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Examination of the Relationship Between Primary School Students' Perceptions of Self-Learning and Decision-Making Skills

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Abstract
This study aims to reveal the relationship between primary school students' perceptions of self-learning and decision-making skills and whether gender, the education level of parents, and the number of siblings cause a difference. Within the framework of the stated purposes, the correlational survey model, which is among the quantitative research approaches, was used as a method in the research. The population consists of public primary schools' students studying in the city centre of Diyarbakır in the 2021-2022 academic year. The sample consists of 420 students determined by the "Simple Random Sampling" method, which is one of the probability sampling types, among the participants in the population. Descriptive and inferential statistical methods were employed to analyse the data. In the study, it was determined that there was a moderate, positive, and significant relationship between primary school students' self-learning and decision-making skills. In the study, it was determined that the self-learning skills of primary school students differed significantly according to gender and the number of siblings, but did not differ significantly according to the education level of their parents. In addition, the decision-making skills of primary school students were found to differ significantly according to gender and did not differ significantly according to the education level of their parents and the number of siblings.

Keywords: Decision Making, Primary School, Self-Learning, Skill, Student

1. Introduction

(Budak&Budak,2004) define decision-making as choosing among alternatives; (Baysal,2009) defines it as choosing among the available alternatives according to certain criteria; (Budak,2000) defines it as the ability, process, or method used to choose one of two or more alternatives by calculating the relevant probabilities; (Eren, 2009) defines it as the sum of different processes including the choices between ways, opportunities, and means; (Kuzgun,2006) defines it as the tendency to overcome the difficulties when there is more than one option to respond to the needs, and (Güçray, 2003) defines it as creating and choosing appropriate options after gathering and assessing the necessary information based on the defined goal and the selected options. It can be said that the common phrase in the definitions is to choose among various options.

In the decision-making process, the individual is supposed to comply with various criteria to make a decision. These criteria are listed as decisions that are effective, high quality, efficient, highly accepted, taken on time, and good and accepted according to one's judgments (Sağır, 2006). The decision-making skill inherent in the complex thinking skills can result in a happy or unhappy life as it is the act of choosing one of the options faced (Sarı, 2010).

Such a life may be experienced at work, in the family, and/or at school. In the context of this paper, the relevant experience is taken into consideration in a context specific to primary school students. Decisions taken or to be taken by students in various situations at school could tip the balance, in other words, such decisions could reveal whether a happy or unhappy school life will be experienced. It is suggested that the student's understanding of the importance of the decisions to be made in school life depends on his/her decision-making skill. This is because one of the main purposes of school education is to provide children with useful knowledge and skills in their daily lives (Çakmakçı et al., 2013). Considering this fact, decision-making skills in school life are crucial for students. Thus, the present study considered the level of decision-making skills of students as the research problem.

Self-learning skills are believed to be significant during school life or in the context of lifelong learning, together with the ability to make decisions. However, one may notice that self-learning skills are mostly used together with self-directed learning in the literature. Apart from this, concepts such as autonomous learning, individual learning, and autodidacticism are also used as synonyms (Gerstner, 1992). In this study, the concept of self-learning is preferred to overcome the conceptual confusion. Self-learning is a process in which learners take responsibility for learning, and the learner decides what, how, where, when, and how much to learn (Fisher et al, 2001; O'Shea, 2003; Tracy et al, 2005). There are four basic components in self-learning. These (Candy, 1991; cited in Canipe et al, 2006) are listed as individual autonomy, autodidactic approach, learner control, and learning management.

While developing self-learning skills, the family has a role at home and the teacher at school. Teachers' belief and acceptance of self-learning influence their preferred learning methods, teaching ethics, assumptions, and theories about learning, professional goals and values, and educational understanding of what and how they teach (Costa & Kallick, 2004; Mullin, 2011). The family, which makes a significant contribution to the success of school-age children, is interested in the physical, mental, and social development of the child (Yıldırım et al, 2008). Since the time a child spends at school is less than the time s/he spends with his/her family and society, what s/he learns at school should be consolidated within the family atmosphere (Tutkun et al, 2002). Such explanations reveal that self-learning is associated with multiple situations rather than a single situation.

