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The Effects of Emergency Remote Teaching on Language Teachers' Digital Tool Integration in Traditional Classrooms

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This article reports on the findings of a survey which investigated the experiences of primary language teachers during the recent period of emergency remote teaching (ERT) with a special focus on the effect of these experiences on their current use of digital tools in their in-person teaching practices. The research was based on a questionnaire completed by 706 language teachers from Hungarian primary schools in the spring of 2022. It is of central interest how the perceived obstacles and negative experience on the one hand and perceived positive outcomes on the other hand influenced teachers' willingness to use digital media in the traditional classroom: the presented research identified positive experience as a decisive factor. Although many respondents reported a lack of preparedness and a certain level of concern about switching to online language teaching, the majority considered their online teaching successful and an opportunity for development. On assessing and comparing the results, suggestions are made about pre-service and in-service training of digital skills, as the feeling of preparedness and perceived success may lead to increasing language teachers' willingness to integrate digital elements in traditional teaching.

Keywords: digital tools in the classroom, teachers' perceptions of their own competencies, readiness to use ICT, effects of ERT, primary language teaching

INTRODUCTION

A vast body of literature exists on the digital competencies of teachers and on factors influencing the readiness of teachers to use ICT (Information and Communication Technologies) in the classroom, with an emphasis on the importance of beliefs. Nevertheless, it has been less studied whether and how recent experiences of ERT influence digital readiness in education or more specifically in language education. The notion of ERT (Hodges et al., 2020) defined as 'a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances' (Hodges et al., 2020) has to be distinguished from online education, which results from careful instructional

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design and systematic planning. While the period of forced online teaching has increased the integration of digital tools in classrooms, the factors that are responsible for individual differences between educators remain to be explored.

There is also an abundance of studies for university settings (Arantes do Amaral et al., 2023; González et al., 2023; Szabó et al., 2023; Baloghné et al., 2022) concerning the effects of ERT on learning outcomes, novel or changed teaching methods, and satisfaction with online education. As the primary level seems to be the least affected by digitalization, it has not been in the focus of interest from the point of view of digital practices; still, there is ongoing research e.g. regarding its relations to children's creativity (Fielding & Murcia, 2022), and specific methodological aspects like digital storytelling (Schuch, 2020), and the grounding of digital skills at an early age. There are relatively few investigations into the relationship of ERT on in-person teaching practices, with only a few of them discussing the primary level, e.g. Moorhouse (2023) and Winter et al. (2021) on a smaller sample (n=16 and n=38, respectively), Kałdonek-Crnjaković, (2022) on its effects on learners. The novelty of the present study lies not only in its orientation, but also in its range: given that it utilizes the results of a nation-wide representative survey (n=706), more conclusive, and thus more generalizable, results are expected.

Specifically for a Hungarian setting, Horváth's study (2023) with a large sample (N=4028) is to be mentioned; however, the emphasis is placed on educators' strategies dealing with ERT. Our investigation attempts to go beyond exploring education practices during the pandemic and draw further conclusions about integrating digital elements in the physical classroom.

Throughout the paper, the terms 'digital tools' and 'digital elements' are used as referring to digital applications, programs, platforms, and other software running on a digital device. In many ways it can be regarded as similar to the notion 'digital technologies' (Whyte & Cutrim Schmid, 2019, p. 338); however, the latter refers to software, teaching practices and devices applied in the traditional classroom.

Factors Affecting Teachers' ICT Readiness

In current research, two major areas affecting teachers' willingness to use digital technology can be identified: subjective beliefs related to digital tools and educators' digital skills. We will review these two areas in this section.

