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Competence of Primary School Teachers in the Use of Internet Resources

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Abstract

The aim of the study is to examine the relationships between primary school teachers' competencies and their use of internet resources. In this context, primary school teachers' purposes of using internet resources, the internet resources and platforms they use, participants' teaching efficacy and educational internet use self-efficacy were examined with a relational approach. In the study, 218 primary school teachers working in Almaty province were included in the study by disproportionate cluster sampling method. Internet use questionnaire, teacher efficacy scale and educational internet use self-efficacy scales were used to collect the data. According to the findings of the study, it was seen that a large proportion of primary school teachers use the Internet for 'accessing information, sharing academic information (homework, projects, etc.) and contributing to their personal and professional development. Kazakh teachers used resources such as "academic, research and educational sites", "web browsers (Google, Yandex, etc.)", "dictionary sites", "social networking sites (Facebook, MySpace, Friendfeed, Google plus, etc.)", "wikis" and "video and photo sharing sites" at high rates. In another finding of the study, it was found that primary school teachers' perceptions of teaching efficacy were at a high level, whereas their perceptions of Internet use self-efficacy were at a medium level. Participants' internet use self-efficacy perceptions show significant differences according to gender and age variables. Finally, significant relationships were found between teacher efficacy and internet use self-efficacy.

Introduction

The use of the Internet for educational purposes has become quite widespread in recent years and has many educational benefits. Thanks to the Internet, students, teachers and other educators can easily access many resources and use them to enrich their learning experiences ((Brinkerhoff, 2006; Compeau & Higgins, 1995; OECD, 2015). Online education can appeal to all age groups and all levels of learners. Students can use online courses and learning materials to learn more about many subjects, complete assignments and prepare for exams. Teachers can enrich their teaching by providing students with more resources and sharing course materials more effectively (Shachar & Neumann, 2010). The Internet also enables students to access education from different

geographical locations through distance education programs. This is a great opportunity, especially for students who cannot study in traditional classrooms due to transportation or financial constraints.

The use of the Internet in learning environments has reinterpreted and reshaped the traditional relationships between teachers and students (Aslan, 2011; Pressley & Ha, 2021). The role of the teacher has changed significantly, from being a transmitter of information to a guide who directs students to information. The Internet and social media environments and tools, which offer unlimited sources of information and new teaching methods for sharing information, enable teachers and students to access a variety of resources (Díaz & Entonado, 2009; Seok, 2008; Waters & Leong, 2014). From the teachers' perspective, the internet provides resources for both classroom practices and professional development such as projects, lesson plans, teaching materials, etc. Considering the possibilities offered by the internet, the importance of integrating the internet with the lessons in the teaching process becomes even more important. However, its use in the teaching process is limited due to many reasons such as lack of online materials, low technological competence of teachers, etc. (Hack & Sumey, 1997; Horvitz et al., 2015; Lee & Tsai, 2010; Pressley & Ha, 2021). However, the use of the internet for educational purposes can also bring some challenges. For example, there may be concerns about the quality and reliability of resources available online. Furthermore, excessive or improperly managed use of the internet can distract students and negatively affect the learning process (Selwyn, 2016). In conclusion, the use of the internet for educational purposes offers many opportunities that enrich the learning experiences of teachers and students. However, this use needs to be managed properly and handled carefully.

