Information and Communications Technology Use of Hungarian English Majors: A Large-Scale Questionnaire Study

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Abstract: The purpose of this study is to discover the dimensions of ICT device use of Hungarian English majors by identifying constructs and establishing links between the constructs to provide deeper understanding of what factors ensure skilful ICT device use for recreational and learning purposes. The data collection method was a piloted and validated questionnaire of 15 constructs involving 268 Hungarian university students from 6 institutions. The study confirmed that Hungarian English majors are acceptive of ICT use and devices are easily accessible for them. Statistically significant correlations were found between each scale informants rated from two perspectives: free time and educational use of devices, but it was found that the needs for developing in ICT skills are rather triggered by recreational than educational purposes. Correlations between digital competence scales and all other scales of the questionnaire suggest that digital competences are linked with all aspects of device use. The novelty of this study is that it establishes and links elements of ICT use such as acceptance, availability, reasons and willingness of using ICT devices with digital competences to confirm that the dimensions of meaningful ICT use cannot directly be predicted from ownership.

Introduction

Information and communications technology (ICT) use and the dimensions of ICT inclusion in education has long been part of professional discourse (EU, 2015; EU, 2018;

EU, 2019; MDOS, 2016; Mishra & Koehler, 2006). The European Union (EU) published its Digital Educational Action Plan (EU, 2018) that calls for the digital transformation of education in order to provide equal opportunities for its citizens in the modern world.

On university level, little is known about the digital transformation of education. Caena (2014) reviewed the educational policies of the EU member countries and concluded that ICT inclusion is present in the policies of all member countries, however, implementation of ICT inclusion appears to be a local variable (BECTA, 2003; MDOS, 2016). It was also reported that almost all Hungarian university students owned a laptop in 2016 (MDOS, 2016), but how and for what students used their devices received little scrutiny. Arguably, learning with the help of technology is facilitated by a number of factors, and the availability of ICT devices is just one element of a bigger picture. Skilful use of ICT devices for the purposes of learning among students does not equal how many devices they own (M. Pintér, 2019; Sallai, 2012; Tongori, 2012; Tóth-Mózer, 2014).

Literature review

Theoretical and conceptual background

ICT devices are "computing devices such as desktop computers, laptops, handheld computers, software, or Internet" (Hew & Bush, 2007, p. 225). The most widely owned ICT device nowadays in Hungarian classrooms is the smartphone, followed by laptops and tablets (EU, 2019). The ubiquitous presence of ICT devices in our lives has been the result of "a convergence process triggered by the huge scale development of digital technology" (Sallai, 2012, p. 5). In the 1990s, personal computers and Internet connection became affordable and accessible for home use worldwide. In Hungary, a fifth of the households owned computers in 2001 (Kárpáti, 2012), while in 2016 almost every university student owned a laptop (MDOS, 2016).

ICT is conceptualised as "the integration of telecommunications with computers, as along with the necessary software, middleware, storage and audio-visual systems that enable users to create, access, store, transmit and manipulate information" (Sallai, 2012, p. 10). In the given context, besides investments into equipping institutions with ICT devices, competent users of technology should be able to look for, edit, design, use and share digital content. EU initiatives also target digital literacy, as the EU (2015) published the Digital competences self-assessment grid as part of Europass CVs in which individuals can rate their own digital competences. The grid consists of five elements: (1) information processing, (2) communication, (3) content creation, (4) safety, and (5) problem solving (EU, 2015). Individuals are welcome to assess their own competences through "can-do" statements and claiming to be basic, independent or proficient users of technology (EU, 2015) regarding each concept.

ICT inclusion is meaningful only if it facilitates learning in a way that it prepares students for the necessary skills of today's information society (EU, 2018). There are a number of critical success factors of ICT inclusive education, in a study carried out in the Dutch context about the possibilities of launching an L2 online course, DePaepe, Zhu and Depryck (2018) mainly identified negative pre-existing beliefs as major hindering factors of success. Providing a hands-on experience with technology and sharing good practices between institutions proved to be a major factor in altering beliefs for both instructors (Hampel, 2009) and learners (Hampel & de los Arcos, 2013).

