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Investigation of Instructive Parenting Skills of Families for E-Learning Process

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Abstract

The purpose of this study is to examine the instructive parenting skills of families for the e-learning process. The Instructive Parenting Skills Scale was used as a quantitative data collection tool in the study, which was carried out using the mixed research method. And a semi-structured interview form applied to parents and teachers was used as a qualitative data collection tool in the study. For the data analysis of the study, parametric tests were used for quantitative data analysis and content analysis was used for qualitative data analysis. According to the research findings, as a result of the quantitative data analysis, it was determined that the perceptions of the parents towards the instructive parenting skills were at the "mostly" level. In the study, according to the t-Test and ANOVA results, it was determined that there was a significant difference in favor of female parents, working parents, younger parents, and parents whose children are at primary school level for the subscale of supporting learning at home under instructive parenting skills scale. As a result of the tests performed based on the variables of graduation and income status, it was found that there was no significant difference. As a result of the qualitative analyzes, it was determined that the parents involved in the learning at home process as much as possible, but the teachers did not consider the level and quality of this involvement sufficient. In the study, it was concluded that the families considered their instructive parenting skills at a sufficient level, and they involved as instructive parents in the e-learning process, while the teachers were not satisfied with the involvement of parents in learning at home.

Keywords

Learning at home
Instructive parenting
Family involvement
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Introduction

The closest social circle of the school consists of the families. As an open and social system, schools are required to establish effective legal and administrative relations with families of their students. The interaction between school and family arising from such requirements can progress by accepting families as pedagogical partners. Because the family is also the child's first social environment. Parents and other family members within this environment play a role as natural educators for the child. In this sense, it can be said that most of the natural learning of children takes place in the family environment throughout their lives.

Parents, teachers, and peer groups are the most important sources of social support for students (Yıldırım, 2006). In other words, the success of students, their fulfillment of their developmental objectives and their development as healthy individuals in all aspects depend on being supported by their parents and teachers and being in good relations with their friends. For this reason, cooperation is ensured within the framework of common understanding and effective communication between teachers and parents for contributing to the continuity of education, supporting the multi-dimensional development of the child, and implementing the school curriculum more easily and effectively (Üstün, 2010).

It can be seen in the literature that many studies have been conducted on family education programs (Chrispeels & Gonzalez, 2006; Olmsted, 1991) and family involvement (Dodd & Konzal, 2002; Keith, Keith, Quirk, Sperduta, & Killings, 1998; Weiss, Bouffard, Bridglall, & Gordon, 2009), various family involvement models have been examined (Bauch, 1994; Beydoğan, 2006) and developed (Berger, 1991; Epstein, 1987; Fantuzzo, Tighe, & Childs, 2000) in order to make school-parent cooperation more effective.

In their study, Cömert and Güleç (2004) considered family involvement as five basic classes. These are as follows:

- *Family as Learner:* Families improve their level of knowledge and effectiveness about the objectives and content of the curriculum, learning processes, school policy and effective parenting skills.
- *Family as Educator:* Based on the view that the family is the child's first and primary educator, families assume duties and responsibilities for activities related to learning at home.
- *Family as Source of Information:* Communication channels between the school and the family that ensure the development of the child are maintained; so, the family provides continuous sharing.
- *Family as Supporter:* In order to meet the various needs of the school, families take part in school and classroom activities/roles such as being a classroom parent representative, joining the school-parent union, and being a source of information.
- *Family as Counselor and Decision Maker:* Families exchange views with the school administration and the teachers on basic issues related to the child's development, offer suggestions, and participate actively in the decision-making process (Cömert & Güleç, 2004).

It can be said that families have a major role in supporting the learning of students in face-to-face and e-learning processes carried out within the scope of formal education as well as in informal education. As a matter of fact, with the Covid-19 pandemic, which emerged in 2019, directly affected social life and the working process of social organizations all over the world, the role and responsibility of families has become more evident for educational services to continue without interruption.

After the first official case in Turkey on March 10, 2020, the Ministry of National Education (MoNE) decided to switch to the e-learning process on March 23, 2020. The Ministry of National Education, which decided to gradually switch to face-to-face education in September 2020, follows the policy of carrying out the e-learning process and the face-to-face education process together in a

combined manner. In this context, it can be said that parents in Turkey have carried out a family involvement focused on "family as educator" for a long period of time in order to support the learning process of students at home during this e-learning process.

Activities regarding learning at home constitute an important type of family involvement. Learning at home is a type of involvement that takes place with the purpose of providing parents with ideas and information on curriculum-related activities, decisions, and planning as well as on how to help students with their homework. The most important results of involvement as learning at home for students, families and teachers can be expressed as follows (Epstein, 2010):

1. Learning at home has positive outcomes for students such as gaining skills, abilities and test scores related to homework and class assignments, completing homework, developing a self-perception of abilities, and displaying a positive attitude towards school-related duties. In addition, the perception that the parent is more like the teacher and the house more like the school is among the consequences of such involvement for students.
2. Learning at home provides parents with the opportunity to learn how to support and encourage and help the student at home year after year. In this context, parents have the opportunity to understand the content of the curriculum and what the child has learned in each subject, by participating in school-class assignments and homework discussions every year. In this way, parents improve their awareness regarding the student. Such involvement also provides opportunities for the appreciation of teaching skills of parents.
3. Learning at home provides important gains for teachers in terms of better design of homework, respect for family time, satisfaction with family involvement and support. In addition, the equal recognition of the benevolence of single-parent, dual-income, less educated, etc. families for motivating and reinforcing student learning is one of the results of such involvement.

In addition to family involvement, the influence of teachers in the development, planning and monitoring of activities regarding learning at home is undeniably evident as well. Attitudes and behaviors of teachers towards parents play an important role in teacher-parent cooperation (Albez & Ada, 2017). The fact that teachers share some responsibility with parents for home-based studies (homework, projects, activities at home, etc.) in addition to the guidance and information they provide to increase family involvement at home (Gündüz, 2019) establishes a different dimension for the parent-child relationship. In this context, it can be said that parental involvement at home is an economic and sustainable education strategy that completes the learning process in the classroom and supports children's education on the school-home axis.

Studies show that parental involvement is a significant factor for the development of the children and for supporting school life (Desforges & Abouchaar 2003; Epstein & Sanders, 2006; Harvard Family Research Project, 2006; Kocabaş, 2006; Titiz & Tokel, 2015). In particular, the literature review on early childhood studies shows that involvement of parents for activities regarding learning at home contributes positively to the learning of students (Halgunseth, Peterson, Stark, & Moodie, 2009; Harris & Goodall, 2008; McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004). It was also proven in the educational psychology literature that the educational attitudes and behaviors of parents in the home environment have positive effects on the development, academic achievement, and motivation of students (Gonzalez-DeHass, Willems, & Holbein, 2005; Spera, 2005; Hill & Tyson, 2009).

Studies on family involvement activities of parents from different socio-economic levels (Goshin & Mertsalova, 2018; Ingram, Wolfe, & Lieberman, 2007) support that the increase in family involvement activities, particularly learning at home or home-based involvement, contribute to the learning of children at lower socio-economic levels.

Research findings pointing to the strong relationship between parent involvement and student achievement (Barnard, 2004; Harris & Goodall, 2008) enlighten the thoughts about experiences of parents on learning at home during this period of pandemic in which e-learning became prominent. In

the literature review, it was determined that the ongoing e-learning process during the Covid 19 pandemic was examined particularly with factors such as teachers (Bakioğlu & Çevik, 2020), school administrators (Zincirli, 2021), students (Bozkurt, 2020), online learning (Duman, 2020; Keskin & Özer, 2020), academics (Kaya, 2020). It can be understood from the studies that there is a need for multi-dimensional studies in order to analyze the effects of the pandemic period on the education process. The need for school-family cooperation, especially in order to support the development of the individual in many ways in the education-training process (Akbaşlı & Diş, 2019; Özdemir, 2018), indicates that research focusing on parents are required for the e-learning process. If the home is accepted as an extension of the school for the student in school-family involvement studies, the experiences and opinions of the parents should be taken into account, especially for the e-learning process. Because it can be said that the activities, attitudes, and behaviors of parents at home to support the learning of their children (students) directly affect the development of their children. Therefore, it is thought that the level and quality of family involvement for learning at home is an effective factor for the e-learning process. From this point of view, it can be said that this study, which examines the instructive parenting skills of families for the e-learning process, is unique research. It is thought that the findings of this research will contribute to the understanding of the quality of family involvement for learning at home, the interpretation of the future student achievement levels, and the development of school-family cooperation in the focus of family involvement activities. In this mixed research, which was carried out to examine the instructive parenting skills of families for the e-learning process, the research questions were as follows:

1. What is the level of views parents on instructive parenting skills for the e-learning process?
2. Do the views of parents on instructive parenting skills differ according to the variables of sex, age, income status, employment status, graduation status, and school type of the students?
3. What are the experiences and views of the parents as instructive parents regarding the e-learning process?
4. What are the views of teachers on the instructive parenting skills of parents during the e-learning process?

