Research Article

Perceptions of digital competence in learning and teaching English in the context of online education

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ARTICLE INFO	ABSTRACT
	Digital competence has become a crucial capability in the learning process, in the working place, and in personal communication. The aim of the article is to explore master students' perceptions of their digital competence by identifying frequency, expertise, and satisfaction in using information communication technologies (ICT) in their learning process when studying at university and teaching English as a foreign language (EFL) in the context of online education. The sample comprised 49 master students who participated in distant evening classes at a private university in Kazakhstan while working simultaneously as teachers of English in various educational institutions during the day. Master students' perceptions of digital competence is one of the approaches to reveal the gaps in students' digital competence development necessary for learning and teaching EFL online. The main research tool for data collection was the online survey allowing the master students to measure their level of digital competence. Evident from the results, the majority of respondents are digitally competent; yet there is a cohort of master students who scored low on ICT skills needed for teaching and admitted the necessity of improvement. Also, according to the findings, the respondents' frequency, expertise, and satisfaction level by their digital competence needed in the learning is higher than that in teaching. This can also imply that even though the frequency and expertise in using digital technologies for learning contributes to the development of the expertise in using them for conducting their own classes, master students need special training on the use of ICT for pedagogical purposes.

Keywords: perceptions, digital competence, ICT, learning, teaching, EFL, online |

INTRODUCTION

In the contemporary world, digitalization has significantly and irreversibly changed our perceptions of successful learning, studying, researching, working, and communicating, regardless of the sphere of use. The pandemic of COVID-19 transferred many people to study and work from home in the online and distance modes. In the field of TEFL (teaching English as a foreign language) the pandemic of COVID-19 has strengthened language learners' and teachers' need and motivation to study and teach the language online. By that time a great amount of various language materials and online courses were already accessible on the Internet, providing opportunities to satisfy language learners' diverse needs.

However, in Kazakhstani context, the pandemic has also revealed that using all this information presented huge challenges both for English language teachers and learners due to the insufficient skills in computer-assisted language learning (CALL), mobile assisted language learning (MALL), and computer aided instruction.

It should be noted that in the current study the terms *online* and *in distance* will be used interchangeably to denote organization of learning and teaching processes in spatial dimensions through technological means (Casarotti et al., 2002).

The students and teachers, employers and employees are all required to develop their digital competence to progress and succeed in the current reality. The development of digital competence in its turn presents many benefits for students: getting access to a large number of literary sources in various formats, individualizing and providing independent learning, studying anytime and anywhere, creating possibilities to those who are unable to attend campus-based or full-time courses. Therefore, in the information age, English as a foreign language (EFL) teachers and learners are aware of crucial role and benefits of integration of ICT (information communication technologies) into EFL teaching and learning. The involvement of future teachers in the process of digitalization during their study at university will directly impact their preparedness for using new digital technologies in teaching and organizing the learning process in different levels of education (Cuhadar, 2018; Guillen-Gamez et al., 2019).

Thus, digital competence is considered a key competence of prospective teachers because of extending and constantly enhancing computer and mobile-assisted language learning that shifted the traditional drill and practice, campus-based language learning to a virtual learning environment and web-based studying (Blake, 2013). In view of that, the aim of the present study is to contribute to this growing area of research by identifying and analyzing the perceptions of Kazakhstani master students towards their digital competence in the learning process and in teaching English in the context of online education. In the current work, the perceptions of digital competence in the educational field will generally refer to master students' self-assessment of frequency and expertise in using various digital technologies, their satisfaction level by the use of ICT during their studying at university and at the same time in teaching EFL in educational institutions.

LITERATURE REVIEW

In information community, in which we live, it is expected that both EFL students and teachers are not only aware of ICT but have basic ICT skills needed to study and teach online. Under basic ICT skills, Heerwegh et al. (2016) mean seven skills areas: PC maintenance, word processing, the use of spreadsheets, databases, presentation software, the Internet browsing, and communication.

Moreover, in the context of distance education EFL students and teachers are required not only to master basic ICT skills, but to be digitally competent users. In order to explore this issue, we have considered the socialization theory (Shibutani, 1986), the technology acceptance model (TAM) by Davis (1989), Venkatesh et al. (2003), and self-efficacy theory by Bandura (1982).

In accordance with socialization theory (Shibutani, 1986), EFL teachers and students are supposed to be socialized into the roles of digital literates and digital competent. The process of socialization into the Information community can affect their attitudes toward ICT, and subsequently influence the ICT level (Heerwegh et al., 2016). To determine this, the authors referred to TAM, which presents four variables: "perceived usefulness", which means expectations of users of positive influence of ICT on their job performance, "perceived ease of use"–use of ICT is feasible without too much effort, "anxiety"–fears and stress among the ICT users, and "negative behavior", which means a negative attitude towards ICT use. All these four variables of TAM in the current study, to our assumption, may be covered by three dimensions of ICT use in learning and teaching: frequency, expertise, and satisfaction.

