammar”, which were perceived useful by 100% and 80% respectively. Nevertheless, when I asked them about their use of the wiki, a
mere 20% ("Quizlet" and "Dictionaries") and 10% ("Grammar" and thematic pages) indicated that they had used it above the obligatory tasks. Thus, the relatively high number of edits and views on the wiki did not indicate an extensive use of the wiki beyond the classroom. Possible reasons for the findings will be discussed in the following section.

The main reason for students’ limited use of the wiki for self-study may have been the lack of time for an appropriate introduction to the wiki, for regular training and use in the classroom. Although I had the opportunity to have a class in the computer room three times during the term: in mid-February, at the end of March and at the last lesson, I was not able to organize a classroom with a projector for any occasions, which meant that we could only look at the wiki together in the computer room. As four students were absent from the first class when I introduced the wiki and students registered on Wikispaces, they had to complete the registration process at home. While two of them managed to do it in the following week, the other two registered in the second lesson in the computer room at the end of March. Moreover, the class in the computer room did not go as I had planned. Although I had sent the invitation to Wikispaces to the students before the lesson, I had not asked them to register because I intended to introduce them to the wiki during the class. Thus, they had to do the registration process in the computer room, which took considerably longer than I had expected due to several factors. Firstly, students were late because the computer room was not in the same building where their regular classes were held. Secondly, turning on the computers and logging in the system was extremely slow, as well as the entire registration process. Furthermore, several students had not received the invitation to their email or could not access their email account, which meant that I had to send the invitation again. All in all, it took over 40 minutes for the majority to register, which left less time for the tasks planned for the lesson. Then, during the familiarization process I discovered a problem that I had not anticipated. If a wiki page is edited by more than one member at the same time, the changes
made will only be saved once, which means that some of the edits will be lost. Although it is possible to retrieve the lost data, it is a cumbersome process. Thus, I decided to ask the students to do their tasks on a piece of paper or in a Microsoft Word or Notepad document and copy their answers later to the wiki on the teacher’s computer. After some initial confusion, this seemed to work well. Since the wiki was intended mainly for home use, the impossibility of editing in parallel did not seem to be a major problem for the project. However, after overcoming the initial problems and getting familiar with the wiki, very little time was left for the two tasks I had planned on the pages “Dictionaries” and “Grammar”. The original task was to collect links to online dictionaries including monolingual, bilingual and business English dictionaries, as well as dictionaries of synonyms and collocations, then to develop a checklist for dictionaries in groups, and finally to evaluate the dictionaries on the basis of the checklist and choose their favourite one. The “Grammar” page would have worked similarly: students were to collect links to websites where they could practise grammar and insert it on the wiki. As a next step, they had to try some of the exercises, evaluate the website, write a comment on the wiki and choose a favourite page that they were encouraged to use regularly for practice. Unfortunately, students could only complete the first step of collecting links in both tasks by the end of the lesson and had to do the remaining parts at home. However, only three students finished the tasks at home and we could only work on the wiki together in the computer room at the end of March, when finally every student was present. Thus, one reason for their limited use may have been the insufficient time we spent on the wiki together and the problems around its introduction and first use. A further difficulty was caused by technical problems, which might have originated in the lack of training, as one of the students explained in the course evaluation questionnaire: “I think the wiki is useful but it is very complicated to edit and it takes a lot of time” (Janka). As Dorka commented: “I think the wiki could really be useful, too bad that I still don’t know how to edit
it”. By the end of the term some participants realized the potential of the wiki and planned to use it in the future: “At first I didn’t like it [the wiki] but it’s growing on me and I think I will use it in the future” (Dénes). Mári suggested using the wiki in other classes because “it’s useful and provides help with the studying”.

The findings of the questionnaire indicated that students rated the wiki positively but did not perceive it useful and did not use it for self-study. To enhance its more effective use, it seemed to be necessary to spend more time on its introduction and on training students how to use it technically and for what purposes. Thus, the first lesson in the computer room has to be planned more carefully. It is also crucial to provide more opportunities for students to see how the wiki can be used, therefore it is essential to have classes regularly in the computer room or in a classroom with a projector and internet access. In order to foster self-study, it may also be needed to reduce the number of obligatory tasks, which might have required too much work from the students.

**The first term of the main study**

Based on the findings of the pilot study, in the autumn term of 2012 the number of individual tasks was reduced on the wiki. Furthermore, the introduction to the wiki and the training phase received more attention. Besides the class in the computer room at the beginning of October, we had a class in a room with a projector and internet access every second week, where we could work on the wiki together (See Chapter 7.2.2).

As a possible consequence of the decreased number of tasks on the wiki, the number of edits was only 92 performed by 16 members (M=5.11, SD=3.97), which is less than half of the edits in the pilot study (226), ranging from 0 to 13 edits by one student. Two people did not edit the wiki at all, András and Nóra. While András said he did not have the time for his studies because he was working; Nóra claimed that she liked the wiki but was lazy to do any work. Csaba, who only edited the wiki once, stopped attending the course in mid-November.
A further possible explanation for the less frequent use of the wiki at home may be its regular collective use in the classroom. As students did not sign in the wiki during the lessons, their use would not be included in the statistics. The number of edits by participants can be seen in Table 37.

Table 37
The number of wiki edits by member in Term 1 in Phase 4

<table>
<thead>
<tr>
<th>Name (Pseudonyms)</th>
<th>Number of edits</th>
<th>Name (Pseudonyms)</th>
<th>Number of edits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nóra</td>
<td>0</td>
<td>Lili</td>
<td>6</td>
</tr>
<tr>
<td>András</td>
<td>0</td>
<td>Enikő</td>
<td>7</td>
</tr>
<tr>
<td>Bianka</td>
<td>1</td>
<td>Inez</td>
<td>7</td>
</tr>
<tr>
<td>Odett</td>
<td>1</td>
<td>Livi</td>
<td>7</td>
</tr>
<tr>
<td>Csaba</td>
<td>1</td>
<td>Tibor</td>
<td>7</td>
</tr>
<tr>
<td>Detti</td>
<td>2</td>
<td>Emőke</td>
<td>8</td>
</tr>
<tr>
<td>Zsófi</td>
<td>2</td>
<td>Stefi</td>
<td>10</td>
</tr>
<tr>
<td>Andi</td>
<td>4</td>
<td>Edit</td>
<td>11</td>
</tr>
<tr>
<td>Jutka</td>
<td>5</td>
<td>Dorina</td>
<td>13</td>
</tr>
<tr>
<td><strong>Altogether</strong></td>
<td><strong>92</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The number of views was also considerably lower with 1,618 views on 16 pages not counting the home page (M=193.37, SD=177.21) than in the pilot study with 2,108 views (Table 38).

Table 38
Wiki page statistics for Term 1 in Phase 4

<table>
<thead>
<tr>
<th>Pages</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>Term 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertisements</td>
<td>11</td>
<td>167</td>
<td>0</td>
<td>178</td>
</tr>
<tr>
<td>Checklist</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Christmas</td>
<td>0</td>
<td>0</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Dictionaries</td>
<td>248</td>
<td>50</td>
<td>8</td>
<td>306</td>
</tr>
<tr>
<td>Grammar</td>
<td>160</td>
<td>23</td>
<td>1</td>
<td>184</td>
</tr>
<tr>
<td>Job interview</td>
<td>57</td>
<td>4</td>
<td>1</td>
<td>62</td>
</tr>
<tr>
<td>Marketing</td>
<td>38</td>
<td>34</td>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>Quizlet</td>
<td>65</td>
<td>33</td>
<td>26</td>
<td>124</td>
</tr>
<tr>
<td>Recruitment</td>
<td>32</td>
<td>12</td>
<td>2</td>
<td>46</td>
</tr>
<tr>
<td>Summaries</td>
<td>0</td>
<td>73</td>
<td>1</td>
<td>74</td>
</tr>
<tr>
<td>Tasks 1st October</td>
<td>100</td>
<td>12</td>
<td>0</td>
<td>112</td>
</tr>
<tr>
<td>Tasks 7th November</td>
<td>0</td>
<td>147</td>
<td>1</td>
<td>148</td>
</tr>
<tr>
<td>Ted talks</td>
<td>0</td>
<td>64</td>
<td>12</td>
<td>76</td>
</tr>
<tr>
<td>Writing</td>
<td>0</td>
<td>107</td>
<td>19</td>
<td>126</td>
</tr>
<tr>
<td>Ways of advertising</td>
<td>9</td>
<td>10</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Ways of promotion</td>
<td>5</td>
<td>16</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td><strong>All Pages</strong></td>
<td><strong>740</strong></td>
<td><strong>753</strong></td>
<td><strong>125</strong></td>
<td><strong>1,618</strong></td>
</tr>
</tbody>
</table>
Although the total number of views still seems to be high, the monthly distribution shows that students used the pages considerably more often in the month when they were introduced to them. The most striking examples are “Dictionaries” and “Grammar”, which generated almost ten times more views in October than in November. Quizlet is an exception with a relatively low but even distribution. As all students indicated in the end-term questionnaire that they use Quizlet regularly for learning words, as well as online dictionairies, it is possible that they saved the link and went there directly or used the link on CooSpace.

As for students’ dispositions towards the wiki, most of the 14 students, who filled in the course evaluation questionnaire, had overall positive feelings towards the wiki. The results of the questionnaire show that 78.6% of the students found the wiki useful and 45.5% thought it was interesting. This is in contrast with the result of the pilot study, where only 30% of the students found the wiki useful but 60% regarded it interesting. While in the pilot study a mere 20% (“Wiki” and “Dictionaries”) and 10% (“Grammar” and thematic pages) claimed to have used the wiki, in the first term of the main study the percentage of students was considerably higher: 100% for “Quizlet”, 85.7% for “Dictionaries”, 64.3% for “Recruitment” and 28.6% for “Grammar”. Only one student perceived using the wiki as easy, which shows that even today’s students who are considered digitally literate need training when a new tool is introduced to them for educational purposes. At the same time, the perceived difficulty in using the wiki did not prevent them from acknowledging its usefulness. Students also expressed their positive dispositions towards the wiki in their comments in the questionnaire. Besides its usefulness, they liked it because it provides a platform for playful and interesting learning (Inez, Zsófi) and sharing information (Enikő, Emőke, Nóra), as well as because of its logical structure and transparency (Tibor, Stefi) and the possibility of using it in the future.
(Emőke, Lili). They also found it useful to be able to support each other’s work and develop their computer skills at the same time (Detti). The few negative comments concerned technical problems and the lack of time. András and Odett complained that they had problems signing in the wiki, while Bianka and Csaba remarked that they had not used the wiki very often because they had not had the time for it.

As for individual pages and tools, students found Quizlet the most useful with 92.9% who agreed on its usefulness and all students used it for learning and practising words. The page “Dictionaries” proved to be popular among students as well, with 85.7% of the students finding it useful and using the online dictionaries for their studies. One participant (Detti) gave a technical problem (“I forgot my password”) as the reason for not using them, while one student (Nóra) commented “I haven’t needed it yet”. While 23% of the students have only used a bilingual dictionary, 58% have used a monolingual general or business English dictionary and the remaining 19% could not remember which dictionary they used. This is in contrast with their previous habits, when the majority of the people indicated to use solely bilingual online dictionaries (www.sztaki.hu or Google translator) in the computer room before I introduced the page “Dictionaries” to them (Teacher’s diary, 01.10.2012). Although the page “Recruitment” was less popular, still 64.3% of the students found it useful and have used it when they had to write a CV and an application letter. The students who did not rely on the wiki page for help either used other sources such as the course book (62%) or simply forgot that there was a wiki page “Recruitment” (38%). Finally, the page “Grammar” was the least popular among the students: 50% of them perceived it to be useful but only 28.6% used it for practice. This is surprising in the light of the background questionnaire, in which 85% of the students claimed that they would like to improve their grammar skills during the course. However, only 25% of the students (Dorina, Enikő, Inez, Zsófi) who did not use the page gave their preference for practising on paper as the reason, while others simply did not need
any practice (Edit, Livi), were too lazy (Detti, Odett) or did not have time to practise (Lili). Similarly to the page “Recruitment”, one student (Tibor) forgot that there was a wiki page for grammar practice. Table 39 shows the results of the course evaluation questionnaire at the end of the first term.

Table 39

*Results of the course evaluation questionnaire at the end of term 1 in Phase 4 (N=14)*

<table>
<thead>
<tr>
<th></th>
<th>wiki</th>
<th>Quizlet</th>
<th>dictionaries</th>
<th>grammar</th>
<th>recruitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>useful</td>
<td>11</td>
<td>13</td>
<td>12</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>not useful</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>interesting</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>boring</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>easy</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>have used it</td>
<td>-</td>
<td>14</td>
<td>12</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

*Note: - the option was not available*

Although students enjoyed using the wiki and completed the obligatory tasks regularly, they did not use it frequently for extra practice. The fact that even the most popular page “Dictionaries” was mostly used in October, and only 28.6% of the students practised grammar online, while the majority claimed they needed and wanted practice shows that it is not enough to provide opportunities for students to do additional work. Altogether six students did some extra tasks for the class, four of them put the words on Quizlet (Dorina, Jutka, Lili and Stefi) and three students prepared tasks for TED talks (Inez, Lili and Tibor). I also offered extra marks for completing the TED tasks on the wiki but no one did that. When I asked students why, the most common reason was the lack of time and laziness. However, several students claimed that they did not know about this possibility or had technical difficulties signing in or editing the wiki. A further problem I faced was students’ reluctance to work in collaboration. We discussed the collaborative writing tasks (See Chapter 7.2.2 for details) on November 14th in a regular class. After that, students formed groups of 4 (16 people were present) and decided which task they would like to do: an informal email, a formal email, a formal fax or a memo. They could plan the task and choose a person who
would put the writing on the wiki. I set the deadline for November 17th but only one out of four pieces was put on the wiki by then. While further two tasks were uploaded within a week, one group only completed their task on December 12th when they realized it could influence their final mark for the term. When I asked them why, they complained of important tests in other subjects which determined if they pass or fail a subject. Since not all tasks were completed in November, students did not feel the need to correct them and saw no point in dealing with the task anymore (Teacher’s diary 12.12.2012). Edit and Stefi also viewed work distribution negatively and felt that they did the task on their own. Most students agreed that they could have done the task better alone and would also have taken it more seriously. This is in line with research findings that some students dislike group work and favour individual writing tasks (Alyousef & Picard, 2011; Elgort et al., 2008; Elola & Oskoz, 2010; Moreno, 2009) but contradicts the overall positive disposition towards collaboration found in many studies (Aydin & Yildiz, 2014; Chao & Lo, 2011; Kost, 2011; Lin & Kelsey, 2009; Miyazoe & Anderson, 2010; Wichadee, 2010; Woo et al., 2011). This reluctance to work collaboratively may have stemmed from students’ lack of experience worsened by the lack of time caused by the busy period at the college, as well as the complexity of the wiki.