Method

The mixed research method was used in this study, which was carried out to examine the instructive parenting skills of families for the e-learning process. The mixed research method, in which quantitative and qualitative research methods are used together, was preferred in this study with the thought that it would shed better light on scientific research questions by highlighting the strengths of these two methods (Robson, 2015, p. 195). The design of the research, which was carried out in the explanatory sequential mixed design of the mixed research method, is presented in Figure 1.

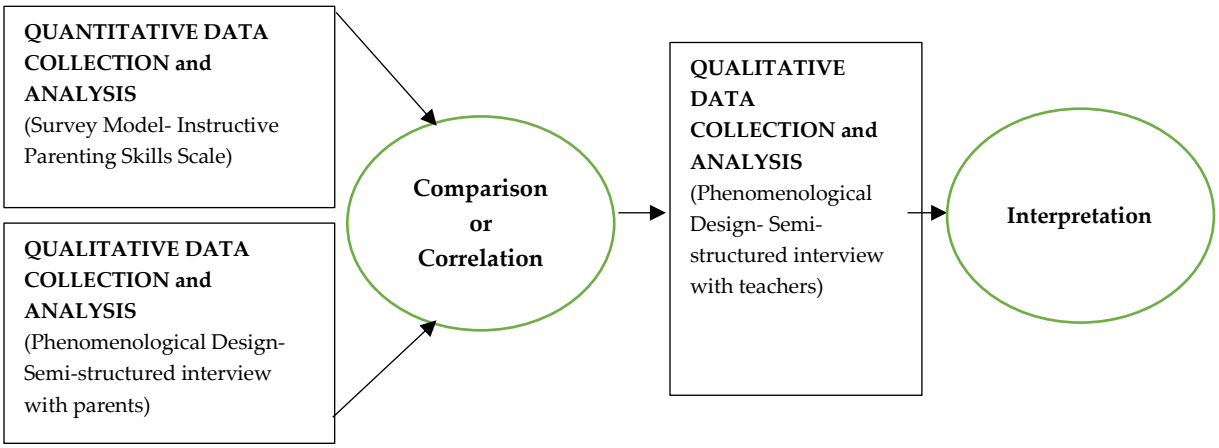

Figure 1. Research Design

The explanatory sequential mixed research design is a design in which qualitative data are used to explain quantitative findings in more detail (Creswell, 2017). As seen in Figure 1, quantitative and qualitative data collection tools were used simultaneously in this study, the obtained data were analyzed, and a second qualitative study was conducted to find answers to the research questions after making correlations between quantitative and qualitative data.

The survey design (Karasar, 2012), which aims to research the existing situation as it is, was used for the quantitative part of the research. In the qualitative part, the phenomenological design (Creswell, 2017) was used to reveal the experiences and meanings of the phenomena. The study was completed by analyzing and interpreting the quantitative and qualitative data obtained from these two parts.

Research Group

In order to ensure the validity and reliability of the scale of the quantitative part of the research, the scale was applied on two separate samples in Erzurum by using a convenience non-systematic sample. The first sample group consists of 181 parents and the second sample group consists of 363 parents. For the first sample group, the neighborhoods where house rent amounts are differing (low, medium, high) in the central district of Erzurum province were chosen in order to increase the representative power of the sample to which the scale will be applied. Interviews were held with the parents who could be contacted, and the scale questions were applied face-to-face. For the second sampling stage of the scale, for which exploratory factor analysis was performed, online methods (mobile applications, e-mail) were preferred due to the pandemic conditions and the scale was opened to the access of parents in the central district of Erzurum. Participants who answered the scale on a voluntary basis were selected for the sampling.

Considering the number of items in the scale, it can be said that the sample size is sufficient for exploratory (n=181) and confirmatory factor analyzes (n=363) (Koyuncu & Kılıç, 2019). In addition, based on 75,961 students (Erzurum Provincial Directorate of National Education, 2020) studying at schools located in the center of Erzurum, the number of samples at the significance level of 0.05 (n=544) was found to be sufficient (Krejcie & Morgan, 1970). After the validity and reliability analyzes were completed, the data obtained from both samples were assessed together for the analysis of instructive parenting skills.

The criterion sampling technique, one of the purposive sampling techniques, was used for the qualitative part of the research. Seven parents who met the criteria of being a volunteer, having experience during the e-learning process, having a child (student) at different ages, having low or moderate income, graduating from different school levels were interviewed. The criteria of being a volunteer, being a classroom or branch teacher, having experience of e-learning process related to parent groups with different education levels, working in a public school were used in order to determine another study group of the research, the 29 teachers. It was accepted that the number of participants consisting of parents and teachers was sufficient considering the focus of the research, the scope and depth of the data obtained (Yıldırım & Şimşek, 2018, p. 124). Demographic data on the participants who contributed to the research is presented in Table 1.

Table 1. Demographic data on the participants

Variable	Quantitative		Qualitative	
	Sample 1	Sample 2	Parents group	Teachers group
n	181	363	7	29
Sex				
Female	96	289	5	22
Male	85	74	2	7
Age				
20-25	8	7	-	
26-31	17	53	-	1-7 years of seniority:18
32-37	35	101	2	8-15 years of seniority:10
38-43	43	130	2	16+ years of seniority:1
44-49	78	49	3	
50 +		23	-	
Graduation				
Primary school	30	97	1	
Middle school	16	34	1	29
High school	58	90	1	
University	77	142	4	
Income level				
Low income	21	55	2	
Middle income	121	234	5	18 sınıf öğretmeni
High income	39	74	-	11 branş öğretmeni
Occupational Status				
Actively working	102	207	3	
Non-working	79	156	4	
School type				
Primary school	58	122	2	
Middle school	20	17	1	
High school	28	34	-	
Two different levels	54	129	3	
Three or more different levels	21	61	1	

Data Collection Tools

Quantitative Data Collection Tool

In this study, the Instructive Parenting Skills Scale developed by the researchers was used as a quantitative data collection tool. Scale data were re-analyzed after exploratory and confirmatory factor analyses. Considering related studies in the literature, learning at home involvement or instructive skills of parents are scale items or sub-scales in the available research scales. Therefore, the Instructive Parenting Skills Scale, which was developed by the researchers in a 5-point Likert structure, was used in order to find an answer to the quantitative question of the research. Scale items were graded as "always (5), mostly (4), sometimes (3), rarely (2), never (1)".

First, the relevant literature was reviewed by paying attention to the stages of the scale development process. Family involvement scales were examined (Gürbüztürk & Şad, 2010; Oğuz, 2012; Yeşil, Şahan, & Aslanderen, 2018) and an item pool was created accordingly. Two experts in the field of educational sciences were consulted during the measurement and assessment process of the item pool consisting of 58 items. By comparing the assessments of the experts, the items with a consensus (95%) that they were not fitting for the scale were eliminated, and a draft scale of 30 items was prepared accordingly. In line with the feedbacks of 16 people (parents and teachers) who participated in the pre-application to test the language-expression consistency and clarity of the scale, it was decided to remove

8 more items from the scale, which were similar to the other items, which were difficult to understand and indicate other involvement aspects.

The 22-item scale was applied to a sample of 186 people for exploratory factor analysis (EFA). 5 samples were found to be incomplete and inaccurate, and therefore, removed. Afterwards 181 samples were analyzed for EFA.

When the data of 181 participants participating in the study were examined, whether the total mean score of the scale provided the assumption of normality was examined by goodness-of-fit tests. Table 2 shows the test results.

Table 2. Goodness-of-fit test results

	Kolmogorov-Smirnov			**Shapiro-Wilk**		
	Statistical value	**Degrees of freedom**	***p* value**	**Statistical value**	**Degrees of freedom**	***p* value**
Mean total score	0.116	181	0.000	0.898	181	0.000

Table 2 was examined, and it was seen that the mean total score was not fitting regarding the normal distribution ($p<0.005$). This result is due to the outliers. As a result of the item analyzes, the items I7, I13, I21, and I22 with the lowest corrected item-total correlation values were removed and the item analysis was performed again. Table 3 shows the results of this analysis.