Stakeholders and instructors, therefore, need to become competent users of ICT devices. Teachers' ICT literacy can originate from pre-service teacher education (Caena, 2014; Dringó-Horváth & Gonda, 2018) or in-service training courses (EU, 2019; Öveges & Csizér, 2018). However, many teachers receive little or no ICT training throughout their studies (BECTA, 2004; Beggs, 2000). Those who receive training are more likely to use ICT in their teaching practice (Dringó-Horváth & Gonda, 2018; Sang et. al., 2010), while

other teachers claim that even if they had received training, they encounter difficulties (Cox et. al., 1999) in the implementation of ICT integration.

The Technological Pedagogical Content Knowledge Framework (TPACK) was proposed by Mishra and Koehler (2006). The authors proposed seven major "knowledge components" (Koehler et. al., 2014, p. 102) of teachers that facilitate meaningful ICT inclusion. These are (1) content knowledge (CK); (2) pedagogical knowledge (PK); (3) technology knowledge (TK); (4) technological content knowledge (TCK); (5) pedagogical content knowledge (PCK); (6) technological pedagogical knowledge (TPK); and (7) technological pedagogical content knowledge (TPACK). The first three are "major knowledge components" of the framework, while the other four "address how these bodies of knowledge interact, constrain, and afford each other" (Koehler et. al., 2014, p. 102). Thus, however important each element of the framework is, all seven components together result in effective technology inclusion.

The TPACK framework has been the source of abundant empirical research. Koehler, Shin and Mishra (2012) reviewed 303 articles related to the TPACK. In these articles, researchers aimed at finding out how the components of the TPACK are related, and whether any of them play more important roles than the others in effective inclusion. The research methods of the reviewed articles included teachers' self-reports, questionnaires, performance assessments, interviews and observations (Koehler et. al., 2012, pp. 104-105). Several quantitative studies unearthed moderate and high correlations between the TPACK subscales, suggesting that the elements of the framework might not be separable after all. High correlations between the knowledge (1-3) and the technological knowledge (4-7) components of the framework were reported (Koehler, et. al., 2012). Evidently, in effective ICT integrated teaching, teachers' content and technological knowledge are intertwined and technological competence seems to be the expansion of teaching skills.

As ICT integration is greatly advocated, institutions tend to make considerable investments in equipping their classrooms with various devices; however, sometimes neither sufficient teacher-training (Dringó-Horváth & Gonda, 2018; McKenzie, 2001), nor adequate testing of the technological device for facilitating student learning purposes takes place prior to the investment (ten Brummelhuis & Kuiper, 2008). Urban adolescent students were reported to have access to ICT devices more at home than in educational settings (Li, Snow & White, 2014), but using the devices for learning purposes is not evident. It was also established that language learners use social media sites more than native speakers because they are aware of their added positive values for their language skills enhancement (Li, Snow & White, 2014). Additionally, technology involvement seems to be advantageous to develop learners' listening skills and enhance their vocabulary (Fekete, 2017; Wujiabudula, 2018), and video conferencing has also been linked to successful communicative competence development (Vurdien, 2019).

ICT inclusion is meaningful only if it facilitates learning in a way that it prepares students for the necessary skills of today's information society (EU, 2018). Effective ICT use in education is advantageous for the learners, too. Digital skills are highly needed as they are present in virtually all walks of the modern word of work (Tencere, 2018), what is more, young adults on the job market will likely be required to have skills that enable them to effectively keep in touch digitally, oftentimes involving international collaborations – a notion put forward to greatly enhance digital literacy (Jitpaisarnwattana, 2018; Kóris, 2019; Kóris, Oswal & Palmer, 2020). Technological devices emerge as lifelong learning tools for students (Inan & Lowther, 2010) and instructors too (Dringó-Horváth & Gonda, 2018).

