STUDENTS' DISPOSITION TOWARDS THE USE OF COMPUTERS AND THE INTERNET IN LANGUAGE LEARNING: THE RESULTS OF A PILOT STUDY

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Abstract: Today's students are described as 'digital natives' (Prensky, 2001) and different forms of technology are encouraged to be applied in teaching to suit their needs. However, there are very few studies about students' disposition towards all these new technologies. To fill this niche the present research project aimed to explore college students' disposition towards computers and the Internet generally and in language learning specifically. A further aim was to develop and pilot a questionnaire to find out about the frequency of students' use of different computer and Internet applications and their disposition towards computers, the Internet and online learning. The participants of the study were 91 first-year students of a college in Budapest. Differences between regular and distance course students, as well as influencing factors, were investigated. The findings indicate that the students' disposition towards technology is generally positive and they might be 'digital natives' in L1 communication. However, this does not mean that they use the Internet for language learning. While regular course students are not interested in an online language course, distance course students would *participate* in one. Previous findings that the frequency of use influences students' perceptions of technology (Duggan et al., 1999; Vig, 2008) were not confirmed.

Keywords: technology, computers, Internet, online course, disposition, higher education

1 Introduction and background

As technology is becoming increasingly important in every aspect of today's world, there is great pressure on teachers and schools to integrate technology into education as well. A further reason for the integration is to suit the needs of students, who are considered to be digital experts. One of the aims of this study was to find out if this is true in Hungary with regard to one particular group of students in tertiary education. Two aspects were considered to contribute to digital expertise: the frequency of computer and Internet applications used by the students and their disposition towards digital technology. In order to explore these two aspects, a questionnaire was designed by the researcher. The second aim of the research was to validate and pilot the questionnaire. Furthermore, the project was designed with the intention of investigating differences between regular and distance course students, as well as factors that influence students' disposition.

1.1 'Digital natives'

Prensky (2001) describes today's students as 'digital natives' because they have grown up with digital technology, which has become an integral part of their lives. He argues 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. On the other hand, they have little patience for long tasks and get bored easily. They are different from earlier generations to such an extent that teachers need a radical change in methodology and even in learning content if they want to teach them effectively. A similar view is voiced by Tapscott (1998), who calls today's students the Net Generation.

However, the claim that students are generally savvy with digital media is refuted by Hargittai (2010), who found considerable variation even within the Internet skills of a relatively small group of college students in the US. She concluded that socioeconomic background, gender and ethnicity, as well as computer access, can all influence students' skills. Bennett, Kervin, and Maton (2008) came to the same conclusion, based on a critical review of research on digital natives. They claim that research evidence suggests only a proportion of young people can be called digital natives and there is much variation within the young generation.

Although Hungarian students cannot be compared to students in the US due to the difference in Internet and computer access, Internet penetration is increasing gradually for young people in Hungary as well. According to a report on Hungarian youth, 84% of people aged 15-29 used the Internet regularly in 2008 compared to 59% in 2004, and 85% of Internet users were registered on a communal site (Bauer & Szabó, 2009). The rate of Internet users was even higher for people aged 15-19, where 91% used the Internet with 60% on a daily basis and all these rates are presumably even higher today. If we take the report's finding into consideration that besides age it is the type of education that influences Internet use, it can be assumed that college students are more frequent users than the average. Fehér and Hornyák (2011) also found that Hungarian students spend considerable time using the Internet, most of them more than two hours a day. However, they 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.

1.2 Internet applications

Internet applications and consequently user habits of young people change so rapidly that it is difficult to follow them. However, the findings of several studies investigating students' Internet use confirmed that the two most frequently used features, email and browsing, remained the same over time and space (Akbulut, 2008; Duggan, Hess, Morgan, Kim, & Wilson, 1999; Fehér & Hornyák, 2011; Vig, 2008; Warschauer, 1996). Further applications that have become popular recently are instant messaging and communal pages, which will probably continue to increase their popularity in the future (Akbulut, 2008; Fehér & Hornyák, 2011; Vig, 2008). At the same time, email can be expected to lose its popularity, especially among young people. Nevertheless, with new applications appearing almost every day, it is impossible to predict young people's Internet usage habits in the future.