Table 3. Item total statistics after non-fitting items are removed

	Scale mean after item removal	**Scale variance after item removal**	**Item total correlations**	**Squared multiple correlations**	**Coefficient of reliability after item removal**
I1	72.4420	91.859	.650	.561	.910
I2	72.3978	93.030	.580	.474	.911
I3	72.3481	93.362	.610	.539	.911
I4	72.4309	93.258	.555	.510	.912
I5	72.5359	92.039	.636	.509	.910
I6	72.2044	94.475	.521	.398	.913
I8	72.1934	93.912	.642	.553	.911
I9	72.0331	96.777	.471	.409	.914
I10	72.3536	93.497	.595	.454	.911
I11	72.2652	92.752	.631	.544	.910
I12	73.0276	87.771	.604	.467	.912
I14	72.4254	89.935	.708	.608	.908
I15	72.4530	92.994	.536	.418	.913
I16	72.5525	91.860	.566	.582	.912
I17	72.5525	90.838	.592	.591	.911
I18	72.8122	87.576	.604	.630	.912
I19	72.6409	89.065	.686	.663	.908
I20	72.5414	92.316	.513	.338	.913

In the second part of the item analysis, the t-Test for independent samples and the difference of two means was used to determine whether there is a statistically significant difference between the 27% lower and upper limits of the total score mean and the items. The results obtained are presented in Table 4. The results of the analysis were examined, and it was determined that there was a statistically significant difference between the items and the groups ($p<0.05$), and it was determined that each item had a distinctive feature.

Table 4. Second measurement independent groups t-test results

	Levene Test		t-Test	
Item*	**F-Test**	***p* value**	**t-Test**	***p* value**
I1	23.355	.000	9.314	.000
			9.314	.000
I2	18.469	.000	6.803	.000
			6.803	.000
I3	3.522	.064	7.202	.000
			7.202	.000
I4	17.575	.000	7.421	.000
			7.421	.000
I5	18.849	.000	7.736	.000
			7.736	.000
I6	25.642	.000	5.482	.000
			5.482	.000
I8	14.698	.000	7.520	.000
			7.520	.000
I9	60.140	.000	4.973	.000
			4.973	.000
I10	9.226	.003	7.592	.000
			7.592	.000
I11	27.705	.000	7.923	.000
			7.923	.000
I12	15.545	.000	12.921	.000
			12.921	.000
I14	62.736	.000	11.463	.000
			11.463	.000
I15	53.206	.000	10.614	.000
			10.614	.000
I16	29.461	.000	9.010	.000
			9.010	.000
I17	27.727	.000	7.778	.000
			7.778	.000
I18	32.643	.000	11.311	.000
			11.311	.000
I19	38.334	.000	10.944	.000
			10.944	.000
I20	39.621	.000	8.498	.000
			8.498	.000

*: For each item, the first line indicates that the variances are homogeneous, and the second line indicates that the variances are not homogeneous.

Table 5. KMO and Bartlett Test results

Kaiser-Meyer-Olkin (KMO)		.907
Bartlett's Test of Sphericity	Chi-square	1584.580
	Degrees of freedom	153
	p value	.000

According to Table 5, a KMO value greater than 0.70 (KMO value: 0.907 > 0.70) means that the data set and sample size are suitable for Factor analysis. Accordingly, the common variance table (communality) of the Exploratory Factor Analysis (EFA) was examined and item I20 with a common variance value below 0.40 was excluded from the analysis.

The rotated factor matrix of the EFA using the varimax rotation technique, which counts the variance for the factor loading values to be maximum by increasing the high factor loading values and decreasing the low factor loading values, was examined in this regard. Accordingly, the difference between the highest factor loadings with overlapping problem and the factor loadings close to the highest was examined. Items I9, I10, and I11 loaded on more than one factor with the difference between 0 and 0.10 were excluded from the analysis and it was determined that the percentage of total variance representation increased. The rotated factor matrix based on the repeated EFA results is presented in Table 6.

Table 6. Rotated factor matrix

	Component		
	1	**2**	**3**
I3	.775		
I4	.748		
I5	.707		
I1	.677		
I8	.664		
I6	.659		
I2	.658		
I16		.846	
I17		.821	
I15		.618	
I12		.542	
I18			.886
I19			.820
I14			.608

The rotated factor matrix was examined, and it was seen that the items in the scale could be grouped under 3 factors. Under the first factor, there are items I1, I2, I3, I4, I5, I6, I8; under the second factor, there are items I12, I15, I16, I17; under the third factor, there are items I14, I18, and I19. In the three-factor scale, factor items were examined, and three important principles of instructive family involvement were taken into account in this regard; the first factor was named as awareness on student at home, the second factor was named as supporting student development at home, and the third factor was named as supporting learning at home. Accordingly, the data regarding the total variance represented by the fourteen-item scale are presented in Table 7.

Table 7. Number of eigenvalue-dependent factors and represented total variance

Factor	Eigenvalue			Represented total variance		
	Total	Varience percentage	Birikimli varyans yüzdesi	Total	Varience percentage	Toplam
1	6.285	44.892	44.892	44.892	44.892	3.823
2	1.550	11.074	55.965	11.074	55.965	2.645
3	1.039	7.418	63.383	7.418	63.383	2.405
4	0.853	6.094	69.477			
5	0.782	5.589	75.066			
6	0.564	4.026	79.092			
7	0.540	3.854	82.946			
8	0.472	3.371	86.317			
9	0.417	2.978	89.295			
10	0.393	2.810	92.105			
11	0.351	2.509	94.614			
12	0.294	2.102	96.716			
13	0.238	1.700	98.416			
14	0.222	1.584	100.000			

According to Table 7, it was concluded that the 14-item scale represented 63.38% of the total variance. In Table 8 below, the results of the reliability analysis for each sub-factor of the Instructive Parenting Skills Scale, which was determined as consisting of three factors, are presented.

Table 8. Reliability analysis

	Cronbach alpha reliability coefficient	Item Number
F1	0.865	7
F2	0.798	4
F3	0.851	3
Overall scale	0.905	14

According to Table 8, it was determined that the scale developed as a result of the reliability analysis had a high level of reliability. The reliability of the scale was also tested with split half analysis. Two-half reliability is the calculation of the correlation between the parts by splitting the data set into two equal parts (DeVellis, 2017). Accordingly, the Sperman Brown coefficient was calculated as .82 for Factor I, .70 for Factor II and .87 for Factor III. In the two-half reliability analysis for the whole scale, Cronbach's alpha values for the 1st and 2nd half were found to be .84 and .82, and the Sperman Brown coefficient was .87.

The scale developed after the exploratory factor analysis was applied on a different sample group of 363 people. With the obtained data set, first-level multifactorial and second-level multifactorial models were examined again. Before the analysis, the assumption of normality was examined and it was seen that the arithmetic mean, mode, and median values of the data were close to each other, the coefficient of variation was 12%, and the values had a normal distribution appearance in the histogram and Q-Q plot graphic tests. It was determined that the kurtosis skewness values of the scale means were between ±1 values and it was accepted that the observable variables in the scale were in normal distribution (George & Mallery, 2010; Tabachnick & Fidell, 2013).

A model based on the items of the factors obtained as a result of EFA was created for confirmatory factor analysis (CFA). Figure 2 shows this model.

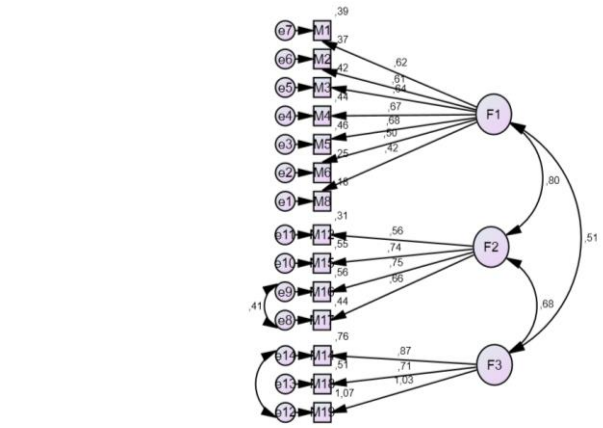

Figure 2. First-level confirmatory factor analysis model of standardized values of instructive parenting skills scale

As seen in Figure 2, it was seen that the fit indices obtained after the modifications of the first level confirmatory factor analysis were within the acceptable limits of fit. A second level confirmatory factor analysis was conducted to show that the scale represents the perception of instructive parenting skills, which is a higher concept created as a result of the first level confirmatory factor analysis, with the combination of the sub-scales of which structure was determined through the analysis; these sub-scales are "F1; awareness on student at home", "F2; supporting student development at home", "F3; supporting learning at home". Since the model fit criteria obtained (CMIN/DF=2.14, p<0.001, RMSA= .056, CFI=.958, GFI= .946, NFI=.925, AGFI=.921) as a result of the analysis were not within the desired limits, the modification indices were examined, and it was seen that the fit indices obtained after the suggested modifications were within the acceptable fit limits. The model obtained as a result of the modification is presented in Figure 2.