The Hungarian context

The Hungarian country report on the second survey of ICT use in Hungarian schools (EU, 2019) provides some up-to-date insights into the availability of technological

devices in Hungarian public education, however, how and for what devices are used are not scrutinized. Even though the sample of the survey consists of primary, lower-secondary and upper-secondary schools, the findings are of importance for researchers in the university context, because the vast majority of university learners come from the educational environment surveyed. The number of highly digitally equipped Hungarian secondary schools is roughly half of the EU average (EU, 2019). In upper-secondary schools, the Hungarian vs. EU average is 34% to 72% (EU, 2019), respectively. On this level, it was also reported that 58% of Hungarian students use their own equipment for learning purposes, mostly their smartphones, which is higher than the 53% EU average (EU, 2019).

The administration of the EU's (2015) digital competences self-assessment grid as part of the 2019 Hungarian country report revealed that the perceived digital competences of learners is slightly higher than the EU average (EU, 2019), however, statistical significance was not tested. The fact that, by definition, effective ICT use of learners entails more than owning digital devices (Sallai, 2012) was also put forward by Tongori's (2012) comprehensive review on the changing theoretical framework of ICT literacy. Tongori (2012) concluded that ICT literacy includes legal and ethical aspects of using ICT devices responsibly on top of sufficient technological knowledge. Therefore, ICT inclusive education is favoured, because for modern generations, using ICT devices has become most natural and ICT use prepares learners for modern workplaces and contributes to the economic growth of the country (Tongori, 2012). But this only suggest familiarity with the devices, and effective use of them can be a result of training.

In a study into the digital competences of secondary learners, Tóth-Mózer (2014), among other aspects, concluded by urging for more research targeting the learners, because much is supposed of their reasons, abilities and willingness for ICT use, but little is confirmed by empirical research. Authors of the TPACK framework also acknowledge that researching learners' ICT use appears to be neglected compared to

researching teachers and technology (Koehler, et. al., 2012). It seems that students also need specific training in using ICT devices for learning purposes, because based on the population examined, informants could not be claimed digitally competent (Tóth-Mózer, 2014) in subject-specific ICT use. As subject-specificity is of utmost importance, most recent EU reports based on general ICT device use competences (EU, 2019) mentioned earlier are rather misleading. In alignment with this argumentation, M. Pintér (2019) also emphasised that knowing how to use ICT devices and knowing how to learn specific content with the help of ICT devices are two very separate matters according to his observations among first-year university learners.

Consequently, despite the relatively extensive body of research available in the field of ICT in education, it would be worthwhile getting to know more about Hungarian English majors' technology use in its complexity. Based on the literature surveyed and niches in the literature, a large-scale questionnaire was developed, validated (Fekete, in press) and administered on the targeted population.

Research gap and objectives

To contribute to the ongoing professional discourse, the aim of the present study is to discover the dimensions of ICT use of Hungarian English majors, because studies reporting on device ownership are not valid representations of skilful ICT use. In order to fulfil this aim, a large-scale questionnaire was administered on 268 Hungarian English majors of 6 Hungarian universities. The administration of the questionnaire was preceded by piloting and validating the instrument (Fekete, in press). The aim of designing the measurement tool was to enquire into the dimensions of ICT use among the targeted population, because reports mainly concern how many devices students own, but less is known about how skilfully they use ICT devices as well as what is their general attitude towards and perceptions of usage. Thus, the present study sought answers for the following set of research questions:

1. What is Hungarian English majors' level of acceptance towards using ICT devices?

2. How readily available are ICT devices for Hungarian English majors?

3. How willing are Hungarian English majors to use ICT devices and how willing are they to develop in their ICT skills for general and learning purposes?