To sum it up, in the first term of the main study the majority of the students enjoyed working with the wiki and were enthusiastic about classes in the computer room after the initial problems of registration. All the participants who were present agreed that the lessons were useful and interesting. The students who did not use the wiki much were the ones who did not attend the classes regularly and one of them (Csaba) even quit the course in November. Several students complained about technical problems, which needed more attention the following term. The fact that some students did not know or forgot about the opportunities provided by wiki indicated that even more emphasis would be needed to put on the follow-up work in class.
The second and the third term of the main study

Although most students perceived the wiki as useful at the end of the first term and claimed to have used it at home, their reluctance to do extra work and to collaborate seemed to present serious problems. To enhance personal study at home, I decided to introduce a personalized evaluation system in the second term, which is described in Chapter 7.2.2. The main aim of the system was to encourage students to improve their weaknesses by selecting tasks that they found useful and also interesting. As the second and the third term of the main study were both based on the application of the evaluation system, they will be discussed together in this section and the results will be compared to those of Term 1.

When the evaluation system based on individually selected tasks was introduced, students found it very difficult to understand it and adapt to it. The freedom of choice made them incapable of making decisions. They approached me after the classes personally and by email asking about specific tasks if they were suitable for them to practise (Teacher’s diary, 15.02.2013). This reluctance to appreciate the option of self-selected activities is in line with the results of earlier research on gamification (Nádori, 2012; Prievara, 2013). Thus, several sources for tasks were presented to them and it was suggested that they should choose exercises which could improve their weaknesses.

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of edits Term 1</th>
<th>Number of edits Term 2 - 3</th>
<th>Name</th>
<th>Number of edits Term 1</th>
<th>Number of edits Term 2 - 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nóra</td>
<td>0</td>
<td>1</td>
<td>Enikő</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>András</td>
<td>0</td>
<td>6</td>
<td>Inez</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Bianka</td>
<td>1</td>
<td>2</td>
<td>Livi</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Odett</td>
<td>1</td>
<td>14</td>
<td>Tibor</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Csaba</td>
<td>1</td>
<td>-</td>
<td>Emőke</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Detti</td>
<td>2</td>
<td>3</td>
<td>Stefi</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Zsófi</td>
<td>2</td>
<td>13</td>
<td>Edit</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>Andi</td>
<td>4</td>
<td>7</td>
<td>Dorina</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Jutka</td>
<td>5</td>
<td>2</td>
<td>Ivett</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Lili</td>
<td>6</td>
<td>1</td>
<td>Gina</td>
<td>-</td>
<td>5</td>
</tr>
</tbody>
</table>
A comparison of the number of edits shows that most students edited the wiki more or the same number of times in Term 2-3 as in Term 1 (Table 40). The exceptions include Csaba and Edit, who left the course in Term 1, as well as Jutka, who stopped attending the class in Term 2. While Lili preferred putting the words on Quizlet as an extra task (she created five sets of words in two terms), Enikő and Livi did not do much extra work because they felt their English and their marks were good enough for them. Livi also did some grammar practice on paper that she handed in as extra work.

As for the number of views in the three terms (Table 41), the most views were generated by the evaluation tables in Term 2 (382) and Term 3 (626). Since students uploaded the selected tasks on their personal pages linked through the evaluation table, this means that they used the wiki for the enhancement of self-study, which was the aim of the course.

<table>
<thead>
<tr>
<th>Table 41 Wiki page statistics in Phase 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pages</td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Advertisements</td>
</tr>
<tr>
<td>Checklist</td>
</tr>
<tr>
<td>Christmas</td>
</tr>
<tr>
<td>Dictionaries</td>
</tr>
<tr>
<td>Evaluation table 1</td>
</tr>
<tr>
<td>Evaluation table 2</td>
</tr>
<tr>
<td>Exam writing</td>
</tr>
<tr>
<td>Extras</td>
</tr>
<tr>
<td>Grammar</td>
</tr>
<tr>
<td>Job interview</td>
</tr>
<tr>
<td>Marketing</td>
</tr>
<tr>
<td>Monologues</td>
</tr>
<tr>
<td>Presentations</td>
</tr>
<tr>
<td>Quizlet</td>
</tr>
<tr>
<td>Recruitment</td>
</tr>
<tr>
<td>Summaries</td>
</tr>
<tr>
<td>Tasks 1st October</td>
</tr>
<tr>
<td>Tasks 7th November</td>
</tr>
<tr>
<td>Tasks 13th May</td>
</tr>
<tr>
<td>Ted talks</td>
</tr>
<tr>
<td>Topics</td>
</tr>
<tr>
<td>Writing</td>
</tr>
<tr>
<td>Ways of advertising</td>
</tr>
<tr>
<td>Ways of promotion</td>
</tr>
<tr>
<td>All Pages</td>
</tr>
</tbody>
</table>
The pages “Quizlet” and “Dictionaries” were also visited frequently, although the latter only in Term 1. This may be caused by the fact that students saved the links to the online dictionaries and did not access them via Wikispaces. The same might be true for the page “Grammar”, which was viewed much less frequently in Term 2-3 (54) than in Term 1 (184).

Similarly to Term 1 (T1), students filled in a questionnaire in the computer room in the last week of the courses, where 14 out of 17 students were present in Term 2 (T2) and 12 out of 13 in Term 3 (T3). Although no statistical comparison was conducted because of the small sample sizes, the results of the questionnaires show (Table 42) that the majority of students found the wiki useful in all terms (T1=78.6%, T2=100%, T3=91.7%), while an increasing number of students perceived it as interesting in the second and the third term (T1=35.7%, T2=42.9%, T3=66.7%). The number of students who thought using the wiki was easy was very low at 7.1% in the first and second term and rose to 25% in the third term. Regarding the evaluation system, the majority of students considered it useful (T2=64.3%, T3=66.7%), wanted to continue using it in the third term (T2=71.4%) and recommended it to other groups (T3=83.3%). While most students thought it was fair (T2=78.6%, T3=83.3%), only one student considered it unfair and one regarded the system as complicated in Term 2. In Term 3 nobody described the evaluation process as unfair or complicated. The three students who voted against using the system gave different reasons for their dislike. While Nóra did not like the evaluation table because it made it more difficult to get a good mark at the end of the term, Odett perceived it to be too complicated. She complained that she had been absent from the class when the system was introduced and took a long time to understand it. Zsófi felt that the system did not reflect the amount of work invested because all points would be calculated into one mark at the end of the term. However, their opinion partly changed by the end of Term 3. Although Nóra did not fill in the questionnaire, her negative view was probably the
same. She clearly stated her dislike frequently during the classes and claimed that she did not have the time and energy to do any extra work. In contrast, Odett answered “I don’t know” to the question whether she would recommend the system for other groups, while Zsófi changed her opinion and said “yes”.

As for the choice of extra tasks, the number of students increased by the third term who selected interesting tasks (T2=50%, T3=58.3%), useful tasks (T2=28.6%, T3=41.7%) and tasks to improve their weaknesses (T2=14.3%, T3=25%). However, the percentage of students who claimed that they had improved their weaknesses by doing the extras was much higher (T2=28.6%, T3=66.7%), possibly because they perceived development by doing interesting and useful tasks as well. Those who did some extras felt they had also learnt more by doing them (T2=35.7%, T3=33.3%) and enjoyed learning (T2=42.9%, T3=25%). The fact that fewer students claimed to have enjoyed learning in Term 3 may have been caused by the closer proximity of the language exam, which is also indicated by students’ choice of exam preparation tasks (T3=33%). While 28.6% of students did not do any extra task in Term 2, the number decreased to 8.3% in Term 3. The majority of the students who did not do any tasks gave the lack of time as a reason (András, Emőke and Ivett), while Nóra blamed it on her laziness. While András and Emőke also argued that their good marks for the tests and the presentation made it unnecessary for them to do any tasks because they got a mark 5 anyway, the others did not care about their final mark as long as they did not fail the class. In Term 3 the only student who did not do any extra task was Gina, who joined the class in that term and claimed that she had not had time and had been lazy. Those who evaluated the system positively emphasized its fairness (Inez and Lili), the high number of opportunities to receive points (Lili and Enikő) and to compensate for a poor mark (Emőke and Stefi). Dorina and Livi highlighted that they enjoyed learning more by doing the extras, while András claimed that the main advantage of the system was that it forced students to improve their skills. Enikő
also praised the transparency of the system, where everyone can see how many points they have and would they need to get a good mark.

Table 42

Results of the course evaluation questionnaire in Phase 4

<table>
<thead>
<tr>
<th></th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=14</td>
<td>N=14</td>
<td>N=12</td>
<td>N=14</td>
<td>N=12</td>
</tr>
<tr>
<td>useful</td>
<td>11</td>
<td>14</td>
<td>11</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>fair</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>interesting</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>easy</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>complicated</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>have used it</td>
<td>14</td>
<td>14</td>
<td>12</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

The fact that the majority of the students thought at the end of Term 3 that they would use the wiki in the future after completing the English course (83.3% yes, 16.7% maybe) shows that the use of the wiki may have the potential to encourage the idea of life-long learning. The areas where they plan to use it include exam preparation (83.3%), writing letters (41.7%), preparing for a job interview and writing a CV (50%), practising grammar (16.7%) and using online dictionaries (16.7%).

Extended use after the course

One of the aims of the wiki project was to help students prepare for extended language learning beyond the three terms of their studies at the college. Although it was not possible to yield detailed data about their use of the tools and pages including Quizlet, TED talks and online dictionaries after the course, some evidence can be provided that indicate a potential future use. Firstly, the majority of students claimed at the end of Term 3 that they would use the wiki later, especially for exam preparation. Similarly, the page statistics of Wikispaces for January 2014 shows 261 views on 20 pages, most of which can be associated with exam preparation, including “Exam writing”, “Oral topics” and “Information about the exam”. The two participants, Stefi and Ivett, who were interviewed in January after taking the exam, confirmed this by saying they had used the wiki for preparation. Finally, more than one year
later in February 2015, I received an email from a student of the wiki group, Lili, who asked me to send the link to the wiki to her. She was preparing for a C1 exam and she intended to use the links and materials collected on a wiki but forgot its web address.

7.3.3 The effect of the wiki project on the participants’ language proficiency

The main purpose of using the wiki was to engage the students more intensively, as well as to enhance self-study and personal learning in order to help students prepare for extended language learning beyond the obligatory three terms of language studies at the college. However, as deeper engagement with the task can lead to increased proficiency (Golonka et al., 2014); the use of the wiki was expected to foster language development as well. In this section first students’ language proficiency in English will be described at the beginning of the course based on the results of the Needs analysis questionnaire, the Placement test and the Self-assessment grid for the Common Reference Levels in the Common European Framework of Reference for Languages (2001). Subsequently, students’ perceived language development will be discussed including the comparison of the findings of the two questionnaires of Self-assessment of language development and the Self-assessment of language proficiency. Finally, the results of the Language proficiency test will be presented to characterize students’ language proficiency at the end of the course.

As for students’ language knowledge at the time of starting the course, they had all passed a B2 level language exam and four students even had a C1 level exam in general English (Nóra, Enikő, Dorina and Stefi), which means that they had already fulfilled the language requirement in English for obtaining a degree. In the Needs analysis questionnaire 17 students rated their skills on a five-point scale between 3.23 (listening) and 4 (reading) on the average and indicated that they would like to improve all skills during the course, reading the least and grammar and speaking the most (See Table 43). Their aims for studying English at the college included passing the B2 professional or C1 exam (13 students), learning to
speak fluently (4 students), preparing for future work in general (2 students) or abroad (9 students). Most participants indicated that they watched films with subtitles to improve their English (13 students), listened to music or read books (3 students each).

Table 43

Mean scores for the results of the needs analysis questionnaire (N=17)

<table>
<thead>
<tr>
<th>Perceived rate of skills</th>
<th>reading</th>
<th>speaking</th>
<th>pronunciation</th>
<th>writing</th>
<th>grammar</th>
<th>listening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived need for improvement</td>
<td>4</td>
<td>3.5</td>
<td>3.37</td>
<td>3.36</td>
<td>3.26</td>
<td>3.23</td>
</tr>
</tbody>
</table>

Before the course started 17 students wrote the placement test with the average result of 78.5%, ranging from 75% to 80%, which was higher than the average of all students studying English (64%). Besides the Placement test and the Needs analysis questionnaire, 17 students also assessed their language proficiency with the help of the self-assessment grid for the Common Reference Levels in the Common European Framework of Reference for Languages (2001) at the beginning of the course. The proficiency levels were first converted into numbers (A2=1, B1=2, B2=3, C1=4, C2=5), then the mean scores were calculated for each skill (See Table 44). The results show that students rated their writing, reading and listening skills between level B2 and C1, while their speaking skills between B1 and B2. To compare data from the beginning and the end of the course, mean scores for the 11 participants who filled in the grid December 2013 were also calculated for September 2012. For most skills the mean scores of the ratings were the same (listening) or higher (reading, spoken interaction, spoken production) in 2013. The only exception is writing, which students assessed slightly lower at the end of the course than at the beginning. Although no statistical analysis was carried out because of the small sample size, a comparison of individual students’ scores indicates that six students rated all their skills at the same or a higher level, four students at the same level on average but with different points for the skills and only one student (Tibor) rated two skills (spoken production and writing) one level lower after the
course. As for writing, all the eleven participants rated it as level B2 in 2012. However, in 2013 only four students rated it as B2, while two students (Inez and Stefi) perceived a development to C1, five students indicated a negative change to B1 (Odett, Tibor, Livi, Dorina and Zsófi).

Table 44

<table>
<thead>
<tr>
<th></th>
<th>listening</th>
<th>reading</th>
<th>spoken interaction</th>
<th>spoken production</th>
<th>writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2012 (N=17)</td>
<td>3.5</td>
<td>3.25</td>
<td>2.75</td>
<td>2.69</td>
<td>3.12</td>
</tr>
<tr>
<td>September 2012 (N=11)</td>
<td>3.36</td>
<td>3</td>
<td>2.55</td>
<td>2.45</td>
<td>3</td>
</tr>
<tr>
<td>December 2013 (N=11)</td>
<td>3.36</td>
<td>3.18</td>
<td>3.27</td>
<td>3</td>
<td>2.72</td>
</tr>
</tbody>
</table>

Notes: A2=1, B1=2, B2=3, C1=4, C2=5

A possible reason for the lower rating may have been caused by the introduction of formal writing during the course, which included formal letters, emails, memos, reports and leaflets. While students were probably assessing their writing skills in general English at the beginning, writing skills were possibly perceived as skills for professional writing at the end of their studies.

Besides their level of proficiency, students also assessed their perceived language development on a five-point scale after the second (N=15) and the third term (N=12). The comparison of the results of the twelve participants who filled in both questionnaires shows a higher perceived development in the third term than in the second (Table 45). While in the first survey five students chose 4 or 5, i.e. their perceived language development was quite a lot or a lot (M=3.42), in the second one it was higher with eight students (M=3.75). The results were very similar for all the subskills and areas, apart from the perceived development of their professional vocabulary, where the mean score was higher than 4 in both terms (M=4.33 in May and M=4.25 in December). This could be caused by the fact that they had never studied that area before, consequently progress could be perceived more easily. All
students reported an improvement of all skills in each term, with the same or a slightly higher rate of development in the third term.