First, it has been widely studied and proven that teachers' beliefs and dispositions (Inan & Lowther, 2009; Scherer et al., 2015), teachers' perceived utility-value of technology integration (Backfish et al., 2021) and behavioural intention (Wangdi et al., 2023) are crucial determinants in the use of digital tools in the classroom. In Scherer et al. (2015) four factors of perceived usefulness have been distinguished that are connected to teaching goals in using ICT and the problems caused: 'fostering interest and learning'; 'collaboration and communication skills'; 'skills in information retrieval'; 'problems and obstacles in using ICT for teaching and learning' (p. 211). However, many of these investigations were carried out before the pandemic, before educators were forced into applying digital tools.

Second, teachers' technological knowledge and skills are also decisive in their integration of digital tools. Sailer et al. (2021) make a valid distinction between teachers' basic digital skills in general and their technology-related teaching skills, the latter being necessary for effective digital school integration into education.

Other accounts link the above two areas. The three-dimensional model by D'Agostino et al. (2022) includes ICT for teaching purposes, ICT for assessing and expectations from ICT (i.e. likelihood for success). In a similar manner, Van Gorp et al. (2019) list technology, pedagogy and evaluation as the main tenets in digitally enhanced teaching. Bui's (2022) systematic review identifies further factors for the integration of digital technologies: pedagogical beliefs, digital competence and confidence in technology, availability of resources, opportunities for professional development – identified as the most critical factor; and sociocultural context.

Among a number of frameworks concerning teachers' digital competencies, two influential ones are highlighted here: the TPACK framework and DigCompEdu. The TPACK framework (Mishra & Koehler, 2006) combines the notions of technological knowledge, pedagogical knowledge, and content knowledge to identify (1) technological pedagogical knowledge (TPK), standing for the connections of technological tools and pedagogical practices, (2) pedagogical content knowledge (PCK), describing the interrelations of pedagogical methods and learning content; and (3) technological content knowledge (TCK), connecting technological knowledge to learning content. At the intersection of these three specialized areas lies Technological Pedagogical Content Knowledge (TPACK), the basis of skilled teaching with technology.

The DigCompEdu model (European Framework for the Digital Competence of Educators) identifies six aspects of educators' digital pedagogic competence, i.e. professional engagement, digital resources, teaching and learning, assessment, empowering learners, and facilitating learners' digital competence (Redecker 2017). The availability of digital resources surfaces here, as mentioned above in Bui (2022).

In the present study the main focus is laid on teachers' experience and beliefs regarding digital elements in teaching, and their effects on digital integration. Also teachers' own assessment of their preparedness to ICT usage has been measured by our survey and the perceived availability of resources, together with their facilitating effects on learners.

ICT Usage During ERT and its Impact on Future Practices

Before laying out the orientations of our research, the three most related investigations in the field are summed up shortly. Moorhouse's study (2023) observes specifically for primary EFL teachers that the period of ERT increased the utilization of digital practices and they have become embedded in regular teaching practices; the choice of which digital tool is integrated depends on how they fit in existing methods.

Winter et al. (2021, p. 241-242) identifies internal and external factors that determine teachers' use of technology. These include the experiences of other teachers; the availability of technology; the possibility of in-school training; student learning and

behaviour; students' access to technology at home. Support and training for teachers and adequate equipment are highlighted as the main challenges to digital tool usage.

The most related study is that of Horváth (2023) exploring the methodological practices of digitally competent primary teachers in Hungary. Among the successful strategies we find 'loosening the teaching structure and learning processes and providing more feedback than usual'. Moreover, more control over the teaching and learning processes has also been observed, utilizing synchronous teaching and more summative assessments. These practices proved to be successful in involving students in the process of learning. According to the findings, a more supportive, mostly asynchronous method can also be successful, especially with young learners.

The present study seeks answers to two related questions, thereby connecting the study of digital practices between remote and in-person teaching: (1) How can the effect of ERT on primary language teachers' digital toolkit be described? Which factors of ERT influence how often teachers apply digital tools in traditional teaching?; (2) Do the experiences gained during ERT have a greater effect on digital tool usage than other independent factors (teaching experience, language(s) taught, locality). Based on these areas of interest the following hypotheses were formulated:

H1: Features of distance education and the likeliness of using digital elements in in-person teaching:

a) Those primary language teachers who experienced positive aspects of online education are more likely to integrate digital elements in the traditional language classroom.

b) Those who experienced many negative aspects of online education are less likely to prefer digital elements.