4. What are Hungarian English majors' perceived levels of digital competence?

5. Are there any statistically significant correlations between the digital competences and the other constructs of the questionnaire administered on Hungarian English majors?

Research Design

Participants

The non-probability convenience sample consisted of 268 Hungarian English majors. The sample involved 6 universities out of the 11 universities in Hungary that offer English Studies and/or EFL teacher education programmes according to the data available on the official website of the Hungarian Educational Authority. Participants were between the ages of 18 and 63, the mean of which was 21.8 (SD = 5.47; N = 268). The gender distribution of the sample was 205 females and 63 males, which signals that females generally outnumber males in English Studies programmes of Hungary (observed also by Csizér & Tankó, 2017). Participants were between their first and sixth year of their studies, the mean was 2.09 (SD = 1.34; N = 268). The sample consisted of 159 English Studies BA, 3 English Studies MA and 106 undivided one-tier EFL teacher education programme students.

The 268 informants surveyed altogether owned 750 digital devices suitable for learning purposes. Participants were asked to select which type of devices they own from a list featuring ICT devices most frequently used for study purposes (EU, 2019). The list consisted of smartphones (266 students owned one, 99%), laptops (250, 93%), tablet or iPad (97, 36%), personal computers (89, 33%) and e-book readers (48, 18%). Informants also registered ownership of TVs (123, 46%), smart TVs (76, 28%), games consoles (59,

22%), smartwatches (24, 9%) and cell phones (19, 7%) on top of the devices that are typically used for studying.

The data collection instrument

The data collection instrument was an online questionnaire that had been designed and validated (Fekete, in press) to be the basis of the present large-scale data collection. Respondents were asked to rate the questionnaire items on 5-point Likert-scales depending on the extent to which they feel that the items represent them (1: not true for me at all, 5: absolutely true for me). To describe the reliable constructs of the questionnaire, a list of them follows with the number of items they consist of and a sample item. The items of the questionnaire are provided in the *Appendix.*

- Acceptance of ICT devices (5 items) - I think using ICT devices confidently is part of one's basic skills nowadays.

- Availability of ICT devices (5 items) - An ICT device is usually available for me to use.

- Reasons for using ICT devices (5 items) - I think nowadays one can be expected to be able to use ICT devices.

- Willingness to use ICT devices (4 items) - I feel that it is important to get to know new ICT devices.

- Time devoted to use ICT devices (4 items) - I feel that I devote enough time to develop my knowledge on ICT devices.

- Willingness to develop in ICT skills (7 items) - I feel that I have every possibility to be up to date in using ICT devices.

- Substitution – ICT use over personal contact (3 items) - I think it is evident nowadays to share most of the information using ICT devices.

- ICT use for language learning (4 items) - ICT devices make it possible to access practice activities quickly.

- Perceived ability to use ICT devices, Digital competences 1: Creating and sharing content (5 items) - I can use content created by others for my personal needs using ICT devices.

- Perceived ability to use ICT devices, Digital competences 2: Keeping up with development (5 items) - I understand how the latest ICT devices work without much difficulty.

- Perceived ability to use ICT devices, Digital competences 3: Reliability of digital sources (5 items) - I can assess the reliability of online sources.

- Perceived ability to use ICT devices, Digital competences 4: Using search engines (4 items, Cronbach's alpha .587 – excluded from the analysis for unreliability) - I can use online scholarly databases easily, for example Google Scholar and the databases of online journals.

To confirm if there are any differences between general and learning use of ICT devices, respondents were asked to rate items of four constructs on two different scales, a scale that represents general free time (FT), and a scale that represents learning use (LEARN). These were constructs Reasons for using ICT devices, Willingness to use ICT devices, Willingness to develop in ICT skills and Substitution – ICT use over personal contact.