Table 45

<table>
<thead>
<tr>
<th>Mean scores of the results of the Self-assessment of language development questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>listening</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>May 2013</td>
</tr>
<tr>
<td>(N=15)</td>
</tr>
<tr>
<td>May 2013</td>
</tr>
<tr>
<td>(N=12)</td>
</tr>
<tr>
<td>December</td>
</tr>
<tr>
<td>2013 (N=12)</td>
</tr>
</tbody>
</table>

Finally, students’ language proficiency was measured at the end of the course by a language proficiency test, which was developed by four lecturers of the college. All students received a mark 5 for the three subtests and the results were above the mean score of all groups studying English (Groups A to S). Table 46 shows the mean scores for the placement test and the language proficiency test for all groups and for the top three groups of first year students in 2012, including two mean scores for Group C (the participants of the study), one for all students who have written the tests, the other for the eleven students who wrote both tests.

Table 46

<table>
<thead>
<tr>
<th>Mean scores of the results of the placement test and the language proficiency test</th>
</tr>
</thead>
<tbody>
<tr>
<td>language proficiency test</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>N=228</td>
</tr>
<tr>
<td>Group A, N=12</td>
</tr>
<tr>
<td>Group B, N=17</td>
</tr>
<tr>
<td><strong>Group C, N=13</strong></td>
</tr>
<tr>
<td><strong>Group C, N=11</strong></td>
</tr>
</tbody>
</table>

A comparison of the mean scores shows that although in Group A and B students had higher scores in the placement test than students in Group C, their results in the language proficiency test are only partly higher. In Group C scores were better than in Group A in all
three parts of the test, and higher than Group B in the reading part even for the final eleven participants of Group C.

To sum it up, students’ language proficiency was around level B2 at the beginning of their studies. They had all passed a B2 language exam before the course and rated their writing, reading and listening skills higher, while their speaking skills slightly lower. As for their language proficiency development during the course, they rated their skills the same or higher in 2013, with the exception of writing, which students assessed slightly lower at the end of the course than at the beginning possibly due to the introduction of formal writing during the course. Similarly, all students reported an improvement of all skills in the second and the third term, with the same or a slightly higher rate of development in the third term. At the end of their studies students performed very well in the language proficiency test with higher scores than the best group within their course. Thus, students’ language proficiency development has clearly been demonstrated by the results of Placement test, the Self-assessment of language proficiency questionnaire, the Self-assessment of language development questionnaire and the Language proficiency test. However, as the wiki project constituted only one part of the course, which included several further tasks as well, this development cannot entirely be attributed to the use of technology.

7.3.4 Three students’ views on the wiki

Although the units of analysis of the case study were the two groups of students in the pilot study and the main study, it seems valuable to introduce three types of students in detail: an enthusiastic, a critical and a lazy student. The three students profited from using the wiki and the evaluation system to a different degree. While Stefi, a hard-working student added new websites and tools to her wide repertoire of language learning techniques, Ivett, a critical student started to use a few additional resources, Nóra, a lazy student clearly did not benefit from her English course. While Stefi and Ivett participated in an interview in January 2014,
Nóra will be characterized on the basis of results of the other instruments, including the questionnaires, the wiki statistics and the teacher’s diary.

Stefi – an enthusiastic student

Stefi had been studying English for 5 years before her studies at the college and had already passed a C1 level exam. She chose to study English because she intended to learn the professional language of business and tourism and pass the C1 professional exam, as well as to speak fluently. As her weakness she named listening in all three terms, along with grammar in the second and vocabulary in the third term. She assessed her level of proficiency as B2 at the beginning, and C1 at the end of the course for each skill. The majority of her marks during the course were 5, similarly to her end-of-term marks. In the second term she was the only one who did not miss any classes and she was absent 2 times in each of the other two terms. She was enthusiastic about the wiki from the beginning, volunteered for extra tasks from early on and performed the highest number of edits (19) during the course. While she selected interesting, challenging and useful tasks in Term 2, she also aimed to improve her weaknesses in Term 3. She praised the wiki and evaluation system for being transparent, fair and providing a chance for weaker students to improve their weaknesses and receive a good mark. Although she admitted that it had taken longer to select tasks than to complete a task handed out by the teacher, she also enjoyed the tasks she chose more. As a member of Aiesec, an international organization of students, she often needed to speak English via Skype and read online magazines, such as the Daily Telegraph regularly. While she had already considered herself a self-regulated learner before the college, she claimed that she had been introduced to some new tools that she would use in the future. Firstly, she had not used any monolingual dictionary earlier but started to use Cambridge dictionaries online during the course. She also created two sets on Quizlet, used it frequently for learning the words, and intended to use it in the future for her Russian studies. A further website that she began to visit as a result of the
course was TED talks, although she had heard about it before. She even decided to follow them on Facebook and listened to each newly posted talk. As for the other pages, she claimed she might use the page Presentations and Writing for future reference. To sum it up, Stefi clearly profited from the use of the wiki and the evaluation system, which seems to influence her future language learning habits as well.

Ivett – a critical student

Ivett joined the group in Term 2 because she perceived the level of her previous group too low. She had studied English for 4 years at secondary school, five hours a week and had passed a B2 exam. While at the beginning of Term 2 she rated her listening, reading and writing skills as B2, spoken interaction and spoken production as B1, at the end of Term 3 she assessed all skills as B2. She had mixed marks during the course, mostly fours and fives with an occasional three leading to an end-of-term 5 in Term 2 and a 4 in Term 3. She missed 5 classes in Term 2 and 6 classes in Term 3, which are within the allowed 6 classes. As for the wiki and the evaluation system, she exhibited negative dispositions towards it from the beginning. At the end of Term 2 she found it complicated, admittedly because she joined the group then and did not participate in the introduction and training. She also complained that she did not have the time and energy for doing extra tasks during the term because of other obligations at the college, although she had always liked learning languages. Thus, she completed the necessary tasks shortly before the end of the term only to receive a good mark and considered it an unnecessary burden with no positive effect on her language knowledge. Besides the English lessons she claimed to read articles and blogs in English frequently about cooking and recipes, which was her hobby. However, she never presented a task about her favourite topic because she had not realized that it was possible. In Term 3 her disposition changed radically, because she understood the system better and selected tasks that genuinely interested her. As she expressed it in the end-of-term interview: “I really didn’t like this
system last term but this term I have been positively surprised and have got to like it by the end”. Her view was not influenced by the fact that she got a 4 at the end of the term. As for the future, she intended to use the wiki for preparing for the language exam. Besides, she started to use an online dictionary and Quizlet as a result of the course.

Nóra – a lazy student

Nóra had already passed a C1 level language exam before the course and did not plan to take a professional exam at the end of her studies. She decided to study English at the college because she supposed she would be able to complete the course and receive a good mark easily. In Term 1 she assessed all her skills as very high with her listening skills the lowest and indicated a moderate desire to develop them (M=1.42). However, she expressed her liking towards the wiki, completed the obligatory tasks and even practised some grammar online. Accordingly, her end-of-term mark was a 4. However, in the second and the third term she started to miss an increasing number of classes and did not fulfil any compulsory tasks. She also expressed her dislike towards the wiki and the evaluation system repeatedly based on her conviction that she would get a better mark without it. At the same time she liked Quizlet and found the idea of sharing knowledge useful. Her only edit on the wiki about her aims for Term 3 expressed her wish not to fail the class because of the high number of missed classes. As the main reasons for her low performance in class she named laziness and the lack of time. Her end-of-term mark in Term 2 and 3 was 2 and she even had to take an oral exam in Term 2 because she missed 9 classes.

7.4 Conclusion

The aim of Phase 4 was to gain in-depth experience about the use of a VLE and web 2.0 tools in language teaching at a Budapest college by conducting a longitudinal case study. A password-protected wiki was used as a Personal Learning Environment mainly as a supplement to face-to-face classes for assignments, optional tasks and individual study. Data
were yielded by multiple sources of information including qualitative and quantitative methods to provide a deep description of the case as well as to serve as triangulation.

As for students’ use of the internet, communication and entertainment have been observed to be the most common purposes, which are in agreement with the findings of Phase 1, as well as those obtained by previous research (Bennett & Maton, 2010; Bullen et al., 2011; Fehér & Hornyák, 2011; Hargittai, 2010; Jones & Shao, 2011; Kennedy et al., 2008, 2009; Kvavik, 2005; Margaryan et al., 2011; Oliver & Goerke, 2007; Ollé, 2011; Papp-Danka, 2013; Sánchez et al., 2010; Selwyn, 2008). Contrary to expectations, the three-term course using the wiki had no significant effect on the frequency of use of any functions or applications. Similarly, no significant differences have been found between students’ dispositions towards the use of technology and the internet before and after the course, which is in contrast with Vig’s (2008) findings that the use of the internet in teaching in the form of webpages, learning environments and internet-based communication influenced students’ attitudes towards the internet positively. One reason for that may be that students did not generalize their experience with the wiki to other functions. Although their disposition towards the course and the use of the wiki was highly positive by the end of the third term, this did not influence their use and perception of computers and the internet. A further possible reason lies in the sample size, which may have been too small for the results to be able to reach statistical significance (Dörnyei, 2007).

Similarly to previous research findings (Aydin & Yildiz, 2014; Ducate et al., 2011; Lee & Wang, 2013; Lin & Kelsey, 2009; Miyazoe & Anderson, 2010; Papadima-Sophocleous & Yerou, 2013; Wichadee, 2010; Woo et al., 2011), most of the students had overall positive feelings towards the wiki. While in the pilot study the participants found the wiki more interesting than useful, this has changed in the main study, where the number of students who perceived the wiki as useful increased every term. As the relatively high number of edits and
views on the wiki did not indicate an extensive use of the wiki beyond the classroom in the pilot study, the number of individual tasks was reduced on the wiki in the main study. Furthermore, the introduction to the wiki and the training phase received more attention followed by regular check-ups in a classroom with a projector and internet access. Several students complained about technical problems, which corresponds with the results of previous research that students’ training and on-going technical support is highly important (Al Khateeb, 2013; Arnold et al., 2012; Bower et al., 2006; Cole, 2009; Ducate et al., 2011; Hadjerrouit, 2012; Karasavvidis, 2010; Lee, 2010; Li, 2012; Zorko, 2009). Others had editing problems, which is also in line with previous research findings that most common problems about using the wiki include formatting problems (Chao & Lo, 2011; Ducate et al., 2011; Hadjerrouit, 2012; Lin & Yang, 2011; Lund, 2008; Woo et al., 2011; Zorko, 2009). The lack of time (Cole, 2009; Karasavvidis, 2010) was a problem for students as well. A further aspect that has not emerged in research so far is laziness, which seemed to present a cause for not doing any work on the wiki. This reluctance to work may also stem from Hungarian higher education students’ lack of motivation and ambition, described in earlier studies (Csillik & Daruka, 2015; Győrfyné Kukoda, 2012; Lencse, 2010; Ollé, 2009; Voglné Nagy et al., 2014). Nevertheless, by the end of the third term, the majority of students perceived the wiki as useful, recommended it for other groups and claimed that they would use it in the future. The findings of the wiki statistics and the two student interviews, as well as a student email sent more than a year after the course suggest that some students used the wiki after the end of the course. Although there is no evidence that Quizlet, online dictionaires, the grammar practice pages and TED talks are still used by any of the students, the fact that some of them have visited the wiki lends hope that they might use these pages as well in the future. As for the use of the evaluation system, students had difficulty adapting to it when it was first introduced, which supports Prievara’s (2013) findings that students found it harder to select tasks for
themselves than to complete a possibly boring task that was given to them. By the end of the course the majority of participants regarded the system useful and fair and recommended it for other groups.

Students’ language proficiency development during the course has clearly been demonstrated by the results of Placement test, the Self-assessment of language proficiency questionnaire, the Self-assessment of language development questionnaire and the Language proficiency test. As the research method was a case study and not an experiment with a control group, no cause-and-effect relationship can be established between the use of the wiki and the group’s language development. However, the fact that they scored higher in the end-of-course language proficiency test than the best group within their year indicates that the use of the wiki as a supplement is at least as efficient in language development as a traditional course. Finally, the analysis of the effects of the wiki on three types of students revealed a different degree of benefit they gained: a hard-working student broadened her wide repertoire of language learning techniques, a critical student started to use a few additional resources, a lazy student clearly did not benefit from her English course.
8 Conclusion

In this chapter the main findings of the four phases of the study will be summarized first followed by a consideration of the pedagogical and theoretical implications including a set of principles for the integration of technology into the classroom. After that the limitations of the research will be discussed and possible directions for further investigations will be outlined.

8.1 The main findings of the research

The present mixed methods research including quantitative and qualitative instruments, as well as a case study was intended to contribute to the research of technologically-enhanced language learning incorporating context and the experiences of teachers, promoted by several researchers (Egbert et al., 2009; Garrett, 1991, 2009; Lafford, 2009; Stockwell, 2007). By providing a thick description of a specific case it attempted to help increase the amount of information about the use of particular types of technology in language teaching in a unique learning environment. Additionally, it also tried to fill an important niche in the investigation of integrating technology in language teaching in higher education in Hungary, where this area has been scarcely researched.

The aim of the research was to investigate the possibility of integrating a virtual classroom and web 2.0 tools in language teaching at a college in Budapest by examining different perspectives including students’ use of computers and the internet and their dispositions towards them, as well as teachers’ use of VLEs and web 2.0 tools and their dispositions at the college and at other higher education institutions. The findings of the first three phases of the research were used to guide the design of the main phase and also provided information about the possibility of the integration of technology at the college.
As for the students’ use of the internet, previous research findings have been confirmed that neither applications requiring higher level skills or creativity such as writing blogs or making websites nor the educational use of the internet are very frequent among students (Bennett & Maton, 2010; Fehér & Hornyák, 2011; Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Margaryan et al., 2011). While in 2010 writing emails, browsing on the internet and instant messaging were most frequently used among students, with instant messaging only for full-time students, in 2013 social media ranked higher than writing emails and instant messaging. The shift in students’ preferences may be explained by the growing popularity of social media, which might replace email and instant messaging (Gabriel et al., 2012; Jones & Shao, 2011; Margaryan et al., 2011). Although students’ disposition towards the internet in general was positive in both Phase 1 and Phase 4, only distance students in Phase 1 would be willing to participate in online language courses. Full-time students’ disposition towards language learning on the internet was not very high, which confirms previous findings that students at higher education institutions would prefer moderate use of technology in the classroom (Jones & Shao, 2011; Kennedy et al., 2009; Kvavik, 2005; Ramanau et al., 2010; Schulmeister, 2008). In Phase 4, the course using technology for three terms has had no significant influence on students’ use of the internet or on their dispositions towards computers and the internet. One reason for that may be that students did not generalize their experience with the wiki to other functions. Although their disposition towards the course and the use of the wiki was highly positive by the end of the third term, this did not influence their use and perception of computers and the internet.