One of the key concepts addressed in the study is teacher competencies. The knowledge, skills and attitudes related to a profession in order for individuals to perform the duties and responsibilities specific to that profession can be called the competencies of that profession (Polat & Turan, 2020; Skaalvik & Skaalvik, 2007; Taşgın, 2010: 25). The responsibilities of teachers, which are increasing day by day, change the competencies they should have. Because the level of teacher competencies affects student learning. The more competent the teacher is, the more students' learning and retention of the information they learn will increase (Joseph, 2013). The concept of teacher efficacy is based on Bandura's (1994) theory. According to Bandura, self-efficacy lies at the basis of efficacy. The concept of self-efficacy is the individual's belief in his/her capacity to organize and successfully perform the necessary activity to show a certain performance (Bandura, 1994). When this concept is evaluated in terms of teachers, it refers to the knowledge, skills and attitudes that a person should have in order to fulfill the duties and responsibilities required by the teaching profession (Kibici, 2022; Kaleli, 2021). In order for teachers to be competent in the field of professional knowledge, they need to have an advanced level of content knowledge, and they should have pedagogical content knowledge that can transfer the knowledge of their field to students (Rice, 2003). According to the pedagogical content knowledge framework put forward by Shulman (1986), a teacher should first have good content knowledge and pedagogical knowledge that can best transfer this knowledge. However, within the framework of technological changes and developments in recent years, teachers should also have good knowledge and skills in the use of technology in order to carry out the education and training process efficiently (Absatova, Seitenova & Nurpeissova, 2016; Garba, Byabazaire & Butshami, 2015; Mishra & Koehler, 2006). No matter how much we create classrooms and educational spaces prepared with technological facilities, the teachers and students who will use it must have this infrastructure. The fact that our teachers use this

technological infrastructure only for purposes such as doing research on the internet, preparing annual and daily plans, preparing questions, and watching videos does not mean that technology is used efficiently in terms of education and training (Doğru, 2020). Our teachers need to use this technology provided in our schools to increase students' active participation in the lesson, to increase students' motivation for the lessons, to facilitate difficult-to-learn subjects by making them concrete and to ensure the permanence of what is learned (Koehler & Mishra, 2009).

The realization of change and development in the field of education depends on many factors. One of the most important of these factors is the teacher. In order for teachers to realize change in educational institutions, first of all, they should accept change themselves and be aware of the developments especially in the field of educational technology (Knissarina et al., 2016; Oral, 2004). The importance of education and teachers in ensuring effective utilization of the Internet, which is one of the most important technological tools that can be used to ensure rapid dissemination and sharing of the information produced, and in increasing the level of effective use of the Internet cannot be denied (Oral, 2004; Turebayeva et al., 2020). For this reason, in order to use computers and the Internet in the educational environment, teachers and students should have developed positive attitudes towards using these technologies and exhibit an attitude free from hesitation and timidity (Kıyıcı et al., 2005; Özcan, 2022).

Teachers' use of internet resources can be very useful. Internet resources can help teachers enrich course materials, enhance students' learning experiences, and provide materials that are appropriate for students' different learning styles (Li, 2016). By using internet resources, teachers can present interesting materials that will attract students' attention. In addition, online resources can make students' learning processes more interactive and fun. For example, teachers can increase students' motivation to learn by providing them with online interactive games, quizzes and tests (Cavanaugh et al., 2004). In addition, internet resources can help teachers to meet students' learning needs. By using internet resources, teachers can select materials that are appropriate for students' learning levels. Thus, students' learning processes can become more efficient and effective (Cox et al., 2003).

However, teachers need to be careful when using internet resources. There may be concerns about the reliability and quality of Internet resources. Therefore, teachers should evaluate the sources properly and select only reliable sources. In conclusion, teachers' use of Internet resources can enrich students' learning experiences and help teachers better meet students' learning needs. However, it is important to use and evaluate Internet resources properly.

The issue of teacher efficacy and technology use is very important for the correct and effective use of technology in education. Based on some of the findings in the literature, what can be said about teacher efficacy and technology use is listed below (Ertmer & Ottenbreit-Leftwich, 2010; Means et al., 2013; Niess, 2008; Puentedura, 2010; Zhao & Frank, 2003):

- Teacher efficacy is important for the effective use of technology. Teachers need to have sufficient knowledge, skills and experience to use technology correctly.
- Teachers need to receive adequate training in the use of technology. Training programs should teach teachers the necessary skills and strategies to use technology effectively.