Methods of data collection and analysis

Data was collected through an (L1 – Hungarian) online questionnaire in order to reach as many participants as possible. Data collection took place in the autumn semester of 2019 and the spring semester of 2020 by distributing the link to the questionnaire through personal collegial contacts and the e-mail list of a national association of instructors of English Studies programmes across the country. Although online data collection has many limitations, this method was chosen because it seemed to be most feasible to reach a larger sample, especially in the spring of 2020. The integrity of the sample was ensured by collecting background variables regarding learners' place of

studies, type of programmes (BA, MA, one-tier teacher education MA) and years of studies.

Participating in the study was voluntary and anonymous. The questionnaire started with a brief Hungarian introduction addressed to the informants, who were asked to participate voluntarily and anonymously in a study targeting the digital device use of Hungarian English majors. They were reassured that the instrument was not a test, there were no good or bad answers and they were encouraged to answer honestly. To maximise response potential, participants were informed that filling in the questionnaire only requires clicks; no long, elaborate answers were needed to be keyed in.

Data was analysed using Statistical Package for Social Sciences (SPSS) version 22. Before comparing means and running correlations to confirm if there are connections between the constructs, the analysis began with checking construct validity. In order to maximize internal validity, all items in a construct needed to load to the same dimension as well as constructs needed to reach a minimum 0.6 Cronbach's alpha, which was the cut-off point for regarding a scale reliable (Dörnyei & Csizér, 2012). The constructs included in the analysis after reliability checks are summarized in *Table 1*.

Table 1: Reliability analyses of constructs

Construct's name FT = free time use; LEARN = learning use	Cronbach's alpha of construct N = 268	Number of components extracted by principal component analysis	Number of items in the construct
1. Acceptance	.764	1	5
2. Availability	.744	1	5
3. Reasons_FT	.808	1	5
4. Reasons_LEARN	.881	1	5
5. Willingness _FT	.869	1	4

Construct's name FT = free time use; LEARN = learning use	Cronbach's alpha of construct N = 268	Number of components extracted by principal component analysis	Number of items in the construct
6. Willingness_LEARN	.900	1	4
7. Devoted time	.898	1	4
8. SkillsDev_FT	.931	1	7
9. SkillsDev_LEARN	.946	1	7
10. Substitution_FT	.734	1	3
11. Substitution_LEARN	.838	1	3
12. Language learning	.732	1	4
13. Digital competences 1	.827	1	5
14. Digital competences 2	.849	1	5
15. Digital competences 3	.859	1	5

Results and Discussion

Descriptive statistics of the scales (summarized in *Table 2*) confirmed that Hungarian English majors are acceptive of ICT devices (M = 4.11; SD = 0.68), and the availability of ICT devices is high (M = 4.41; SD = 0.60). Hungarian English majors, on average, perceive that they devote neither too little, nor too much time to develop their skills of using ICT devices (M = 3.26), but the high variance (SD = 1.03) suggests that individuals in the sample represent many different viewpoints. Participants generally agree that ICT use is advantageous for language learning (M = 3.84; SD = 0.78) as they feel that ICT devices make language learning stress-free, convenient and devices make it possible to access practice activities quickly as well as reach interesting information easily.

Table 2: Descriptive statistics of the reliable scales

Descriptive Statistics		
N = 268	Mean	Std. Deviation
1. ACCEPTANCE	4.11	.68
2. AVAILABILITY	4.41	.60
3. REASONS_FT	4.34	.63

Descriptive Statistics		
4. REASONS_LEARN	4.39	.67
5. WILLINGNESS_FT	4.20	.78
6. WILLINGNESS_LEARN	4.17	.79
7. DEVOTEDTIME	3.26	1.03
8. SKILLSDEV_FT	3.79	.87
9. SKILLSDEV_LEARN	3.90	.87
10. SUBSTITUTION_FT	4.32	.70
11. SUBSTITUTION_LEARN	4.39	.70
12. LANGLEARNING	3.84	.78
13. DIGCOMP1: Crating and sharing content	4.34	.65
14. DIGCOMP2: Keeping up with development	3.97	.78
15. DIGCOMP3: Reliability of digital sources	4.11	.70