This study was designed to shed light on the perceptions of self-learning and decision-making skills and to highlight whether students' self-learning and decision-making skills differ significantly according to various variables including gender, education level of parents, and the number of siblings. In line with the stated purposes, the following research problems were addressed:

1. What is the level of self-learning and decision-making skills of primary school students?
2. Do primary school students' perceptions of self-learning and decision-making skills differ significantly by gender?
3. Do primary school students' perceptions of self-learning and decision-making skills differ significantly according to their mother's education level?
4. Do primary school students' perceptions of self-learning and decision-making skills differ significantly according to their father's education level?
5. Do primary school students' perceptions of self-learning and decision-making skills differ significantly according to the number of siblings?
6. Is there a statistically significant relationship between primary school students' self-learning and decision-making skills? If yes, in what direction and level?

2. Research Model

In parallel with the purpose of the study, the correlational survey model was preferred. The reason why the relevant model was preferred is that it is aimed at revealing the relationships between two or more variables and reaching clues about cause and effect (Büyüköztürk et al., 2020).

2.1 Population and Sample

Fourth-grade students of public primary schools located in the city centre of Diyarbakır in the 2021-2022 academic year constitute the population. The sample consisting of 420 students was selected via the "Simple Random Sampling" method. In the simple random sampling method, all participants in the population have an equal chance to be included in the research (Büyüköztürk et al., 2020).

Of all the participants, 48.8% (n=205) are female while 51.2% (n=215) are male. 27.1% of participants' mother's education level (n=114) is primary school education, 35.2% (n=148) secondary school education, 21.7% (n=91) high school education, and 16% (n=67) university education. 13.1% of participants' father's education level (n=55) is primary school education, 32.6% (n=137) secondary school education, 24% (n=101) high school education, and 30.2% (n=127) university education. 18.1% of the participants have (n=76) one sibling, 21% (n=88) two siblings, 17.9% (n=75) three siblings, 28.3% (n=119) four siblings, and 14.8% (n=62) five and more siblings.

2.2 Data Collection Tools

A "Personal Information Form", "Self-learning Skills Scale", and "Decision-making Skills Scale" were used to collect data.

Personal Information Form: The study was designed to shed light on whether students' perceptions of self-learning and decision-making skills differ according to various demographic variables. There are items in the form that help determine teachers' gender, parental education level, and the number of siblings.

Self-learning Skills Scale: It was developed by (Burak, 2020) and consists of three factors, including cognitive, affective, and metacognitive skills, and 18 items. While the Cronbach Alpha reliability coefficient was calculated as ".81" in the original form of the scale, it was ".83" in this study. It is accepted that the calculated Cronbach's Alpha reliability coefficient values show that the data obtained from the decision-making skills scale is highly reliable (.80 <α< 1.00) (Kalaycı, 2017).

Decision-making Skills Scale: It was developed by Sever and Ersoy (2019) and consists of a single factor and 15 items. While the Cronbach Alpha reliability coefficient was calculated as ".89" in the original form of the scale, it was ".85" in this study. It is accepted that the calculated Cronbach's Alpha reliability coefficient values show that the data of the decision-making skills scale is highly reliable (.80 <α< 1.00) (Kalaycı, 2017).

2.3 Data Analysis

Before analysing the data, the data was checked in terms of normality and in this context, the kurtosis and skewness values of the data were evaluated (Gürbüz & Şahin, 2017). The kurtosis and skewness coefficients of the scales used in the study were found to be in the range of "±1.5". According to the kurtosis and skewness coefficient values (Table 1), the scores of the scales used in the study were shown to have a normal distribution (Tabachnick et al., 2013). In the analysis of the data, descriptive and inferential statistical methods were used according to the sub-problems of the research.