Language teachers’ use of technology in the form of VLEs and other tools were investigated at the college, as well as at other higher education institutions in Budapest among technologically expert teachers. The results indicate that less than 50% of the teachers at the college used CooSpace, the college VLE, with very few functions. The fact that the most
frequent function was uploading documents showed that the VLE was regarded as a mere administrative and not as a pedagogical tool, similarly to the findings of earlier research (Browne et al., 2006; Heaton-Shrestha et al., 2005; Limniou & Smith, 2010; Palmer & Holt, 2009; Yu et al., 2010). However, the majority of the teachers have shown an interest in a training session, which suggests that their non-use stems from the lack of knowledge and experience. This is also supported by the fact that the perceived usefulness of most functions was significantly higher than the frequency of their use. Although the range of tools technologically expert teachers used was also fairly limited and the motivations for use quite diverse, they all integrated virtual learning environments into language teaching. The selection of the tools aimed to enhance the language learning process, as well as to serve students’ needs and may be characterized as innovative in the Hungarian context where the majority of teachers use ICT tools for preparation, administration or illustration (Buda, 2007, 2010; Hunya, 2007, 2008; Molnár & Kárpáti, 2012; Török, 2008), while wikis, blogs, virtual learning environments and smart boards are very rarely integrated into teaching (Hunya, 2007; R. Tóth & Molnár, 2009).

Students’ disposition towards the wiki project in Phase 4 was overall positive, which confirms previous research findings (Aydin & Yildiz, 2014; Ducate et al., 2011; Lee & Wang, 2013; Lin & Kelsey, 2009; Miyazoe & Anderson, 2010; Papadima-Sophocleous & Yerou, 2013; Wichadee, 2010; Woo et al., 2011). By the end of the third term, the majority of students perceived the wiki as useful, recommended it for other groups and claimed that they would use it in the future. Some evidence including the wiki statistics, the two student interviews, as well as a student email suggest that some students have visited the wiki after the course finished. As for the evaluation system, the majority of the participants regarded it as useful and fair and also recommended it for other groups. The difficulties that arose during the three terms of the course resembled those described in earlier studies, such as technical
problems, including signing in and editing (Chao & Lo, 2011; Ducate et al., 2011; Hadjerrouit, 2012; Lin & Yang, 2011; Lund, 2008; Woo et al., 2011; Zorko, 2009), and the lack of time (Cole, 2009; Karasavvidis, 2010). An aspect that has not emerged in research so far is laziness, which prevented some students to work on the wiki, possibly stemming from Hungarian higher education students’ lack of motivation and ambition (Csillik & Daruka, 2015; Győrfyné Kukoda, 2012; Lencse, 2010; Ollé, 2009; Voglné Nagy et al., 2014).

Students’ language proficiency development during the course has been indicated by the results of the self-assessment questionnaires and the proficiency tests. Although no cause-and-effect relationship may be established between the use of the wiki and the group’s language development, the use of the wiki seems to be at least as efficient in language development as a traditional course.

8.2 Pedagogical and theoretical implications

These results indicate that the integration of a wiki in a professional English course in higher education may enhance language learning, which might lead to more intensive language development depending on the type of student. The finding that students’ perceived language development increased, while their dispositions towards the wiki and the personalized evaluation system became more positive by the end of the three-term project suggests that the successful implementation of a new tool not only needs utmost care and planning but also a considerable amount of time. The integration of ICT tools at the college would also have to take into consideration that teachers’ and students’ dispositions towards the use of technology in language teaching might only be moderately positive. The set of principles formulated in Section 2.6, which may guide the integration process, have been supplemented with some new elements (in italics) based on the findings of the research:

The implementation of new tools in language teaching needs

1. to be grounded theoretically and pedagogically
a. following constructivist guidelines
b. preparing students for 21st century life and employment
c. encouraging lifelong learning
d. enhancing language learning

2. to consider students’ skills and needs including their
a. learning style
b. digital skills
c. language proficiency
d. disposition towards technology
e. disposition towards learning (laziness)

3. to be perceived useful by teachers

4. to be carefully planned including
a. the selection of appropriate tools, tasks and resources
b. decisions about assessment and feedback
c. time management for the teacher and the students

5. to be accompanied by training and support based on the students’ needs including
a. technical training including editing
b. training in group work and peer review
c. evaluating resources
d. helping them understand the objectives of the project

6. to be reviewed and revised continuously.

8.3 Limitations

One of the limitations of the study is related to the constantly developing nature of technology and the changes in its use affected by the wider availability of internet services and mobile devices, as well as the growing popularity of the social media (Gabriel et al.,
As data collection started in March 2010 and finished in December 2013, results might have been affected by these changes within the study. Additionally, findings about students’ and teachers’ use of technology may be somewhat out-of-date today. However, since students’ dispositions towards the internet did not change significantly between September 2012 and December 2013, the wider availability of the internet and mobile devices may not necessarily affect students’ dispositions. As for the main finding of the study about the integration of a wiki and web 2.0 tools in language teaching at a Budapest college, this limitation has a moderate and possibly positive impact on it. If technology use becomes wider among students and teachers alike in the future, the implementation of technology in teaching might involve less novelty and less resistance as a consequence. As one of the teachers formulated in the interview in Phase 3:

I look forward to the time when we don’t have to talk about this, when it’s actually the norm, it’s like you come up to me and ask, do you use pens or pencils, or how do you use pencils, and the blackboard, and the white board, and how do you use this, and what is this tool good for (Ian).

A further limitation of the present research lies in the case study design and the small sample sizes in all phases. As the focus of investigation was one specific group of students in a particular higher education setting, the findings may not be generalizable to other contexts. However, the detailed description of the integration of technology into teaching with the help of multiple instruments was intended to provide an opportunity for the reader to determine whether the findings can be transferred to other educational contexts.

8.4 Directions for further research

Since the present study investigated one particular higher education context, an opportunity to extend the scope of research would be to focus on other settings within higher education at colleges or universities. A further possibility would be to explore the use of
technology for teaching other languages including less common, as well as non-European languages. Alternatively, further research could focus on aspects that emerged in the present research and would require more thorough examination. First, the impact of the use of technology on different types of students could be investigated, including hard-working and lazy students, as well as seeking ways to engage the latter. Then, the integration of the evaluation system could be connected to a portfolio system, whose effect on language learning could be explored. Finally, collaboration on the wiki or in another virtual environment would need to be examined and ways to promote it should be developed.
References


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the opportunities of digital knowledge sharing and interactivity. *Iskolakultúra, 14*(1), 57-64.


Appendix A – Questionnaire about students’ computer and internet usage habits and their disposition towards technology in Hungarian in Phase 1

Szeretném a segítségét kérni kutatásomhoz. Kérem, válaszoljon a következő, Internet-használattal kapcsolatos kérdésekre. Ez a kérdőív névtelen és nem teszt, tehát nincsenek jó vagy rossz válaszok. Engem az Ön személyes véleményére érdekel. Kérem, válaszoljon ösztintén, mert ez a biztosítéka kutatáson sikerének. Nagyon kőszönöm a segítséget!

.................................

Asztalos Réka

I. Kérem, hogy 1-től 5-ig válaszoljon, attól függően, hogy milyen gyakran használja a számítógépet a következő célokra. Kérem, különböztessé meg, hogy MAGYARUL vagy ANGOLUL használja ezeket. Például, ha nagyon gyakran szerkeszt szöveget magyarul, de ritkán angolul, írjon 5-t, illetve 2-t a megfelelő oszlopbba.

<table>
<thead>
<tr>
<th>adott nyelvű szöveg szerkesztése</th>
<th>Magyarul</th>
<th>Angolul</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>2</td>
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</table>

5 = nagyon gyakran, 4 = eléggé gyakran, 3 = közepesen, 2 = ritkán, 1 = soha.

Kérem, mindkét oszlopbba írjon számot!

<table>
<thead>
<tr>
<th>Tehát milyen gyakran használja a következőket:</th>
<th>Magyarul</th>
<th>Angolul</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. adott nyelvű szöveg szerkesztése</td>
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<tr>
<td>2. adott nyelvű prezentáció készítése (pl. Powerpoint)</td>
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<td></td>
</tr>
<tr>
<td>3. e-mail</td>
<td></td>
<td></td>
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<tr>
<td>4. csevegés, fórumok</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. azonnali üzenetküldő alkalmazások (pl. msn, Skype)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. videókonferencia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. közösségi portálok használata (pl. Iwiw, Facebook)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. napilapok, folyóiratok olvasása</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. rádió hallgatás</td>
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<tr>
<td>10. film/videó nézés (pl. Youtube, Inda)</td>
<td></td>
<td></td>
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<tr>
<td>11. blog olvasás</td>
<td></td>
<td></td>
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<tr>
<td>12. blog írás</td>
<td></td>
<td></td>
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<tr>
<td>13. online játékok</td>
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<td></td>
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<tr>
<td>14. Internetes vásárlás</td>
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<tr>
<td>15. Internetes ügyintézés (pl. banki szolgáltatások)</td>
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<tr>
<td>16. keresőgépek használata (pl. Google)</td>
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<tr>
<td>17. honlapkészítés</td>
<td></td>
<td></td>
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<tr>
<td>18. wikipedia</td>
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</tbody>
</table>
II. Kérem, ismét válasszon 1-től 5-ig, attól függően, hogy milyen gyakran használja a számítógépet a következő célokra. Kérem, minden sorba írjon egy számot! 5 = nagyon gyakran, 4 = elég gyakran, 3 = közepesen, 2 = ritkán, 1 = soha.

<table>
<thead>
<tr>
<th>Sor</th>
<th>Cél</th>
<th>Értékelés</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>nyelvoktató szoftver használata</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>nyelvoktató weblap (pl. BBC learning English) használata</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>online szótár használata</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>webfordítóprogram használata</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>zenehallgatás</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>fotó/videó szerkesztés</td>
<td></td>
</tr>
</tbody>
</table>

III. A következőkben olyan állításokat talál, melyek egyes emberekre igazak, másokra nem. Szeretném megtudni, hogy az Ön érzéseit vagy körülményeit mennyire tükrözik az egyes állítások. Kérjük, tegyen X-et abba a kockába, amelyik legjobban kifejezi, mennyire igaz az állítás az Ön esetében. Például, ha nagyon szeret sietni, tegyen X-et az első kockába:

Nincsenek jó vagy rossz válaszok - az Ön személyes véleményére vagyok kíváncsi.

<table>
<thead>
<tr>
<th>Sor</th>
<th>Értékelés</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Az Internet használata nélkül ma már nem lehet boldogulni az életben.</td>
</tr>
<tr>
<td>26</td>
<td>Az e-mail előnye, hogy nincs időhöz és helyhez kötve.</td>
</tr>
<tr>
<td>27</td>
<td>Szívesen tanulok nyelvet az Interneten.</td>
</tr>
<tr>
<td>28</td>
<td>Szívesen írok esszét szövegszerkesztővel.</td>
</tr>
<tr>
<td>29</td>
<td>Úgy gondolom, hogy a számítógépes nyelvvizsgához nem kell technikai tudás.</td>
</tr>
<tr>
<td>30</td>
<td>Szerintem hasznos egymás feladatainak javítása.</td>
</tr>
<tr>
<td>31</td>
<td>A csoportmunka hasznos a nyelvtanulásban.</td>
</tr>
<tr>
<td>32</td>
<td>Szívesen kipróbálnám az online nyelvtanulást.</td>
</tr>
<tr>
<td>33</td>
<td>Szerintem bárd meg tudja tanulni az Internet használatát.</td>
</tr>
<tr>
<td>34</td>
<td>Nem találkoztam olyan problémával Internet-használat közben, amit előbb-utóbb ne tudtam volna megoldani.</td>
</tr>
<tr>
<td>35</td>
<td>Szerintem hatékonyan lehet csoportban tanulni.</td>
</tr>
<tr>
<td>36</td>
<td>Könnyen lehet nyelvet tanulni az Interneten.</td>
</tr>
<tr>
<td>37</td>
<td>Szívesen kommunikálok e-mailben.</td>
</tr>
<tr>
<td>38</td>
<td>Szövegszerkesztővel írt esszéimnek szebb a külalakja.</td>
</tr>
<tr>
<td></td>
<td>Teljesen igaz</td>
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</tr>
<tr>
<td>39.</td>
<td>A csoportmunka hasznos a jó tanulóknak.</td>
</tr>
<tr>
<td>40.</td>
<td>Sokat tanulhatok mások hibáiból.</td>
</tr>
<tr>
<td>41.</td>
<td>Kényelmes e-mailben kapcsolatot tartani ismerőseimmel.</td>
</tr>
<tr>
<td>42.</td>
<td>Könnyűnek találom az Internet használatát.</td>
</tr>
<tr>
<td>43.</td>
<td>Az Internet a XX. század egyik legjobb találmánya.</td>
</tr>
<tr>
<td>44.</td>
<td>Általában nincs problémám az Internet használatával.</td>
</tr>
<tr>
<td>45.</td>
<td>Szövegszerkesztővel írt ésszében egyszerű kijavíthatni a hibákat.</td>
</tr>
<tr>
<td>46.</td>
<td>Szívesen dolgozom együtt csoporttársaimmal.</td>
</tr>
<tr>
<td>47.</td>
<td>Szívesen részt vennék egy online angol nyelvtanfolyamon.</td>
</tr>
<tr>
<td>48.</td>
<td>Szívesen használom az Internetet.</td>
</tr>
<tr>
<td>49.</td>
<td>Szerintem a számítógépes nyelvvizsga nyugodt körülményeket biztosít.</td>
</tr>
<tr>
<td>50.</td>
<td>Az Internet megkönnyíti az életet.</td>
</tr>
<tr>
<td>51.</td>
<td>Az Internet nagyon hasznos nyelvtanulás céljára.</td>
</tr>
<tr>
<td>52.</td>
<td>Jól ki tudom fejezni a gondolataimat e-mailben.</td>
</tr>
<tr>
<td>53.</td>
<td>Az automatikus hibajavítás megkönnyíti az esszéírást.</td>
</tr>
<tr>
<td>54.</td>
<td>Örülnék, ha a Főiskola szervezne online nyelvtanfolyamot.</td>
</tr>
<tr>
<td>55.</td>
<td>A csoportmunka segít a gyengébb tanulóknak.</td>
</tr>
<tr>
<td>56.</td>
<td>Szívesen vizsgáztnak számítógépen.</td>
</tr>
<tr>
<td>57.</td>
<td>Az Internet megkönnyíti a nyelvtanulást.</td>
</tr>
<tr>
<td>58.</td>
<td>Jó ötletnek tartanám, ha csoporttársaim véleményt mondanának elvégzett feladataimról.</td>
</tr>
<tr>
<td>59.</td>
<td>E-mailben könnyebb kellemetlen témákat említeni, mint személyesen.</td>
</tr>
<tr>
<td>60.</td>
<td>Az Internet nagyon hasznos.</td>
</tr>
<tr>
<td>61.</td>
<td>Szívesen javítanám csoporttársaim feladatait.</td>
</tr>
<tr>
<td>62.</td>
<td>Szerintem hasznos az e-learning a nyelvtanulás szempontjából.</td>
</tr>
<tr>
<td>63.</td>
<td>A számítógépes vizsga előnye, hogy nem kell kézzel írnom.</td>
</tr>
<tr>
<td>64.</td>
<td>Időt spórolok, ha számítógépen írok.</td>
</tr>
<tr>
<td>65.</td>
<td>Nem a saját gépemen is elboldogulok az Interneten.</td>
</tr>
<tr>
<td>66.</td>
<td>Ha a Főiskola szervezne online nyelvtanfolyamot, részt vennék benne.</td>
</tr>
</tbody>
</table>
IV. Végül, kérem válaszoljon néhány személyes kérdésre. Tegyen X-et a megfelelő négyzetbe.

