Examining the relationship between parents' digital parenting self-efficacy and digital parenting attitudes

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Abstract

Digital resources have begun to be used frequently by both children and parents. Digital resources, which are used very frequently, have entered our lives more and more with the pandemic with the development of technology. Children are now regular users of smartphones and tablets, so children's early digital interactions have brought new concepts into parent-child relationships and the role of the parent. It is thought that it will be important to re-examine the self-efficacy and attitudes of digital parents in this regard and the factors affecting the family-child relationship. Digital parenting is explained as parental efforts and practices aiming at understanding, supporting, and regulating children's activities in digital environments. Accordingly, this study aims to examine the correlation between parents' digital parenting self-efficacy and digital parenting attitudes. The study group of this research consists of 434 parents whose children attend primary school living in different provinces of Turkey. In the research, "Demographic Information Form" and "Digital Parenting Self-Efficacy Scale" and, "Digital Parenting Attitude Scale" were used as data collection tools. Frequency, percentage, standard deviation, correlation, regression, multiple regression, and two-way analysis of variance statistical techniques were used in the analysis of the data. As a result of the research, it was concluded that the digital parenting self-efficacy and digital parenting attitude have a moderate correlation and some of the variables are important predictors on the digital parenting self-efficacy.

Keywords Attitude · Digital parenting · Self-efficacy · Parents' digital parenting self-efficacy

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1 Literature review

The self-efficacy of parents towards digital resources is one of the most important factors in the effective and correct use of digital resources and in acquiring digital literacy skills of children in the primary school period. When children's screen usage time increases all over the world during this period, the knowledge, skills, and self-efficacy of families to use digital resources for the benefit of children will affect the correct use of digital resources. Additionally, the self-efficacy of families in this regard can protect their children from the harms of digital resources. Issues such as parents' being awareness of the safe and efficient use of digital devices, guiding their children to take advantage of the beneficial aspects of technology and being aware of its risky and harmful sides, and taking precautions have become one of the responsibilities of today's parents and have become important for raising healthy generations (Yay, 2019).

Parental self-efficacy can be defined as a parent's belief in their own ability to perform a specific task within a particular area of parenting. This type of self-efficacy is task-specific and is focused on a parent's confidence and judgment in carrying out specific parenting responsibilities (Leahy-Warren & McCarthy, 2011), such as managing their child's digital activities. Albanese, Russo and Geller (2019) concluded that high parental self-efficacy was positively associated with positive parent-child relationships. Specifically, parents with higher levels of self-efficacy were more likely to engage in parenting practices that were responsive to their children's needs. Responsive parenting practices are those that involve parents actively listening to their child, providing emotional support, and adapting to their child's changing needs. Furthermore, they found that high parental self-efficacy was also associated with increased attachment between parents and their children. Cassé, Oosterman and Schuengel. (2016) have shown that attachment, or the emotional bond between parent and child, is an important predictor of child development and well-being. When parents have high levels of self-efficacy, they may be better able to establish and maintain a secure attachment with their child, which can lead to positive outcomes such as better emotional regulation and social skills. Overall, the research suggests that parental self-efficacy is an important factor in promoting positive parent-child relationships, responsive parenting practices, and secure attachment. Parents may be better equipped to provide the support and guidance that their children need for healthy development and well-being by enhancing their self-efficacy.

The attitudes and habits of parents towards certain activities can influence the likelihood, extent, and manner in which their children engage in those activities. In other words, parents serve as important role models for their children and can have a significant impact on their children's attitudes and behaviors related to various activities and habits (Scaglioni et al., 2008). It is essential to emphasize the role of parental attitudes and support to ensure that students can make the most of the advantages offered by digital technology while minimizing risks (Adigwe & van der Walt, 2020; Sela et al., 2020). There is compelling evidence from multiple studies indicating that parents' media usage and attitudes towards technology are strong predictors of their young children's media and technology habits. In other words, parents' own behaviors and beliefs related to media and technology play a critical role in shaping the

media habits of their children. These findings highlight the importance of parental modeling and suggest that interventions aimed at promoting positive media use in young children should take into account parents' attitudes and behaviors towards technology (Pila et al., 2021). The attitude that parents hold towards digital technologies can significantly influence how their children use digital media to develop digital skills and build confidence in using technology (Chaudron, DI, & Gemo, 2018). This means that when parents exhibit positive attitudes towards technology and provide a supportive environment for their children to explore and learn with digital media, children are more likely to develop healthy and confident habits around technology.