Also, it is important to clarify the meaning of such key terms as *digital competence*, *pedagogical digital competence,* and *digital literacy* due to some confusion and misunderstanding in their use. Although digital literacy and digital competence are mainly used interchangeably, digital literacy should be viewed as an initial and obligatory component of the broader notion of digital competence as it will be shown below.

The number of studies dedicated to exploring the phenomena of digital competence is rapidly increasing, especially during the last decade (Ferrari, 2013; From, 2017; Gudmundsdottir & Hatlevik, 2018; Guillen-Gamez

et al., 2019; Meirovitz et al., 2022; Romero-Tena et al., 2021; Wang et al., 2012). The first serious discussions and analysis of notion and structure of digital competence emerged in the European digital competence framework for citizens, known as DIGCOMP, where digital competence refers to a "confident, critical and creative use of ICT to achieve goals related to work, employability, learning, leisure, inclusion and/or participation in society" (Ferrari, 2013, p. 2).

In addition, Ferrari (2013) suggested the fifth category, "problem solving" to the established and recognized structure of digital competence within the Norwegian framework (Erstad, 2005; Krumsvik, 2007, 2008a, 2008b, 2009). Thus, according to Ferrari (2013, p. 4), digital competence encompasses the following components:

(1) information and data literacy,

(2) communication and collaboration,

(3) digital content-creation,

(4) safety, and

(5) problem solving.

Along with this definition of digital competence, which can refer to all ICT users, it is important to differentiate the comparatively new concept of pedagogical digital competence that has been applied to situations, where ICT is used for educational needs, rather than for personal ones.

After the emergence of DIGCOMP, the EU science hub (Redecker & Punie, 2017) developed the European digital competence framework for educators (DigCompEdu), which presents a competency model for teachers at all levels of education, from kindergarten to higher education and adult education, including VET, special education, and non-formal learning contexts. DigCompEdu divides the digital competence of teachers into 6 levels and 6 different areas [subdimensions] with a total of 22 competences. The focus of the model is not on technical skills but on the ways digital media can be used to enhance and modernize education and training.

As noted by Krumsvik (2007), pedagogical digital competence is "the teacher's ability to use ICT with a good pedagogical-didactic ICT understanding and to be aware of how this might impact the learning strategies and educational formation of pupils" (p. 68). The peculiarity of teachers' digital competence is in its double dimension which enables teachers to serve as "role models for their pupils/students' subject use of ICT" (Krumsvik, 2011, p. 45). It is strategically significant because, for example, since 2004 in Norway education curricula the digital competence is introduced as one of the basic skills along with writing, arithmetic, English language, motivation, and social competence. In terms of digitalization of Norwegian education, Krumsvik (2011) developed an in-depth model for pedagogical digital competence that integrates four main components: "Basic digital skills, didactic ICT-competence, learning strategies, and digital building" (p. 46).

Similar to this model, Ottestad et al. (2014) suggested their vision of teachers' digital competence that consisted of three main dimensions: "general digital competence; didactic digital competence, professional-oriented digital competence" (p. 248). The first two components in both mentioned models coincide with each other while the third dimension "professional-oriented digital competence" represents "digital traits of the extended teaching profession as planning subject lessons, sorting evaluations, recording marks and detention, communicating with parents and other groups" (Ottestad et al., 2014, p. 248). Thus, summarizing the previous definitions, we suppose that the definition given by From (2017) thoroughly describes the concept:

> Pedagogical digital competence refers to the ability to consistently apply the attitudes, knowledge and skills required to plan and conduct, and to evaluate and revise on an ongoing basis, ICT-supported teaching, based on theory, current research and proven experience with a view to supporting students' learning in the best possible way (p.1).

Recent developments in the field of ICT have led to an increased interest in the use of computer-assisted language learning and technology-integrated curricula in teaching foreign languages. Studies of Blake (2013) and Evans (2009) are considered a breakthrough in this field. For instance, Blake (2013) focuses not only on the potentials of computer-assisted language learning, introducing the diversity of ICT in the current understanding but also provides the tutorial guides, programs, and techniques for evaluating them. The author indicates the benefits of two modes of computer-mediated communication: synchronous and

asynchronous, specifically, of telecollaboration conducted online between the language teachers and learners from various countries. This gives them the possibility to cooperate while working on joint projects and undertake intercultural exchanges.

This idea is fostered further in the study of O'Dowd (2013) who considers that telecollaboration improves the students' foreign language, intercultural competence as well as electronic competence. Moreover, Blake (2013) raises some disputable issues that continue to be discussed until today, such as the efficacy of distance learning, including teleconferences, hybrid/blended, and virtual courses compared to face-to-face courses. Similarly, Pinto-Llorente et al. (2017) found that students perceive positively the technological tools used in blended-learning to improve their English as a second language grammatical skills as they provide them with greater autonomy in setting and organizing "their own pace of study and individual learning". Based on the perception of 358 students, the authors highlight the efficiency of such asynchronous tools as "podcast, videocast, online tests, online glossary and forums" in teaching grammar. Barr (2016) also obtained similar results in the study dedicated to the analysis of students' reaction to the use of Web, e-mail, and computer package in language learning. In general, the students were not neutral, their reaction was positive but their involvement in a computer-based language learning environment depended on some external factors that should be considered by university administration (Barr, 2016).