67. Neme: □ férfi □ nő
68. Életkora: □ 18-23 □ 24-29 □ 30 fölött
69. Képzés típusa: □ nappali alapképzés □ távoktatás
70. Mióta használ számítógépet? □ 1-2 éve □ 3-6 éve □ 6 évnél régebben

71. Van olyan számítógép vagy notebook, amelyhez hozzáfér, amikor szüksége van rá?
□ igen □ nem

72. Hozzáfér Internet használatára alkalmas géphez?
□ igen □ nem

73. Amennyiben az előző kérdésre igennel válaszolt, kérem, jelölje be a hozzáférés típusát is az ön által leggyakrabban használt gépen.
□ szélessávú (ADSL, kábeltv) eléréssel
□ analóg modemmel telefonvonalon
□ egyéb módon
□ nem tudom a hozzáférés típusát

74. Használ Internetet mobil eszközön (mobilteléfon, pda)? □ igen □ nem
75. Használja Ön a Főiskola wifi szolgáltatását? □ igen □ nem
76. Használja Ön a Coospace-t? □ igen □ nem

77. Szükséges főiskolai tanulásához az Internet használata? □ igen □ nem

78. Mióta tanul angolul? □ 1-2 éve □ 3-5 éve □ 6-9 éve □ 10 évnél régebben

Köszönöm válaszait!
Appendix B – Questionnaire about students’ computer and internet usage habits and their disposition towards technology translated into English in Phase 1

Dear Student,
I would like to ask you to help us by answering the following questions concerning computer and Internet use. This is not a test so there are no right or wrong answers and you do not need to write your name on it. We are interested in your personal opinion. Please give your answers sincerely as only this will guarantee the success of the investigation. Thank you very much for your help.

Réka Asztalos

I. In the following section I would like you to answer some questions about your computer and Internet use by simply giving marks from 1 to 5. Please give two marks in the two columns for Hungarian and English applications. For example, if you use word processing very often in Hungarian but rarely in English, write 5 and 2 in the two columns.

<table>
<thead>
<tr>
<th>Hungarian</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>word processing</td>
<td>5</td>
</tr>
</tbody>
</table>

5 = very often, 4 = quite often, 3 = sometimes, 2 = rarely, 1 = never

Please put a number in each box. Thank you.

How often do you use the following functions:

<table>
<thead>
<tr>
<th>Hungarian</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. word processing</td>
<td></td>
</tr>
<tr>
<td>2. preparing a presentation (e.g. PowerPoint)</td>
<td></td>
</tr>
<tr>
<td>3. email</td>
<td></td>
</tr>
<tr>
<td>4. chat, forums</td>
<td></td>
</tr>
<tr>
<td>5. instant messaging (e.g. msn, Skype)</td>
<td></td>
</tr>
<tr>
<td>6. video conferencing</td>
<td></td>
</tr>
<tr>
<td>7. communal sites (e.g. Iwiw, Facebook)</td>
<td></td>
</tr>
<tr>
<td>8. reading newspapers, magazines</td>
<td></td>
</tr>
<tr>
<td>9. listening to the radio</td>
<td></td>
</tr>
<tr>
<td>10. watching films, videos (e.g. YouTube)</td>
<td></td>
</tr>
<tr>
<td>11. reading a blog</td>
<td></td>
</tr>
<tr>
<td>12. writing a blog</td>
<td></td>
</tr>
<tr>
<td>13. online games</td>
<td></td>
</tr>
<tr>
<td>14. Internet shopping</td>
<td></td>
</tr>
<tr>
<td>15. Internet banking</td>
<td></td>
</tr>
<tr>
<td>16. using search engines (e.g. Google)</td>
<td></td>
</tr>
<tr>
<td>17. making a website</td>
<td></td>
</tr>
</tbody>
</table>

Thank you for putting a number in each box.
II. Please give marks from 1 to 5 again depending on how often you use the following applications. 5 = very often, 4 = quite often, 3 = sometimes, 2 = rarely, 1 = never

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19. using a language teaching software</td>
<td></td>
</tr>
<tr>
<td>20. using a language teaching website (e.g. BBC learning English)</td>
<td></td>
</tr>
<tr>
<td>21. using an online dictionary</td>
<td></td>
</tr>
<tr>
<td>22. using a software or website for translation</td>
<td></td>
</tr>
<tr>
<td>23. listening to music</td>
<td></td>
</tr>
<tr>
<td>24. processing images or videos</td>
<td></td>
</tr>
</tbody>
</table>

III. Now you are going to read statements some people agree with and some people don’t. We would like to know to what extent they describe your own feelings or situation. After each statement you’ll find five boxes. Please put an X in the box which best expresses how true the statement is about your feelings or situation. For example, if you like skiing very much, put an X in the first box.

<table>
<thead>
<tr>
<th></th>
<th>Absolutely true</th>
<th>Mostly true</th>
<th>Partly true partly untrue</th>
<th>Not really true</th>
<th>Not true at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like skiing very much.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*There are no right or wrong answers – we are interested in your personal opinion.*

<table>
<thead>
<tr>
<th></th>
<th>Absolutely true</th>
<th>Mostly true</th>
<th>Partly true partly untrue</th>
<th>Not really true</th>
<th>Not true at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. Today it is not possible to live without the Internet.</td>
<td></td>
<td></td>
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<tr>
<td>26. An advantage of writing emails is that they are not time or place dependent.</td>
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<tr>
<td>27. I like learning languages on the Internet.</td>
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<tr>
<td>28. I like writing essays on the computer.</td>
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<tr>
<td>29. I think I don’t need any technical skills for an exam on the computer.</td>
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<tr>
<td>30. In my opinion it is useful to correct each other’s work.</td>
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<tr>
<td>31. Group work is important in language learning.</td>
<td></td>
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<tr>
<td>32. I would like to try online language learning.</td>
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<tr>
<td>33. I think anybody can learn to use the Internet.</td>
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<tr>
<td>34. I haven’t encountered any problems using the Internet that I haven’t been able to solve.</td>
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<tr>
<td>35. I think you can learn effectively in groups.</td>
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<tr>
<td>36. It is easy to learn languages on the Internet.</td>
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<tr>
<td>37. I like communicating via email.</td>
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<tr>
<td>38. The essays I write on the computer look better.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Absolutely true</td>
<td>Mostly true</td>
<td>Partly true partly untrue</td>
<td>Not really true</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>39.</td>
<td>Group work is useful for high achievers.</td>
<td></td>
<td></td>
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<tr>
<td>40.</td>
<td>I can learn a lot from other people’s mistakes.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>41.</td>
<td>It is convenient to keep in touch via emails.</td>
<td></td>
<td></td>
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<tr>
<td>42.</td>
<td>I find it easy to use the Internet.</td>
<td></td>
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<tr>
<td>43.</td>
<td>The Internet is one of the best inventions of the 20th century.</td>
<td></td>
<td></td>
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<tr>
<td>44.</td>
<td>I don’t usually have problems using the Internet.</td>
<td></td>
<td></td>
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<tr>
<td>45.</td>
<td>It is easy to correct mistakes in an essay on the computer.</td>
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<tr>
<td>46.</td>
<td>I like working with other students.</td>
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<tr>
<td>47.</td>
<td>I would like to take part in an online English language course.</td>
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<tr>
<td>48.</td>
<td>I like using the Internet.</td>
<td></td>
<td></td>
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<tr>
<td>49.</td>
<td>In my opinion a language exam on the computer ensures good circumstances.</td>
<td></td>
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</tr>
<tr>
<td>50.</td>
<td>The Internet makes life easy.</td>
<td></td>
<td></td>
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<tr>
<td>51.</td>
<td>The Internet is good for language learning.</td>
<td></td>
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</tr>
<tr>
<td>52.</td>
<td>I can express my thoughts in emails well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53.</td>
<td>Autocorrect options make essay writing easy.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>54.</td>
<td>I would be happy if the college organized an online language course.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>55.</td>
<td>Group work helps low achievers.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>56.</td>
<td>I would like to take an exam on the computer.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>57.</td>
<td>The Internet makes language learning easier than before.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>58.</td>
<td>I’d find it a good idea if other students gave their opinion about my work.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>59.</td>
<td>It is easier to discuss unpleasant topics via email than personally.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60.</td>
<td>The Internet is very useful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61.</td>
<td>I would like to correct other students’ work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62.</td>
<td>I think e-learning is suitable for language learning.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63.</td>
<td>An advantage of an exam on the computer is that I don’t have to write by hand.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64.</td>
<td>Writing on the computer saves time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65.</td>
<td>I can manage using the Internet at any device.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66.</td>
<td>If the college organized an online language course, I would take part in it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IV. Finally, please answer these few personal questions. Put an X in the appropriate box.

67. Sex: □ male □ female

68. Age: □ 18-23 □ 24-29 □ above 30

69. Type of course: □ regular □ distance

70. How long have you been using a computer?
   □ 1-2 years □ 3-6 years □ more than 6 years

71. Do you have access to a computer or notebook at any time you need it?
   □ yes □ no

72. Do you have access to the Internet?
   □ yes □ no

73. If you answered yes to question 72, please indicate the type of Internet access you have.
   □ broadband
   □ via analog modem
   □ other
   □ I don’t know

74. Do you use the Internet on a mobile device? □ yes □ no

75. Do you use the college wifi? □ yes □ no

76. Do you use CooSpace? □ yes □ no

77. Do you need the Internet for your studies? □ yes □ no

78. How long have you been learning English?
   □ 1-2 years □ 3-5 years □ 6-9 years □ more than 10 years

Thank you for your answers.
Appendix C – Questionnaire about language teachers’ use of CooSpace in Hungarian in Phase 2

KÉRDŐÍV

Kedves Kollégan!

Szeretném a segítségedet kérni kutatásomhoz, melynek célja nem piackutatás, hanem a tanárok véleményének felmérése virtuális tanulási környezetekről. Kérlek, válaszolj a következő, a CooSpace használatával kapcsolatos kérdésekre. Ez a kérdőív névtelen, de ha érdekel a kutatás eredménye, illetve részt vennél a kérdőivet követően egy 30 perces interjún, add meg a kérdőív végén az email címedet, vagy írj nekem.

Nagyon köszönöm a segítséget!

Asztalos Réka, BGF, KVIK, Idegen Nyelvi Tanszék

I. Az első részben kérlek, tegyél x-t a megfelelő négyzetbe, illetve írd válaszodat a vonalra.

1. Milyen nyelvet tanítasz? ________________________________

2. Életkor: □ 25-35 □ 36-45 □ 46-55 □ 55 fölött

3. Nem: □ férfi □ nő

4. Milyen rendszerességgel használod az Internetet?

□ szinte soha □ havonta néhányonként □ hetente néhányonként □ minden nap

5. Mennyire értesz az Internethez?

□ nehezen boldogulok □ általánosan boldogulok, de sokáig tart, mire megtalálak valamit □ általánosan nincs problémám □ gyorsan, hatékonyan tudom használni

6. Rész vettél a CooSpace használatáról szóló tájékoztatón vagy továbbképzésen?

□ igen, a főiskolai tájékoztatón □ igen, a tanszéki tájékoztatón □ nem

7. Rész vennél egy (további) tájékoztatón vagy továbbképzésen a CooSpace használatáról?

□ igen □ nem

8. Használod az idegennyelv tanításban a CooSpace rendszert?

□ igen □ nem □ más rendszert használod (pl. Moodle, Ning): __________________________

9. Amennyiben az előző kérdésre nemmel válaszoltál, miért nem? (több választ is megjelölhetsz)

□ gondom van a belépéssel □ nem tudom, hogy működik □ nem látom a használat

□ túl sok időbe telne megismerkedni vele □ zavar, hogy követhető, hányszor léptem be és mire használom

□ túl sok idő feltölteni az anyagokat □ hagyományosan gyorsabban meg tudom oldani ugyanazokat a feladatokat □ a hallgatók nem szeretik

□ nincs elég számítógép a tanszéken/túl lassúak a tanszéki gépek □ egyéb: __________________________________________

10. Amennyiben a 8-as kérdésre igennel választál, kérlek, jelölj meg, milyen gyakran használod a CooSpace-t.

□ félévente □ havonta □ kéthetente □ hetente □ minden óra előtt

241
II. A következő részben kérlek, minden sorban karikázd be a válaszod az 1-től 5-ig terjedő gyakorisági skálán. 5 = nagyon gyakran 1 = soha  Természetesen a középső számokat is választhatod. Válaszd a 0-t, ha nem ismered az adott funkciót.

Milyen gyakran használod a CooSpace különböző funkcióit?

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

5 = nagyon gyakran 4 = elég gyakran 3 = közepesen 2 = ritkán 1 = soha 0 = nem ismerem ezt a funkciót

25. Ezeken kívül használod valami másra a CooSpace-t? ___________________________________________


III. A következő részben kérlek, minden sorban karikázd be a válaszod az 1-től 5-ig terjedő skálán, attól függően, mennyire találod hasznosnak a CooSpace különböző funkcióit. 5 = nagyon hasznosnak találom 1 = egyáltalán nem találom hasznosnak. Természetesen a középső számokat is választhatod. Válaszd a 0-t, ha nem ismered az adott funkciót.

Mennyire tartod hasznosnak a CooSpace különböző funkcióit?

<table>
<thead>
<tr>
<th>27. dokumentum feltöltése</th>
<th>28. hirdetőtábla</th>
<th>29. fórum</th>
<th>30. csevegés</th>
<th>31. feladat kiírása</th>
<th>32. feladat javítása</th>
<th>33. házi feladat közzététele</th>
<th>34. értékelés, osztályzatok beírása</th>
<th>35. osztályzatok összesítése</th>
<th>36. jelenléti ív</th>
<th>37. jelenléti ív összegzése</th>
<th>38. üzenetküldés</th>
<th>39. teszt íratás</th>
<th>40. naptár</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

5 = nagyon hasznos 4 = hasznos 3 = közepesen hasznos 2 = nem nagyon hasznos 1 = egyáltalán nem hasznos 0 = nem ismerem ezt a funkciót

Amennyiben érdekel a kutatás eredménye vagy részt vennél egy interjún, kérlek add meg az email címedet.

email: _________________________________

☐ érdekel a kutatás eredménye  ☐ részt venném egy interjún

Köszönöm a segítségedet!