The widespread use of digital resources and the mandatory use of digital resources at home by almost every family due to the pandemic have brought new roles and responsibilities for parents. The concept of digital parenting which was originally expressed as digital mediation has revealed the new roles and responsibilities of parents. Digital parenting is defined as "parental efforts and practices aiming at understanding, supporting, and regulating children's activities in digital environments" (Benedetto & Ingrassia, 2020). According to Yurdakul et al. (2013), digital parents act according to the needs of the digital age, can use digital tools as much as necessary, are aware of digital opportunities and risks and protect their children against the risks in such environments, behave respectfully in virtual environments as in real life, and convey this to their children and open to technological developments. Digital parenting goes beyond traditional parenting in online environments and requires certain responsibilities (Fidan & Seferoğlu, 2020). A digital parent is defined as someone who has basic technology literacy, is aware of online risks and threats and knows how to protect their child against these risks, incorporates digital technologies into parenting practices, regulates his child's interaction with digital media, and follows the developments in technology (Huang, Li, Chen & Straubhaar, 2018; Kabakçı-Yurdakul et al., 2013; Mascheroni, Ponte & Jorge, 2018). Digital parenting, briefly stated, is about regulating their children's digital use and taking a guiding role in this and how much they are concerned with this responsibility (Benedetto & Ingrassia, 2021). Digital parenting carries parenting responsibilities and duties in the digital environment.

As children use digital technology more frequently at home, parents should have sufficient digital technology competence (Hadlington et al., 2019; Rahayu & Haningsih, 2021). Eccles' expectancy-value model and several subsequent longitudinal studies have demonstrated that parents wield significant influence in shaping their children's beliefs (Jacobs & Eccles, 2000) so parents who are expected to raise their children as digital citizens are also expected to show digital citizenship characteristics (Yaman, Dönmez, Akbulut, Yurdakul et al., 2019). In particular, social media has become the communication area of many young people and children today (Lenhart, Duggan, Perrin, Stepler et al., 2015), and children spend most of their time here to socialize and interact with other people. Despite the intense use of social and digital media by young people, many young people lack the protection of their personal data online (Micheti et al., 2010). Especially, young people having problems with social media stem from their lack of experience and skills (Nguyen, Naguib, Das, Papathomas, Vallar, Wickramasinghe et al., 2018). Therefore, parents need to develop their digital parenting competencies in order to protect their children from serious prob-

lems such as social media bullying and identity theft. There are studies especially on the effects and roles of digital parenting (Rodríguez-de-Dios et al., 2018; Martínez et al., 2019). These studies show that the effect of digital parenting, that is, the digital mediation of parents, is more positive than peer influence on children in the long run (Mitchell et al., 2015; Nguyen et al., 2018) and reveals that parents' digital competencies greatly predict their children's digital competencies (Dong et al., 2021; Plowman, 2016). For this reason, parents' digital parenting attitudes and self-efficacy increase the influence of their children on these skills and play an important role in gaining skills suitable for the needs of technology age.

According to the results of the New Media Usage Habits and Cyberbullying Research in Turkey conducted by the Radio and Television Supreme Council ([RTÜK], 2018), children use the internet for an average of two hours and 13 min per day, they use a mobile phone for one hour and 26 min, they watch television for one hour and 29 min, and play games in the digital environment for one hour and 16 min. In the scope of the research, 45.2% of the students stated that the internet was very important to them in 2015 while it was determined that this rate increased to 63.8% in 2018. While almost half of the students participating in the research used the internet every day, it was observed that while the rate of internet users was 90.4% in 2015, this rate increased to 97% in 2018.

In a study conducted in Turkey, it was aimed to reveal the trends in this field by making content analysis of digital parenting studies. There are 48 studies on digital parenting from 2011 to 2021. It has been determined that most of the studies on digital parenting are on parental attitudes, information technology use, digital parenting, and digital game variables. The target group of these studies is mostly parents who have children in pre-school and adolescence period. There are very few studies that determine the digital parenting of families with children at primary school level (Kaya & Mutlu Bayraktar, 2021). There is no study that determines the correlation between digital parenting self-efficacy and digital attitudes of families with children at the primary school level. Parents' attitudes towards digital technologies have an important role in the strategies they adopt for their children's use of these devices (Chaudron, Beutel, Donoso Navarrete, Dreier & et al., 2015). Therefore, it is crucial to understand parents' digital self-efficacy and attitudes, as they can affect the quality and quantity of applications in digital tools available to their children. In order to fill the gap in the existing literature, the aim of this study is primarily to examine the correlation between digital parenting self-efficacy and digital parenting attitudes.