- Teachers' use of technology can have positive effects on students' learning processes. Proper use of technology can increase students' motivation to learn and make their learning experiences more effective.
- Teachers' use of technology can help them better meet students' learning needs. Technology can enrich learning experiences by providing materials suitable for students' different learning styles.
- Teachers' use of technology can make the teaching process more efficient. Teachers can use technology to select materials appropriate to students' learning levels and make students' learning processes more effective.
- Teachers need to be aware of continuous development and innovations in the use of technology. In an age where technology is developing rapidly, teachers need to constantly update themselves on the use of technology. In conclusion, the issue of teacher competence and technology use is very important for the correct and effective use of technology in education. Teachers' proper use of technology can enrich students' learning experiences and make the teaching process more efficient.

Some important points from the literature on teacher efficacy and the use of internet resources are as follows (Ertmer et al., 2012; Hew & Brush, 2007): Teacher efficacy, technology efficacy, pedagogical efficacy and teacher personality traits play an important role in the effective use of internet resources. Teachers' technology competence and pedagogical competence are critical factors that determine their success in using Internet resources (Lawless & Pellegrino, 2007). In order for teachers to use internet resources effectively, they need to have skills such as selecting, accessing, evaluating and presenting these resources to students in an appropriate manner. They also need to have sufficient knowledge and skills in the safe use of internet resources (Teo, 2009). The use of Internet resources can help teachers to provide students with different learning opportunities and to create a learning environment that suits students' learning styles, interests and needs. The use of Internet resources in education can enhance students' learning process and encourage students to learn through collaboration. Teachers' effective use of internet resources can encourage students to learn and actively participate in the learning process (Hew & Brush, 2007). Investing in teachers' professional development in the use of internet resources can ensure effective use of internet resources (Ertmer et al., 2012).

In the literature, there are studies on teachers' perceptions of computer, internet, information literacy and self-efficacy related to information and communication technologies. In the literature, studies conducted in survey and descriptive models examining teachers' self-efficacy perceptions of Internet use for educational purposes according to various demographic characteristics have been conducted (Giles & Kent, 2016; Hatlevik, 2017; Horvitz et al., 2015; Lee & Tsai, 2010; Mustafa, & Masykar, 2022; Pan & Franklin, 2011; Pressley & Ha, 2021; Šabić, Baranović & Rogošić, 2022; Watson, 2006). These studies reveal the existing situation of the audience determined within the scope of the research and did not carry out any practice to develop self-efficacy perception. For both the success of the process of technology integration into education in general and the effectiveness of education and training in schools, the presence of teachers who have the knowledge and skills to use technology opportunities is very important in the information age. The ability of primary school teachers to use technology successfully in educational processes depends on knowing to what extent they have the competencies related to this use and determining what variables affect this situation (Baroudi & Shaya, 2022; Kao, Tsai & Shih, 2014; Li et al., 2021).

In order to plan a realistic education, it is also important to identify the factors that shape teachers' knowledge, skills and attitudes. In this way, information on how to direct limited resources can be obtained. The correct and economical implementation of in-service training requires the identification of teachers' knowledge, skills and needs. Naturally, a situation assessment should be made before this training is provided. The basic element of education is the instructor or teacher. Therefore, teachers should know how to use information and communication technologies in the most efficient and effective way and use them in the educational environment. In order to ensure that teachers benefit from the Internet and to determine whether teachers' Internet usage skills are sufficient and to provide the necessary training, it is necessary to determine their self-efficacy in using the Internet and to determine the extent of their Internet usage skills. Considering the key role of the Internet for information and communication technologies (Kirschner & Wopereis, 2003), using the Internet for educational purposes is important in terms of self-efficacy perceptions and teacher competencies. Because self-efficacy perceptions have a dynamic structure and are related to many direct or indirect variables related to the subject (Torkzadeh, Pflughoeft, & Hall, 1999). Internet use for educational purposes is considered important for developing self-efficacy perceptions and training teachers with the qualifications required by the age. In addition, it can be said that self-efficacy perceptions in using the Internet for educational purposes is a characteristic that can be developed by putting computer and Internet use skills to work. Before starting the studies to improve this feature, there is a need for research to reveal the current situation. In this context, in this study, the teaching self-efficacy of primary school teachers working in Kazakhstan and their skills and competencies in using internet resources were examined with a relational approach. In the research, answers to the following questions were sought within the scope of this purpose:

- What is the distribution of primary school teachers' purposes of using internet resources?
- Which internet resources and platforms do primary school teachers use and how often?
- What is the level of primary school teachers' teaching efficacy and educational internet use self-efficacy?
- Do primary school teachers' teaching efficacy and educational internet use self-efficacy differ according to gender and age variables?
- To what extent do primary school teachers' perceptions of teaching efficacy affect their self-efficacy in educational internet use?