H2: Those who deemed their online education successful are also more likely to use digital elements in in-person teaching.

H3: Internal factors (perception of success and the feeling of developmental opportunity) significantly influence the integration of digital tools in the physical classroom, more so than external factors (teaching experience, language of instruction, settlement type).

METHOD

Ethical considerations

Ethical standards were maintained in the research process; an ethical license from the Research Committee of the Faculty of Primary and Pre-school Education, Eötvös Loránd University has been obtained (reference number: KE 2022/005.; date: 31.03.2023). The questionnaire was designed to be anonymous; it did not collect respondents' personal identifiable information. Furthermore, participation in the study was voluntary, and the participants were informed that they can freely discontinue completing the survey at any time.

Participants

The online survey was sent out electronically to 2487 schools in Hungary, i.e. to all the schools offering primary education in the country. In the second round, all school district centres in Hungary (altogether 60) received a request to forward the questionnaire to the heads of primary schools operated by them. Both e-mail requests were sent out twice. The survey was completed by 706 teachers, mostly from state schools (503 respondents), fewer from church schools (129) and private schools (30) and a small number from schools belonging to an ethnic minority (20). As Table 1 demonstrates, respondents were distributed evenly across all regions of Hungary.

Table 1
Demographic information of the participants (n=706)

School type:	Frequency (n)	Percent(%)
State school	503	71.2
Minority language school	20	2.8
University practice school	13	1.8
Church owned	129	18.3
Private	9	1.3
Foundation owned	30	4.2
Other	2	0.3
Total	706	100
Settlement type	Frequency (n)	Percent (%)
Capital	149	21.1
Large city (100,000-1 million)	86	12.2
Medium city (20,000-100,000)	184	26.1
Small town (5,000-20,000)	138	19.5
Village (›5,000)	149	21.1
Total	706	100.0
Qualification	Frequency (n)	Percent (%)
Primary language teacher	196	25.1
Primary minority language teacher	58	7.4
Minority language teacher	23	2.9
Language teacher	482	61.7
No qualification	5	0.6
Other:	17	2.2
Total	781	100.0
Language	Frequency (n)	Percent (%)
English as a foreign language	453	64.2
German as a foreign language	151	21.4
German as a minority language	90	12.7
Other	12	1.7
Total	706	100.0
Work experience	Frequency (n)	Percent (%)
1-3 years	66	9.3
4-9 years	130	18.4
10-20 years	197	27.9
20+ years	313	44.3
Total	706	100.0

METHOD

To analyse the data, we employed the Statistical Package for the Social Sciences (SPSS) version 27. After importing responses from the online survey (kerdoivem.hu) into Microsoft Excel, the data were examined and cleaned up before being imported into SPSS for coding and analysis. Descriptive statistics were then employed to analyse the quantitative data to answer the research questions. The relatedness of variables was investigated by means of correlation analysis. Furthermore, regression analysis was applied to predict the probability of events.

Instrument

The questionnaire consisted of three main parts. After the questions about demographic data, the next section inquired about participants' experiences and practices of ERT with questions focussing first on education in general, then on language teaching; the aim of the third part was to explore the changes in participants' language teaching methods regarding the use of digital tools. The survey contained mostly close-ended questions (four-point Likert-scales, multiple choice questions) and some open-ended ones, mostly to obtain explanations for the quantitative data. For the purposes of the present study, selected close-ended questions have been evaluated (see next section).