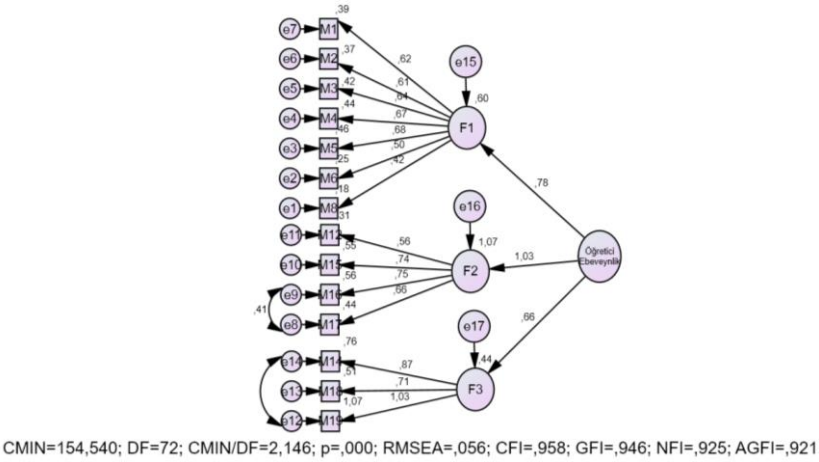

Figure 3. Second-level confirmatory factor analysis model of standardized values of instructive parenting skills scale

If the results of the model are examined, it can be seen that they are the same as the results of the first level analysis. According to Şimşek (2007), this indicates that second-level correlations do not have an effect on the parameter values in the model (Nayır, 2013). If the variances represented in the first-level variables by the second-level variable are examined, it can be seen that variability is represented in the factors of "awareness on student at home" (R^2 =.77), "supporting student

development at home" (R^2 =.75) and "supporting student learning at home" (R^2 =.61), among the first level variables. If standardized values are examined, it can be seen that the variables most associated with instructive parenting skills are "supporting student development", "awareness on student at home" and "supporting student learning", respectively.

Qualitative Data Collection Tool

Semi-structured interview method was used as data collection tool in the study. For the development of the data collection tool, the quantitative part of the research was taken into account, and candidate questions were formed in a way to reveal the experiences of parents and teachers regarding learning at home involvement for the e-learning process. An expert opinion form was provided to two experts in the field of educational sciences for the fitting and content validity of the candidate questions. In line with expert opinions, two separate interview forms were prepared, including three open-ended questions, apart from questions about personal information. The pilot application of the prepared interview form was performed with two people (parent, teacher). The answers of the participants in the pilot interviews which were excluded from the scope of the research were then analyzed. As a result, it was determined that the interview questions were clear and understandable, and it was decided that the interview form was applicable in its current form. The following questions were included in the interview forms used for data collection:

Questions directed to parents;

1. What did you do at home to support the education of your student(s) for the e-learning process?
2. What were the difficulties and conveniences you experienced during the e-learning process?
3. How were you supported (on what) by the teacher of your student(s) during the e-learning process?

Questions directed to teachers;

1. What did you expect/request from parents to do for the e-learning process?
2. What were the problems that parents of your students faced in the home environment during the e-learning process based on the situations they reflected on you?
3. Do you think that your expectations for parents in supporting the e-learning process are met? Can you describe it with examples?

Ethical approval dated 21.08.2020 was obtained from Atatürk University Institute of Educational Sciences Ethics Committee for all data collection tools used in the study.

Data Collection

The data of the scale, which was started to be applied to a sample of 186 people for the research, were collected by two researchers in a 36-day period, paying attention to the pandemic measures. Despite the difficult conditions of the pandemic, the scale was hand-delivered to the parents in order to increase the representative strength of the sample. Due to the pandemic, online methods were used for the application of the scale to a larger sample. The application link of the scale, which was transferred to the digital environment, was delivered to the parents via e-mail and mobile applications, and the data were collected in a two-month period.

Qualitative data of the study were collected simultaneously by two researchers. A list of parents and teachers to be interviewed was created with the criterion sampling method. The parents on the list were contacted and the parents who agreed to be interviewed were interviewed for 35 minutes, either on the phone or face to face. It was determined that the answers provided by the parents to the interview questions repeated themselves after the fourth interview, and the parent interviews were terminated after the seventh interview. Afterwards, the teachers in the interview list were contacted and 29 teachers expressed their opinions by writing in the interview form. As a result of the interviews conducted on a

voluntary basis, the opinions of the participants were read aloud, and their consents were obtained for the interview data.

Validity and Reliability

Exploratory factor analysis and first and second level confirmatory factor analysis were performed for structure validity; and expert opinions were obtained to ensure the content validity of the quantitative part of the study. Cronbach Alpha and split half method were used to test the reliability. Analysis results regarding validity and reliability are explained in the data collection tools section.

In order to increase the in-text validity of the qualitative part of the research, expert opinions were used based on the conceptual framework of family involvement models, and the prepared interview form was pre-tested in this regard. The written and audio recorded expressions obtained by the researcher during the interviews and the expressions written by the teachers in the interview form were read aloud to the interviewees and their approval was obtained in order to increase the reliability of the interviews. The accuracy and precision of the obtained data were tested, and the consistency of the interview was increased with the written and audio recordings. Written and audio interview records were transferred to the digital environment. The transcription process was subject to comparison by a third person, and it was concluded that the transcription process was in accordance with the original. In order to determine the reliability of the research, the transcripts of the parent and teacher interviews were examined by another observer and this third person was asked to code the answers into two separate interview coding keys. The consistency of the parent and teacher coding key marked by the researcher and the observer was compared and the number of matching codes was divided by the total number of matching and inconsistent codes (Miles & Huberman, 1994), and it was seen that there was 96% consistency between the coding. In addition, direct quotations from the interviews are included to increase consistency and the sources of the code are indicated in the tables.

Data Analysis

The quantitative data of the research were analyzed using SPSS and AMOS programs; then descriptive analyzes, t-Test and ANOVA tests were applied to data. Content analysis was conducted for the qualitative data of the research. Qualitative data in content analysis were encrypted as P1, P2 for parents and as T1, T2 for teachers. The data were processed by defining the participant opinions as codes in the integrity of meaning and logic. Considering the relationship between the codes, categories and themes were created for the codes. The codes in each named theme were then tabulated. Figure 4, includes the main theme and sub-themes determined as a result of inductive content analysis.

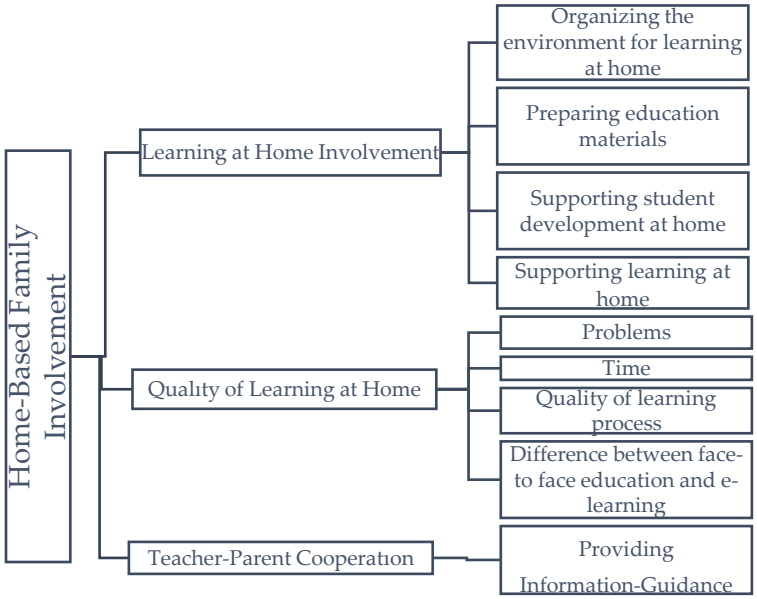

Figure 4. Main Themes and Sub-themes

Results

Views of parents on their instructive parenting skills and their experiences in the e-learning process

In the context of the quantitative sub-problem of the research, the level of views of parents on instructive parenting skills is presented in Table 9 below.

Table 9. Arithmetic Means and Standard Deviations of Parent Responses to Scale Items

No	Sub-scale	Scale Item	$\bar{X}$	Sd
I1	**Home Awareness on Student**	I know my child's learning style.	4.14	0.78
I2		I am aware of the fields in which my child is interested.	4.34	0.73
I3		I am conscious of how I should communicate with my child at home.	4.28	0.80
I4		I know my child's social and psychological needs.	4.21	0.85
I5		I know how to motivate my child to study.	4.01	0.91
I6		I provide a peaceful and suitable environment where my child can study.	4.36	0.81
I8		I take the necessary measures to support my child's development in all aspects.	4.46	0.70
I12	**Supporting Student Development at Home**	I perform social, cultural, artistic and sports activities with my child.	3.59	1.10
I15		I have conversations with my child to support my child's development.	4.21	0.86
I16		I encourage my child to ask questions such as “who, what, why, how, where”.	4.07	0.89
I17		I encourage my child to investigate and question the causes and consequences of events.	4.10	0.91
I14	**Supporting Learning at Home**	I help my child understand things he/she does not understand.	4.25	0.90
I18		I check my student's homework daily to see if there is any trouble or mistake.	4.00	1.09
I19		I check what my child has learned.	4.10	0.95
		Total	**4.15**	**0.87**

According to Table 9, among the instructive parenting skills, "awareness on at home" (I1, I2, I3, I4, I5, I6, I8), "supporting student development at home" (I12, I15, I16, I17) and "supporting learning at home" (I14, I18, I19) skills are evaluated as at the level of "mostly" by the parents. Based on this finding, it can be said that parents support the development and learning of their students at home and know about their children as students.