1.3 Educational use of the Internet

Ways of using the Internet in language teaching and learning are manifold. In formal education, network-based language teaching (NBLT) does not represent one particular method or technique (Kern & Warschauer, 2000). It may include synchronous communication via chat or instant messages or asynchronous communication via email. It can also mean the

use of a virtual learning environment with all its tools, as well as any web 2.0 tools such as blogs or wikis. Recently, attempts have even been made to transfer language classrooms into the 3D virtual world Second Life.

The methods described above are all imposed on the students by the teacher. Ways of using the Internet for self-study are similarly diverse. They can range from browsing English websites and watching films in English to using educational websites for practising grammar or vocabulary.

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 et al., 1999; Fehér & Hornyák, 2011). The majority of students' conscious educational use of the Internet is limited to researching content areas using Wikipedia (Fehér & Hornyák, 2011) or term paper research (Duggan et al., 1999). 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).

1.4 Students' disposition towards the Internet and digital technology

In contrast with the popularity of integrating technology in education and e-learning, there are very few studies about students' disposition towards all these new technologies, most of which investigate it in retrospection, after taking part in an online course.

1.4.1 Students' perceptions

Most researchers examining students' perceptions of digital technology report positive attitudes in various settings. Students indicated positive perceptions towards learning with computers in EFL and ESL academic writing classes (Akbulut, 2008; Warschauer, 1996), as well as in an online statistics course at a university (Ottó & Nikolov, 2010), where 57% of the students found the online course more enjoyable and 50% easier than a traditional course. 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 show that students' attitudes became gradually more and more positive between 2002 and 2007, probably influenced by the improvement of Internet connection and access. Similarly, advanced ESL students 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).

The few records of negative perceptions include lack of interaction and isolation (Bordonaro, 2003), as well as lack of personal contact with the tutor (Ottó & Nikolov, 2010).

1.4.2 Influencing factors

A number of factors related to computer use have been observed to be influencing students' perceptions. Computer access at home (Akbulut, 2008), as well as Internet access and frequency of use (Vig, 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 (Toyoda, 2001; Warschauer, 1996). 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.

2 Research questions

This research project aimed to explore college students' computer and Internet usage habits, as well as their disposition towards technology and its application in language learning at a college of tourism and catering in Budapest. Unlike in the majority of the studies, which dealt with students' disposition after an online course, the participants of this study were students who had not taken part in an online language course before. The rationale behind this was to find out if students would be interested in a future online language course offered by the college. In order to investigate students' computer and Internet using habits and their disposition towards technology, the following research questions were formulated:

(1) Which Internet applications are used the most frequently by first-year college students?
(2) What is first-year college students' disposition towards the use of computers and the Internet in language learning?
    a. Would first-year students be interested in an online language course organised by the college?
    b. Is there any difference between regular and distance course students' disposition towards computers and the Internet in language learning?
(3) Is first-year college students' disposition influenced by any other individual characteristics (age, computer habits, etc.)?
(4) Are there any variables that predict first-year college students' willingness to take part in online language courses?

3 Methods

The instrument of the current research was a questionnaire with 78 questions developed by the researcher. After continuous peer-checks and piloting with two college students, the final version was administered to 52 regular and 39 distance course students at a Budapest 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.

3.1 Participants

The participants of the study were 91 first-year students of the College of Tourism and Catering in Budapest. The sample consisted of two subsamples: 52 regular students and 39 distance students. Their level of English ranged from pre-intermediate to intermediate (B1-B2 on the CEF scale). All students (regular 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 the student having an advanced level (C1) general language exam. Regular 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 special 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 group. As can be seen in Table 1, 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 regular 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.