FINDINGS

Descriptive Statistics

First, language teachers' general perceptions towards the shift to distance teaching were measured, mostly in the form of Likert scales, and the mode of teaching (synchronous, asynchronous). To obtain a detailed picture of educators' experiences, eight positive and negative aspects of online teaching had to be rated according to their personal significance. Furthermore, the availability of professional help in the first period of ERT is investigated from the point of view of primary language teachers. Finally, language teachers' perceptions of preparedness, success and development were measured. As for present in-person language teaching, our most important aspect is the extent to which educators preserved digital tools in face-to-face education.

Perceptions about the Shift to ERT

As Figure 1 demonstrates, the majority of primary teachers (67.7%) had mixed feelings about switching to ERT, only 9.7% reported to have been free of concern. As for the mode of remote teaching, realization of synchronous online teaching was reported by 72.1% of the respondents, 64.4% mentioned instances of asynchronous online education; in the case of 5.9%, no online teaching took place during ERT.

Table 2
Teachers' level of concern about switching to ERT

	Frequency	Percent	Valid Percent	Cumulative Percent
1 – not at all	68	9.6	9.6	9.6
2 – a bit concerned	160	22.7	22.7	32.3
3 – concerned	229	32.4	32.4	64.7
4 – very concerned	249	35.3	35.3	100.0

Second, participants were also requested to rate their preparedness for online remote teaching (Table 3). The relatively high rate of teachers feeling absolutely unprepared (28%) is striking, despite of ongoing attempts of integrating digital elements in the primary classroom.

Table 3
Educators' preparedness for ERT

	Frequency	Percent	Valid Percent	Cumulative Percent
1 - not prepared	198	28.0	28.0	28.0
2 - limited	261	37.0	37.0	65.0
3 - well prepared	202	28.6	28.6	93.6
4 - very well prepared	45	6.4	6.4	100.0

Third, it is also of interest whether practicing teachers are aware of potential elements that can contribute to the enhancement of their pedagogical skills. To measure this in the present context, participants were asked to rate the extent to which they regard the shift from in-person to distance teaching as a development opportunity. As for the results, 6.8% of the respondents did not perceive the shift to ERT as a developmental opportunity; 20.1% did it to a little extent; on the other side of the scale, 35.7% clearly saw the chances for development, whereas a top 37.4% estimated it as an important opportunity for professional growth.

Availability of Professional Help

In the relevant literature, professional development and in-service training surface as one of the crucial factors of ICT readiness (e.g. Schulze-Vorberg 2021). In line with this, the extent and nature of available support were measured in our survey. As Figure 1 demonstrates, most respondents relied solely on their individual resources, but substantial informal assistance from members of the same institution is also reported, outnumbering organized training. Nevertheless, the most striking result is the lack of in-service training from school district centres, which would be responsible for professional development of the educators in the relevant districts.

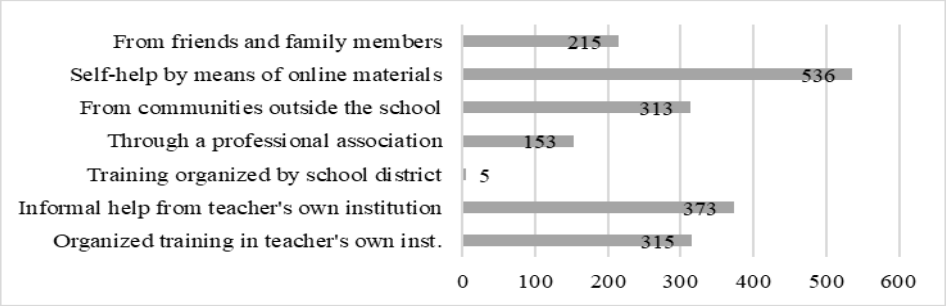

Figure 1
Sources of professional support received during ERT (N)

Challenges and Opportunities of Online Language Teaching

To arrive at a better understanding of primary teachers' views on online language teaching, participants were asked to assess the importance of the challenges and advantages of distance learning with Likert scales (1 to 4). In the following, we sum up the results with two diagrams (Figure 2, Figure 3).