1. What is the level of digital self-efficacy perceptions and digital parenting attitudes of the parents?
2. Is there a statistically significant correlation between parents' digital parenting attitudes and digital parenting self-efficacy?
3. Is parents' digital parenting attitude a significant predictor of parents' digital parenting self-efficacy?
4. Do parents' digital parenting attitude, gender, age, place of residence, education status, number of children, time spent on the internet, parental competence, and parental internet use time together significantly predict parents' digital parenting self-efficacy?

5. Do parents' digital parenting self-efficacy levels show a significant difference depending on the common effect of digital parenting attitude and other variables (gender, age, place of residence, education status, number of children, time spent on the internet, parental competence, parental internet usage time)?

2 Research methodology

In this study, it has been primarily aimed at determining quantitatively the parents' digital parenting self-efficacy and digital parenting attitudes. Hence, the general survey model which uses surveys and interview to collect data to reach a result for a purpose or correlation between variables (Büyüköztürk, Çakmak, Akgün, Karadeniz & Demirel, 2008; Karasar, 2005) has been implemented. On the other hand, one of the purposes of the study is to determine the correlation between the parents' digital parenting self-efficacy and digital parenting attitudes, so the correlational survey model (Büyüköztürk et al., 2008; Karasar, 2005) has been employed while trying to determine whether the digital parenting self-efficacy and digital parenting attitudes of the parents correlate.

2.1 Sample

While the sample size of a study is determined, it is important to consider the time, cost, and subject (Conish, 2006). As the study was conducted during the pandemic time, it is decided to collect the data from the universe by taking into account the sampling error recommended by Yazıcıoğlu and Erdoğan (2004). It is stated that a sample consisting of 384 people is enough to conduct for ± 0.05 sampling error for a universe with 100 million population (p = .5 and q = 0.05). From all reasons above, it has been decided that the study group of 434 parents (only one of the parents participated in the research) who have children in primary school living in different provinces of Turkey (total population of Turkey is nearly 85 million) during the Covid-19 process is enough to conduct the study. Parents of the children who attend primary school have been chosen, as it is anticipated that children in primary schools have much more access to the internet with digital tools and may face risks with the pandemic. Data were collected online through social media and information technologies. Parents were asked to first approve a consent form and then mark the items on the Demographic Information Form and scales in order to voluntarily participate in the study. Parents who approved the consent form were included in the study. Demographic characteristics of the sample are given in Table 1.

2.2 Data Collection Tools

In this study, the "Demographic Information Form" created by the researchers in order to obtain personal data about the parents, 'Digital Parenting Self-Efficacy Scale' by Yaman, Dönmez, Akbulut, Kabakçı Yurdakul, Çoklar and Güyer (2019), and "Digital Parenting Attitude Scale" by İnan-Kaya, Mutlu-Bayraktar and Yılmaz (2018) have been employed to obtain quantitative data.

Table 1 *Demographic characteristics of the sample*

Gender	Female	N	317	Education Status	Secondary school	N	105
		%	73.04			%	24.19
	Male	N	117		High school	N	113
		%	26.95			%	26.03
	Total	N	434		University	N	175
		%	100			%	40.32
Occupation	Officer	N	137		Master Degree	N	27
		%	31.56			%	22.06
	Self-employment	N	297		PhD	N	14
		%	68.43			%	22.03
	Total	N	434		Total	N	434
		%	100			%	100
Income Level	1500–2499	N	75	Number of child	1	N	58
		%	17.28			%	13.36
	2500–4499	N	162		2–3	N	338
		%	37.32			%	77.88
	4500–6499	N	73		4+	N	38
		%	16.82			%	8.75
	6500+	N	124		Total	N	434
		%	28.57			%	100

Digital Parenting Self-Efficacy Scale (DPSS) The validity and reliability studies were conducted on 520 (n=331 mothers; n=189 fathers) parents living in Eskişehir city center. For the content validity of the scale, a Digital Parenting Workshop (DPW) was conducted with seven participants who are expert in different fields. After the DPW, an item pool containing indicators for digital parenting competencies was developed by the research team, and the developed item pool was presented to six experts who had research on scale development and children's online safety. In order to test the validity of the original factor structure of the scale in the Turkish sample, exploratory and confirmatory factor analysis were performed. The Cronbach Alpha reliability coefficient was calculated to determine the reliability of the DPSS. The reliability coefficient for all factors was found to be higher than 0.70. As a result of the analysis, the Turkish form of the scale consists of three factors (Digital Literacy, Digital Security, and Digital Communication) and 38 items in a 5-point Likert structure.