It can be seen that the parents evaluated the item "*I know how to motivate my child to study*" lower than the other items among the skills related to awareness on student at home. It can also be seen that the mean of the items "*I perform social, cultural, artistic, sportive activities with my child*" among the skills to support student development at home and the "*I check my student’s homework daily to see if there is any trouble or mistake*" among the skills to support learning at home are at a low level compared to the other items.

As a result of the analysis of the qualitative data obtained to clarify the quantitative findings, it can be said that parents have difficulty in motivating their students to study at home, they do different extra-curricular activities in the home environment as much as they can, and they check the studying of their student to the extent that they can understand. The views of parents on instructive parenting skills in line with their experiences for e-learning process are presented in Table 10.

Table 10. Views of parents on their instructive parenting skills

Theme	Category	Code	*f*
LEARNING AT HOME INVOLVEMENT	Organizing the environment for learning at home	Providing a quiet environment at home. [P1, P4, P6, P7]	4
		Taking measures for children to study together. [P3, P4, P5, P6]	4
		The student has his/her own study room at home. [P1, P4, P7]	3
		The home environment is not sufficient for the student. [P2, P6]	2
	Preparing education materials	Taking measures for e-learning tools [P1, P2, P3, P4, P5, P6, P7]	7
		Buying additional materials. [P1, P3, P4, P6, P7]	5
		Using different online learning environments. [P1, P4, P5, P6]	4
		The number and quality of online tools at home are sufficient. [P1, P4, P5, P7]	4
		The number and quality of online tools at home are insufficient. [P2, P3, P6]	3
	Supporting student development at home	Playing games with siblings [P2, P3, P4, P5, P6, P7]	6
		Playing games with parents. [P1, P4, P5, P7]	4
		Reading [P2, P4, P5, P6]	4
		Painting, mock-up [P3, P4, P5, P7]	4
		Going out [P1, P2, P4, P5]	4
		Solving test questions at home. [P1, P4, P5, P7]	4
		Helping with housework. [P2, P5, P6]	3
		Watching TV [P3, P5]	2
		Religious education. [P2, P4]	2
		Participating online in national holiday activities. [P4, P7]	2
		Handcrafting for manual skills. [P2]	1
	Supporting learning at home	I can't help with subjects he/she doesn't understand. [P1, P2, P3, P5, P6]	5
		His/her older brother/sister helps at home. [P1, P2, P3, P5, P6]	5
		I can only help my primary school level student.[P2, P3, P4, P5]	4
		His/her mother is more influential in the process. [P5, P7]	2
QUALITY OF LEARNING AT HOME	Problems	As an instructive parent, I am under stress. [P2, P3, P4, P5, P6, P7]	6
		My child is bored, tired, distracted. [P1, P2, P3, P4, P7]	5
		He/she misses life at school. [P1, P2, P3, P4, P7]	5
		The number of his/her social activities decreased. [P2, P3, P4, P5, P7]	5
		I have a hard time motivating him/her to lessons [P2, P4, P5, P7]	4
		There are technical problems. [P1, P2, P4, P5]	4
		The number and quality of online tools at home are insufficient. [P2, P3, P6]	3
		My students whose classes overlap cannot participate in such lessons. [P2, P3]	2
	Time	The e-learning duration during the day is long and tiring. [P1, P2, P3, P7]	4
		The break between lessons is too short. [P1, P3]	2
		Lesson duration is limited. [P1]	1
	Quality of learning process	In live lessons, the teacher does his/her best. [P3, P5, P7]	3
		Attendance to live lessons is low. [P1, P3, P5]	3
		The individual learning process at home is not enough on its own. [P1, P2, P6]	3
		Live lessons are not efficient. [P1, P2, P3]	3
		Over time, he/she got used to the e-learning process. [P4, P5, P7]	3
		He/she cannot find the opportunity to ask questions to the teacher in the live lessons. [P1, P2]	2
		He/she is having trouble with the homework. [P1, P6]	2
		Children do not understand the lessons. [P2, P6]	2

	Difference between face-to-face education and e-learning	EBA TV is not efficient. [P1]	1
		There is more social interaction in face-to-face education. [P1, P2, P3, P4, P5, P7]	6
		The number of homework has increased after transition to e-learning. [P1, P2, P3, P4, P7]	5
		It is normal to have difficulties in e-learning. [P3, P4, P7]	3
		We don't have the difficulty of preparing for school every day.[P4,P6, P7]	3
		I got to know the curriculum in e-learning better. [P4, P7]	2
		I observed my student more closely in e-learning. [P4, P7]	2
		I can better follow up what he/she has learned. [P4, P7]	2
TEACHER-PARENT COOPERATION	Providing Information-Guidance	We are in contact with the teacher. [P3, P4, P5, P6, P7]	5
		What we should pay attention to and what we should do is explained to us. [P3, P4, P5, P6, P7]	5
		There is not enough feedback. [P1, P4, P6]	3
		No meeting was held. [P1, P2]	2
		There was nothing they asked us to do. [P1, P2]	2
		No information was provided about the process. [P1, P2]	2
		We have no contact with the teachers. [P1]	1
		We had video-conference for parent meeting. [P3]	1
		Student attendance information is provided. [P3]	1

In Table 10, the answers of parents about what they do at home to support the education of their students for the e-learning process are grouped under the theme of "Learning at home involvement". According to the table, parents stated that they took measures to organize the learning environment, prepare teaching materials, support student development and learning at home. Regarding the subject, P1, P4, P5 stated: "*I don't go into the room of E... during the lesson. I pay attention to create a quiet environment.", "We purchased extra resources, books, to make up for what I felt lacking. We are doing everything we can. We have turned the house into a school. Education continues in every sense. I provide a quiet environment during the lesson.", "I bought a computer, camera and speakers. They followed the lessons with these tools."*.

This finding supports the quantitative findings. On the other hand, if the qualitative findings are examined compared to the quantitative finding item "*I perform social, cultural, artistic and sports activities with my child*", it can be seen that parents involve their children in different activities in the home environment rather than outside. Parents P2, P6, P5 stated: "*Apart from the lessons, they read for 30-40 minutes, I get them to do work that requires manual skills. Like needlework or beadwork.*", "*Plays with brother from time to time, helps with the housework.*", "*Paints as a daily activity, helping mother. In the kitchen, here and there. If playing games with brothers, it is limited to this. Nothing much.*" The fact that students who have siblings spend more time with their siblings rather than their parents can be associated with their social needs.

Parents evaluated the skill *"I help my child understand things he/she does not understand."*, which is among the quantitative findings regarding supporting learning at home, at the "mostly" level; on the other hand, if the qualitative findings are examined, it can be understood that under the theme of learning at home involvement, parents mostly help their children who are at primary school level, and they can't help much other than that. It is among the qualitative findings that they benefited from sibling support, especially in this regard. P5, P3, P2 stated the following on the subject: "*The motivation of my other sons who go to high school is very low. They follow up their lessons from EBA. They have more freedom at home. But I can't help them much.", "Gets help from her older sister N… during the lesson for subjects not understood. In fact, there were things that were not understood in face-to-face education as well. Again, sister would help.", "I can only take care of a 3rd grade student who is at primary school level. I can't help my kids who go to middle school. I'm anxious about phrasing [something] wrong, that it'll stay wrong in their minds. I can't intervene. As much as I can now, as much as my capacity."*

The answers of the parents to the question of the difficulties and conveniences they experienced during the e-learning process were gathered under the theme of "quality of learning at home". Within the scope of this theme, it can be understood that parents have difficulties in motivating their students to study and this situation is a cause of stress for them. However, the parents evaluated the quantitative finding item "*I know how to motivate my child to study*" at the "mostly" level. According to the qualitative findings, the parents stated that the long-term e-learning process bores the students, that individual learning at home alone is not sufficient, that the interaction is weak, that the students have difficulty in learning at home and that their attention is distracted. For example, P2, P1 stated: "*They have a hard time staying motivated. The children are tired. They have a hard time starting to study, they don't want to study together when they want to make up for their lack of understanding in subjects." "E-learning is not like school. Not like face-to-face interaction with friends and teachers. Only as the teacher lectures in a limited time period, E… is trying to learn something. E… gets bored sometimes. It is not easy to study continuously from morning to noon, there are breaks of 7-10 minutes, but it is tiring.*"