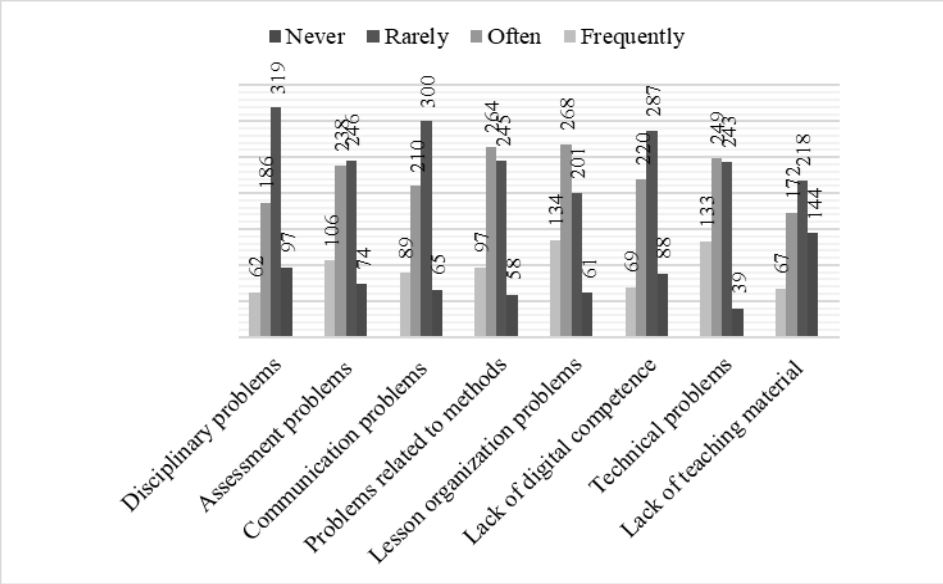

Figure 2
Frequency of encountered problems during online teaching (N)

It is to be observed that together with methodological issues, such as lesson organization and assessment, similarly to findings of former studies (e.g. Hatlevik et al., 2021: access to hardware, poor Internet connection, lack of ICT competence; Hébert, 2021), technological problems are among the gravest problems perceived by educators.

Difficulties related to communication appear to be relatively frequent; however, Kałdonek-Crnjaković (2022) lists deeper interactions with young learners as a positive aspect of online teaching.

The chart below (Figure 3) summarizes how respondents rate the significance of positive features in online teaching. The results show that the enrichment of pedagogical methodology, teachers' creativity and their digital skills are seen as the most important advantages. This can point to the fact that teachers perceived digital education as useful in general, as it contributes to their pedagogical development. As noted earlier, perceived usefulness is the most influential factor in motivating teachers to integrate digital tools into their in-person education (e.g. Scherer et al., 2015).