Table 1: Data on the level of self-learning and decision-making skills of primary school students

Dimensions	Skewness	Kurtosis
Cognitive Skills	-,101	-,518
Affective Skills	-,458	-,711

Metacognitive Skills	-,057	-,436
Self-learning Skills – General	-,076	-,387
Decision-making Skills – General	-,114	-,326

3. Findings

3.1 Findings on the Level of Self-learning and Decision-Making Skills of Primary School Students

Table 2 includes the findings on the sub-problem of "What is the level of self-learning and decision-making skills of primary school students?".

Table 2: Data on the level of self-learning and decision-making skills of primary school students

Dimensions	$\overline{X}$	**sd**
Cognitive Skills	3,01	,600
Affective Skills	3,21	,649
Metacognitive Skills	2,97	,598
Self-learning Skills – General	3,05	,539
Decision-making Skills – General	2,92	,554

Table 2 highlights that the level of primary school students' self-learning skills is "mostly" for cognitive skills ($\overline{X}$ =3,01), affective skills ($\overline{X}$ =3,21), metacognitive skills ($\overline{X}$ =2,97), and general ($\overline{X}$ =3,05), respectively. One may also notice that primary school students' decision-making skills are at the level of "Generally ($\overline{X}$ =2.92)".

3.2 Findings of Self-learning and Decision-making Skills of Primary School Students by Gender

Findings on the sub-problem of "Do primary school students' perceptions of self-learning and decision-making skills differ significantly by gender?" are shown in Table 3.

Table 3: Analysis data on the level of self-learning and decision-making skills of primary school students by gender

Dimensions	Ender	n	$\overline{x}$	SD	$Sh_{\bar{x}}$	t_{Test}		
						t	*Sd*	*p*
Cognitive Skills	Female	205	3,17	,620	,043	5,437	418	**,00**
	Male	215	2,86	,541	,036			
Affective Skills	Female	205	3,37	,601	,042	5,001	418	**,00**
	Male	215	3,06	,658	,044			
Metacognitive Skills	Female	205	3,14	,621	,043	5,690	418	**,00**
	Male	215	2,82	,531	,036			
Self-learning Skills - General	Female	205	3,21	,550	,038	6,235	418	**,00**
	Male	215	2,90	,482	,032			
Decision-making Skills – General	Female	205	2,81	,583	,040	-4,130	418	**,00**
	Male	215	3,03	,503	,034			

The data in Table 3 reveal that students' decision-making skills differ significantly by gender (t=-4.130; p<.05). The significant difference caused by gender was in favour of male students since male students had significantly higher scores than female students ($\overline{X}_{male}$=3,03>$\overline{X}_{female}$=2,81).

The data in Table 3 reveal that the self-learning skills of primary school students differ significantly by gender (t=6.235; p<.05). The significant difference between the self-learning skills of primary school students by gender was evaluated in favour of female students since female students' self-learning skills were significantly higher than male students ($\overline{X}_{female}$=3,21>$\overline{X}_{male}$=2,90). According to the data in Table 3, the findings related to the significant difference determined in favour of female students in terms of the self-learning skills of primary school students by gender were also determined in the sub-dimensions of self-learning skills.

3.3 Findings on Self-learning and Decision-making Skills of Primary School Students by the Mother's Education Level Variable

Findings on the sub-problem of "Do primary school students' perceptions of self-learning and decision-making skills differ significantly according to mother's education level?" are shown in Table 4.