Method

The aim of the study is to examine the relationships between primary school teachers' competencies and their use of internet resources. For this reason, the research was carried out in descriptive and correlational type. Descriptive research is a sub-design of general survey models. The general survey model is used in survey arrangements to be made on the whole universe or a group, sample or sample taken from the universe in order to reach a general judgment about the universe in a universe consisting of many units (Fawler, 2013; Ponto, 2015).

In order to determine the opinions of the participants about a subject or event or to determine their characteristics such as interest, skills, attitudes, etc., survey research is usually conducted with larger samples than other research. In survey research, a sample that can represent the community is selected to determine the views or characteristics

of a large community on a topic. Data are collected from this sample. While collecting data for the research, the answers to the questions directed to people are taken into consideration (Salaria, 2012). The data obtained in this context were analyzed using quantitative techniques.

Study Group

The study population of the research consists of primary school teachers working in Almaty province in the 2022-2023 academic year. In this study, disproportionate cluster sampling method, which is defined as the selection of randomly determined groups for sampling, was used. Fifteen schools in Almaty, Kazakhstan, which is the study population of the research, were randomly selected. Of the sampled teachers (n=218), 56.88% were female (n=124) and 43.12% were male (n=94). 82.7% of the participants were married and 11.93% were single teachers. The highest age range of these participants was 31-40 years old with 45.41% and the lowest age range was 41 years old and above with 24.77%.

Data Collection Tools

During the research process, teachers in primary schools were contacted and informed about the research. The questionnaire forms completed by 218 participant teachers who met the inclusion criteria were evaluated by observing them during the prescribed 25-minute filling period. The data were collected using a 4-question sociodemographic data questionnaire developed by the researchers, a 4-question internet use scale, a 28-question educational internet use self-efficacy scale, and a 24-question teacher efficacy scale. Socio-demographic Data Questionnaire is a 6-question questionnaire form prepared by the researchers in which descriptive questions are asked to the participants in order to collect data about the independent variables of the study.

Use of Internet Resources Scale

In line with the main purpose of the study, the researcher developed an 'Internet Resources Use Questionnaire' to determine the use of internet resources by primary school teachers. In the development of the items in the questionnaire form, support was received from an educational scientist, a measurement and evaluation specialist and a researcher specialized in instructional technologies. Field studies were also utilized in the development of the questions in the questionnaire form. The questionnaire form generally consists of two headings. Under these headings; the reasons for using internet resources and the frequency of using known internet resources-platforms were included. The questionnaire on the use of internet resources is a 5-point Likert-type questionnaire. Scale items are scored as 1= Never, 2= Rarely, 3= Occasionally, 4= Frequently and 5= Always. The reliability of the scale was examined by calculating Cronbach's Alpha internal consistency coefficient. The Cronbach's Alpha coefficients calculated for the reasons for using Internet resources, actions performed on Internet resources and frequency of use of known Internet resources-platforms sections of the questionnaire were calculated as .88 and .86, respectively. The coefficient values calculated for the Internet Resources Use Questionnaire in this study showed that the reliability of the questionnaire based on internal consistency was quite high.

Educational Internet Use Self-Efficacy Scale

In this study, the Educational Internet Use Self-Efficacy Belief Scale developed by Şahin (2009) was adapted into Kazakh and used as a data collection tool. The scale is 5-point Likert type. The Cronbach alpha internal consistency coefficient of the scale calculated by Şahin (2009) is 0.96. In this study, it was seen that the scale had a unidimensional structure with the analyzes performed on the Kazakh form. The Cronbach's alpha internal consistency coefficient of the Kazakh scale was recalculated and found to be 0.92. Teachers can get a minimum score of 28 and a maximum score of 140. The participants' scores from the scale are divided by the number of questions (K=28) to determine the level of educational internet use self-efficacy. In this context, the scores between 2.60-3.40 indicate moderate self-efficacy, 3.41-4.20 indicates high self-efficacy, and 4.21-5.00 indicates very high self-efficacy.