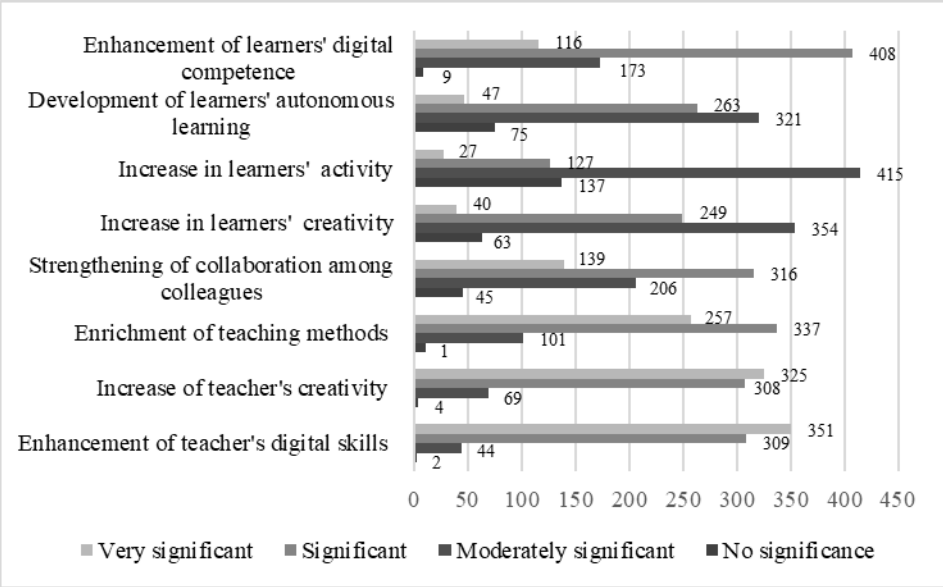

Figure 3
Results of four-point responses to the perceived advantages of online teaching (N)

Considering the overall results, it is striking to see that respondents tended to estimate their own development more positively than that of their pupils. This finding might indicate that one of the most important changes in pedagogical beliefs in connection with digital integration, i.e. a shift from teacher-centredness to student-centredness (Liu et al., 2017), has not generally taken place yet among Hungarian primary teachers. Another aspect to highlight is autonomous learning with ICT – recent studies emphasize the supporting role of educators and the need for awareness-raising in this field (Bećirović et al., 2021). According to 44% of the respondents, their pupils developed their autonomous learning skills, together with their digital competence (74.2%) considerably.

Perceived success and integration of digital tools

The question represented in Table 4 regarding the success of remote teaching constituted an integral part of the survey. Teachers were asked to estimate the perceived success of their online language teaching. A relatively high 61.8% of the respondents rated their pedagogical work as successful or very successful, and only 3.4% reported to have felt unsuccessful during remote teaching. This is a positive result, in spite of the high rates of perceived challenges and the perceived lack of preparedness for remote teaching.

Table 4
Teachers' rating of the success of their language teaching during ERT

	Frequency	Percent	Valid Percent	Cumulative Percent
not successful	24	3.4	3.4	3.4
weakly successful	246	34.8	34.8	38.2
successful	370	52.4	52.4	90.7
very successful	66	9.3	9.3	100.0

DISCUSSION

After reviewing and assessing the descriptive results, we turn to exploring the correlations among the data and testing the validity of the initial hypotheses (H1-H3).

Effects of ERT Experiences on the Present Utilization of Digital Tools

Our first hypothesis concerned the connections between positive ERT experiences and the frequent utilization of digital tools in the language classroom. It turns out that language educators who use the digital tools they got acquainted with during distance education in in-person teaching generally had positive experiences with distance learning. In every area, there is a moderate significant correlation observed, see Table 5; note that the original question of the survey ('Do you use the digital elements employed during distance education in in-person language teaching?') has been abbreviated to 'use of digital elements' in the table.

Table 5
The correlation of positive features of distance education with the frequency of using digital elements in in-person teaching (own analysis)

	Enhancement of teacher's digital skills	Increase of teacher's creativity	Enrichment of teaching methods	Strengthening of collaboration among colleagues	Increase in learners' creativity	Increase in learners' participation	Development of learners' autonomous learning	Enhancement of learners' digital competence
Use of digital elements	,229**	,292**	,315**	,155**	,226**	,176**	,173**	,236**

Frequent users of digital elements believe that their digital competence (r=0.229**), and creativity (r=0.292**) improved during distance education. Among other things, they perceived that their methodological toolkit had enriched (r=0.315**) and the collaboration with colleagues strengthened (r=0.155**). Furthermore, they experienced an increase in students' creativity (r=0.226**), activity (r=0.176**), autonomous and independent learning (r=0.173**), and students' digital competence also improved (r=0.236**). As a result, they go on to apply these new competencies frequently when returning to in-person teaching.