		Regular students		Distance students	
		N	%	N	%
Gender	Male	14	26.9	12	30.8
	Female	38	73.1	27	69.2
Age	18-23	51	98.1	8	20.5
	24-29	1	1.9	19	48.7
	Over 30	0	0	12	30.8
English studies	1-2 years	2	3.9	8	20.5
	3-5 years	6	11.8	5	12.8
	6-9 years	22	43.1	14	35.9
	Over 10 years	21	41.2	12	30.8

Table 1. Participants

If we look at students' computer related characteristics (Table 2), we can see that computer and Internet access is no problem among college students. This indicates that college students are significantly above the Hungarian average, which was 55% of households with Internet access in 2009 (Hungarian Central Statistical Office, 2009). Broadband access was over 76% in both groups compared to the Hungarian average of 50% in 2009; thus the finding of the World Internet Project Report (Galácz, 2007) that the Internet is young and educated adults' technology was confirmed.

The only significant difference between regular 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 regular 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.

		Regular students		Distance students	
		N	%	N	%
Computer use	3-6 years	12	23.1	5	12.8
	Over 6 years	40	76.9	34	87.2
Computer access	Yes	51	98.1	38	97.4
	No	1	1.9	1	2.6
Internet access	Yes	52	100	38	97.4
	No	0	0	1	2.6
Internet access type	Broadband	40	76.9	29	76.3
	Modem	0	0	3	7.9
	Other	0	0	4	10.5
	I don't know	11	21.2	2	5.3
Mobile Internet	Yes	7	13.5	15	38.5
	No	45	86.5	24	61.5
College wifi use	Yes	9	17.3	8	20.5
	No	43	82.7	31	79.5
CooSpace use	Yes	50	96.2	36	92.3
	No	2	3.8	3	7.7
Need for Internet for studies	Yes	52	100	39	100
	No	0	0	0	0

Table 2. Participants' computer related characteristics

3.2 Instruments

3.2.1 The questionnaire

A questionnaire with 78 questions was developed by the researcher on the basis of existing questionnaires (Akbulut, 2008; Vig, 2008; Warschauer, 1996). The questions needed to be adapted to the Hungarian context, as well as to incorporate aspects of language learning. As all participants were Hungarian, the questions were in Hungarian to make sure that students understood them. The questionnaire contained 24 Likert-scale questions about computer habits, 42 Likert-scale questions about students' disposition 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 answers. 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 variables:

(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 easiness of the Internet* − 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* − *s*tudents' disposition 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* − *s*tudents' opinion about communicating by email (questions 26, 37, 41, 52 and 59)
Example: Q37. *I like communicating via email.*

(5) *Language learning on the Internet* − the perceived usefulness of the Internet for learning languages (questions 27, 36, 51, 57 and 62)
Example: Q36. *It is easy to learn languages on the Internet.*

(6) *Group work* − students' disposition towards group work (questions 31, 35, 39, 46 and 55)
Example: Q31. *Group work is important in language learning.*

(7) *Peer correction* − students' disposition 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' disposition 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 language learning in general and online learning specifically. As Csizér (2011) points out, group dynamics influence motivation and hence can affect successful language learning. Similarly, group work, which is often referred to as collaboration in an online setting, is an essential element in online courses (Dorner & Major, 2009; Schwienhorst, 2002; Strijbos, Martens, & Jochems, 2004).

In the last part of the questionnaire (questions 67-78), students were asked background questions about their computer use and access. The English translation of the questionnaire can be seen in the Appendix.

3.2.2 Initial steps to validate the instrument

The questionnaire was developed by the researcher and it was peer-checked at each stage of the process. As a following step it was piloted by two students 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 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.

3.3 Procedure

The questionnaire was administered to regular students during their normal classes by their English teachers. 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. 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. 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.

4 Results

4.1 The reliability of scales

On the basis of the nine variables described in 3.2.1, 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 3).