Table 4: Analysis data on the level of self-learning and decision-making skills of primary school students according to the mother's education level variable

		f $\overline{X}$ and SD Values				ANOVA Data					
Dimensions	Education Level	n	$\overline{X}$	Sd	$Sh_{\overline{X}}$	Var. K.	KT	df	KO	F	p
Cognitive Skills	Primary	114	3,01	,607	,056	Between group	,430	4	,143		
	Secondary	148	3,05	,621	,051	Within group	150,832	415	,363		
	High School	91	2,96	,542	,056	Total	151,262	419		,395	,75
	Bachelor's Degree	67	3,00	,625	,076						
	Graduate	420	3,01	,600	,029						
	Total	114	3,27	,673	,063						
Affective Skills	Primary	148	3,22	,662	,054	Between group	1,009	4	,336		
	Secondary	91	3,18	,637	,066	Within group	175,534	415	,422		
	High School	67	3,12	,592	,072	Total	176,542	419		,797	,49
	Bachelor's Degree	420	3,21	,649	,031						
	Graduate	114	3,00	,631	,059						
	Total	148	3,02	,612	,050						
Metacognitive Skills	Primary	91	2,90	,545	,057	Between group	1,197	3	,399		
	Secondary	67	2,91	,577	,070	Within group	148,965	416	,358		
	High School	420	2,97	,598	,029	Total	150,161	419		1,114	,34
	Bachelor's Degree	114	3,08	,557	,052						
	Graduate	148	3,09	,560	,046						
	Total	91	3,00	,487	,051						
Self-learning Skills - General	Primary	67	3,00	,530	,064	Between group	,743	4	,248		
	Secondary	420	3,05	,539	,026	Within group	121,195	415	,291		
	High School	114	2,97	,635	,059	Total	121,938	419		,850	,46
	Bachelor's Degree	148	2,87	,531	,043						
	Graduate	91	2,90	,499	,052						
	Total	67	2,97	,526	,064						
Decision-making Skills	Primary	420	2,92	,554	,027	Between group	,855	4	,285		
	Secondary	114	3,01	,607	,056	Within group	127,822	415	,307		
	High School	148	3,05	,621	,051	Total	128,677	419		,927	,42
	Bachelor's Degree	91	2,96	,542	,056						
	Graduate	67	3,00	,625	,076						
	Total	420	3,01	,600	,029						

The data in Table 4 reveal that students' decision-making skills do not differ significantly according to the education level of their mothers (F=.927; p>.05). In addition, according to the data in Table 4, the findings related to the fact that students' self-learning skills do not differ significantly according to mother's education level are similar for the sub-dimensions of self-learning skills.

3.4 Findings on Self-learning and Decision-making Skills of Primary School Students by the Father's Education Level Variable

Findings on the sub-problem of "Do primary school students' perceptions of self-learning and decision-making skills differ significantly according to father's education level?" are shown in Table 5.

Table 5: Analysis data on the level of self-learning and decision-making skills of primary school students according to the father's education level variable

		f $\bar{x}$ and SD Values				ANOVA Data					
Dimensions	Education Level	n	$\bar{x}$	Sd	$Sh_{\bar{x}}$	Var. K.	KT	df	KO	F	p
Cognitive Skills	Primary	55	3,00	,759	,102	Between group	1,991	4	,664		
	Secondary	137	3,04	,564	,048	Within group	149,272	415	,359		
	High School	101	2,90	,523	,052	Total	151,262	419		1,849	,13
	Bachelor's Degree	127	3,08	,613	,054						
	Graduate	420	3,01	,600	,029						
	Total	55	3,24	,753	,101						
Affective Skills	Primary	137	3,20	,666	,056	Between group	1,505	4	,502		
	Secondary	101	3,12	,624	,062	Within group	175,038	415	,421		
	High School	127	3,28	,596	,052	Total	176,542	419		1,192	,31
	Bachelor's Degree	420	3,21	,649	,031						
	Graduate	55	2,95	,768	,103						
	Total	137	3,03	,568	,048						
Metacognitive Skills	Primary	101	2,90	,536	,053	Between group	1,072	4	,357		
	Secondary	127	2,99	,594	,052	Within group	149,090	415	,358		
	High School	420	2,97	,598	,029	Total	150,161	419		,997	,39
	Bachelor's Degree	55	3,04	,692	,093						
	Graduate	137	3,08	,517	,044						
	Total	101	2,96	,483	,048						
Self-learning Skills - General	Primary	127	3,09	,526	,046	Between group	1,223	4	,408		
	Secondary	420	3,05	,539	,026	Within group	120,715	415	,290		
	High School	55	2,93	,659	,088	Total	121,938	419		1,405	,24
	Bachelor's Degree	137	2,83	,574	,049						
	Graduate	101	3,01	,488	,048						
	Total	127	2,94	,523	,046						
Decision-making Skills	Primary	420	2,92	,554	,027	Between group	1,914	4	,638		
	Secondary	55	3,00	,759	,102	Within group	126,763	415	,305		
	High School	137	3,04	,564	,048	Total	128,677	419		2,094	,10
	Bachelor's Degree	101	2,90	,523	,052						
	Graduate	127	3,08	,613	,054						
	Total	420	3,01	,600	,029						