- *Digital Literacy*: measures the awareness of parents to communicate effectively with their children and consists of 15 items.
- *Digital Security*: measures the effectiveness of the parent in setting boundaries consisting of 18 items.
- *Digital communication: measures whether parents have financial and moral helpers in raising children, consisting of five items.*

Digital Parenting attitude scale The validity and reliability study was conducted with 355 parents whose children were aged 6–18 years in Istanbul. The test-retest application, one of the reliability analyses of the study, was carried out with 34 participants. Accordingly, the internal consistency coefficient calculated for the Confirmation of

Effective Use of Digital Media sub-dimension of the scale was 0.776, and it was 0.724 for the Protection from Digital Media Risks sub-dimension. Three experts' opinions were taken for the content validity of the items in the scale. A pilot study was conducted with ten parents for the clarity of the items in the scale. In order to test the validity of the original factor structure of the scale in the Turkish sample, exploratory and confirmatory factor analysis were performed. As a result of the analysis, the Turkish form of the scale consists of six factors (Confirmation of Effective Use of Digital Media and Protection from Digital Media Risks) and 12 items in a 5-point Likert structure.

- *Confirming Effective Use of Digital Media: consists of six items and measures parents' approval of the beneficial use of technology (entertainment, education, and research).*
- *Protection from Digital Media Risks: consists of six items and measures parents' attitudes towards protecting their children from risks.*

2.3 Data Analysis

The data used in the study were analyzed on the computer. Firstly, Skewness and Kurtosis values were calculated to decide which analysis would be used. The values were found to vary between -0.76 and 0.92. According to Tabachnich and Fidell (2013), when Kurtosis and Skewness values are between -1.5 and $+1.5$, it is considered to be a normal distribution. Hence, the parametric tests were employed for analysis. Frequency, percentage, and standard deviation were calculated for both the data collection tools to reveal the level of digital parenting self-efficacy and digital parenting attitude. On the second step of the analysis, Pearson coefficient correlation was calculated to determine the correlation level between two variables. As a result of the correlation test, a regression test was performed to reveal the prediction level of the variables. Then, multiple regression test were performed to to reveal the correlation between a dependent variable and a set of independent variables that are related to it (Can, 2013). The variables from demographic information form and digital parenting attitude level were the set of independent variables whose prediction levels on parents' digital parenting self-efficacy were analysed. Finally, two-way anova test which aims to test the main effects of the factors and the common effect of the two factors on the dependent variable simultaneously instead of testing the effect of two intergroup factors on a dependent variable separately (Büyüköztürk, 2014), were performed to test the common effect of the independent variables in the study on parents' digital self-efficacy level.

3 Research results

In this part of the research, the findings of the research are presented in parallel with the sub-problems of the research.

Table 2 *Descriptive findings on parents' digital self-efficacy perceptions and digital parenting levels*

Scales	Sub-dimensions	N	x̄	Ss
Digital Self-efficacy	Digital Literacy	434	3.70	1.051
	Digital Security	434	4.34	0.826
	Digital Communication	434	3.62	1.127
	Total	434	3.89	0.844
Digital Parenting Attitude	Confirming the Effective Use of Digital Media	434	4.20	0.542
	Protection from the Risks of Digital Media	434	4.22	0.570
	Total	434	4.21	0.449

Table 3 *The correlation between parents' digital parenting attitudes and digital parenting self-efficacy*

Digital Parenting Self-Efficacy		Digital Parenting Attitude
Digital Literacy	r	0.146
	p	0.002*
Digital Security	r	0.222
	p	0.000*
Digital Communication	r	0.184
	p	0.000*
Total	r	0.215
	p	0.000*

The findings of the first sub-problem of the study, "What is the level of digital self-efficacy perceptions and digital parenting levels of the parents?" are given in Table 2.