The second part of our first hypothesis, i.e. the assumption that those who experienced many negative aspects of online education are less likely to prefer digital elements, has been disproven. In no area could a significant correlation be found. In other words, teachers seem to have overcome the perceived difficulties successfully, thus they do not constitute an obstacle for digital tool utilization in the future. They adapted well to new communication channels and innovative assessment methods.

Perceived Success and Development as Facilitators of Digital Integration

As for the second hypothesis about online teaching success and the ongoing use of digital tools, it has been proven that teachers who deemed their online education successful are also more likely to use digital elements in in-person teaching.

Table 6
Correlations of educators' present usage of digital tools with perceived success, preparedness, and opportunity of development during ERT

	1	2	3	4
1) How do you rate the success of your language teaching during ERT?				
2) Do you use the digital elements (platforms, applications) employed during distance education in in-person language teaching?	0.220**			
3) How prepared did you feel when transitioning from in-person to distance (online) education?	0.246**	0.167**		
4) How much did you perceive the transition from in-person to distance (online) education as an opportunity for development?	0.317**	0.247**	0.074	

Those who considered their online education successful were more prepared (r=0.246**) and perceived this period as an opportunity for development (r=0.317**), and they also use the digital tools they get acquainted with more frequently (r=0.220**) in in-person education.

However, those who felt prepared did not necessarily see the transition between educational environments as an opportunity for development (r=0.074). This is understandable: for digitally competent educators the transition to online teaching did not pose a challenge, thus they perceived it less as skills development.

Like teachers' beliefs, recent positive experiences have a considerable impact on professional practices; through the prompt switch to online education, educators were forced to be more engaged with digital technology, which could positively influence their confidence in its application und thus have longer lasting effects on traditional teaching. In Chalkiadakis & Noguera's (2024) review it is also reported in an EU setting that K-12 teachers responded positively to digital education in spite of perceived difficulties. Apart from deeming it as developmental opportunity, they mastered digital challenges innovatively and brought about changes in their educational processes which led to the enhancement of their methodological skills.

The Relationship of Internal and External Factors

Finally, it has been assumed that internal factors (perception of success and the feeling of developmental opportunity) significantly influence the use of digital tools in the traditional classroom, more so than external factors (teaching experience, language of instruction, settlement type).

Upon returning to in-person education, several new practices have emerged in teaching that were not applied before. Our assumption is that the perception of online education as a developmental opportunity and the assessment of one's online work as successful,

have an influence on whether teachers continue to use the digital elements employed during distance education in in-person teaching.

Our task in confirming the hypothesis was to determine to what extent each predictor variable can contribute to the model. Since our two predictor variables are moderately correlated with each other, we first examined their effects separately.

According to the first assumption, the more a person perceived online education as an opportunity for development, the more likely it is that they will also opt for digital elements during in-person education ($F=53.702$; $t\_14=7.328$; $p\leq0.05$). In this case, the output variable confirms our sample by 4%.

According to the other assumption, the more successful the teacher felt in their pedagogical work during online education, the more likely it is that they will continue to use digital elements during in-person education ($F=34.308$; $t\_22=5.857$; $p\leq0.05$). The output variable confirms our sample by 4%.

The two predictor variables jointly confirm our sample by 9% ($F= 34.538$; $t\_14=5.762$; $t\_22=3.789$; $p\leq0.05$). This means that valid conclusions could be drawn from the perceived success of educators' pedagogical work and the experience of their perceived development regarding the ongoing application of digital tools in the language classroom.

External factors such as how many years, in which language, and in which location a teacher is teaching, do not influence whether or not the teacher uses digital elements employed during online education ($F=0.802$; $t=5.857$; $p=0.524$). Interestingly, our data conclude that teaching experience (which also alludes to age) does not correlate with the frequency of digital tool usage, contrary to earlier findings, e.g. Inan & Lowther (2009), Scherer et al. (2015) and Chalkiadakis & Noguera (2024), where higher age correlated with higher levels of perceiving the negative aspects of ICT use. One possible reason for this difference might lie in the online nature of our sampling method: possible respondents who are less confident with ICT might have been less motivated to answer the online survey. In conclusion, our hypothesis that internal factors have a greater impact on the use of digital elements in traditional in-person education than external factors has been confirmed.