Likewise, Blake (2013) draws the readers' attention to the new model of language teaching and explains the reasons for incorporating ICT in the language classroom by focusing on "how technology is used" (p. 12). Any integration of digital technologies in the language classroom should be based on a sound theoretical framework, that creates a need to develop a curriculum which should be "student-centered, carefully planned, technically well-supported, and most importantly, pedagogically well-constructed" (Hsieh, 2009, p. 25).

The development of EFL teachers' digital competence has become crucial in the 21st digital era and recent investigations demonstrate the significance of identifying the degree of teachers' preparedness within their study at higher education. For example, according to the findings of a Norway nationwide survey (Gudmundsdottir & Hatlevik, 2018) involving 356 newly qualified teachers, they reported poor quality of ICT training during their education. Unfortunately, pedagogical digital competence of the future foreign language teachers is still at the level of medium-low ICT use due to the lack of skills in using Web 2.0 tools in teaching languages (Guillen-Gamez et al., 2019). Cuhadar (2018), who presented similar findings, stated, "pre-service teachers do not receive adequate training and support in regard to the use of ICT in education during their courses" (p. 61). Meirovitz et al. (2022) also suggest "a pressing need to raise teachers' confidence in technology, to broaden their cognitive skills in relation to technology pedagogy, and to promote a culture of using technology meaningfully" (p. 6).

The studies, directed to identify the students' perceptions of their digital competence report numerous challenges faced during online education, confirming the fact of insufficient level of students' digital competence, at least in some respects (López Meneses et al., 2020; Zhao et al., 2021).

There is an assumption that the development of digital competence of prospective teachers is directly affected by their university instructors' expertise in using ICT; therefore, it is beneficial to identify how well the university teachers are aware of their digital competence. For instance, Dias-Trindade et al. (2020) conducted the quantitative research with 118 Portuguese university teachers to assess their perceptions of digital competence in three dimensions: professional, pedagogical and learners' competencies. According to the findings, there is a need to implement special training programs to increase pre-service teachers' level of digital competence so that they could use ICT for pedagogical purposes and be able to use various software, digital platforms, and interfaces to collaborate not only with their colleagues but with their students (Dias-Trindade et al., 2020). E-learning on ICT will enhance the digital competence of university teachers and students through interactive, constructive, and productive approaches. Moreover, it would be very helpful and effective for pre-service teachers during distance learning that seems to become one of the main formats of education in the current reality.

As it is shown in the study by Tomte et al. (2015), dedicated to exploring the online teachers' professional practices regarding the use of digital technologies in general and within subject areas, the researchers concluded that the teacher education programs may stimulate students to develop their own digital competence. Furthermore, in order to develop psychological readiness of students for digitalization of

educational process, especially in blended learning, it is necessary to encourage students' independence, self-regulation, reflection, self-control, and self-assessment (Putilovskaya & Kassymova, 2021).

Thus, the review of previous research shows that studies in this field have focused on the phenomena and structure of digital competence, its specific functions in education, potentials of ICT in EFL teaching and learning, readiness to use ICT in different formats of education, and EFL teachers and students' perceptions of ICT. No research has been found that surveyed the participants' perceptions of their own digital competence in the context of simultaneous learning and teaching EFL online.

For conducting such type of analysis, we operate with the following fundamental elements constructing perception process:

1. Master students as perceivers, experiencing digitalization in their academic and professional life,
2. Digital competence as an object of perception,
3. Online education mode as a context of perception of digital competence, and
4. The process of experiencing use of ICT in their study at the university and in their own teaching practice, that all together influence the development of some perception of digital competence in general (Jordaan & Jordaan, 1996).

To sum up, we presume that in accordance with the socialization theory, master students feel an urgent need to be socialized into informative, digitally competent EFL learning and teaching community. Based on the TAM and the DigCompEdu, we attempt to measure the self-reported levels of ICT skills through exploring the master students' perceptions of digital competence in learning and teaching online.

METHODOLOGY

This research seeks to address the following research questions:

1. What are the master students' perceptions of their digital competence needed in the learning process?
2. What are the master students' perceptions of their digital competence needed in teaching EFL?

Research Design

The current study is descriptive and interpretive in nature, based on the quantitative method of data analysis (Creswell, 2009). Data were analyzed quantitatively using SPSS version 28. The following statistics tools were used in data analysis: descriptive statistics for quantitative items, including means, standard deviations, ranges and tables, and reliability statistics (Cronbach's alpha).