If the qualitative findings regarding the quantitative finding item *"I check what my child has learned"*, which the parents evaluated at the "mostly" level, are examined, under the theme of "quality of learning at home", it can be seen that parents stated that they had the opportunity to get to know the curriculum more closely and to follow what the students learned more closely during the e-learning process. For example, P4, P7 stated: "*Now, at least, I know very well what confuses my child's mind, what escapes from my child's attention, what my child cannot learn due to lack of attention….. I can follow very well what my child understood or not.", "We weren't following the daily subjects that much. We could only know when the teacher gave homework on occasion. Now we have started to make plans and programs about what my child does at home every day, what subject my child should be learning, what my child has learned, what my child will learn today."*

The answers of the parents to the question of which issues they received support from the teachers during the e-learning process were gathered under the theme of "teacher-parent cooperation". Most parents emphasized that they are in contact with teachers for learning at home involvement, they use mobile applications, and meetings are held in the context of providing information and guidance. P3, P6 stated: "*They provide information. Guidance teacher held a parent meeting via video conference. ….The math teacher, the classroom teacher of my students, also held a meeting. The social sciences teacher held a meeting at the beginning of the term." "We can communicate when we need it, from groups and via messages.*" However, it can be understood from the following views of P1 and P2 that some parents expressed the opposite: "*Nothing was done about it. Information was not provided. We just went to school to get the textbooks. There was no one-on-one conversation. We have no contact with the teachers." "I have three students. The teachers of none of them held any meetings, did not provide information and did not guide us.*" These qualitative findings may indicate that the communication process, which is extremely important for maintaining school-family cooperation for the e-learning process, is not at the desired level in all schools.

Examination of instructive parenting skills of parents based on some variables

The answers of the parents to the instructive parenting skills scale were analyzed based on the variables of sex, economic status, occupational status, and the number of students educated with e-learning. Accordingly, t-Test was performed for independent groups and the test results are presented in Table 11.

Table 11. T-test results according to the variable of sex

Sub-scale	Sex	N	$\bar{X}$	Sd	t	df	p
Awareness on Student at Home	Female	385	4.27	.556	.854	542	.394
	Male	159	4.22	.553			
Supporting Student Development at Home	Female	385	3.98	.763	-.330	542	.681
	Male	159	4.01	.685			
Supporting Learning at Home	Female	385	4.22	.827	4.627	542	.001
	Male	159	3.85	.888			

*At $p<0.05$ significance level, there is a significant correlation

According to Table 11, it was determined that there was a significant difference in favor of female parents at the p<0.05 level for the sex variable, only for the level of supporting learning at home among the instructive skills of the parents. This finding is also consistent with the qualitative findings. Among the participants, male parents emphasized that mothers were more influential in supporting the learning at home process under the theme of learning at home involvement. P5, P7 stated: "*The teacher asks the children to read the storybooks and do their homework before going to bed. The teacher asks us to check their homework. My child's mother is following up these.", "Just like a teacher makes programs, my child's mother now finds helpful resources, textbooks via EBA TV, and monitors and follows up what topics the teacher is lecturing. Issues such as whether the child is at an advanced level or a low level in terms of understanding the lessons, what subject the child is studying.*"

A t-Test was conducted for the variable of actively working at a job for the mean of the instructive skills of the parents, and the analysis results are presented in Table 12.

Table 12. T-Test Results of Instructive Parenting Skills by Occupational Status Variable

Sub-scale	Occupational Status	N	$\bar{X}$	Sd	t	df	p
Awareness on Student at Home	Working	309	4.24	.574	-.690	542	.490
	Non-working	235	4.27	.531			
Supporting Student Development at Home	Working	309	3.99	.735	.078	542	.938
	Non-working	235	3.99	.749			
Supporting Learning at Home	Working	309	4.21	.819	3.039	542	.002
	Non-working	235	3.99	.900			

*At p<0.05 significance level, there is a significant correlation

According to Table 12, a significant difference at p<0.05 level was found in favor of working parents for the sub-scale of supporting learning at home under instructive skills of parents. The scale used in the study does not provide data on why working parents have better skills compared to non-working parents in terms of supporting learning at home. According to these findings, factors such as motivation of parents, self-efficacy perceptions, time management skills, and the presence of another unemployed parent at home may be effective in this issue.

ANOVA test was conducted for the age variable for the mean of instructive parenting skills. The results of the analysis are presented in Table 13. Accordingly, a significant difference was found between age groups only for the sub-scale of supporting learning at home [$F_{(5-538)}$= 20.780, p<0.05].

Table 13. ANOVA Results for Age Variable for Supporting Learning at Home Sub-scale

Sub-scale	Age	N	$\bar{X}$	Sd	F	df	p	Difference (LSD)
Supporting Learning at Home	20-25	15	4.24	0.67	20.780	5 538 543	0.000	1-5, 1-6, 2-4, 2-5, 2-6, 3-5, 3-6, 4-5
	26-31	70	4.46	0.66				
	32-37	136	4.33	0.70				
	38-43	173	4.22	0.77				
	44-49	127	3.76	0.92				
	50 +	23	2.92	1.00				

*At p<0.05 significance level, there is a significant correlation

Post Hoc analysis and LSD test were applied to determine which group caused this difference among the groups. As a result of the analysis, it was determined that the difference was between 20-25, 26-31, 38-43, 44-49 and 50-over age groups, in favor of the younger group. The reason for this difference may be due to the fact that younger parents are more involved in the education of their young children.

The ANOVA analysis results for the student's school type variable for the mean of instructive parenting skills in the study are presented in Table 14. According to this, the instructive parenting skills of the parents differ only for the sub-scale of supporting learning at home based on the type of school of the students [$F_{(4-539)}$=4.544, p<0.05].

Table 14. ANOVA Results by School Type Variable for Sub-scale of Supporting Learning at Home

Sub-scale	School type	N	$\bar{X}$	Sd	F	df	p	Difference (LSD)
	Primary school	180	4.30	0.73				
Evde	Middle school	37	4.14	0.88		4		
Öğrenmeyi	High school	62	3.80	1.02	4.544	539	.001	1-3, 1-4
Destekleme	Two different levels	183	4.06	0.91		543		3-4, 3-5
	Three different level	82	4.08	0.79				

*At p<0.05 significance level, there is a significant correlation

Post Hoc analysis and LSD test were applied to determine which group caused this difference among the groups. As a result of the analysis, it was determined that the primary school level group differed significantly compared to the student group of high school level and the group of two different levels. Considering the mean values in Table 14, a decrease can be observed from primary school level to high school level. This finding is also consistent with the qualitative findings. As a matter of fact, parents stated that they especially help their primary school level students more. It can be seen that the children at home studying at different levels support each other's learning and help their parents in this regard. Based on these findings, it can be said that the students gain more autonomy at high school level and the support for lessons and homework decrease accordingly. This may indicate that parents should have different skill sets in terms of learning at home involvement for the high school level.

As a result of the tests performed based on the variables of graduation and income status, it was found that there was no significant difference. This may indicate that parents have motivation to support their children's school success and development under any circumstances. In fact, many studies have found that socio-demographic characteristics or some of their components affect parent involvement (Balli, 1996; Fan, 2001; Ndebele, 2015).

Views of teachers on instructive parenting skills of parents during the e-learning process

The teachers were asked what they wanted from parents to do for the e-learning process, what were the problems that the parents faced based on the situations reflected on the teacher, and how their expectations for the parents were met in terms of supporting the e-learning process. The codes, categories and themes found as a result of the content analysis based on the answers provided are presented in Table 15.

Table 15. Views of teachers on instructive parenting skills of parents

Theme	Category	Code	*f*
LEARNING AT HOME INVOLVEMENT	Organizing the environment for learning at home	Inability to follow up the student's participation in the lesson [T1, T3, T4, T5, T6, T7, T8, T9, T10, T12, T15, T16, T17, T18, T19, T20, T25, T26, T27, T28, T29]	21
		Inability to organize a study environment at home. [T1, T9, T11, T12, T22, T23, T24, T29]	8
		Inability to plan study time at home. [T6, T29]	2
	Preparing education materials	Financial opportunities to provide education materials [T3, T24, T26, T29]	4
		Partial viewing of EBA TV broadcasts. [T4, T9]	2
		Insufficient follow-up of assignments made through EBA. [T17]	1
		Limited access to online information sources. [T24]	1
		Parents who cannot afford extra sources [T29]	1
		Not taking the educational process seriously. [T12, T15, T18, T20, T21]	5