Our investigations arrived to results supported by recent research. It has been shown by Wangdi et al. (2023) that facilitating conditions and a high-level of TPACK do not have a direct effect on teachers' behavioural intention to apply digital tools; the importance of Perceived usefulness (PU) and Perceived ease of use (PEOU) is revealed, which again are in line with the present findings. Perception of success is one of the most influential factors according to our investigations, too.

For a future perspective, therefore, it is vital that primary teachers experience the work with digital tools positively and be equipped with the necessary technological and theoretical knowledge for ICT integration. To achieve a desired PEOU, in-service and pre-service training of teachers is needed to enhance their technological knowledge. Obviously, exploring the routes for skill enhancement must also rely on recent research in technology integration. Greene et al. (2023) demonstrate that the development of technological knowledge (TK) goes together with overall improvement of TPACK,

based on evaluating a technology-based course for pre-service teachers. Similarly, in-service training for practicing teachers should also focus on technological skills in addition to methodological aspects of digital tools in education. Similar findings are common in the literature, e.g. Sheffield et al. (2018) report a rising level of preparedness and confidence in pedagogical application of digital tools as a result of an in-service teacher training with a 'learning by doing' approach. González et al. (2023) observe that teachers should also receive guidance on curriculum development in this respect.

CONCLUSION

The analysis of the research suggests that personal experience with online teaching had the greatest influence on the current digital practices of primary language teachers in Hungary. This is in line with some current research that states that motivation and perceived utility-value play a significant role in utilizing digital tools pedagogically (Backfish et al., 2021; Piramanayagam et al., 2024). It is clear that in contrast to higher education settings, remote classes for young learners should be considered only as a temporary emergency possibility (Kałdonek-Crnjaković, 2022, p.177) but good practices acquired by teachers during emergencies can be more extensively put to use in the physical classroom. This would also contribute to providing students with 21st century learning skills, which include meaningful learning with ICT. A study carried out in Turkey points out that the "perceptions of primary school students in the dimension of meaningful learning with ICT were below the average" (Yaşar et al., 2023, p. 11) as opposed to other 21st century learning practices.

The findings of the study might also be used to create awareness among decision-makers that teachers' professional development is crucial in digital tool integration. Considering the events of recent years, it seems reasonable to concentrate on preparing them for unexpected situations, in which the mode of instruction might be radically different. If educators are equipped with a solid practical knowledge of integrating digital tools, this background will presumably help them handle a changed situation more professionally, which in turn leads to a more positive pedagogical experience that influences their further professional path. One should not exclusively think of a new pandemic or another emergency, but also of systematic attempts on the digitalization of education.

Moreover, the study disproved the hypothesis regarding the relationship between teaching experience, clearly connected to teachers' age, and readiness to use digital tools. This can indicate that contrary to common belief, younger teachers do not have significant advantage in technological pedagogical knowledge compared to others, although it is proven that pre-service English language teachers have positive perceptions on the integration of ICT (Yüksel & Eren, 2016). Accordingly, reforms in pre-service teacher training are also needed, the teacher education curriculum should be supplemented to be able to respond to the above newly explored demands. Teacher trainer professionals should be able to enhance the digital competencies of higher education students and be committed to continuous professional development (González et al., 2023).

LIMITATIONS

Being a quantitative study, the present paper only focussed on the usage of digital tools without assessing the quality of their integration. It is among the main future aims of the research project to conduct qualitative analysis into the methodological variety and quality of digital tool integration in language learning at the primary level. The conducted survey, supplemented by qualitative teacher interviews, includes detailed qualitative questions about the pedagogical and methodological aims of applying digital tools and identifies the tools themselves, and therefore enables further research in this direction.

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