Sampling and Instrumentation

The study population of the current study are master students studying "Foreign language: Two foreign languages" program in one of the private universities in Kazakhstan (hereinafter: University). The program trains the students for the specialty "Teaching English as a foreign language". Most of them are currently working in educational spheres. The final sample comprised 49 master students aged between 20 and 39 years old out of 60 master students, enrolled in the program. The researchers employed convenience sampling strategy with the aim to identify the perceptions of the student teachers who combine their studies and work.

The main research tool was a structured survey adapted from Dias-Trindade et al. (2020) and based on DigCompEdu (Redecker & Punie, 2017). It consisted of four sections with closed statements. The items in the first section required choosing the options related to age, marital status, occupation status, and a range of digital devices owned by the respondents. The second and third sections contain the items identifying the frequency and expertise of using various digital technologies for learning and teaching respectively, while the fourth section aims to identify the master students' degree of satisfaction by the level of their digital competence needed to study and work.

The items identifying the frequency of use were assessed through a 5-point Likert scale ranging from *always* to *never*, while the items related to satisfaction levels and expertise of using digital technologies were assessed through the categories: *strongly disagree, disagree, uncertain, agree, strongly agree.* The survey was

Table 1. General identification information

Variable	n=49	Percentage (%)
Age		
20-24	25	51.0
25-29	17	34.7
30-34	5	10.2
35-39	2	4.1
Marital status		
Married	15	30.6
Single	34	69.4
Occupational status		
Currently working	41	83.6
Not working	8	16.4

prepared through Google forms and distributed online. All items were then coded for analysis with numerical values from 1 to 5 (from 1-*never* to 5-*always* and from 1-*strongly disagree* to 5-*strongly agree*). Overall, the survey contained 44 items.

Validity and Reliability of the Survey

The reliability of the questionnaire items verified with Cronbach's alpha (=0.860) for 44 items.

Ethical Considerations

All respondents were informed about the aims and objectives of the research and participated voluntarily. The anonymity and confidentiality of the respondents is provided.

RESULTS AND DISCUSSION

Section 1 is directed to elicit general identification information of the respondents (age, marital and occupational status, and digital devices owned), **section 2** includes a focus on the frequency and expertise in using various digital technologies in the learning process, **section 3** includes information on the frequency and expertise in using various digital technologies in TEFL, and **section 4** contains information on the respondents' overall satisfaction degree with their levels of competence needed for studies and work. (**Appendix A**: Items of the survey).

Results of Section 1

The findings of the study are demonstrated by tables generated by SPSS and Google forms through interpretation of the data obtained.

Table 1 depicts the general identification information. As seen from **Table 1**, it was identified that 51% of respondents' age range is between 20-24, i.e., almost half of the participants belong to the youngest age group. The age of 34.7% of respondents ranges between 25-29, then five master students are between 30-34 and only two respondents are aged below 35. Thus, the mean age of the participants was 25-29 years old (SD=0.86). As for marital status, 69.4 % of respondents are currently single and 30.6 % are currently married. It is also identified that the majority of master students combine their studies and work. Significantly, 83.6% of them work in the educational sphere and only 16.4% of the respondents are not currently occupied. These data can shed light on other findings by assisting to explain the phenomena even though this research does not aim to make correlations between these variables.

Figure 1 shows the digital devices owned. It was found that all of the respondents own laptops and 93.9% currently have smartphones. These devices are of primary importance in distance and online education; therefore, it seems that master students are aware of their significance. As for desktop computers, only 24.5% reported having them. The small number of the respondents owning this device might be due to the necessity of having complementary gadgets such as headphones, digital cameras, and microphones that they should be equipped with to attend the online streaming as well as to conduct their own classes. Other devices owned are tablets (20.4%), digital cameras (18.4%) and GPS (6.1%). Master students also reported having some other

What digital tools do you have?
49 responses
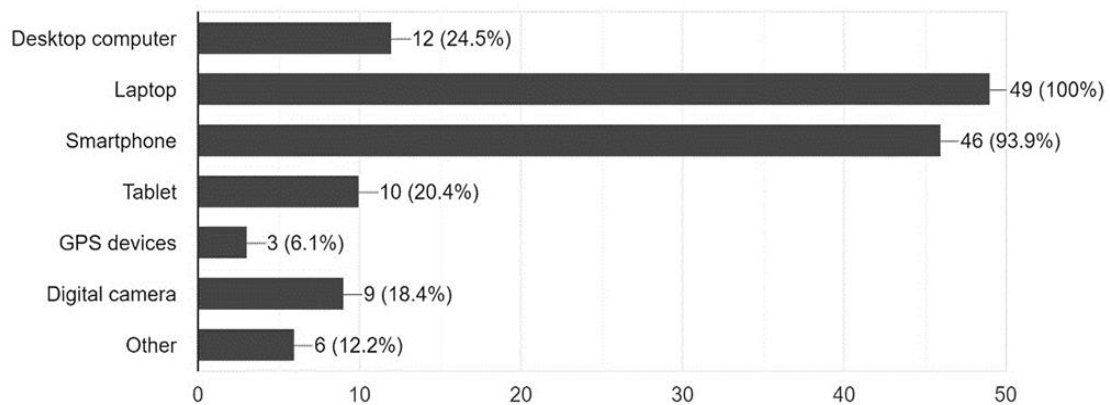
Figure 1. Digital devices owned (Source: Results of the survey conducted by authors via Google Forms)