In terms of digital competences, Hungarian English majors perceive to be most confident in Creating and sharing content (M = 4.34; SD = 0.65), followed by judging the Reliability of online sources (M = 4.11; SD = 0.70) and Keeping up with the development of ICT devices and programmes and applications that run on them (M = 3.97; SD = 0.78). Although the scales were partially adopted from the EU's (2015) Digital competences self-assessment grid, the EU's (2019) Hungarian country report on the second survey of primary and secondary schools targeting ICT in education gives some grounds for comparability, as administration of the grid was part of data collection. On the compared two levels (lower- and upper-secondary education), students' perceived level of digital safety was M = 2.95 and M = 2.88 on a 4-point scale, respectively, and in terms of content creation the value was M = 2.7 in terms of both sub-groups. In proportion to the five point Likert-scale used in this questionnaire study, it can be said that tertiary learner's perceptions in terms of digital safety and content creation appears to be higher, but statistically significant differences could not be tested because the dataset of the EU's (2019) country report is not disclosed, and the items of the constructs are slightly different.

Running Pearson correlations between the scales that informants ranked from both general and learning use (summarized in *Table 3*) unearthed statistically significant high

correlations between the free time and learning use of ICT devices. These constructs were reasons for using ICT devices, willingness to use ICT devices and substituting personal contact with ICT-based communication (r = 0.772, r = 0.694, r = 0.697, respectively; p < 0.001) and the correlation between the general and learning use reasons for developing in ICT skills was very strong (r = 0.803; p < 0.001). The high correlations between the scales suggest that free and learning use of the devices are intertwined in today's digital society.

Table 3: Pearson correlations of free time and learning scales

Paired Samples' Pearson Correlations		N	Correlation	Sig.
Pair 1	3. REASONS_FT & 4. REASONS_LEARN	268	.772	< .001
Pair 2	5. WILLINGNESS_FT & 6. WILLINGNESS_LEARN	268	.694	< .001
Pair 3	8. SKILLSDEV_FT & 9. SKILLSDEV_LEARN	268	.803	< .001
Pair 4	10. SUBSTITUTION_FT & 11. SUBSTITUTION_LEARN	268	.697	< .001

Paired sample t-tests confirmed statistically significant differences in terms of Hungarian English majors' ICT use for substituting personal contact with ICT device use, because informants preferred using ICT devices as substitution when it came to learning, but not when it came to free time activities (t = 2.213; Sig. (2-tailed): p = 0.028). This was also the case with the learning and free time reasons for developing in ICT skills (t = 3.441; Sig. (2-tailed): p = 0.001), thus learners' needs for development in their ICT skills and use seem to be rather triggered by extrinsic, instructional reasons.

Several statistically significant correlations were found between the digital competences and other constructs of the questionnaire (consult *Table 4*), but no correlation is stronger than moderate. The connections suggest that Hungarian English majors' perceived ability to use ICT devices (Digital competences 1 to 3) that include Creating and sharing

content, Keeping up with development and Judging the reliability of digital sources are indeed essential elements of their ICT literacy. The highest values of statistically significant correlations among the scales were between Digital competences 1: Creating and sharing content and Availability of ICT devices (r = 0.571; Sig. (2-tailed): p < 0.001); and Digital competences 2: Keeping up with development and Acceptance of ICT devices (r = 0.589; Sig. (2-tailed): p < 0.001). Thus, there appears to be a link between the availability of ICT devices and learner perception of good content creating and sharing skills. Furthermore, learners who are generally acceptive of ICT devices are open and willing to keep up with new programmes or new features of their preferred devices.