Scales	Regular students	Distance students
Value of the Internet	.78	.65
Perceived easiness of the Internet	.67	.63
Writing on the computer	.64	.59
Value of emails	.71	.76
Language learning on the Internet	.86	.88
Group work	.85	.80
Peer correction	.67	.74
Exams on the computer	.64	.44
Online course willingness	.91	.89
Hungarian Internet use	.67	.79
English Internet use	.80	.89

Table 3. Reliability coefficients in the two subsamples

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 the distance students might have been caused by the fact that exam-related questions were asked immediately after an exam. However, the scale was excluded from further analysis, although it would be interesting to see if reliability changed when administered at a different time.

4.2 Most frequently used computer or Internet applications

To answer the first research question, all applications with a mean score above 3.5 in one of the subsamples were selected. Table 4 shows the applications most frequently used by the students. The top six are similar for regular and distance students, with only one difference: writing emails, listening to music, using a search engine, a word processor and communal pages are frequent for both groups. While regular students use instant messaging very often (4.33), 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 regular students but not distance students: chat and forums, films and videos in Hungarian and in English, and search engines in English. On the other hand, reading newspapers and listening to the radio are characteristic of distance students, with a significant difference for the latter.

Purpose of Internet use	Regular students		Distance students		*t*	*p*
	Mean	St. dev.	Mean	St. dev.		
Email H	4.54	.69	4.71	.73	-1.188	.238
Listening to music	4.42	1.04	4.10	1.14	1.398	.172
Search engine H	4.33	1.00	4.53	.72	-1.170	.245
Instant messaging H	4.33	1.02	3.59	1.41	2.892	.005*
Word processing H	4.27	.95	4.51	.80	-1.473	.144
Communal pages H	4.19	1.10	3.90	1.23	1.182	.241
Chat, forums H	4.06	1.09	3.26	1.55	2.892	.005*
Online dictionary	3.98	1.02	4.10	1.02	-.564	.575
Films, videos H	3.94	1.04	3.49	1.21	1.885	.063
Films, videos E	3.87	1.20	3.37	1.38	1.848	.069
Search engine E	3.81	1.30	3.47	1.54	1.086	.281
Newspapers H	3.38	1.24	3.64	1.35	-.930	.355
Radio H	2.96	1.43	3.62	1.37	-2.214	.030*

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

Table 4. Most frequently used functions

The differences in use between the groups are probably due 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. It is worth noting that only two English applications are used frequently and only by regular students.

As for the educational use of the Internet, the results of previous studies that students rarely use pedagogical software or websites created for language learning were confirmed (Bordonaro, 2003; Duggan *et al*., 1999; Fehér & Hornyák, 2011), 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.

4.3 Students' disposition towards computers and the Internet

To answer research question (2), mean scores for the ten scales were calculated and compared with the help of independent sample t-tests. Table 5 presents the descriptive statistics of 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 easiness of the Internet*, which shows that students have positive disposition towards the Internet and its use. All the other scores are below 4 for regular students, most of them even below 3.5, while the mean scores for distance students are higher for each scale. 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. The difference between regular students and distance students is significant for six scales, with the greatest difference (1.12) for the scale *Online course willingness.* The reason for this could be the fact that distance students use the computer for writing and communication more often in their studies than regular students, which makes them feel more comfortable about its use and more open to online learning as well. Standard deviation is the highest in both groups for the scale *Online course willingness*, which could mean that students are either positive or negative about taking an online course. 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. Regular 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 regular students did.

Scale	Regular students		Distance students		*t*	*p*
	Mean	St. dev.	Mean	St. dev.		
Value of the Internet	4.48	.57	4.61	.41	-1.127	.263
Perceived easiness of the Internet	4.53	.55	4.53	.47	-.015	.988
Writing on the computer	3.93	.70	4.29	.53	-2.743	.007*
Value of emails	3.48	.86	4.01	.74	-3.174	.002*
Language learning on the Internet	3.19	.87	3.84	.84	-3.596	.001*
Group work	3.67	.82	4.03	.70	-2.227	.028*
Peer correction	3.16	.75	3.60	.80	-2.640	.010*
Online course willingness	2.74	.95	3.86	.88	-5.74	.000*
Hungarian Internet use	3.09	.38	3.11	.55	-.131	.896
English Internet use	2.15	.44	2.26	.68	-.904	.369

Note: * indicates a significance level below .05

Table 5. Descriptive statistics of the scales

4.4 Individual characteristics influencing students' disposition

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' disposition 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. Tables 6 and 7 show the results for both groups.