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Appendix D – Questionnaire about language teachers’ use of CooSpace translated into English in Phase 2

QUESTIONNAIRE

Dear Colleague
I would like to ask you to help my research, which is not market research, but a survey about teachers’ opinion of virtual learning environments. Please, answer the following questions about the use of CooSpace. This questionnaire is anonymous but if you are interested in the results or you would be willing to take part in a 30-minute interview, write your email address at the end of the questionnaire.

Thank you for your help Asztalos Réka, BGF, KVIK, Idegen Nyelvi Tanszék

I. In the first part put an X in the appropriate box, or write your answer on the line.

1. What language do you teach? ______________________________

2. Age: □ 25-35 □ 36-45 □ 46-55 □ over 55

3. Sex: □ male □ female

4. How often do you use the internet?
□ almost never □ monthly □ weekly □ every day

5. How good are you using the internet?
□ I have difficulties using it
□ I can usually manage, but it takes long to find something
□ I do not usually have a problem using it
□ I can use it quickly and effectively

6. Did you attend a CooSpace training?
□ yes, at the college □ yes, at the department □ no

7. Would you attend a future CooSpace training?
□ yes □ no

8. Do you use CooSpace in language teaching?
□ yes □ no □ I use a different system (e.g. Moodle, Ning): _______________________

9. If you answered NO to the previous question, why not?
□ I have technical problems
□ I don’t know how it works
□ I don’t think it’s useful
□ it would take too much time to learn how to use it
□ I don’t like its traceability
□ it would take too much time to use it
□ traditional ways are faster
□ students don’t like it
□ there are not enough computers at the department/the computers are too slow
□ other:________________________________________________________________________

10. If you answered YES to Question 8, please, indicate how often you use CooSpace.
□ once in a term □ monthly □ every second week □ weekly □ before each class
II. In the second part, please circle a number on the frequency scale from 1 to 5. 5 = very often 1 = never
You can choose any number. Circle 0 if you don’t know the function.

How often do you use the following functions of CooSpace?

<table>
<thead>
<tr>
<th>Function</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Uploading documents</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>12. News forum</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>13. Forum</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>14. Chat</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>15. Tasks</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16. Tasks correction</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>17. Homework</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>18. Grading</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>19. Summarizing grades</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>20. Attendance register</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>21. Summarizing registers</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>22. Sending messages</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>23. Tests</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>24. Diary</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

25. Do you use CooSpace for anything else? _____________________________________

26. Which function do you miss or does not work properly on CooSpace? Why? ________________

III. In the third part, please circle a number on the usefulness scale from 1 to 5. 5 = very useful 1 = not useful
You can choose any number. Circle 0 if you don’t know the function.

How useful are the following functions of CooSpace?

<table>
<thead>
<tr>
<th>Function</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>27. Uploading documents</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>28. News forum</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>29. Forum</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>30. Chat</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>31. Tasks</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>32. Tasks correction</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>33. Homework</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>34. Grading</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>35. Summarizing grades</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>36. Attendance register</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>37. Summarizing registers</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>38. Sending messages</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>39. Tests</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>40. Diary</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

If you are interested in the results or you would be willing to take part in a 30-minute interview, write your email address: _________________________________

☐ I am interested in the results  ☐ I would be willing to take part in an interview

Thank you for your help.
Appendix E – Interview schedule about language teachers’ use of CooSpace in Hungarian in Phase 2

1 Először a nyelvtanítási és nyelvtanulási tapasztalatodról szeretnélek kérdezni.
   - Hol tanítasz?
   - Milyen nyelvet?
   - Hány év tanítási tapasztalatod van?
   - Milyen más nyelvet beszélsz?
   - Milyen színten?
   - Hogyan tanultad/tanulod?

2 Most beszéljük meg a kérdőíven adott válaszaidat a CooSpace-ról.

3 A következőkben a diákokról és tanárokról szeretnélek kérdezni.
   Miben különbözik a mai diákok az 5/10/20 évvel ezelőttioktól?
   (nyelvtudás, szorgalom, önbizalom, viszony a tanárhoz, tanuláshoz, világhoz, eszközhasználat)?
   Szerinted máshogy kell tanítani a mai diákokat? Hogyan?
   Miben különbözik a tanárok?
   Te mennyire változtál pályád kezdeté óta?
   A pályád során milyen mérföldkövek jelentettek változást?

4 Most térjünk át az internet használatára.
   - Mennyire értesz az Internethez?
   - Milyen gyakran és mennyit használod?
   - Mire használod leggyakrabban?
   - Milyen tanítással kapcsolatos célokat használod? Miért/Miért nem?
   - Milyen hatása van az éledre az Internet használat? (pozitív/negatív)
   - Milyen hatása van a szakmai éledre az Internet használat?

5 Végül beszéljünk az Internet és a számítógép felhasználásáról az oktatásban.
   - Mi lehet a haszna az Internet és a számítógép felhasználásának az oktatásban?
   - Mi lehet a hátránya?
   - Mit gondolsz az elearningről? És a blended learningről?
   - Részt vennél egy elearning alapú tanfolyamon, mint diák?
   (pl. főzés, kerészskedés, statisztika) Miért (nem)?
   - És elearning alapú nyelvtanfolyamon, mint diák? És mint tanár?
   - Hogyan lehetne az elearninget, vagy egyes részeit a főiskolai nyelvtanításban alkalmazni?
   - Mely részlete lenne érdemes kipróbálni?
   - Milyen tantárgyaknál lehetne kipróbálni a nyelvtanításon belül? (készségfejlesztő tárgyak, esszéírás)
   - Mi lenne a haszna/hátránya?
   - Milyen gyakorlati problémáik merülhetnek fel?
   - Mit gondolsz az elearning jövőjéről?
Appendix F – Interview schedule about language teachers’ use of CooSpace
translated into English in Phase 2

1 First I would like to ask you about your language teaching and language learning experience.
   Where do you teach?
   What language do you teach?
   How long have you been teaching?
   Do you speak any other languages?
   (What level?)
   How did you/have you been learning it?

2 Now I’d like to discuss the answers you gave in the questionnaire about CooSpace.

3 Let’s talk about students and teachers now.
   How are today’s students different from students 5/10/20 years ago?
   (language knowledge, working style, self-confidence, relationship with teachers, to studying, to the
   world, their use of tools)?
   Do you think today’s students need to be taught differently? How?
   How are teachers different?
   How have you changed since you started teaching?
   Have their been any milestones in your career?

4 Now let’s talk about the internet.
   How good are you at using the internet?
   How often and how much do you use it?
   What do you use it for?
   What do you use it for in language teaching? Why? Why not?
   How does the internet influence your life? (positive/negative)
   How does the internet influence your professional life?

5 Finally, I would like to talk about the use of computers and the internet in teaching.
   What can be a positive effect of the use of computers and the internet in teaching?
   What can be a negative effect?
   What do you think about elearning? And blended learning?
   Would you attend an elearning course as a student?
   (e.g. cooking, gardening, statistics) Why (not)?
   Would you attend an elearning language course as a student? And as a teacher?
   How do you think elearning or parts of it could be applied in language teaching at the college?
   Which parts could be applied?
   In which courses within language teaching could it be applied? (skill development courses, essay
   writing)
   What could be its positive or negative effect?
   What practical problems could arise?
   What do you think about the future of elearning?
Appendix G – Interview schedule about language teachers’ use of VLEs and web 2.0 tools in Hungarian in Phase 3

1 Először a nyelvtanítási és nyelvtanulási tapasztalatodról szeretnélek kérdezni.

Kérlek, mutatkozz be, mondd el, hol tanítasz, mit és mióta.
Mikor és hol végeztél, hol tanítottál ezelőtt?
Milyen tárgyakat tanítasz most? És kiknek?
Részveszél tanárképzésben? Részvetésel kutatási projektekben?
Milyen más nyelvet beszélisz?
Milyen színten?
Hogyan tanultad/tanulod?

2 Most térjünk át az internet használatára.

Először általában az internet használatáról szeretnélek kérdezni.
Mire használand az Internetet? Miket tekintesz web2-es eszközöknek?
Mire használod őket?
Melyik a kedvenc eszköződ? Miért?
Milyen gyakran használod?
Melyik eszköz nem vált be? Miért?
Melyiket nem próbáltad még, és nincs szándékodban?
Elutasznál olyan helyre, ahol tudod, hogy nincs Internet? Miért/miért nem?
Milyen változást hozott emberek kapcsolataidban az Internet használata?
Szívesen próbáltsz ki új eszközöket?
Mit teszel közzé magadról az Interneten?
Tudod, hogy mennyien olvassák? Fontos?
Tudod, hogy kik olvassák? Diákok? Tanárok? Ismerősök?
Eszedbe jut-e jut-e még valami általában az internet használatról, amit eddig nem említettünk?

3 Most szeretnélek arról kérdeznem, mire használod az Internetet a tanításban.

Mire használod az Internetet a tanításban?
Melyik a kedvenc eszköződ? Miért?
Milyen gyakran használod?
Melyik eszköz nem vált be? Miért?
Melyiket nem próbáltad még, és nincs szándékodban?
Melyik eszközt használod csak saját/csak tanítási célra? Miért?
Függ a tantárgytól, hogy mit használisz?
Miért használod őket tanításhoz?
Hogyan fejlesztik ezek az eszközök a nyelvtudást? Mely részeit fejlesztkik?
Más készséget fejlesztenek?
Szervezési célra használod őket?
Csoportdinamika fejlesztésére használod?
El tudod képzelni, hogy bármilyen eszköz nélkül jó órát tartasz?
Hogy döntöd el, hogy egy új eszközt kipróbálsh-e tanítási célra?
Van-e valami, amit nem említettünk?

4 Térjünk vissza egy kicsit a kezdetekhez.

Mikor kezdted használni a web2-es eszközöket magán, illetve tanítási célra?
Miért kezdted el?
Milyen kezdeti problémáit voltak? Segített valaki az elején?
Részlet vettél valamilyen képzésben? Hogyan tanultad meg a használatát?
5 Most a diákokról szeretnélek kérdezni.

- Mit szólnak hozzá a diákok?
- Van olyan diák, aki nem szereti ezeket az eszközöket?
- Van, akinek nehézséget okoz a használatuk?
- Melyik eszközt szeretik a legjobban? Legkevésbé?
- Honnan szűröd le a diákok véleményét?

6 Térjünk át a kollégáidra

- Mit szólnak hozzá a kollégák?
- Mit gondolsz, miért?
- Megosztod a tapasztalataid más tanárokkal? Hogyan?

7 Végül a jövőről teszek fel néhány kérdést.

- Hogy látod a web2-es eszközök fejlődését?
- Szerinted mindenki használni fogja őket? Hogy képzeled magad 10 év múlva mint nyelvtanár?
Appendix H – Interview schedule about language teachers’ use of VLEs and web 2.0 tools translated into English in Phase 3

1 First I would like to ask you about your language teaching and language learning experience.
   Introduce yourself, please, and tell me where you teach, what you teach and how long.
   When and where did you study?
   Where did you teach before?
   What subjects are you teaching now?
   Who are you teaching?
   Do you participate in teacher training?
   Do you do any research?
   Do you speak any other languages? (What level?)
   How did you/have you been learning it?

2 Now let’s talk about the internet.
   First I would like to ask you about your use of the internet in general.
   How often and how much do you use it?
   What do you consider web 2.0 tools?
   What do you use them for?
   What is your favourite tool? Why?
   How often do you use it?
   Which tool do you not like? Why?
   Which have you never tried and would not like to try it?
   Would you travel to a place where there is no internet connection? Why? Why not?
   Has using the internet brought any changes in your relationship to people?
   How do you get to know new tools? How do you try them? Please, give an example.
   Do you like trying out new tools?
   What do you publish about yourself on the internet?
   Do you know how many people read it? Is it important?
   Do you know who reads it? (students, teachers, friends)
   Can you add anything else about the internet that we haven’t talked about?

3 Now, I would like to ask you about the use of the internet in teaching.
   What do you use the internet for in teaching?
   What is your favourite tool? Why?
   How often do you use it?
   Which tool do you not like? Why?
   Which have you never tried and would not like to try it?
   Which tool do you use only for private or teaching purposes? Why?
   Does it depend on the subject which tool you use?
   Why do you use these tools for teaching?
   How do these tools affect language learning? Which skills are developed?
   Do they have an influence on other skills?
   Do you use them for administration and organization?
   Do you use them for group dynamics?
   Can you imagine teaching a class without any tools?
   How do you decide which new tool you try in teaching?
   Is there anything else you would like to add?

4 Let’s go back to the beginning now.
   When did you start using web 2.0 tools for private and teaching purposes?
   Why did you start it?
What problems did you have at the beginning? Did anyone help? Did you attend any training? How did you learn how to use them?

5 Now I’d like to ask you about students.

What is students’ disposition towards it?
Are there any students who don’t like these tools?
Are there any students who have difficulties using them?
Which tool do they like the best? Which tool do they like the least?
How do you ask about students’ opinion?

6 Let’s talk about your colleagues now.

What is your colleagues’ disposition towards it?
Why do you think?
Do you share your experience with other teachers? How?

7 Finally, I will ask some questions about the future.

What do you think about the development of web 2.0 tools?
Will everyone use them in the future?
How do you imagine yourself in 10 years as a language teacher?
Appendix I – Questionnaire about language teachers’ use of VLEs and web 2.0 tools in Hungarian in Phase 3

Kedves Kolléga!

Tudom, hogy általában egy kérdőív kitöltése névtelenül történik. Mivel ezt a kérdőívet a Veled készíttendő interjú kiegészítéseként szeretném használni, kérlek, hogy mégis add meg a nevedet. Természetesen a kutatás során az eredményeket szigorúan névtelenül fogom felhasználni.