Table 2. Frequency of using different video conferencing tools needed for learning

I use different video conferencing tools needed to attend the online classes for my university courses …	n	Min	Max	Mean	SD
[Cisco Webex Meetings]	49	1	5	4.78	0.715
[Zoom]	49	1	5	3.47	1.101
[Skype Meet Now]	49	1	5	1.69	0.895
[Other]	49	1	5	1.76	1.090
Valid n (Listwise)	49				

Note. SD. Standard deviation

ICT tools, which we suppose do not present much significance in our research and therefore were not listed explicitly.

Discussion of the Results Obtained from the Survey Section 2

Below is a description of the results for each item in section 2. Specifically, it reveals the perceptions of master students in regard to the frequency and expertise of using various digital technologies in the learning process at the University.

For the item "I use different video conferencing tools needed to attend the online classes for my university courses" the **Table 2** clearly shows that almost all respondents use Cisco Webex Meetings (M=4.78; SD=0.715). Interestingly, one student indicated that never used it. Cisco Webex Meetings is a major application used at the University for online classes and all the students were previously trained how to use its main functionalities. Therefore, this indicator adequately reflects the existing reality. However, some respondents reported about their frequent use of Zoom (M=3.47), as an alternative platform when problems with Cisco Webex meeting occur. As for Skype Meet Now and other tools, these are used rarely, or never used at all.

As for the frequency of using various learning management systems (LMSs) in the item "I use different LMSs to access the resources for my learning, to submit the assignments and see the feedback", it should be noted that according to the University requirements, the main course management system to be used to provide the learners with resources and study materials should be Moodle. Along with it, Google Classroom is also allowed to use due to some of its beneficial features convenient for immediate feedback and easy communication. Turnitin is a platform which is also required to use for different reasons: to submit the assignments, to see the similarity rate, to avoid plagiarism, to see the rich feedback provided by the teacher, to follow one's progress in the gradebook. There are teachers who also prefer Edmodo and other platforms, but the respondents report their rare utility. Thus, **Table 3** clearly reflects the frequency of using the applications required and the results confirm that the majority of respondents can use Moodle (M=4.37), Google Classroom (M=4.31), and Turnitin (M=3.96) simultaneously for their learning purposes.

**Table 3.** Frequency of using different LMSs needed for learning

I use different LMSs to access the resources for my learning, to submit the assignments and see the feedback …	n	Min	Max	Mean	SD
[Moodle]	49	1	5	4.37	1.112
[Google Classroom]	49	1	5	4.31	1.045
[Turnitin]	49	1	5	3.96	1.172
[Edmodo]	49	1	5	1.73	0.995
[Other]	49	1	5	1.86	1.155
Valid n (Listwise)	49				

Note. SD. Standard deviation

Table 4. Expertise in using digital technology in learning

	n	Min	Max	Mean	SD
I am aware of ethical issues in using digital technology (personal privacy, academic integrity, sensitive content, etc.).	49	3	5	4.20	0.735
I use different internet sites and search strategies to find, select digital resources, and process information for my studies.	49	1	5	3.90	1.212
Valid n (Listwise)	49				