For regular students, three factors were found to be influencing their answers on two scales. Male students and those who use the college wifi gave significantly more positive

answers regarding computer use for writing. Regular students who have only been learning English for less than five years use computers and the Internet in Hungarian less often than those who have learnt for more than ten years.

Scale affected	Individual characteristics	N	Mean	St. dev.	*t*	*p*
Regular students *Writing on the computer*	Male	14	4.27	.62	2.266	.032
	Female	38	3.81	.69		
Regular students *Writing on the computer*	Wifi yes	9	4.52	.30	4.838	.000
	Wifi no	43	3.81	.70		
Distance students *Hungarian Internet use*	Mobile Internet yes	15	3.33	.70	2.115	.041
	Mobile Internet no	24	2.96	.40		

Table 6. Individual characteristics' influence on the scales

Distance students' use is only influenced by two characteristics. Those who use the Internet on a mobile device use the Internet more often, possibly because they have more opportunities. The influence of age is interesting, because students over 30 are very positive about taking an online language course and there is a significant difference between them and 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 regular students' mean (2.75). Since regular students are between 18 and 23 with only one exception, this is a clear sign that the difference between distance and regular students is not caused by their age difference.

Scale affected	Individual characteristics	N	Mean	St. dev.	*F*	*p*	Sequence
Regular students *Hungarian Internet use*	English studies 1. 1-2 years	2	2.70	.49	3.558	.021	1,2,3<3,4
	2. 3-5 years	6	2.72	.44			
	3. 6-9 years	22	3.13	.34			
	4. over 10 years	21	3.20	.35			
Distance students *Online course willingness*	1. 18-23	8	3.75	1.01	3.252	.050	2,1<1,3
	2. 24-29	19	3.58	.88			
	3. over 30	12	4.36	.61			

Table 7. The influence of further individual characteristics on the scales

4.5 Relationships among the scales

In order to analyse relationships among the scales, correlation analyses were carried out. Table 8 and Table 9 show significant correlations within the two subsamples. As one of the aims of this study was to find out about students' disposition 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 regular 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.

Scale	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Value of the Internet	–									
2. Perceived easiness of the Internet	.302*	–								
3. Writing on the computer	.396**		–							
4.Value of emails	.330*		.382**	–						
5.Language learning on the Internet	.303*	.314*		.338*	–					
6.Group work				.312*		–				
7.Peer correction				.293*		.537**	–			
8.Online course willingness					.629**			–		
9.Hungarian Internet use		.313*			.278*				–	
10.English Internet use					.450**			.274*	.605**	–

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

Table 8. Significant correlations among the scales for regular students

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

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

Table 9. Significant correlations among the scales for distance students

4.6 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, multiple regression analyses with a stepwise approach were carried out, with *Online*

course willingness as the criterion variable. The results are summarized in Tables 10−12 for regular students and Tables 13−15 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. As the next step, further analyses for the scale *Language learning on the Internet* were performed with different results for the two groups. For regular 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 regular students. For distance students *Peer correction* is related to *Language learning on the Internet*, *Value of emails* and *Group work*.