When Table 2 is examined, it is concluded that the digital parenting self-efficacy perceptions of the parents in the overall scale (x̄= 3.89), in the first sub-dimension of the scale (x̄=3.70), and in the third sub-dimension (x̄=3.62) of the scale are at the level of 'I am sufficient'; In the second sub-dimension of the scale, 'Digital Security' sub-dimension (x̄=4.34) is at the level of 'I am very competent'. It is concluded that parents' digital parenting attitudes are at the level of "Totally Agree" in the first sub-dimension of the scale (x̄= 4.20), in the second sub-dimension of the scale (x̄= 4.22), and in the overall scale (x̄= 4.21).

The findings of the second sub-problem of the study, "Is there a statistically significant correlation between parents' digital parenting attitudes and digital parenting self-efficacy?" are given in Table 3.

When Table 3 is examined, a significant positive and weak correlation is found between the digital parenting attitude scale and the overall digital parenting self-efficacy scale (r=.215, p<.05) and the second sub-dimension (r=.222, p<.05). A significant positive and very weak correlation is found between the digital parenting attitude scale and the first (r=.146, p<.05) and third sub-dimensions (r=.184, p<.05) of the digital parenting self-efficacy scale.

The findings of the third sub-problem of the study, "Is parents' digital parenting attitudes a significant predictor of parents' digital parenting self-efficacy?" are given in Table 4.

When Table 4 is examined, it is reached that there is a significant correlation between digital parenting attitudes and digital parenting self-efficacy of parents (R=.215; R2=0.046) and parents' digital parenting attitudes are an important pre-

Table 4 *Prediction of parents' digital parenting self-efficacy according to digital parenting attitude*

Constant	Sum of Squares	Df	Mean of Squares	F	P
Regression	14.255	1	14.255	20.909	0.000
Constant	294.528	432	0.682		
Total	308.783	433			

R=.215 R^2=0.046 Adjusted R=.044

Table 5 *Multiple regression analysis results regarding the prediction of parents' digital parenting self-efficacy*

Variables	B	Std. Error	B	T	P	Zero-order	Partial
Constant	1.906	0.442		4.314	0.000		
Gender	−0.067	0.088	−0.035	−0.767	0.444	−0.023	−0.032
Age	−0.097	0.059	−0.078	-1.662	0.097	-0.13	−0.070
Place of Residence	−0.024	0.063	−0.017	−0.377	0.706	0.024	−0.016
Education Statue	−0.048	0.028	−0.094	-1.717	0.087	0.081	−0.072
Number of Children	−0.146	0.045	−0.146	-3.244	0.001	−0.227	−0.136
Time spent on the internet	−0.110	0.024	−0.206	-4.592	0.000	−0.161	−0.193
Parental competence	0.330	0.047	0.308	7.019	0.000	0.357	0.295
Parental internet use	0.090	0.031	0.161	2.938	0.003	0.167	0.124
Parenting attitudes	0.381	0.081	0.203	4.699	0.000	0.215	0.198
R=.500		R^2=0.234					
$F_{(9, 424)}$=15,690		p=.000					

dictor of digital parenting self-efficacy (F(1-432)=20.909; p<.05). Parents' digital parenting attitudes predicted 4.6% of their digital parenting self-efficacy.

The fourth sub-problem of the research, 'Do parents' digital parenting attitudes, gender, age, place of residence, education status, number of children, time spent on the internet, parental competence, and parental internet use time together significantly predict parents' digital parenting self-efficacy?' is given in Table 5.

Gender, age, place of residence, education level, number of children, time spent on the internet, parental efficacy, parental internet use time, and parental digital attitude variables together give a moderate and significant correlation with parents' digital self-efficacy levels (R=.500, R2=0.234, p<.05). The mentioned variables together explain about 24% of the variance in digital self-efficacy.

According to the standardized regression coefficient (β), the relative importance of the predictor variables on digital self-efficacy are parental competence, time spent on the internet, digital attitude, parental internet use, number of children, education level, age, gender and place of residence. When the t-test results regarding the significance of the regression coefficients are analyzed, it is seen that the variables of parental efficacy, time spent on the internet, digital attitude, parental internet use, and number of children are significant predictors of digital self-efficacy perception.

The fifth sub-problem of the study, "Do parents' digital parenting self-efficacy levels show a significant difference depending on the common effect of digital parenting attitude and other variables (gender, age, place of residence, education status, number of children, time spent on the internet, parental competence, and parental internet usage time)?" is given in Table 6.