Note. SD. Standard deviation
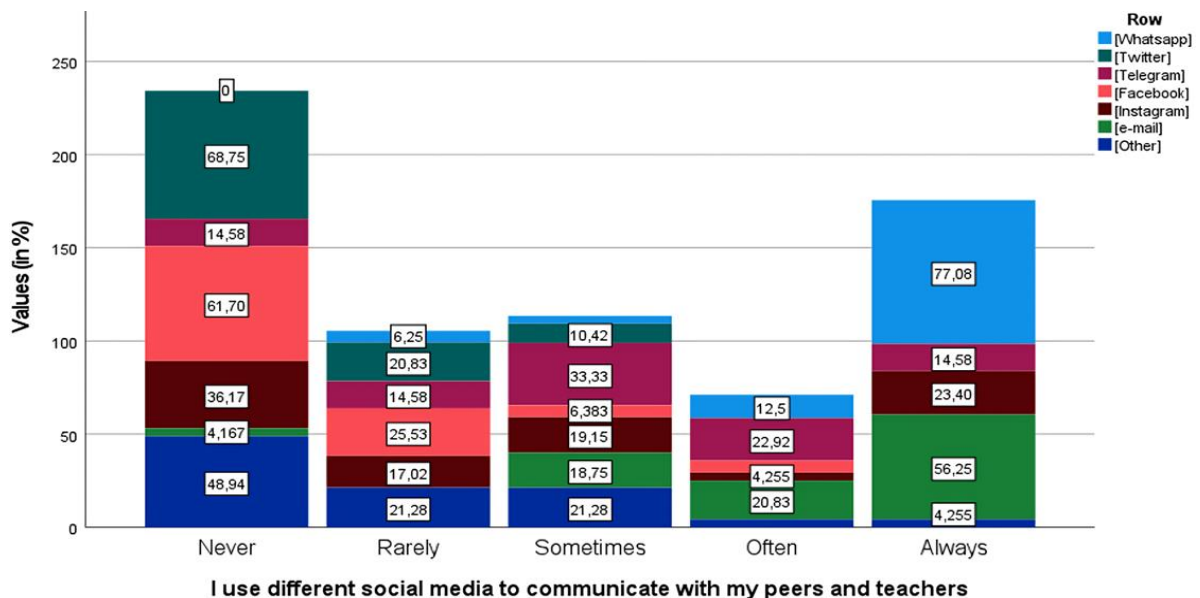
Figure 2. Using different social media for communication and collaboration with peers and teachers (Source: Analysis of the data was conducted by authors via SPSS version 28)

As shown in **Table 4**, level of the respondents' awareness of ethical issues in using digital technology for their learning is comparatively high with the mean value of 4.20 and SD of 0.735.

In general, although the respondents expressed wider differences in choosing the options for the item "I use different internet sites and search strategies to find, select digital resources and process information for my studies" (SD=1.212), the general results imply that master students' expertise in using digital technology for their learning is comparatively high (M=3.90).

Figure 2 clearly shows that master students mainly use WhatsApp (77.08%) and e-mail (56.25%) to communicate and collaborate with their peers and teachers. Some of them reported using always Telegram (14.58%) and Instagram (23.4%) as a way to communicate, while 68.75% of the respondents never used Twitter, 61.7% of master students–Facebook and 48.94% of master students–other social media, not specified here. Interestingly, two students indicated that they never used e-mail which implies that they might use other communication channels. The values shown in percentage do not sum to 100% due multiple responses.

Overall, the results point out that except some insignificant number of master students, the majority of them can appropriately use all required digital tools, needed in the learning process (Webex, Zoom, Moodle,

Table 5. Expertise in using digital technology in teaching

	n	Min	Max	Mean	SD
I carefully consider how, when, and why to use digital technologies in class, to ensure that they are used with added value.	49	1	5	3.80	0.866
I continuously reflect on how I can improve my use of digital technologies.	49	2	5	3.82	0.950
Valid n (Listwise)	49				

Note. SD. Standard deviation

Table 6. Frequency of using digital platforms in teaching

I use different digital platforms to conduct my own classes	n	Min	Max	Mean	SD
[Zoom]	46	1	5	3.87	1.327
[Microsoft Teams]	48	1	5	1.67	1.173
[Google Meet]	48	1	5	1.77	1.171
[Skype Meet Now]	49	1	5	1.78	1.104
[Google Hangouts]	49	1	5	1.31	0.619
[Cisco Webex Meetings]	47	1	5	1.96	1.285
[Other]	49	1	5	1.98	1.392
Valid n (Listwise)	44				

Note. SD. Standard deviation

Table 7. Frequency of using various Learning Management Systems in teaching

I use different LMS to share the resources with my students, create the assignments, and give the feedback …	n	Min	Max	Mean	SD
[Moodle]	49	1	5	1.82	1.333
[Google Classroom]	49	1	5	2.92	1.669
[Edmodo]	48	1	5	1.50	1.011
[OnlineMektep.org]	49	1	5	2.29	1.683
[Other]	48	1	5	2.63	1.709
Valid n (Listwise)	47				

Note. SD. Standard deviation

Google Classroom, and Turnitin), can use the Internet sites, process information for their studies and are aware of ethical issues in using digital technology and resources.

## Discussion of the Results Obtained from Section 3

As it was mentioned above, section 3 includes results regarding the respondents' perceptions of their expertise and frequency in using various digital technology for teaching purposes.

As **Table 5** demonstrates, relatively similar number of respondents unanimously expressed agreement to both statements that might mean their consideration and expertise in using digital technologies in class as well as readiness to improve the digital competence is high.

Table 6 shows the frequency of using digital platforms in teaching. Apparent from the results, the majority of master students use Zoom to conduct their online classes (M=3.87); all the remaining items were assigned lower mean values of less than two points indicating that the respondents use them rarely; however, SD of more than one points the differences in their answers. Zoom was the main platform, which was suggested for conducting online classes during distance education, thus, the results adequately reflect the situation.