The data in Table 5 reveal that students' decision-making skills do not differ significantly according to father's education level (F=2.094; p>.05). In addition, according to the data in Table 5, the findings related to the fact that students' self-learning skills do not differ significantly according to father's education level are similar for the sub-dimensions of self-learning skills.

3.5 Findings on Self-learning and Decision-making Skills of Primary School Students According to the Number of Siblings Variable

Findings on the sub-problem of "Do primary school students' perceptions of self-learning and decision-making skills differ significantly according to the number of siblings?" are shown in Table 6.

Table 6: Analysis data on the level of self-learning and decision-making skills of primary school students according to the number of siblings

		f $\bar{X}$ and SD Values				ANOVA Data					
Dimensions	Number of Siblings	n	$\bar{X}$	Sd	$Sh_{\bar{X}}$	Var. K.	KT	df	KO	F	p
Cognitive Skills	1	76	2,83	,613	,070	Between group	5,865	4	1,466	4,185	**,00 1-4 1-5 2-3 3-4**
	2	88	3,08	,571	,060	Within group	145,397	415	,350		
	3	75	2,88	,585	,067	Total	151,262	419			
	4	119	3,12	,569	,052						
	5 and more	62	3,07	,642	,081						
	Total	420	3,01	,600	,029						
Affective Skills	1	76	3,02	,593	,068	Between group	4,667	4	1,167	2,817	**,00 1-2 1-4 1-5**
	2	88	3,22	,653	,069	Within group	171,875	415	,414		
	3	75	3,17	,694	,080	Total	176,542	419			
	4	119	3,31	,618	,056						
	5 and more	62	3,30	,670	,085						
	Total	420	3,21	,649	,031						
Metacognitive Skills	1	76	2,84	,573	,065	Between group	4,331	4	1,083	13,082	**,01 1-2 1-4 1-5 2-3 3-4 3-5**
	2	88	3,04	,614	,065	Within group	145,830	415	,351		
	3	75	2,84	,591	,068	Total	150,161	419			
	4	119	3,03	,581	,053						
	5 and more	62	3,10	,608	,077						
	Total	420	2,97	,598	,029						
Self-learning Skills - General	1	76	2,89	,532	,061	Between group	4,493	4	1,123	3,969	**,00 1-2 1-4 1-5 3-4 3-5**
	2	88	3,10	,544	,058	Within group	117,445	415	,283		
	3	75	2,94	,517	,059	Total	121,938	419			
	4	119	3,13	,501	,046						
	5 and more	62	3,15	,584	,074						
	Total	420	3,05	,539	,026						
Decision-making Skills	1	76	2,94	,539	,061	Between group	1,560	4	,390	1,273	,28
	2	88	2,98	,545	,058	Within group	127,117	415	,306		
	3	75	2,79	,567	,065	Total	128,677	419			
	4	119	2,94	,556	,051						
	5 and more	62	2,93	,558	,070						
	Total	420	2,92	,554	,027						

Table 6 reveals that students' decision-making skills do not differ significantly according to the number of siblings (F=1,273; p>.05). Yet, their self-learning skills differ significantly according to the number of siblings (F=3.969; p<.05). The significant difference determined according to the LSD test data is between students with one sibling and students with two, four, and five siblings as well as between students with three siblings and students with four and five siblings.