Scale	B	β	R square	F
Language learning on the Internet	.690	.629	.396	32.779

Table 10. Results of the regression analysis with *Online course willingness* as the criterion variable
for regular students

Scale	B	β	R square	F
English Internet use	.878	.450	.203	12.713

Table 11. Results of the regression analysis with *Language learning on the Internet* as the criterion variable
for regular students

Scale	B	β	R square	F
Hungarian Internet use	.605	.520	.453	20.259
Language learning on the Internet	.157	.306		

Table 12. Results of the regression analysis with *English Internet use* as the criterion variable
for regular students

Scale	B	β	R square	F
Language learning on the Internet	.836	.800	.640	65.797

Table 13. Results of the regression analysis with *Online course willingness* as the criterion variable
for distance students

Scale	B	β	R square	F
Value of the Internet	1.151	.563	.562	23.060
Peer correction	.351	.331		

Table 14. Results of the regression analysis with *Language learning on the Internet* as the criterion variable
for distance students

Scale	B	β	R square	F
Language learning on the Internet	.288	.305		
Value of emails	.406	.379	.479	10.722
Group work	.312	.279		

Table 15. Results of the regression analysis with *Peer correction* as the criterion variable for distance students

5 Conclusion and implications

One of the aims of this project was to pilot a questionnaire about students' disposition towards computers and the Internet. The results of the reliability analyses show that most scales are reliable for both regular and distance students. The scale with the lowest reliability coefficient is *Exams on the computer* and it was excluded from further analysis. However, the administration of the questionnaire after an exam for distance students could have influenced the students' answers. Thus, further analysis is suggested when re-administering the instrument.

The research also aimed at discovering the most frequently used Internet applications by students and their disposition towards digital technology. The results confirmed previous studies' findings (Akbulut, 2008; Duggan, Hess, Morgan, Kim, & Wilson, 1999; Fehér & Hornyák, 2011; Vig, 2008; Warschauer, 1996) that writing emails, browsing on the Internet and instant messaging are the most frequently used applications among students, with instant messaging only for regular students. A further function that is often applied is the use of online dictionaries, which was not mentioned in previous studies. Although the students' disposition towards the Internet in general is positive, only distance students are positive about language learning on the Internet and online language courses. This result indicates that even if Prensky's description of today's students as 'digital natives' (2001) might be true of the participants of this study in L1 communication, 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 or creativity such as writing blogs or making websites nor the educational use of the Internet are very frequent among students, which is in line with Fehér and Hornyák's findings (2011). Similarly, Hargittai's findings (2010) about students' mixed abilities and disposition were confirmed.

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, 1999; Vig, 2008) were not confirmed.

Regarding regular and distance course students, the research revealed several differences in the computer and Internet applications they use, as well as in their disposition. One of the most significant differences concerns their willingness to take part in an online language course, with distance course students being very positive about it. 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 regular 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.

As for pedagogical implications, the findings of this research suggest that integrating technology into teaching should be done with the utmost care and preparation. In the particular setting of the College of Tourism and Catering in Budapest, the students 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. Offering such a course for them could facilitate their learning. At the same time, the educational use of the Internet for self-study could be encouraged for both regular and distance course students. Websites created for language learning could be introduced to them to enable them to maximize the Internet's potential for language learning.

6 Limitations and directions for future research

As the study aimed to pilot a questionnaire among a particular group of college students, the results are not generalisable. As a further step of research, a large-scale study using the questionnaire could be carried out at different colleges and universities in Hungary. To obtain more specific information about students' perceptions, follow-up interviews with participants are suggested.

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References:

Akbulut, Y. (2008). Exploration of the attitudes of freshman foreign language students toward using computers at a Turkish state university. *The Turkish Online Journal of Educational Technology, 7*(1) 18–31.

Bauer, B., & Szabó, A. (Eds.). (2009). *Ifjúság 2008. Gyorsjelentés.* [Youth 2008. Report.]. Budapest: Szociálpolitikai és Munkaügyi Intézet. Retrieved June 6, 2011, from http://www.szmi.hu/download.php?file_id=419

Bennett, S., Kervin, L., & Maton, M. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology, 39*(5), 775-786. https://doi.org/10.1111/j.1467-8535.2007.00793.x

Bordonaro, K. (2003). Perceptions of technology and manifestations of language learner autonomy. *CALL-EJ Online, 5*(1). Retrieved November 6, 2009, from http://www.tell.is.ritsumei.ac.jp/callejonline/journal/5-1/bordonaro.html

Csizér, K. (2011). A csoportdinamikai folyamatok jelentősége a nyelvtanulásban: elméleti áttekintés [The importance of group dynamics in language learning: a theoretical overview]. In K. Csizér, D. Holló, & K. Károly (Eds.), *Dinamikus csoport, dinamikus tanulás: A csoportdinamikai folyamatok szerepe a nyelvtanulásban* [Dynamic groups, dynamic learning: the role of group dynamics in language learning]. Budapest:Tinta Kiadó.