Table 4: Statistically significant correlations between the digital competences and other scales (N = 268)

Sig. (2-tailed): p < 0.001, or otherwise specified	1. ACCEPTANCE	2. AVAILABILITY	3. REASONS_FT	4. REASONS_LEARN	5. WILLINGNESS_FT	6. WILLINGNESS_LEARN	7. DEVOTEDTIME	8. SKILLSDEV_FT	9. SKILLSDEV_LEARN	10. SUBSTITUTION_FT	11. SUBSTITUTION_LEARN	12. LANGLEARNING
13. DIGCOMP1: Creating and sharing content	.539	.571	.456	.456	.362	.470	.407	.453	.452	.502	.474	.206 p = .001
14. DIGCOMP2: Keeping up with development	.589	.569	.358	.351	.418	.516	.557	.494	.516	.417	.411	.255
15. DIGCOMP3: Reliability of digital sources	.418	.490	.329	.344	.296	.349	.370	.305	.401	.287	.278	.159 p = 009

Conclusions

Summary of the main findings

Based on the administration of a questionnaire developed to map the dimensions of ICT use of Hungarian English majors, it can be claimed that the targeted population is generally acceptive of ICT devices (M = 4.11; SD = 0.68). Devices are easily and readily available for them (M = 4.41; SD = 0.60), and they are generally willing to use the devices for general (M = 4.20; SD = 0.78) and learning purposes (M = 4.17; SD = 0.79). In average, Hungarian English majors perceive that they are rather willing to develop their skills and knowledge on ICT devices for general (M = 4.32; SD = 0.70) than for learning purposes (M = 3.90; SD = 0.87), but they feel that the time they invest in this development is neither too little, nor as much as desired (M = 3.26, SD = 1.03), however, the relatively high standard deviation (SD = 1.03) regarding the construct of Devoted time suggests that individual differences are highly present in this respect. The results show that even though much is supposed of university students' attitudes towards technology (Tóth-Mózer, 2014; M. Pintér, 2019), it cannot be claimed unquestionably that just because technology is involved, learners are willing to invest time into developing in its usage, regardless of the generally high availability and acceptance.

The perceived digital competences of Hungarian English majors are also high, informants mostly felt that they are competent in content creation and sharing (M = 4.34; SD = 0.65), followed by judging the reliability of digital sources (M = 4.11 SD = 0.70). Keeping up with the development and updates of ICT devices is slightly lower (M = 3.97; SD = 0.78), and this construct correlates moderately with Devoted time (r = .557; Sig. (2-tailed): p < 0.001), which suggests that there is a connection between learners invested time towards keeping up with the developments of ICT devices and programmes running on the devices. Running Pearson correlations on the scales also revealed that all constructs correlate weakly or moderately with all four digital competences with the exception of Reliability of digital sources and using ICT devices for Language learning purposes. This proves that ICT literacy and the dimensions of

skilful ICT use entails more than owning devices (M. Pintér, 2019; Sallai, 2012; Tongori, 2012; Tóth-Mózer, 2014), and the elements of digital competences are linked to all other aspects of usage.

Limitations and suggestions for future research

Although the questionnaire was administered on a sample large enough to do so (Dörnyei & Csizér, 2012), the results should not be generalized, as informants in the study only represent 6 out of the 11 universities offering English Studies or EFL teacher education programmes in the country, and 4 out of 6 universities in the sample are located in the capital city. In other terms, the questionnaire was filled in by 168 learners studying in the capital, and 100 students studying in the Northern and the Southern Great Plain regions of the country. Still, it is hoped that the questionnaire or certain constructs of the questionnaire might be transferable to other contexts, such as other university or different educational contexts.

A similar questionnaire could be administered on informants participating in different university programmes to check if the same questionnaire could have reliable results in different contexts, and a similar questionnaire could target university instructors, which could again result in the possibility to compare the results of learners and educators. Furthermore, as the current study falls into the quantitative paradigm, individual differences and specific reasons and attitudes towards ICT use could not be discovered, therefore an opportunity to expand the constructs of the questionnaire or conducting an interview study could result in discovering more about the complex issue of ICT literacy and ICT use of the targeted population.