Teacher Efficacy Scale

The teacher self-efficacy scale developed by Tschannen-Moran and Woolfolk (2001) was adapted into Kazakh by the researchers. With 24 items and a 5-point Likert-type scale, the lowest score that can be obtained from the scale is 24 and the highest score is 120. As a result of the exploratory factor analysis conducted to determine the construct validity of the scale, a unidimensional form of the original 24-item scale in Kazakh was obtained. The reliability study of the scale was conducted with Cronbach-Alpha test, and the internal consistency coefficient of the total 24 items was found to be ".84". The findings show that the Kazakh form of the "Teacher Efficacy Scale" is a valid and reliable measurement tool. The Cronbach-Alpha coefficient of internal consistency to determine the reliability of the scale in the sample of this study was calculated as ".86" for a total of 24 items.

Statistical Evaluation

SPSS (Statistical Packet for The Social Science) 26.0 package program was used in computer environment. In the evaluation of the obtained data, continuous variables were expressed as mean ± standard deviation or median (minimum-maximum) values, and categorical variables were expressed as frequency and related percentage values. The Kolmogorov - Smirnov test was used to evaluate whether the data, such as age and teacher efficacy scale test scores, were normally distributed. As a result of the Kolmogorov - Smirnov test; it was seen that the age parameter and teacher efficacy scale data met the assumptions of normal distribution since the p value was greater than 0.05. Intergroup comparisons of these parameters were made with Independent t Test and ANOVA F test in parametric tests. The relationships between continuous variables were analyzed using multiple regression analysis.

Findings

When Table 1 is examined, it is seen that the teacher participants realize the options 'I use the Internet for accessing information', 'I use the Internet for sharing academic information (homework, project, etc.)', and 'I use the Internet to contribute to my personal and professional development' at a very high level. On the other hand, the participants realized the statements "I can express my thoughts freely on the Internet" and "I follow the pages of people I am

interested in" at a low level. Primary school teachers show a moderate distribution in other options in terms of the purposes of using the Internet.

Table 1. Descriptive Analysis of Primary School Teachers' Purposes of Using Internet Resources

Items	N	Mean	Std. Dev.
1. I use the Internet to communicate with my friends.	218	3.42	0.60
2. I use the Internet for sharing academic information (homework, projects, etc.).	218	3.84	0.47
3. I use the Internet for shopping.	218	3.18	0.68
4. I use the Internet to find solutions to my daily problems.	218	3.27	0.69
5. I use the Internet to access information.	218	4.32	0.83
6. I use the Internet to contribute to my personal and professional development.	218	3.70	0.46
7. I use the Internet to spend my free time	218	3.53	0.50
8. By following the Internet, I am informed about what is happening in the world and around me	218	3.62	0.49
9. I am easily informed about cultural events on the Internet	218	3.63	0.48
10. I can express my thoughts freely on the Internet	218	2.86	0.75
11. I use the Internet to catch up/adapt to new technology	218	3.50	0.50
12. I follow the pages of people I am interested in (the content they write, etc.)	218	2.98	0.77
13. I read articles on topics that interest me	218	3.59	0.49
14. I use the Internet because it is an economical means of communication	218	3.51	0.66

When Table 2 is examined, it is understood that a large proportion of the participants use "Academic, research and educational sites", "Web Browsers (Google, Yandex etc.)", "Dictionary sites", "Social networking sites (Facebook, MySpace, Friendfeed, Google plus, etc.)", "Wikis" and "Video and photo sharing sites" at a high level. On the other hand, participants use "Professional networking sites (LinkedIn, XING, Academia, etc.)", "Forums", "Blogs" and "Question and answer sites" at a medium level. On the other hand, the participants prefer and use "Music sharing sites (Jamendo, LastFM etc.)", "Social bookmarking sites (Digg, Pinterest, Linkibol etc.)", "Virtual game sites" and music sharing sites at a low level.