Dorner, H., & Major, É. (2009). Evolving collaboration among teacher trainees – analysis of collaborative discourse. *Working Papers in Language Pedagogy WoPaLP, 3,* 76-96. Retrieved May 20, 2010, from

http://langped.elte.hu/WoPaLParticles/W3Dorner_Major.pdf

Duggan, A., Hess, B., Morgan, D., Kim, S., & Wilson, K. (1999, April). *Measuring students' attitude toward educational use of the Internet.* Paper presented at the annual conference of the American Educational Research Association, Montreal, Canada.

Fehér, P., & Hornyák, J. (2011, January). *8 óra pihenés, 8 óra szórakozás, avagy a Netgeneráció 2010 kutatás tapasztalatai* [Relaxing for 8 hours, entertaining for 8 hours, or the findings of the research Net Generation 2010]. Paper presented at the 3rd Educational Technology conference, Budapest.

Galácz, A. (Ed.). (2007). *Map of the digital future. Report on the Hungarian research for the World Internet Project.* Budapest: ITTK-ITHAKA-TÁRKI. Retrieved May 15, 2010, from http://www.worldInternetproject.net/publishedarchive/Hungary_Report_2007.pdf

Hargittai, E. (2010). Digital na(t)ives' variation in Internet skills and uses among members of the "net generation". *Sociological Inquiry*, *80*(1), 92-113. Retrieved January 10, 2011, from http://www.webuse.org/pdf/Hargittai-DigitalNativesSI2010.pdf

Hoshi, M. (2002). Practices, beliefs and perceptions of Japanese EFL self-access learners toward Internet-based language learning. *CALL-EJ Online, 4*(1), 1-13. Retrieved April 10, 2010, from http://www.tell.is.ritsumei.ac.jp/callejonline/journal/4-1/hoshi.html

Hungarian Central Statistical Office (2009). *ICT usage in households and by individuals.* Retrieved June 6, 2011, from http://portal.ksh.hu/pls/ksh/docs/eng/xstadat/xstadat_annual/i_oni006.html

Kern, R., & Warschauer, M. (2000). Theory and practice of network-based language teaching. In R. Kern, & M. Warschauer (Eds.), *Network-based language teaching: Concepts and practice* (pp. 1-19). New York: Cambridge University Press.

Nikolov, M., & Ottó, I. (2010). E-learning a CooSpace rendszerben: egy kísérleti kurzus tapasztalatai. [E-learning in CooSpace: feedback from an experimental course]. *Iskolakultúra*, *10*(2), 23-33.

Prensky, M. (2001). Digital natives, digital immigrants. Part 1. *On the Horizon*, *9*(5). Retrieved March 26, 2010, from http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf

Schwienhorst, K. (2002). Why virtual, why environments? Implementing virtual reality concepts in computer-assisted language learning. *Simulation & Gaming, 33*(2), 196-209. Retrieved October 26, 2009, from http://www.humanities.uci.edu/german/ger220/schwienhorst2002.pdf

Strijbos, J. W., Martens, R. L., & Jochems, W. M. G. (2004). Designing for interaction: Six steps to designing computer-supported group-based learning. *Computers & Education*, *42*(4), 403-424. https://doi.org/10.1016/j.compedu.2003.10.004

Tapscott, D. (1998). *Growing up digital. The rise of the Net Generation.* New York: McGraw-Hill.