Table 6 *Results on the common effect of variables on parents' digital self-efficacy*

Variables	Sum of Squares	Mean of Squares	F	P
Gender*Digital Parenting Attitudes	43.514	1.741	1.858	0.000
Age*Digital Parenting Attitudes	32.929	1.317	1.744	0.002
Place of Residence*Digital Parenting Attitudes	39.889	1.596	1.895	0.000
Educational Status*Digital Parenting Attitudes	37.284	1.491	1.538	0.000
Number of Children*Digital Parenting Attitudes	35.005	1.400	1.906	0.000
Time Spent in Technological Tools *Digital Parenting Attitudes	40.265	1.611	1.373	0.000
Parental Competence*Digital Parenting Attitudes	24.672	6.168	3.148	0.000
Parent Technology Knowledge*Digital Parenting Attitudes	35.379	1.415	2.168	0.001

When the parents' digital parenting attitude levels and the common effects of other variables on parents' digital self-efficacy perceptions are examined, gender ($p < .05$), age ($p < .05$), place of residence ($p < .05$), educational status ($p < .05$), number of children, time spent using technological tools ($p < .05$), parental competence, and parent technology knowledge ($p < .05$) variables and digital parenting attitude levels have a common effect on parents' digital self-efficacy perceptions.

4 Discussion

The aim of this study was to determine the digital parenting self-efficacy and digital parenting attitude levels of parents and to reveal the correlation between these two variables. In this context, as a result of the research, it was concluded that parents' digital parenting self-efficacy and digital parenting attitudes were at a high level. Today, there are still studies showing that there is a great difference in digital attitudes and self-efficacy between children and their parents (Katz & Gonzalez, 2015; Robinson, Cotten, Ono, Quan-Haase & et al., 2015). However, the fact that especially technological devices have become an indispensable part of modern life has deeply affected the families' attitude towards and use of such devices. This result obtained in the digital parenting attitudes and self-efficacy of the families should not be ignored. Livingstone, Blum-Ross, Pavlick, and Olafsson (2018) concluded in their study that the majority of parents use the internet and digital devices and that the factor of supporting their parenting is at the forefront. Anderson, Smith, and Page (2016) concluded that parents use the internet and digital devices to monitor their children. There are also studies showing that today's children, defined as digital natives, indirectly educate their families to adopt and use information and communication technologies (Straubhaar, 2012; Selwyn, 2004). These results show that parents see digital parenting as a part of normal parenting. Moreover, while fulfilling the requirements of their parenting roles, they also develop their own digital competencies in line with the needs of their children born in the digital world.

Another finding in the study is that there is a significant and positive correlation between parents' digital parenting attitudes and digital parenting self-efficacy. Attitudes of individuals are formed as a result of a learning process organized with their lives and experiences and play a leading role in the behavior of the people (Tavşancıl, 2002). The time that parents spend with their children in the digital environment

directly affects their attitudes towards the digital world and, therefore, affects their digital self-efficacy as well. Kaspersky Lab and Shamel (2016) concluded in their study that 52% of parents play digital games with their children. This interaction of parents with their children on digital tools undoubtedly plays an important role in helping parents acquire some basic digital skills and also contributes to the development of parents' self-confidence in using digital tools. Parents' confidence in using basic digital skills positively affects their digital self-efficacy (Helsper & Eynon, 2010; Epstein et al., 2011). The effective use of the digital environment and the development of positive attitudes by the parents also positively affect the digital self-efficacy levels of the parents. When parents develop a positive attitude towards digital environments as digital natives, their digital self-efficacy increases to that extent, and when they move away from this environment, their digital self-efficacy decreases (Yaman, 2018). Based on these results, it has been concluded that parents' spending time with their children in digital environments will not only provide positive digital attitudes through their own life patterns but also positively affect their self-efficacy.

Another finding in the study is that parents' digital parenting attitudes are an important predictor of their digital parenting self-efficacy and predict about 5% of parents' digital parenting self-efficacy. There is a strong correlation between people's attitudes and their self-efficacy (Stramel, 2010; Usher, 2009). In particular, as parents' attitudes towards the digital field improve, their digital parenting self-efficacy levels will also increase. For this reason, it will contribute to parents' spending more time in digital environments, developing positive attitudes, and increasing their self-efficacy, especially by spending more time in the internet environment where they are immigrants and getting to know it better. In particular, when parents' social migration to the digital space is considered, most parents feel responsible for their children's safety, especially on the internet (Yardi & Bruckman, 2011). The fact that parents see the digital environment as an unsafe environment undoubtedly affects their attitudes negatively. This reduces the predictive effect of attitudes on digital parenting levels. The low predictive effect of parents' digital parenting attitudes on digital parenting self-efficacy is also due to the problems that parents think that digital tools and internet use may effect on their children's health. In the literature, some studies indicate that parents are distant and prejudiced against digital parenting, especially for such reasons (Plowman, 2016; Livingstone & Byrne, 2018; Dong et al., 2020). Such negative attitudes of parents towards digital devices and the internet undoubtedly have an impact on their self-efficacy.