	Supporting student development	Inability to support the teacher in the learning process [T7, T14, T26, T29]	4
		Inability to guide the student correctly and effectively [T7, T24, T29]	3
		Partially encouraging reading at home [T27, T28, T29]	3
		Parents who have difficulties in motivating students to study [T6, T14]	2
	Supporting Learning at Home	Inability to follow up on assigned homework, duties and responsibilities [T1, T2, T4, T5, T6, T7, T8, T11, T13, T17, T25, T27, T28, T29]	14
		Parents who do not support learning at home [T17, T21, T22, T24, T26, T29]	6
		Parents who support learning at home [T1, T6, T8, T11, T16, T29]	6
		Parents who have difficulties in helping students with their lessons [T2, T24, T26, T29]	4
		Parents who partially support the e-learning process [T2, T14]	2
		Inability to supervise student duties and responsibilities [T11, T29]	2
		Partial course recaps [T6]	1
		Parents who allow the elder sibling to help their students [T29]	1
		Inability to ask students questions about the lesson [T25]	1
QUALITY OF LEARNING AT HOME	Problems	Internet connection problems [T1, T7, T8, T13, T15, T23, T24, T26, T27, T28]	10
		Students who do not have a computer or tablet [T1, T3, T4, T5, T7, T22, T23, T25, T29]	9
		Parent indifference [T15, T16, T17, T19, T20, T21, T23, T27]	8
		Students with limited internet quota [T12, T13, T22, T23, T24, T26, T29]	7
		Parents who have difficulties in motivating students to study [T4, T6, T7, T9, T13, T24, T29]	7
		Distracting elements at home [T7, T8, T9, T10, T23, T29]	6
		Students with insufficient study environment at home [T11, T12, T23, T24, T28, T29]	6
		Lack of knowledge and skills for using technology [T5, T8, T18, T29]	4
		Parents who are not in control of the process [T18, T19, T21, T29]	4
		Students who behave against their parents [P4, P10, P29]	3
		Students who do not attend classes regularly [P3, P22]	2
		Number of students at home [T22, T29]	2
		Students who have difficulties in subjects they do not understand [T2, T29]	2
		Students and parents who have problems in adapting to the e-learning process [T6, T29]	2
		Students attending the course without course equipment [T9]	1
		Students who are bored of being at home all the time [T13]	1
		Giving students responsibilities that prevent them from attending the lesson at home [T16]	1
	Time	Parents who have problems with time management at home [T6]	1
		Inability to follow up the curriculum [T17]	1
	Quality of learning process	Insufficient parent contribution causing the inefficiency of the process [T3, T5, T6, T7, T9, T10, T12, T13, T15, T17, T18, T19, T20, T23, T24, T25, T26, T27, T28]	19
		Responsible students and parents causing the efficiency of the process [T6, T8, T11, T16, T29]	5
		Students with successful results [T1, T8, T29]	3
		Efficiency due to parent-teacher cooperation [T1, T8, T29]	3
		Parents who are effective in encouraging participation in live lessons [T8, T11, T29]	3

		Parents who provide support as much as they can [T23, T29]	2
		Parents whose contribution is insufficient in supporting the course content [T11]	1
	Difference between face-to-face education and e-learning	Motivation difficulties in long-term education at home [T4, T7, T10, T13, T24, T29]	5
		Attributing more value to face-to-face lessons compared to online lessons [T25]	1
		Parent gaining importance in the e-learning process [T29]	1
TEACHER-PARENT COOPERATION	Providing information	Explaining to parents what needs to be done at home [T1, T5, T6, T23, T25, T27, T29]	7
	Guidance	Being in contact with the school and the teacher [T20, T29]	2
		Parents who do not attend the meetings [T21, T29]	2
		Providing information about the e-learning process [T24, T29, T10]	2
		Informing about live lesson hours [T29]	1
		Using instant communication platforms [T29]	1

The answers of the teachers point to the instructive skills of the parents at home. As seen in Table 15, the teachers stated that they wanted and expected from parents to participate in the context of organizing the learning environment of the student, preparing the education materials, and supporting the development and learning of the student at home under the theme of learning at home involvement. T1, T2, T11 stated the following regarding the subject: "*I asked the parents to prepare a quiet and distraction-free environment for the students, to follow up the lesson hours, to follow up the homework.*", "*I expected the parents to follow the homework regularly and help the students with the subjects they did not understand.*", "*I expected the parents to inform and supervise the students within the scope of the duties and responsibilities assigned by the teacher.*"

In the quantitative findings, it was revealed that the parents evaluated their instructive skills at the "mostly" level ($\bar{X}$= 4.15), and in the qualitative findings obtained from the parents, the parents supported their students as much as they could, and they had to deal with some problems. In the interviews with the teachers, it was found that the teachers did not find the interest of parents sufficient under the theme of the quality of learning at home, as seen as a finding in Table 15. Teachers T16, T19, T23 stated the following: "*Some parents are very interested. But I think some of them are indifferent.*", "*The parents did not support the school and the student enough in this process.*", "*Because many parents were indifferent to the e-learning process. And some others were able to do something within their means, so the e-learning process was very inefficient.*" According to the study of Haşıloğlu, Durak, and Arslan (2020), teachers think that parents are indifferent to the e-learning process and that their learning at home involvement is not sufficient.

The teachers stated that responsible, conscious parents, who cooperate with the teacher under the theme of the quality of learning at home, are effective in the efficiency of the learning at home process. T8, T29, T6, T1 stated: "*I think the parents put a lot of effort into it. 90% of the class attended the lessons. Parents fulfilled their duties and responsibilities for their students.*", "*The parents have largely met my expectations. We had a great time with my parents.*", "*My expectations for all parents were not met. My expectations for responsible parents and students were met.*", "*I think that efficiency is achieved through parent-teacher cooperation in the e-learning process. We can say that there are successful results for the students.*" The findings obtained from the parents also support the views of the teachers.

Similarly, it can be stated that the mean values of awareness on student at home, which is among the quantitative findings, is reflected in the mean values of the skills of supporting student development at home and supporting learning at home. The importance of providing information and guidance by teachers to parents cannot be ignored, especially for the development of parent awareness on the education of the children. In this context, some of the teachers stated that they provided

information and guidance to the parents and that they were in contact with the parents, under the theme of teacher-parent cooperation. On the other hand, in the qualitative findings obtained from the parents whose children are especially at the middle school and high school level, it was revealed that the teachers did not provide sufficient information and guidance.

In the e-learning process, under the theme of the quality of learning at home, the teachers pointed out that the number of students is high, there is a lack of study environment and educational equipment or insufficiency, and there are problems due to the fact that measures are not taken for study time at home. Qualitative findings obtained from parents also point to the same problems. It can be said that this hinders parent involvement in learning at home. Similar findings were found in Bayburtlu's (2020) research.

Among the teacher opinions, there were also findings that parents had difficulty in motivating their students to study at home and that children behaved against their parents. T10, T24 stated: "*The most important problems experienced were that the parents could not motivate the students, make them willing to the lesson, and make them behave good.*", "*Failure to provide suitable conditions for live lessons, lack of internet connection and sufficient internet quota, inability of parents to motivate their children to lessons in this process*..." The findings obtained from the parents also support this finding. Among the quantitative findings, the evaluation of parents on knowing how to motivate their children is at "mostly" level. This difference between the findings can be considered as an effect of the long-term e-learning process.

Among the opinions of teachers pointing out that parent involvement in learning at home in the e-learning process is important, there are opinions stating that parents do not have enough control over this process, there are parents who are insufficient in using technology, and that parents do not pay enough attention to the education process. T5, T29, T19 stated the following in this regard: *"…there was a problem in using technology.*", "*I have similar problems with parents. They do not have control over the process and the subject.*", "*Lack of knowledge and indifference to the process causes problems.*" According to the study of Çakın and Külekçi Akyavuz (2020), it was found that teachers emphasized the problems such as not enough support from parents, not having the habit of running lessons, being indifferent and not willing to support were among the parent-related problems in the e-learning process.

Discussion and Conclusion

In this study, which examines the instructive parenting skills of families, it has been concluded that families perceive their instructive parenting skills as sufficient, parents try to support their children's education at home and they encounter some problems, and teachers perceive the involvement level and quality of learning at home as insufficient. The results of the research carried out with the mixed research method reveal that the instructive parenting skills of the parents have an important role in the quality of learning at home involvement. Regarding child education competencies, Yeşil et al. (2018) found in their research that parents felt insufficient in terms of knowing about their children, developing them, and making them feel responsible for their actions. However, it is seen that parents with high self-efficacy perceptions are more active in being involved in their children's education as their belief that they can help their children increases (Hoover-Dempsey et al., 2005; Kaya & Bacanlı, 2016).

In the study, it was concluded that parent perceptions of awareness on student at home, which is a sub-scale of the instructive parenting skills scale, are at the "mostly" level. For the parent-child relationship, which directly affects the education process of the child, the parent awareness on student is also important in terms of defining the parents as ideal parents (Babaoğlan, Çelik, & Nalbant, 2018). It can be said that the awareness of the parents on the student positively affects the learning environment of the child at home. Because as awareness on the student increases at home, it becomes easier for the child to be recognized and accepted as a student at home, and the interest and support of the parents in the education process increases. Particularly in the qualitative aspect of the research, it was concluded that the parents made a series of involvement in the form of organizing the learning environment at home, preparing the educational materials, and supporting the development of the

student at home, under the theme of learning at home involvement. However, in the study, it was concluded that teachers do not consider parent involvement sufficient in terms of organizing the learning environment, preparing educational materials, and supporting student development and learning at home.