According to the findings in **Table 7**, the respondents sometimes use various course managements systems to share the resources with their students, create assignments and give the feedback. The highest mean values are assigned to Google Classroom (M=2.92) and other LMS (M=2.63), not specified here. It should be noted that OnlineMektep (with mean value of 2.29), is an LMS, resembling a school diary, which was created in Kazakhstan for secondary school students that enables them as well as their parents to see their home assignments and track the progress. The comparatively low number of respondents using it indicates that the majority of master students work at educational organizations other than school (language centers, colleges, etc. that do not require using this platform).

As for using social media to communicate and share information with the students (**Figure 3**), the respondents teach, the most frequently used platform is WhatsApp (77.08%). Some insignificant number of respondents indicated Telegram (14.58) and other social media (12.5%). Also, it might be interesting to note
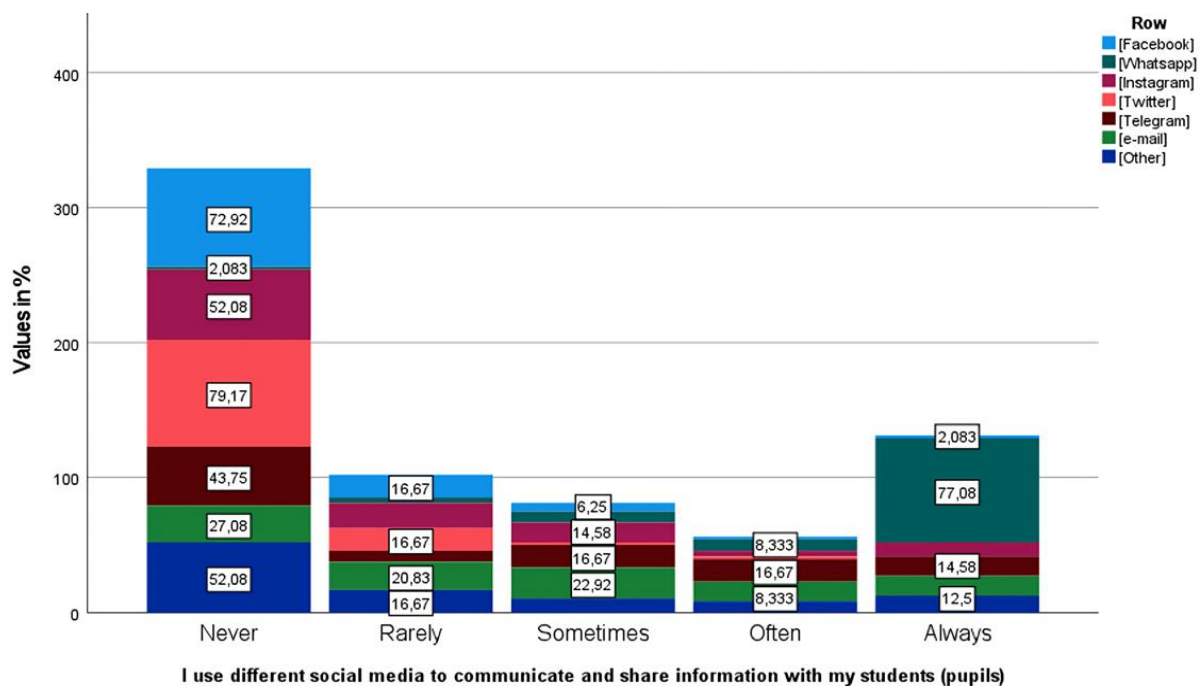
Figure 3. Using different social media for communication and sharing information with students (pupils) (Source: Results analysis was conducted by authors via SPSS version 28)

Table 8. Overall satisfaction rate by the level of digital competence needed for learning and working

	n	Min	Max	Mean	SD
I am satisfied with my level of digital competence needed for my job.	49	1	5	3.71	1.061
I am satisfied with my level of digital competence needed for studying at the university.	49	2	5	3.88	1.073
Valid n (Listwise)	49				

Note. SD. Standard deviation

that 79.17 % of master students never use Twitter for communication with their students and 72.92% never use Facebook for these purposes.

Descriptive Statistics

The comparison of results in **Table 8** shows that the degree of respondents' satisfaction with their level of digital competence needed for learning and working is almost similar; however, the reported level of digital competence of master students in the learning is slightly higher (M=3.88) than that in teaching (M=3.71).

This slight difference in overall satisfaction rate and high standard deviation can be attributed to the fact that different educational institutions require using different digital platforms that can be unfamiliar to the recently occupied master students. It can be also assumed that the digital competence attained in the university is mostly receptive but expertise in using digital technologies to organize one's own classes requires productive skills, thus causing some challenges. Nevertheless, apparent from the study outcome, although some insignificant number of respondents perceives the digital competence as rather low, the general comparison of the satisfaction rate by the level of their digital competence also demonstrates the relatively similar attitude. It means, the experience of using digital technologies in the learning process might positively affect their expertise in using them for work. However, as it was mentioned, the respondents' age and marital status might also serve as factors facilitating the development of their digital competence.