Toyoda, E. (2001). Exercise of learner autonomy in project-oriented CALL. *CALL-EJ Online, 2*(2). Retrieved December 2, 2009, from http://www.tell.is.ritsumei.ac.jp/callejonline/journal/2-2/toyoda.html

Vig, Z. (2008). *A felsőoktatásban tanulók Internet használatának és attitűdjének vizsgálata.* [Research on higher education students' Internet use and attitude] (Unpublished doctoral dissertation). BME, Budapest.

Warschauer, M. (1996). Motivational aspects of using computers for writing and communication. In M. Warschauer (Ed.), *Telecollaboration in foreign language learning: proceedings of the Hawai'i Symposium*. Honolulu: Second Language Teaching & Curriculum Center, University of Hawai'i at Manoa. Retrieved March 10, 2010, from http://www.nflrc.hawaii.edu/networks/NW01/NW01.pdf

APPENDIX

QUESTIONNAIRE
(translated from Hungarian)

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.

	Hungarian	English
word processing	5	2

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

Please put a number in each box. Thanks.

How often do you use the following functions:	Hungarian	English
1. word processing		
2. preparing a presentation (e.g. PowerPoint)		
3. email		
4. chat, forums		
5. instant messaging (e.g. msn, Skype)		
6. video conferencing		
7. communal sites (e.g. Iwiw, Facebook)		
8. reading newspapers, magazines		
9. listening to the radio		
10. watching films, videos (e.g. YouTube)		
11. reading a blog		
12. writing a blog		
13. online games		
14. Internet shopping		
15. Internet banking		
16. using search engines (e.g. Google)		
17. making a website		
18. Wikipedia		

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

19. using a language teaching software	
20. using a language teaching website (e.g. BBC learning English)	
21. using an online dictionary	
22. using a software or website for translation	
23. listening to music	
24. processing images or videos	

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.

	Absolutely true	Mostly true	Partly true partly untrue	Not really true	Not true at all
I like skiing very much.	X				

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

	Absolutely true	Mostly true	Partly true partly untrue	Not really true	Not true at all
25. Today it is not possible to live without the Internet.					
26. An advantage of writing emails is that they are not time or place dependent.					
27. I like learning languages on the Internet.					
28. I like writing essays on the computer.					
29. I think I don't need any technical skills for an exam on the computer.					
30. In my opinion it is useful to correct each other's work.					
31. Group work is important in language learning.					
32. I would like to try online language learning.					
33. I think anybody can learn to use the Internet.					
34. I haven't encountered any problems using the Internet that I haven't been able to solve.					
35. I think you can learn effectively in groups.					
36. It is easy to learn languages on the Internet.					
37. I like communicating via email.					
38. The essays I write on the computer look better.					
39. Group work is useful for high achievers.					
40. I can learn a lot from other people's mistakes.					
41. It is convenient to keep in touch via emails.					
42. I find it easy to use the Internet.					
43. The Internet is one of the best inventions of the 20th century.					
44. I don't usually have problems using the Internet.					
45. It is easy to correct mistakes in an essay on the computer.					
46. I like working with other students.					

	Absolutely true	Mostly true	Partly true partly untrue	Not really true	Not true at all
47. I would like to take part in an online English language course.					
48. I like using the Internet.					
49. In my opinion a language exam on the computer ensures good circumstances.					
50. The Internet makes life easy.					
51. The Internet is good for language learning.					
52. I can express my thoughts in emails well.					
53. Autocorrect options make essay writing easy.					
54. I would be happy if the college organized an online language course.					
55. Group work helps low achievers.					
56. I would like to take an exam on the computer.					
57. The Internet makes language learning easier than before.					
58. I'd find it a good idea if other students gave their opinion about my work.					
59. It is easier to discuss unpleasant topics via email than personally.					
60. The Internet is very useful.					
61. I would like to correct other students' work.					
62. I think e-learning is suitable for language learning.					
63. An advantage of an exam on the computer is that I don't have to write by hand.					
64. Writing on the computer saves time.					
65. I can manage using the Internet at any device.					
66. If the college organized an online language course, I would take part in it.					

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.