The results of the research revealed that the instructive parenting skills scale was at the level of "mostly" in terms of parent perceptions regarding the sub-scale of supporting student development at home. In the qualitative part of the research, it is understood that the parents perform a series of activities such as playing games, reading books, drawing, making models, and solving questions under the category of supporting the development of the student at home. Çakın and Külekçi Akyavuz (2021) reached similar results in their research. Siraj-Blatchford (2010) states that the quality of the learning at home environment (actively following up the children) strongly supports the mental and social development of children. On the other hand, it was concluded that the teachers who participated in the research did not consider the contribution of parents sufficient to support student development at home. Based on the teacher opinions, it is understood that some parents do not take the education process seriously and they are insufficient in guiding the students correctly and effectively. Especially under the theme of the quality of learning at home, it is seen that parents experience stress as instructive parents during the e-learning process and have difficulty in motivating the child to lessons. Putri et al. (2020) stated in their research that difficulty in providing learning discipline at home experienced by parents affects the learning process at home. Parents consider it a problem that the child gets bored at home, misses school life, and the decreases in social activities during the e-learning process. Teachers, on the other hand, emphasize that the efficiency of the learning at home process decreases due to some problems experienced on the basis of the parents (not being able to motivate the student, failure of students to behave as their parents say, etc.).

In the quantitative part of the study, under the sub-scale of instructive parenting skills regarding supporting learning at home, it was concluded that parent views that they help their children to understand the subjects they do not understand and that they control their child's homework and what they learn are at the "mostly" level. In the qualitative part of the research, in the category of supporting learning at home, it was concluded that parents could not help their children for the subject they did not understand, and they were able to help their students at the primary school level more. Especially for families with more than one student, the study also revealed that older siblings help their siblings by sharing the role of parents. The opinions obtained from the teachers support this result. Based on this result, it can be said that sibling relationships are a factor that facilitates learning at home involvement. In the category of supporting learning at home, the teachers frequently stated that the parents were insufficient in terms of homework, duty and responsibility follow up, and that there were some parents who did not support learning at home, as well as those who supported learning at home. It can be seen that there are similar results in the studies on the e-learning process during the pandemic period (Başaran, Doğan, Karaoğlu, & Şahin, 2020; Çakın & Külekçi Akyavuz, 2020; Kavuk & Demirtaş, 2021). The conditions of the e-learning process may be effective in these results. These research results, which point to the quality of parent involvement at home to support the e-learning process, are similar to the results of the research on school-family cooperation before the pandemic. In these studies, it is seen that family involvement is at a "medium" level for primary education (Aykol, 2019; Çağdaş, Özel, & Konca, 2016), at a "low" level for middle schools (Şentuna, 2019), that school-family cooperation is insufficient in primary education (Albez & Ada, 2017; Çınkır & Nayır, 2017), and that parent-teacher associations drift apart from the function of supporting family involvement (Akbaşlı & Belgin, 2019). All these results may indicate that stronger, multi-dimensional and sustainable relations between school and family should be developed. If this is achieved, it can be said that the desire of parents to involve in their children's education will continue even in the event of possible obstacles and difficult conditions that arise during the long-term education process. Hoover-Dempsey et al. (2005) explain this situation with self-motivating beliefs of parents.

In the study, instructive parenting skills of parents were analyzed based on the variables of sex and occupational status, and a significant difference was found in favor of the mothers and working parents only for the sub-scale of supporting learning at home. Especially in the qualitative part of the study, it was concluded that mothers were more effective in the process of supporting learning at home, based on the data obtained from the parents. Poyraz (2017), on the other hand, found that fathers were more willing and enthusiastic than mothers in the parent involvement process in terms of home-based English learning activities. Çağdaş et al. (2016) stated in their research that mothers and non-working parents participate more in family involvement activities. Dinçer and Kolaşin (2009), on the other hand, found in their study that the effect of employment status of parents on student success is greater than the effect of graduation status. They stated that especially working parents perceive education as more important and allocate resources to education as they observe the positive results of education more closely.

In the study, when instructive parenting skills of parents were analyzed for age and school type variables, a significant difference was found in favor of younger parents and in favor of parents whose children are at the primary school level only for the sub-scale of supporting learning at home. Based on the opinions of the parents in the study, it was concluded that parents were more supportive of their primary school students in terms of supporting learning at home. In their study, Green, Walker, Hoover-Dempsey, and Sandler (2007) point out that as the child gets older, parent involvement decreases, and as children claim more independence, beliefs of parents on their role about home-based involvement change. According to the research of Jeynes (2014), parent involvement decreases for middle school level, and the best strategies applied for primary school level are not effective for middle school level. Therefore, it is emphasized that young people need structured activities and tasks that will help them develop their self-discipline during their youth, and that teacher involvement should change academically together with parent involvement.

In addition, it was concluded in the study that income and graduation status were not effective on instructive parenting skills. The results in the qualitative part of the research reveal that the parents organize the learning environment at home based on their financial means, take measures to prepare the educational materials, but the number and quality of online tools at home as well as the home environment are not sufficient for some of the students. The opinions of the teachers participating in the research also support this result. In addition, in line with the opinions of the teachers, it was concluded that there were problems in the e-learning process such as parent indifference, lack of control over the process, and lack of knowledge and skills in using technology. Studies have revealed that parents have difficulty in helping their children in the e-learning process due to their lack of digital competence (Arslan, Arı, & Kanat, 2021; Demir & Kale, 2020). It is thought that the education level of the parents, their self-efficacy perceptions and the school level of their children may be effective in the emergence of all these results. Based on the results of the research, it can be said that if the self-efficacy perceptions of families with different income and education levels are supported, their involvement in learning at home activities can be positively affected.

There are studies indicating that socio-demographic characteristics are effective in family involvement (Argon & Kıyıcı, 2012; Fan, 2001). Poyraz (2017) determined that the higher the education level of the parents, the higher the active involvement. On the other hand, Çağdaş et al. (2016) determined in their research that the educational status of the parents whose children are in the first grade of primary school has no effect on family involvement. On the other hand, some researchers have claimed that socio-demographic variables are not as important as contextual processes and social networks such as school, teacher, and student that motivate parents to family involvement (Sheldon, 2003). Similarly, Tabak (2020) found that there was no linear increase in the average parent involvement as the income status of families increased. In this context, in line with the importance and purpose of family involvement programs implemented in schools (Keçeli-Kaysılı, 2008), it is possible to say that positive parental behaviors and skills are effective as a protective factor in supporting the development of children with negative socio-demographic characteristics.

In the qualitative part of the research, based on the opinions of parents and teachers, it was concluded that some teachers held meetings for providing information and guidance in the context of teacher-parent cooperation, and some parents attended these meetings. Özdoğru (2021) states that parents should be educated about the duties and responsibilities of parents at home for the e-learning process. As a matter of fact, under the theme of the quality of learning at home, teacher opinions that there are parents who do not have control over the education process point to the importance of this result. In this context, it is thought that the meetings, interviews, and activities to be held within the scope of family education programs in schools will be beneficial in increasing the awareness on the students and strengthening the instructive parenting skills of the parents. Gündüz (2019) found that after the parent education program, parents gained self-confidence in helping their children. In the study, it was also determined that the parent education positively affected the academic achievement of the students, their attitudes towards learning, their participation in the courses and their self-efficacy perceptions. In the report prepared by TEDMEM (2020), it was emphasized that the responsibilities, duties, contributions, and necessary cooperation of all relevant stakeholders in the e-learning process should be defined. In addition, it is stated in the report that the uncertainties regarding the duties, roles and responsibilities of administrators, teachers and parents cause problems in implementation. In this context, especially for the e-learning process, drifting apart from the understanding of 'out of sight and out of the heart' and the uninterrupted continuation of teacher-parent communication (Epstein, 2010) are considered important in terms of the quality of learning at home involvement.

Recommendations

Within the framework of the results obtained in this research, it is recommended that implementors provide guidance to strengthen instructive parenting skills of parents, organize family education programs, define the duties, roles, and responsibilities of all stakeholders, and operate an uninterrupted and multi-dimensional communication process in order to increase parent involvement. In particular, it is recommended to implement family involvement activities that develop parents with low education levels on how to help their children at home, support their digital competence, and require the participation of the fathers as much as mothers. The instructive role of parents can be addressed by the schools within the scope of family education programs. Parents can be guided about the duties and responsibilities of parents during their child's adolescence period. Guiding documents or e-books can be prepared for parents to support learning at home involvement. Parents can be provided with the opportunity to follow up the homework of their students more easily and to know about the curriculum of their students. For researchers, the effect of school-based and home-based involvement of parents on children's school achievement can be examined within the framework of longitudinal studies. In addition, the effect and contribution of socio-demographic characteristics of parents on parent involvement can be examined in this regard. The effect of family education programs for home-based involvement on instructive parenting skills can be examined as well.

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