As a result of the analysis made to find out which variable has the greatest predictive effect on parents' digital competencies, the biggest predictive effect is parental competence, time spent on the internet, digital attitude, parental internet use, number of children, educational status, age, gender, and place of residence, respectively. Having basic digital competences of families, especially mothers, has an important role in the home environment (Huang et al., 2018). The fact that parents know the digital environment and its basic features and usage areas undoubtedly causes them to feel more competent in this area. In this way, it will play an important role in the children's display of more conscious behaviors in the digital world. Digitally competent parents can better control and direct their children in the digital field (Hiniker, Schoenebeck & Kientz, 2016). This contributes to the effective fulfillment of parents' digital par-

enting roles. Undoubtedly, an important factor affecting the digital competencies of families, thus their digital parenting attitudes and self-efficacy, is the income level of families (Goedhart & Broerse, 2019). The fact that families cannot access digital tools due to their low-income level and the decrease in the time to use technological devices and the internet per person in the family due to the number of children they have also has an effective role in digital parenting self-efficacy of parents.

As a result of the research, it was concluded that gender also has a predictive role in parents' digital parenting self-efficacy. In the literature, there are studies showing that mothers, especially non-working mothers, have higher digital parenting than fathers, and they use digital media more efficiently with their children (Kennedy, 2011; Anderson, 2016). In most societies, it is thought that leaving the responsibility of raising children to the shoulders of mothers alone affects this result. It is thought that working mothers take on the various responsibilities of both their children and their homes more than fathers, so they see digital environments as a tool to keep their children entertained while fulfilling their responsibilities.

Another finding in the study is that the educational status of parents has a predictive effect on their digital self-efficacy. It is stated that parents with a high level of education can better teach safe behaviors to their children on the internet (Redmiles, 2018). This result can be interpreted as that families with high education levels use digital media more actively both because of their jobs and education levels, and therefore they are role models for their children in this area.

5 Conclusion

It is undoubtedly crucial to reveal the parents' digital skills and attitudes as they are one of the key indicators of the children's skills and attitudes. For this reason, this study aims to reveal the correlation between digital parenting self-efficacy and attitude as well as examine the variables affecting them. Therefore, this study is one of the essential research examining both the correlation between digital parenting self-efficacy and attitudes and the other variables which have a direct or indirect effect on them. Hence, it will be a guide to the researchers interested in digital parenting and other subjects on digital skills.

In the research, it was concluded that the digital parenting self-efficacy level and the digital attitude of the parents are at a high level. This result shows that the parents keep up with the new digital world and are able to understand the requirement of the technological world and feel themselves sufficient.

The study also revealed that there was a correlation between digital parenting self-efficacy and the digital parenting attitudes of the parents. As the attitudes of a person have a determinative role in his/her behavior, it has also played a decisive role in a person's belief that s/he can manage to complete some basic or complex task. Therefore, it increases people's self-efficacy on something. As the parents have a high level of positive attitude towards digital parenting, it is an inevitable result that these two variables not only correlate but have a predictive role on each other.

One of the other findings, as related to other results, is that parental competence on technology is the most essential variable that predicts digital parenting self-efficacy.

The parents with better digital and technological skills feel themselves more sufficient in the digital world, and this directly affects their self-efficacy belief. Thus, the parents having a child who is one of the citizens of the digital world are supposed to develop their digital and technological competence and other skills related to the digital era, not let the generation gap grow, and carry on their parental duties sure enough to meet the expectations of the digital world.

Consequently, as the world has evolved into a different place where most things have been waiting to be discovered, it is essential not only for the children but for the parents to be a part of that universe named as the new world. It is expected that the current universe will be replaced by a new one called the metaverse, which will merge the real world with advanced technology. This transformation will require both children and parents to develop meta-skills to adapt and thrive in this new environment. Consequently, parents need to improve their digital competence to pursue their parental roles in the digital world.

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