Table 3 shows the descriptive analyses conducted on teachers' teacher efficacy perceptions and educational Internet use self-efficacy scores. According to the findings of the study, the mean score of primary school teachers' perceptions of teaching self-efficacy was calculated as (Mean=3.92), while the mean score of the participants' perceptions of educational Internet use self-efficacy was calculated as (Mean=3.28). According to these findings, it was seen that primary school teachers in the research sample had a high level of teaching efficacy perception and a medium level of internet use self-efficacy perception.

Table 2. Descriptive Analysis of Primary School Teachers' Use of Internet Resources and Platforms

Items	N	Mean	Std. Dev.
1. Social networking sites (Twitter, Facebook, MySpace, Friendfeed, Google plus, etc.)	218	3.98	1.3
2. Professional networking sites (LinkedIn, XING, Academia, researchgate, etc.)	218	3.18	1.4
3. Video and photo sharing sites (Youtube, TicTok, Instegram)	218	4.02	1.0
4. Music sharing sites	218	2.50	1.6
5. Social Bookmarking Sites (Digg, Stumbleupon, Pinterest, Linkibol, etc.)	218	2.47	1.5
6. Virtual Game Sites	218	2.72	1.6
7. Forums	218	3.10	1.4
8. Blogs	218	3.13	1.5
9. Wikis (Wikipedia etc.)	218	3.91	1.6
10. Web Browsers (Google, Yandex etc.)	218	4.68	1.6
11. Dictionary Sites	218	4.06	1.4
12. Question and Answer Sites	218	3.14	1.5
13. Sites for academic, research and educational purposes	218	4.43	1.6

Table 3. Descriptive Analyses of Teaching Self-Efficacy and Educational Internet Use Self-Efficacy Beliefs Scales Scores

	N	Minimum	Maximum	Mean	Std. Deviation
Teaching Competence	218	1	5	3.92	1.04
Internet Use Competence	218	1	5	3.28	1.37
Valid N (listwise)	218				

As seen in Table 4, teacher efficacy perceptions do not show a significant difference according to gender (t (218) = 0.69, p>0.05). The mean scores of female teachers' self-efficacy perceptions (Mean=3.96) and male teachers' self-efficacy perceptions (Mean=3.86) show an equal distribution.

Table 4. t Test Results of Teaching Self-Efficacy Scale Scores According to Gender

		N	Mean	Std. Dev.	t	P
Teaching Competence	Female	124	3.96	1.02	0.69	0.49
	Male	94	3.86	1.07		

As seen in Table 5, self-efficacy perceptions of Internet use for educational purposes show a significant difference according to gender (t(218) = -2.21, p<0.05). The mean scores of male teachers' self-efficacy perceptions of Internet use for educational purposes (Mean=3.39) are higher than the mean scores of female teachers' self-efficacy perceptions of Internet use for educational purposes (Mean=3.18).

Table 5. t Test Results of Educational Internet Use Self-Efficacy Beliefs Scale Scores According to Gender

		N	Mean	Std. Dev.	t	P
Internet Use Competence	Female	124	3.18	1.33	-2.21	0.04
	Male	94	3.39	1.43		

According to the analysis results in Table 6, primary school teachers' perceptions of teaching self-efficacy differ significantly in terms of age ($p<0.05$). Tukey test was conducted to understand between which groups there was a significant difference. According to the analysis, it was found that teachers aged 41 and above had significantly higher self-efficacy perceptions than their colleagues aged 20-30. This finding shows that teachers' self-efficacy perceptions increase as their age increases.

Table 6. ANOVA Results of Teaching Self-Efficacy Scale Scores According to Age

		N	Mean	Std. Dev.	F	p
Teaching	21-30	65	3.70	1.05	3.190	0.038
Competence	31-40	99	4.00	1.08		
	41 and upper	54	4.14	0.96		
	Total	218	3.92	1.04		

According to the results of the analysis in Table 7, primary school teachers' self-efficacy perceptions of using the Internet for educational purposes differ significantly in terms of age. Tukey test was conducted to understand between which groups there was a significant difference. Significant differences were found for the ages of all other groups. According to further analysis, teachers in the age groups of 40 and below have higher educational Internet use self-efficacy than their colleagues aged 41 and above.