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Appendix: The English translation of the reliable items of the questionnaire

1. Acceptance (joint construct)
- I generally like using ICT devices.
- I think using ICT devices is worthwhile.
- I think using ICT devices confidently is part of one's basic skills nowadays.
- Whenever I can, I opt for doing something digitally and not on paper.
- I think using ICT devices has advantages.

2. Availability (joint construct)
- An ICT device is usually available for me.
- The ICT device I need is typically easily accessible to me.
- There usually is internet access on the ICT device available for me.
- I can usually select the ICT device I need from many options.
- Wherever I use and ICT device, typically there is Wi-Fi available.

Reasons for using ICT devices – 3. GENERAL USE / 4. LEARNING USE
- I think nowadays one can be expected to be able to use ICT devices.
- I think knowing how to use ICT devices is an advantage.
- I think nowadays one can be expected to create content using ICT devices.
- I think nowadays one can be expected to create documents using ICT devices.
- I think nowadays one can be expected to be able to use electronic messaging.

Willingness for ICT skills development – 5. GENERAL USE / 6. LEARNING USE
- I feel that it is important to get to know new ICT devices.
- I feel that it is important to get to know new computer programmes / smartphone applications.
- I feel that it is important to develop my knowledge on ICT devices.
- I feel that it is important to develop my knowledge on computer programmes / smartphone applications.

7. Devoted time (joint construct)

- I feel that I devote enough time to develop my knowledge on ICT devices.
- I feel that I devote enough time to develop my knowledge on new ICT devices.
- I feel that I devote enough time to develop my knowledge on computer programmes / smartphone applications.
- I feel that I devote enough time to develop my knowledge on new computer programmes / smartphone applications.

Opportunities for ICT skills development – 8. GENERAL USE / 9. LEARNING USE

- I feel that I have every possibility to be up to date in using ICT devices.
- I feel that I have every possibility to be up to date in using computer programmes / smartphone applications.
- I feel that I have every possibility to get to know new ICT devices.
- I feel that I have every possibility to get to know new computer programmes / smartphone applications.
- I feel that I can devote enough time to be up to date in using ICT devices.
- I feel that I can devote enough time to develop my knowledge on ICT devices.
- I feel that I can devote enough time to develop my knowledge on computer programmes / smartphone applications.

ICT use over personal contact – 10. GENERAL USE / 11. LEARNING USE

- I think it is evident nowadays to share most of the information using ICT devices.
- I think it is evident nowadays that I send all kinds of contents I created to others via ICT devices.
- I think it is evident nowadays that I get feedback on the contents I created via ICT devices.

12. Using ICT devices for language learning – LEARNING USE

- ICT devices make language learning convenient.
- ICT devices make language learning stress-free.
- ICT devices make it possible to access practice activities quickly.
- ICT devices make it possible to access interesting information easily.

Perceived ability to use ICT devices: Digital competences – GENERAL USE

13. Creating and sharing content

- I can share content I created using ICT devices.
- I can use content created by others for my personal needs using ICT devices.
- I can edit content created by others using ICT devices.
- I can search for solutions to my problems using ICT devices.
- I can create content using ICT devices.

14. Keeping up with development

- I frequently try out new programmes / applications.
- I understand how the latest ICT devices work without much difficulty.
- I can learn how to use new ICT devices without much difficulty.
- I can learn how to use new programmes / applications without much difficulty.
- After updating a programme on an ICT device, I can easily get used to the new versions.

15. Reliability of digital sources

- I can assess the reliability of online sources.
- I can easily select the option that seems to be the best solution to my problem from many different online sources.
- It is not problematic to me to differentiate between reliable and unreliable online content.
- I can easily recognize hoaxes spreading online.
- I can easily recognize if an online news piece introduces a complex problem from one perspective only.