CONCLUSION

Digital competence stands as a crucial competence that is required in all spheres of our contemporary life. We need to study, work, and communicate simultaneously in a constant technology - enhancing education context. The pandemic of COVID-19 and other current social, economic issues have made us transfer from traditional to blended, distance, and online education formats, strengthened the learners' and teachers' need

and motivation to study and teach EFL online, their desire to develop the basic ICT skills, achieve high level of digital competence on a confident, critical, and creative ground. However, apparent from some studies, not all students and teachers are equally proficient in this regard. Considering this situation, it was of particular importance to explore both teachers' and students' perceptions of digital competence during online education. Given that master students have the characteristics of both categories, the choice of the research participants was deliberate. They study and work at the same time in the educational sphere and their perceptions of digital competence might help us to reveal the gaps in digital competence development needed in learning and teaching EFL, to improve their training within university programs, and settle the issues connected with online education. First, in our study, constructed on a quantitative research base, we show that the Kazakhstani master students possess the suitable hardware for online and distance learning and teaching.

Second, as online education requires both synchronous and asynchronous computer-mediated communication in learning and teaching, the master students are aware of different digital platforms and LMSs; however, they are more experienced in using Cisco Webex Meetings, Zoom, Moodle, Google Classroom, and Turnitin at the University than at schools due to objective, external factors, such as academic policy of educational institutions in choosing main digital platforms for the teaching-learning processes. These differences in the policies, adopted for the secondary and tertiary education, lead to difficulties when using unfamiliar platforms in teaching. Such problem raises the need to expand and systematize the requirements for using digital technologies in the context of blended, distance and online modes of education.

Third, it was found, most of master students are digitally competent in the use of the Internet sites for educational and pedagogical purposes. Moreover, many of them are aware of not only what digital tool to use but how, when, and why to use them in learning and teaching. It means that master students as future and current English language instructors are receiving good preparation for online teaching at the University through the use of different digital tools in their learning process. These results contradict the findings obtained by Cuhadar (2018), Gudmundsdottir and Hatlevik (2018), and Guillen-Gamez et al. (2019) who claimed that pre-service teachers do not receive proper ICT training in education during the study at the university.

Fourth, it should be noted that although the majority of respondents are digitally competent in using ICT, there is a cohort of master students, perceiving their ICT skills at low level and admitting the necessity of improvement. Some respondents reported that they rarely reflect on enhancing their level of digital competence. Alarmingly, frequent use of WhatsApp and relatively rare use of LMSs for sharing learning resources, shows reluctance of some master students in obtaining more advanced ways to efficiently organize the teaching process in online context. These results corroborate the findings of Meirovitz et al. (2022), suggesting that in order to use ICT effectively in the EFL classrooms, "teachers should be encouraged to adapt to new digital tools" (p. 6). Thus, more work is required from the part of the educational institutions to create opportunities for teachers to develop their digital competence.

Last, it was found that the study participants' satisfaction level by their digital competence in learning is higher than that in teaching. This can also imply that even though the frequency and expertise in using digital technologies for learning contributes to the development of the expertise in using them for conducting their own classes, master students need special training on the use of ICT for pedagogical purposes. This confirms the results of Romera-Tena et al. (2021) who concludes that "there is an unequivocal need for digital training for teachers …" (p. 9).

To conclude, the results of this study are consistent with those presented by Barr (2016), Gamito et al. (2018), and Zhao et al. (2021), who found that students' perceptions of their digital competence level are positive in general, but their digital skills in some competence areas are higher than in others.

Limitations in our study is small sample of respondents, which may not be representative of the whole population and use of only one research instrument: Likert scale survey.

Implications for future research is to conduct correlational studies to determine the relationships between different variables (age–digital competence, work experience–digital competence, etc.).

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APPENDIX A: ITEMS OF THE SURVEY

Table A1. Items of the survey

Section	Items	
1	1	Could you specify your age in complete years?
	2	Please, specify your marital status.
	3	Are you currently working?
	4	What digital tools do you have?
2	1	I am aware of ethical issues in using digital technology (personal privacy, academic integrity, sensitive content, etc.).
	2	I use different internet sites & search strategies to find, select digital resources, & process data for my studies.
	3	I use different video conferencing tools needed to attend the online classes for my university courses.
	4	I use different LMSs to access the resources for my learning, to submit the assignments and see the feedback.
	5	I use different social media to communicate and collaborate with my peers and teachers.
3	1	I carefully consider how, when, and why to use digital technologies in class, to ensure that they are used with added value.
	2	I continuously reflect on how I can improve my use of digital technologies in teaching.
	3	I use different digital platforms to conduct my own classes.
	4	I use different LMSs to share the resources with my students, create the assignments and give the feedback.
	5	I use different social media to communicate and share information with my students (pupils).
4	1	I am satisfied with my levels of digital competence needed in studying at university.
	2	I am satisfied with my level of digital competence needed for my job.

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