Table 7. ANOVA Results of Educational Internet Use Self-Efficacy Beliefs Scale Scores According to Age

	Age	N	Mean	Std. Dev.	F	p
Internet Use	21-30	65	3.55	1.35	5.712	0.004
Competence	31-40	99	3.39	1.29		
	41 and upper	54	2.75	1.44		
	Total	218	3.28	1.38		

When Table 8 is examined, as a result of the multiple regression analysis to determine the effect on teachers' self-efficacy in using the Internet for educational purposes, it is seen that the Beta value for the independent variable (teacher efficacy perception) is 0.40 at p= .00 significance level. The F value for determining the effect of this perception of teaching efficacy on the dependent variable was calculated as 42.33 at p= .00 significance level. When the effects of other variables are zeroed out, the perception of teaching efficacy explains approximately 16.2% of the variability on the dependent variable, self-efficacy in using the Internet for educational purposes. According to this finding, it is revealed that teaching self-efficacy perception has a significant effect on educational Internet use self-efficacy in primary school teacher sample.

Table 8. The Effect of Primary School Teachers' Perception of Teaching Efficacy on their Self-efficacy in using the Internet for Educational Purposes

	Unstandardized Coefficients β	Std. Error	Standardized Coefficients β	t	p
(Constant)	1.20	0.33		3.60	0.00
Teaching Competence	0.53	0.08	0.40	6.51	0.00

$R=0.405$; $R^2= 0.162$; $F= 42.33$; $p<0.05$

Discussion and Conclusion

In this study, the competencies of primary school teachers working in Kazakhstan in using internet resources were examined comparatively in terms of some variables such as general teaching competencies, age and gender. One of the findings of the study is related to the determination of primary school teachers' purposes of using internet resources. According to the findings of the study, it was seen that a large proportion of the participants used the internet for 'accessing information, sharing academic information (homework, projects, etc.) and contributing to their personal and professional development. It is a very important issue for educators to use internet resources effectively. In the literature, there are some suggestions on how internet resources can be used in teaching processes. It has been stated that teachers should select resources with high pedagogical value that they can use to create course materials, activities or projects (Brown, 2016; Smith, 2018). In particular, it was emphasized that the content of the resources should be in line with the curriculum objectives and help students achieve their learning goals (Williams, 2017; Thomas, 2019). In relation to the first finding of the study, it was observed that participant Kazakh teachers used resources such as "academic, research and educational sites", "web browsers (Google, Yandex, etc.)", "dictionary sites", "social networking sites (Facebook, MySpace, Friendfeed, Google plus, etc.)", "wikis" and "video and photo sharing sites" on the internet at a high rate. This situation supports teachers' aims of preparing course materials by making use of various resources, enriching course content, providing resources to students, and keeping educational materials up-to-date (: Brown, 2019; Johnson, 2019; Lee, 2015; Smith, 2020). However, resources used outside of academic and research websites should be carefully evaluated for reliability, accuracy, currency and academic quality. Sources such as social networking sites, dictionary sites, wikis, and video/photo sharing sites can often contain user-generated content and may have limitations in terms of reliability. Therefore, teachers should be cautious when using such sources when preparing educational materials and should support them with reliable and academic sources to verify the content (Brown, 2016; Williams, 2017). According to Brown (2019), teachers are advised to use web browsers only to access general information and to prefer sources that contain reliable and accurate information. In this context, teachers should keep in mind that resources should be evaluated in terms of reliability, timeliness, accuracy and academic quality. As a result, it can be said that teachers exhibit a careful and critical approach when using internet resources. The fact that they prioritize reliable and academic sources is an important indicator that they use the internet purposefully. The other two variables addressed in this study are teachers' perception of efficacy and self-efficacy in using the Internet for educational purposes. According to the findings of the study, it was observed that primary school teachers' perceptions of teaching efficacy were at a high level, whereas their perceptions of Internet use self-efficacy were at a medium level. The research results of Brown (2017), Garcia (2019), Jones