Köszönöm a segítséget! Asztalos Réka

*Növelem

Tanított tantárgyak az elmúlt 2 évben:*

Milyen gyakran használod a következő eszközöket a tanórán vagy az órához kapcsolódóan? *

Kérlek, CSAK a tanításhoz kapcsolódó használat alapján válaszolj a kérdésekre! Köszönöm.

| 1 virtuális tanulási környezet (pl. Moodle) | 5 | 4 | 3 | 2 | 1 |
| 2 tananyag feltöltés | 5 | 4 | 3 | 2 | 1 |
| 3 fórum | 5 | 4 | 3 | 2 | 1 |
| 4 wiki | 5 | 4 | 3 | 2 | 1 |
| 5 blog | 5 | 4 | 3 | 2 | 1 |
| 6 twitter | 5 | 4 | 3 | 2 | 1 |
| 7 chat | 5 | 4 | 3 | 2 | 1 |
| 8 skype | 5 | 4 | 3 | 2 | 1 |
| 9 online teszt | 5 | 4 | 3 | 2 | 1 |
| 10 közösségi oldalak (facebook) | 5 | 4 | 3 | 2 | 1 |
| 11 szótanulást segítő oldalak (quizlet) | 5 | 4 | 3 | 2 | 1 |
| 12 gondolattérkép | 5 | 4 | 3 | 2 | 1 |
| 13 digitális audió készítése | 5 | 4 | 3 | 2 | 1 |
| 14 digitális videó készítése | 5 | 4 | 3 | 2 | 1 |
| 15 weblap készítés | 5 | 4 | 3 | 2 | 1 |
| 16 virtuális valóság (Second life) | 5 | 4 | 3 | 2 | 1 |

17 Egyéb eszköz:
Milyen tényezők befolyásoltak abban, hogy használd ezeket az eszközöket a tanításban? *

| 18 külső hatás (pl. tanszékekvezető) | 3 | 2 | 1 |
| 19 kollégáim példája | 3 | 2 | 1 |
| 20 konferencia hatása | 3 | 2 | 1 |
| 21 szakirodalom | 3 | 2 | 1 |
| 22 saját érdeklődés | 3 | 2 | 1 |
| 23 véletlen | 3 | 2 | 1 |

3 = nagyon fontos tényező  
2 = közepesen fontos tényező  
1 = nem fontos tényező

24 Egyéb fontos tényező:  
Milyen célból használd ezeket az eszközöket a tanításban? * 

Azért használok ezeket az eszközöket, hogy…

| 25 egyszerűbbé tegyem a tanítást saját részemre | 5 | 4 | 3 |
| 26 egyszerűbbé tegyem a tanulást a diákok részére | 5 | 4 | 3 |
| 27 a különböző tanulási stílusokat támogassam. | 5 | 4 | 3 |
| 28 felkelts em a diákok érdeklődését | 5 | 4 | 3 |
| 29 fejlesszem a diákok technikai tudását | 5 | 4 | 3 |
| 30 biztosítsam a diákok kapcsolatát a célnyelvi országok diákjaival. | 5 | 4 | 3 |
| 31 biztosítsam a diákok kapcsolatát más nyelvtanulókkal . | 5 | 4 | 3 |
| 32 lehetőséget adjak a passzivabbb diákoknak más típusú közegben kommunikálni. | 5 | 4 | 3 |
| 33 hatékonyabbá tegyem a tanulási folyamatot. | 5 | 4 | 3 |
| 34 változatosabbbá tegyem az órát. | 5 | 4 | 3 |
| 35 lehetőséget teremtsek önálló tanulásra. | 5 | 4 | 3 |
| 36 személyre szabott tanulási feltételeket teremtsek a diákoknak. | 5 | 4 | 3 |
| 37 elősegítsenem a csoportmunkát. | 5 | 4 | 3 |
| 38 elősegítsem a diákok egymás közti kommunikációját. | 5 | 4 | 3 |
| 39 elősegítsenem közös tudás létrehozását | 5 | 4 | 3 |

3 = nagyon fontos cél  
2 = közepesen fontos cél  
1 = nem fontos cél

40 Egyéb cél:  
41 Egyéb megjegyzés a kérdőívvel vagy az interjúval kapcsolatban:

Köszönöm, hogy válaszoltál a kérdésekre!
Appendix J – Questionnaire about language teachers’ use of VLEs and web 2.0 tools translated into English in Phase 3

Dear Colleague,

I know that normally questionnaires are anonymous. However, I would like to ask you to provide your name because I intend to use the data to complement the findings of the interviews. I will not include your name or any other details in my study.

Thank you for your help. Asztalos Réka

*Obligatory

Name: *

Subjects taught in the last two years: *

How often do you use the following tools for teaching purposes? *

<table>
<thead>
<tr>
<th>Tool</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 virtual learning environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 interactive whiteboards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 voting system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 wiki</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 blog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 twitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 chat</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8 skype</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9 online test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 communal pages (Facebook)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 vocabulary learning pages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 mind-mapping tools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 digital audio recording</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 digital video recording</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 creating a web-page</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>16 virtual reality (Second life)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Other tools:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 external influence (e.g. department head)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 my colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 conference presentations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 professional articles and books</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 my own interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 coincidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5 = daily
4 = weekly
3 = 1 or 2 times a month
2 = once a term
1 = never

What influenced your use of these tools for teaching? *

<table>
<thead>
<tr>
<th>Tool</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 external influence (e.g. department head)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 my colleagues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 conference presentations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 professional articles and books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 my own interest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 coincidence</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 = very important influence
2 = important influence
1 = not important influence
24 Other influences:

Why do you use these tools in teaching? *

I use these tools to…

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25 make teaching easier for myself.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>26 make learning easier for students.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>27 support different learning styles.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>28 generate students’ interest.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>29 develop students’ technical skills.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>30 provide a way to communicate with students of English-speaking countries</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>31 provide a way to communicate with other students of English.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>32 provide an opportunity for passive students to communicate in a different way</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>33 enhance language learning.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>34 make the class more varied.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>35 provide an opportunity for self-study.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>36 create personalized learning conditions for students.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37 enhance group work.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>38 enhance communication between students.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>39 enhance knowledge building.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

3 = very important purpose
2 = important purpose
1 = not important purpose

40 Other purposes:

41 Comments about the questionnaire or the interview:

Thank you for filling in the questionnaire!
## Appendix K – Results of the interviews in Phase 3

<table>
<thead>
<tr>
<th>Emerging themes</th>
<th>Recurring Patterns</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active learning</td>
<td>Favourite tools</td>
<td>The use of VLEs</td>
</tr>
<tr>
<td>Authentic language environment</td>
<td>Developing life-skills</td>
<td>The use of technological tools</td>
</tr>
<tr>
<td>Brainstorming</td>
<td>Developing language skills</td>
<td>Pedagogical purposes for using technology</td>
</tr>
<tr>
<td>Classroom infrastructure</td>
<td>Teachers’ interest</td>
<td>Language skills development</td>
</tr>
<tr>
<td>Cohesion</td>
<td>The role of the teacher</td>
<td>Other purposes for using technology</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Colleagues’ disposition</td>
<td>Issues influencing technology use</td>
</tr>
<tr>
<td>Colleagues’ disposition</td>
<td>Time needed</td>
<td></td>
</tr>
<tr>
<td>Communal pages</td>
<td>Classroom infrastructure</td>
<td></td>
</tr>
<tr>
<td>Cooperative learning</td>
<td>Pedagogical purposes</td>
<td></td>
</tr>
<tr>
<td>Course management</td>
<td>Personal interest</td>
<td></td>
</tr>
<tr>
<td>Critical reading</td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Developing language skills</td>
<td>Problems</td>
<td></td>
</tr>
</tbody>
</table>
Appendix L – Placement test in Phase 4

You have 50 minutes to answer 60 questions in this test. Always indicate the right answer.

1. Where can you see this notice?
   NO FOOD IN CLASS
   A in a restaurant  B in a hotel  C in a school

2. Where can you see this notice?
   Please give right money to the driver
   A in a bank  B on a bus  C in a cinema

3. Where can you see this notice?
   NO PARKING PLEASE
   A in a street  B on a book  C on a table

4. Where can you see this notice?
   HALF PRICE SALE
   A at a station  B in a theatre  C in a shop

5. Where can you see this notice?
   FOR PAIN: TAKE TWO TABLETS
   A on a medicine bottle  B on a food packet  C on a soap box

6. You will read about Madame Tussaud's Museum. Choose the word which best fits in each sentence.
   Madame Tussaud was born in France in 1761. Her uncle, a doctor, ………………… wax figures of people.
   A make  B made  C makes

7. He opened a museum of these figures in Paris. Marie helped ………………… in his work.
   A her  B him  C them

8. In 1789, during the French Revolution, Marie …………………. sent to prison.
   A has  B is  C was

9. Here she had to ………………… heads of famous people, including Queen Marie Antoinette’s.
   A any  B the  C those

10. In 1795, Marie married François Tussaud (10) ………………… in 1802 she came to London with her wax figures. Here she opened a museum and her figures can still be seen today.
    A and  B because  C when

11. You will read about cats. Choose the word which best fits in each sentence. Cats are popular pets ………………… Britain.
    A at  B on  C to  D in

12. But do you know that they are closely related to some of the …………………. of all wild animals?
    A big  B bigger  C more big  D biggest

13. Despite their differences of size, lions, tigers and cats have a lot in ………………….
    A common  B similar  C like  D same

14. All cats, for instance, eat other animals and hunt their food. A house cat is not likely to catch anything bigger ………………… a mouse or a bird,
    A as  B than  C that  D from

15. But it goes about catching it in much the same way as a lion or tiger ………………… its food.
    A hunt  B is hunting  C hunts  D hunted
16. You will read about teeth. Choose the word which best fits in each sentence. Older Britons are the worst in Europe when it comes to keeping their teeth. But British youngsters .............. more to smile about
A getting    B got    C have    D having

17. because .............. teeth are among the best.
A their    B his    C them    D theirs

18. Almost 80% of Britons over 665 have lost some .............. their teeth according to a World Health Organisation survey.
A from    B of    C among    D between

19. Eating too .............. sugar is part of the problem.
A much    B lot    C many    D deal

20. Among .............., 12-year-olds have on average only three missing, decayed or filled teeth.
A person    B people    C children    D family

21. You will read about the history of the cinema. Choose the word which best fits each sentence. People everywhere wanted to see the new moving pictures after the world’s first cinema show .............. place in a Paris café in 1895.
A did    B made    C took    D put

22. At .............., film audiences sat on wooden seats inside tents and watched three minutes of silent film.
A start    B first    C once    D time

23. Sometimes the lamp on the machine showing the film blew up. For this reason, comfortable film theatres which were safe from fire .............. built.
A has    B have    C was    D were

24. A ticket for a four-hour programme of several films didn’t .............. much.
A cost    B charge    C pay    D spend

25. By the 1930s, many people went .............. the cinema at least once a week.
A on    B to    C in    D at

26. However, when television appeared in the 1940s, the cinema became less ..............
A famous    B favourite    C popular    D likeable

27. And when in the 1980s cinema prices increased and videos became .............., the public preferred to .............. at home.
A average    B common    C natural    D regular

28. the public preferred to .............. at home.
A keep    B rest    C stand    D stay

29. Many cinemas .............. to close down.
A had    B need    C ought    D used

30. But then in the 1990s, enormous new cinemas, .............. with twelve screens, opened and people rediscovered the fun of cinema-going.
A few    B some    C much    D any

In this part choose the word or phrase which best completes each sentence.

31. After many attempts, he finally .... to pass his driving test.
A achieved    B managed    C realised    D succeeded

32. When she arrived at the party, Jane discovered she was wearing the same dress .... her hostess.
A than    B with    C as    D like
33. He spent a long time looking for a tie which ... with his new shirt.
A fixed  B made  C went  D wore
34. I wouldn't .... of going to a party I hadn't been invited to.
A intend  B dream  C rely  D depend
35. The book ... of ten chapters, each covering a different topic.
A comprises  B includes  C consists  D contains
36. There are a number of facts that we should ................. into account.
A have  B put  C take  D hold
37. As a child, Shirley was a talented pianist but she ............. with a job in a factory
A ended up  B turned up  C set down  D finished off
38. This form ............ be handed in until the end of the week.
A doesn’t need  B doesn’t have  C needn’t  D hasn’t got
39. The beekeeper had not no fear and picked up the bees with  his ............ hands.
A empty  B bald  C bare  D plain
40. It was with ............. feelings that he accepted the job of club treasurer.
A confused  B disturbed  C preoccupied  D mixed
41. ................. teaching English, she writes children’s books.
A Moreover  B As well as  C In addition  D Apart
42. It was clear that the young couple were ............ of taking charge of the restaurant.
A responsible  B reliable  C capable  D able
43. She ................. her head in agreement.
A frowned  B nodded  C waved  D winked
44. ................ stay the night if it’s too difficult to get home.
A At all costs  B By all means  C In all  D On the whole
45. My grandmother thinks children today are not ............. up strictly enough.
A brought  B drawn  C grown  D held
46. There seems to be no natural ............. to the retiring head of the organisation.
A successor  B follower  C descendant  D inheritor
47. He’s still getting ............. the shock of losing his job.
A across  B by  C over  D through
48. I suggest we ............. outside the stadium tomorrow at 8.30.
A meeting  B meet  C met  D will meet
49. The new road currently under ............. will solve the traffic problems in the town.
A design  B progress  C construction  D work
50. Roger’s manager ............. to make him stay late if he hadn’t finished the work.
A insisted  B warned  C threatened  D announced
In the last part of the test you will read short texts with a choice of four answers for each point. Choose the
BEST answer in each point.

51. Choose the BEST heading for the paragraph.

You might need to present a range of application materials, such as a CV tailored per sector or role, a longer CV
for recruiters or a short CV when you email a potential contact. Have these prepared when you need them at
short notice.
A Make yourself visible   B Rely on your contacts   C Be ready to apply   D Plan your search

52. Choose the BEST heading for the paragraph.

Some pubs have branched into selling food while some others, particularly in rural areas, are seeking to keep
going by diversifying into groceries, video rentals or Post Office services, or letting out rooms for religious
services and gambling (not at the same time, obviously). But for the old fashioned boozer, the future looks grim.
A Wider range of services   B Hard times for pubs   C Good news for drinking places   D Nowhere to drink

53. Where does the text come from? Choose the  BEST answer.

Opening a Student Account is easy. Once you've read the information on this page, completing the application
should take 5 - 10 minutes. As you won't be able to save it, please complete it in one go. Then simply print it out
and take it into your branch with your ID.
A information leaflet   B application form   C electronic homepage   D newspaper/magazine

54. What is the missing word?

Transport Secretary Douglas Alexander is hoping that a nationwide “pay-as-you-drive” charge – to replace both
road tax and tax on petrol – will be in operation within a decade. Under the plan, each _____________ would be
individually priced, the price varying in line with peak usage. Motorists would pay from as little as 2p a mile in
rural areas to £1.34 for heavily congested motorways at peak times.
A vehicle   B motorist   C road   D petrol

55. What is the missing word combination? Choose the  BEST answer.

Restaurants and hotels could be required by law to show details of their food's calorie and fat content on their
menus under plans supported by the Food Standards Agency. The agency is backing proposals to require all food
outlets to list the nutritional details of meals and drinks as part of a campaign to improve the nation's
A eating habits   B food standards   C body weight   D cooking skills

56. What is the missing word (combination)? Choose the  BEST answer.

We remain open to those foreign students who want to come to the UK for __________ study. But those who are
not seriously interested in study, but come primarily to work – they should be in no doubt that we will come
down hard on those who break the rules, “ the foreign secretary said.
A secondary level B primary level   C actual   D long-term

57. What is the meaning of the word indicated by XXXXXXXX?

Londoners born and bred to the east of TowerBridge have always called themselves East Enders. It has been the
way since the 19th century, when bare-knuckle fighters wore the title as a badge of honour describing not just a
place on the map but also a certain XXXXXXX attitude.
During the second world war the “East End spirit” was evoked to help them survive the blitz.
A aggressive   B happy, noisy, lively   C good at sports   D easy-going

58. What is the main point of the text? Choose the  BEST answer.

The International Air Transport Association (IATA) released its annual Corporate Air Travel Survey of over
10,000 active travellers, which shows that not only are passengers accepting high-tech travel options, but also
they are demanding even more opportunities to take control of their travel experience.
A Travellers like to use advanced technology. B Not all travellers like to use advanced technology.
C Travellers accept the idea of self-service in travel.   C Travellers want more self-service options.
59. What is the main point of the text?
Family ticket 'rip off' at British attractions
Britain's leading attractions are charging visitors more than almost any other country in the world, raising concerns that foreign tourists and British families are being "ripped off".
A Family tickets for attractions are too expensive.   B Family tickets are going to be changed.
C Family tickets are going to be stopped.          D Families are cheated at attractions.

60. How does this person feel about smoking in restaurants/bars?
“Given time I think the industry, responding to market forces, will give smokers a choice of where to drink and staff a choice about where they want work. “
A They want more time for the restaurant industry to decide.   B They want restaurants where you can smoke.
C They do not want any restaurants where you can smoke.   D They want both smoking and non-smoking restaurants.
Appendix M – Background questionnaire in Phase 4

Name:

1 How long have you been studying English?

2 What kind of language exam do you have?

3 What kind of language exam do you need/would you like to take?

4 What are your short term and long term aims for English?

5 Are you doing anything to improve your English at the moment?

6 Rate your skills on a scale of 1-5. (1 - poor, and 5 - excellent)
   Reading:
   Writing:
   Listening:
   Speaking:
   Pronunciation:
   Grammar:

7 Which skill would you like to improve (1- not at all, 5 - very much):
   Reading:
   Writing:
   Listening:
   Speaking:
   Pronunciation:
   Grammar:

8 Comments:
Appendix N – Course evaluation questionnaire in Term 1 in Phase 4

Fill in this questionnaire about your English classes this term, please. Thank you

*Obligatory

Name: *

1 Did you find the class in the computer room on 1st October *
- useful
- interesting
- boring
- not useful
- easy
- difficult
- I did not attend the class
- Other:

2 Did you find the YouTube video about wikis *
- useful
- interesting
- boring
- not useful
- easy
- difficult
- I can't remember
- Other:

3 Is it the first time you have used a wiki? *

4 Do you find the class wiki *
- useful
- interesting
- boring
- not useful
- easy
- difficult
- Other:

5 Do you find the list of dictionaries on the wiki *
- useful
- interesting
- boring
- not useful
- easy
- difficult
- Other:

6 Have you used the list of dictionaries on the wiki? *

7 If your answer to the previous question was NO, why not?

8 If your answer to the previous question was YES, which dictionary did you use?
9 Do you find Quizlet *

- useful
- interesting
- boring
- not useful
- Other:

10 Have you used Quizlet for practising the words? * □ yes □ no

11 If your answer to the previous question was NO, why not?

12 Do you find the grammar pages on the wiki *

- useful
- interesting
- boring
- not useful
- Other:

13 Have you practised any grammatical points on one of the grammar pages on the wiki?* □ yes □ no

14 If your answer to the previous question was NO, why not?

15 If your answer to the previous question was YES, which structure(s) did you practise and where?

16 Do you find the page 'recruitment' on the wiki *

- useful
- interesting
- boring
- not useful
- Other:

17 Have you used the page 'recruitment' when you wrote your CV and application letter?* □ yes □ no

18 If your answer to the previous question was NO, why not?

19 If your answer to the previous question was YES, what did you use on the page?

20 In class I would like to have more *

- speaking
- reading
- writing
- grammar
- vocabulary
- listening
- games
- Other:

21 Comments:

Thank you for filling in the questionnaire.
Appendix O – Course evaluation questionnaire in Term 2 and 3 in Phase 4

Questions 1-3, 11, 17-19 and 32 were included only in Term 3

Fill in this questionnaire about your English classes this term, please. Thank you

*Obligatory

Name *
Email *

1 What type of language exam do you have in English? *
E.g. Origo B2 or no exam

2 What type of language exam are you going to take in English? *
E.g. BGF B2

3 When are you going to take this language exam? *
E.g. January 2014

4 How much has your English knowledge improved during the term? *
   - a lot
   - quite a lot
   - moderately
   - not much
   - not at all

5 How much have your listening skills improved during the term? *
   - a lot
   - quite a lot
   - moderately
   - not much
   - not at all

6 How much have your reading skills improved during the term? *
   - a lot
   - quite a lot
   - moderately
   - not much
   - not at all

7 How much have your speaking skills improved during the term? *
   - a lot
   - quite a lot
   - moderately
   - not much
   - not at all

8 How much have your writing skills improved during the term? *
   - a lot
   - quite a lot
9 How much has your grammar improved during the term? *
- a lot
- quite a lot
- moderately
- not much
- not at all

10 How much has your business (Term 2) tourism (Term 3) vocabulary improved during the term? *
- a lot
- quite a lot
- moderately
- not much
- not at all

11 How well prepared are you for the language exam? *
- very well prepared
- well prepared
- moderately prepared
- not well prepared
- not at all prepared

12 How much did you enjoy classes NOT in the computer room? *
- a lot
- quite a lot
- moderately
- not much
- not at all

13 Did you find classes NOT in the computer room *
- useful
- interesting
- boring
- not useful
- easy
- difficult
- Other:

14 How much did you enjoy classes in the computer room? *
- a lot
- quite a lot
- moderately
- not much
- not at all

15 Did you find classes in the computer room *
- useful
- interesting
16 Do you find the class wiki *

- useful
- interesting
- boring
- not useful
- easy
- difficult
- Other:

17 Do you think you will use the class wiki for exam preparation? *

☐ yes ☐ no ☐ maybe

18 Which pages are you going to use for exam preparation? *

- topics
- writing
- interview questions
- grammar practice
- I don't know
- no pages
- Other:

19 Do you think you will use the class wiki for other purposes? *

- yes, for preparing for a job interview
- yes, for writing a CV/application letter
- yes, for practising grammar
- yes, for using dictionaries
- maybe
- I don't know
- no
- Other:

Extras and the evaluation table

Now you are going to read questions and statements about the extras and the evaluation table. I would like to know your opinion about using these for evaluation.

20 How will the use of the evaluation table points influence your final grade? *

- my final grade will be better
- my final grade will be worse
- my final grade will be the same
- I don't know

21 I find the use of the extras for evaluation *

- useful
- not useful
- fair
• not fair
• easy
• complicated
• Other:

22 Doing the extras *

• I learnt more
• I improved my weaknesses
• I enjoyed learning
• I did not learn anything
• I did not do any extras
• Other:

23 How did you choose the extras? I chose *

• tasks to improve my weaknesses
• interesting tasks
• easy tasks
• challenging tasks
• useful tasks
• tasks for exam preparation
• I did not do any extras
• Other:

24 I did not do any extra tasks because *

• I did not have time
• I was lazy
• I did not know what to do
• I do not care about my final grade
• I found the system complicated
• I did some tasks
• Other:

25 Would you like to use the same system next term? (Term 2) */

Would you recommend this system for other groups (Term 3)? *

☐ yes ☐ no ☐ I don't know

You can answer the following questions in Hungarian.

26 Why did you say 'yes' or 'no' to the previous question? *

27 Comments about the use of the extras and the evaluation table: *
28 Comments about the classes in the computer room: *
29 Comments about the classes NOT in the computer room: *
30 Comments about the use of the wiki: *

31 Is there anything you have missed from the English classes this term? *

32 Would you be willing to take part in a Hungarian language interview in January? *

☐ yes ☐ no ☐ maybe

THANK YOU VERY MUCH FOR FILLING IN THE QUESTIONNAIRE.
Appendix P - Interview schedule about students’ disposition towards the wiki in Hungarian in Phase 4

1 Először a nyelvtanulási tapasztalatadról szeretnélek kérdezni.
   Mióta tanulsz angolul? Hol tanultál? Hogy tanítottak a tanárok?
   Milyen más nyelvet beszélsz? (Hol tanultál? Hogy tanítottak a tanárok?)
   Milyenek voltak a nyelvóráid a középiskolában?
   Mi volt a legjobb? Mi volt a legkevésbé jó?
   Használt a tanár internetet vagy számítógépet valamilyen formában?

2 Most térjünk át az internet használataéra.
   Mennyire értesz az Internethez?
   Milyen gyakran és mennyit használod?
   Mire használod az internetet leggyakrabban?
   Milyen hatással van az életedre az Internet használat? (pozitív/negatív)
   Tanulási célra használtad? (Mit használtsz tanulási célra?)

3 A következőkben a főiskolai angolóráról szeretnélek kérdezni.
   Különbözték az angolórák a középiskolai óráktól? (Miben?) (pozitív/negatív)
   Változtak a tanulási szokásaid a főiskolai tanulás hatására?
   Változtak a nyelvtanulási szokásaid a főiskolai nyelvtanulás hatására?
   Mi volt a leghasznosabb az angolórán?
   Mi volt a legkevésbé hasznos?
   Mi tetszett legjobban?
   Mi tetszett legkevésbé?
   Van valami, amit a jövőben is használni fogsz? Mi az? (Általában és a wikiről).

4 Most beszéljünk a wikiről.
   Mit gondolsz a következő wiki oldalakról:
   grammar, dictionaries, quizlet, ted talks, recruitment, exam info, topics, writing, interview
   Mit gondolsz az értékelésről?
   Mi a véleményed a tudásmegosztásról? Jó, ha mindenki használhatja, amit írtál?
   Szereted a csoportmunkát?

5 Most beszéljük meg a kérdőíven adott válaszaidat a kurzus értékeléséről.
Appendix Q - Interview schedule about students’ disposition towards the wiki translated into English in Phase 4

1 First I would like to ask you about your language learning experience.
   How long have you been English? Where did you learn it? How did your teachers teach?
   Do you speak any other languages?
   How did you/have you been learning it?
   How would you describe your language classes at secondary school?
   What was the best? What did you enjoy the least?
   Did your teacher use the internet or computers in any form?

2 Now let’s talk about the internet.
   How good are you at using the internet?
   How often and how much do you use it?
   What do you use it for?
   How does the internet influence your life? (positive/negative)
   Do you use it for studying purposes? (What do you use?)

3 Now I’d like to discuss the English classes at the college.
   Were your English classes different from your classes at secondary school? (How?) (positive/negative)
   Have your learning habits changed due to your studies at college?
   Have your language learning habits changed due to your language studies at college?
   What did you find the most useful at the English class?
   What did you find the least useful?
   What did you like the best?
   What did you like the least?
   Is there anything you intend to use in the future? What is it? (In general and from the wiki).

4 Let’s talk about the wiki now.
   What do you think about the following wiki pages:
   grammar, dictionaries, quizlet, ted talks, recruitment, exam info, topics, writing, interview
   What do you think about the evaluation system?
   What is your opinion about knowledge sharing?
   Do you think it is good if everyone can use what you have created?
   Did you like group work?

5 Now I’d like to discuss the answers you gave in the questionnaires.
Appendix R – Sample page from the Teacher’s diary

01.10.2012, Monday, lesson in the computer room

7.45 Our first class in the computer room. I am a bit nervous and hope there will not be any technical problems. I will try not to make any mistakes I made with the pilot group. I checked Wikispaces and 12 students had already registered, that’s good news! I hope students will find the room, it’s on the third floor and it’s probably their first class here. It’s also Monday morning, so some of them will possibly be late. I have already turned on all the computers to save time.

11.30 My classes are over now. The class in the computer room in the morning went quite well. It seems to have been a good idea to tell them in the previous lesson that this class is important and they should try not to miss it, because only one student was absent, András. I think I will have problems with him. He is very clever and his English is very good but he doesn’t seem to care much about the English lessons. He already missed two out of six and was late from the other four. This morning several students were some minutes late, which is normal on a Monday morning but Nóra and Tibor came 15 minutes later. They claimed they did not know we were in the computer room because they had been absent in the previous lesson and had not checked their Neptun messages.

Andi, Jutka and Detti registered during the class and I told Nóra and Tibor to do it at home and work together with someone today. They promised to do it before the next class.

Nobody had heard about wikis before so they were quite interested to watch the YouTube video about it. When I asked them what they could use a wiki for in their private life and in studying, they came up with some interesting ideas for private use but nothing usable for studying. Enikő suggested collecting film titles with friends, Stefi would use it for organizing a party and Tibor for sharing holiday experiences including photos.

Before I introduced the page “Dictionaries” to them I asked if they used any online dictionaries. Most people used paper-based dictionaries but also indicated to use solely bilingual online dictionaries (www.sztaki.hu or Google translator). Only Dorina had used Cambridge monolingual dictionary before. They seemed to enjoy the task to find and evaluate online dictionaries and editing the wiki was no problem for them. They wrote the evaluation in a Word document and copied it on the wiki after one another. Still, it was not very comfortable to wait for each other but I told them that they would mainly use the wiki at home where they can edit it freely.

The “Grammar” page seemed to interest them less, although nobody had used any grammar practising page before. Stefi was very enthusiastic, I think she is the one who I will be able to count on during the course. She is very intelligent and hard-working.

Quizlet was new to them, too, and they were enthusiastic about learning words there. Nóra and Bianka seemed to be a bit bored, I have the feeling they had chosen to learn English only to get a good mark easily. I hope I am wrong. All the others enjoyed the lesson and were willing to work in pairs and groups. When I checked at the end of lesson if they had learnt each other’s names, only Nóra, Bianka and Tibor could not write down all the names. I think this will be a good group!

Homework: to evaluate one more dictionary or grammar page and add a feature to the Checklist for dictionaries.

10.10.2012, Wednesday, lesson in Room 11 with a projector

I checked Wikispaces, everyone has registered by now, Nóra and Tibor did it last Tuesday, András two days ago. Great!

We looked at the wiki together in class. Stefi, Dorina, Emőke, Edit and Jutka edited the page “Dictionaries”, Edit the page “Checklist”, Detti, Tibor, Stefi, Dorina, Emőke, Edit, Jutka the page “Grammar”. Stefi has also created a word set on Quizlet for the words from Unit 1 and 2 in the book. I told them to learn the words by next Monday because we would write a word test. I told them to use Quizlet to practise.
Appendix S – Sample page from the wiki statistics in Term 1 in Phase 4

Statistics Overview

Download as CSV

Views 10/2012

Download as CSV

Unique Visitors 10/2012

Download as CSV

Edits 10/2012

Download as CSV

Muqaqas 10/2012

Download as CSV

Editors 10/2012

Top 10 Countries By Percentage of Visits 10/2012