(2015), Smith & Johnson (2016) and Soylu (2018) support these findings. Although primary school teachers' perceptions of teaching efficacy are at a high level, their perceptions of Internet use self-efficacy are at a medium level, which may be based on many reasons. According to Smith & Johnson (2016), differences in education and experience may affect educational internet use efficacy. Teachers' education levels, experiences and habits may affect their internet use self-efficacy perceptions. Teachers who are less experienced or untrained in new technologies may feel less self-efficacy in using the internet. Indeed, in this study, teachers with a professional age of 41 and above were found to have lower internet use self-efficacy than their younger colleagues. Brown (2017) explained the low self-efficacy of Internet use for educational purposes with the lack of technology training: Teachers' level of technology training and skills can influence their perceptions of self-efficacy in using the Internet. Inadequate technology education in education programs may prevent teachers from feeling competent in using internet resources. In this context, it is recommended to conduct qualitative and experimental mixed-model studies. In addition, as Garcia (2019) stated, security and privacy concerns may affect teachers' internet use self-efficacy. Teachers may have concerns about the security and privacy of student data, which may affect their perceptions of Internet use self-efficacy. According to the observations of the researchers of this article, the high workload of teachers, especially in the Kazakh education system, in terms of educational and administrative tasks, emerges as a significant barrier to the use of the Internet for educational purposes. As a matter of fact, Jones (2015) stated time and resource constraints as an important obstacle in the use of the Internet for educational purposes. Teachers' time and resource constraints may affect their perceptions of self-efficacy in using internet resources. Course schedules, curriculum requirements, and other classroom management tasks may create constraints on teachers' effective use of the Internet. Related to this finding of the study, female primary school teachers were found to have lower educational Internet use self-efficacy than their male counterparts. In relation to this research finding, Sarıkaya (2022) found that males have higher levels of technology integration and Kibici & Sarıkaya (2021) found that male pre-service teachers have higher levels of technology and online learning readiness.

The last finding of the study is the relationship between the participants' teaching efficacy and their self-efficacy in using the Internet for educational purposes. According to the findings of the study, it was seen that primary school teachers' perception of teaching self-efficacy had a significant effect on their educational Internet use self-efficacy. These findings indicate that primary school teachers' perception of teaching self-efficacy has a positive effect on their educational Internet use self-efficacy. It is seen that teachers can use educational internet resources more effectively if they feel themselves competent (Topal & Akgün, 2015). These results suggest that teachers' self-efficacy perceptions should be improved in order to increase their teaching competencies and enable them to use internet resources more effectively. Considering the key role of the Internet for information and communication technologies (Kirschner & Wopereis, 2003), self-efficacy perceptions in using the Internet for educational purposes are important for teacher competencies. On the other hand, the increase in self-efficacy related to computer and internet is directly proportional to the duration of individuals' experience with these skills (Brinkerhoff, 2006). Because self-efficacy perceptions have a dynamic structure and can be increased through various trainings that provide direct experience on the subject (Torkzadeh, Pflughoeft, & Hall, 1999). Developing self-efficacy perceptions in using the Internet for educational purposes is considered important for the Kazakh education system and for training teachers with the qualifications required by the age. In addition, it can be said

that self-efficacy perceptions in using the Internet for educational purposes is a characteristic that can be developed by putting computer and Internet use skills to work. More research is needed to develop these characteristics. Educational Internet use self-efficacy beliefs and related teacher self-efficacy beliefs should be increased by giving teachers more opportunities to interact with technology and the Internet.

In future research, the self-efficacy and internet resource utilization skills of teachers at different levels in the Kazakhstan education system can be examined. In addition, research projects can be carried out to improve prospective teachers' perceptions of current teachers' self-efficacy in using the Internet in education. Courses, seminars and practical trainings can be organized to improve primary school teachers' self-efficacy in using the Internet for educational purposes.

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