According to the data in Table 6, the findings regarding the significant difference between students' self-learning skills according to the number of siblings were similar for the sub-dimensions of independent learning skills. A significant difference occurred

- Between students with one sibling and students with two, four, and five siblings as well as between students with three siblings and students with two or four siblings in the cognitive skills sub-dimension,
- Between students with one sibling and students with two, four, and five siblings in the affective skills sub-dimension.
- Between students with one sibling and students with two, four, and five siblings as well as between students with three siblings and students with two, four, or five siblings.

3.6 Findings on the Relationship between Self-learning and Decision-making Skills of Primary School Students

Findings on the sub-problem of "Is there a statistically significant relationship between primary school students' self-learning and decision-making skills? If yes, in what direction and level?" are shown in Table 7.

Table 7: Analysis data on the relationship between self-learning and decision-making skills of primary school students

		Decision-making Skills
Cognitive Skills	r	,291**
	p	,000
Affective Skills	r	,329**
	p	,000
Metacognitive Skills	r	,366**
	p	,000
Self-learning Skills – General	r	,381**
	p	,000

**p<0,01

In the study, a moderate, significant, and positive correlation (r=.38; p=.00) was found between students' self-learning and decision-making skills. Considering the findings on the correlation based on dimensions, it was observed that decision-making skills and self-learning skills had

- A low and positive correlation with "Cognitive Skills" (r=,29; p=,00),
- A moderate and positive correlation with "Cognitive Skills" (r=,32 p=,00),
- A moderate, positive, and significant correlation with "Metacognitive Skills" (r=,36 p=,00).

4. **Results**

This study was designed to reveal the relationship between primary school students' perceptions of independent learning and decision-making skills. It is original as it is the only study in the literature considering its reporting period. However, originality, which is valuable in terms of the importance of the research, also creates a limitation in concluding the research with a strong discussion.

Research findings revealed that the self-learning skills of primary school students were at the level of "mostly". Thus, it can be implied that students possess good skills and a sufficient amount of skills to act independently.

Another finding was that the self-learning skills of students differed significantly by gender. The relevant significant difference was in favour of female students who had significantly higher scores than male students. These results imply that students' skills are not similar to each other according to the gender variable. The gender variable was shown to be influential.

It was also concluded that the self-learning skills of primary school students did not differ significantly by mother's education level. This result reveals that students' skills are similar to each other according to the mother's education level variable. In addition, the mother's education level variable was shown to be not influential on the self-learning skills of primary school students.

It was also concluded that the self-learning skills of primary school students did not differ significantly according to the father's education level, indicating that the self-learning skills of primary school students are similar to each other according to the father's education level variable. In addition, it was found that the father's education level variable was not influential on the primary school students' self-learning skills.

Yet another finding was that students' skills in self-learning differed significantly according to the number of siblings. The difference determined at a significant level occurred between students with one sibling and students with two, four, and five siblings as well as between students with three siblings and students with four and five siblings. These results reveal that students' skills are not similar to each other according to the number of siblings, and that the number of siblings was effective on the self-learning skills of primary school students.

In the study, the significant difference between primary school students' self-learning skills according to the number of siblings occurred between students with two, four, and five siblings in terms of the cognitive skills sub-dimension as well as between students with three siblings and students with two and four siblings. On the other hand, the difference occurred between students with one sibling and students with two, four, and five siblings in terms of the affective skills sub-dimension. Finally, in the metacognitive skills sub-dimension, the difference occurred between students with one sibling and students with two, four, and five siblings as well as between students with three siblings and students with two, four, and five siblings. The evaluation of sub-dimensions also revealed that the number of siblings was influential on self-learning skills. And the self-learning skills of the students with 5 or more siblings were higher than the students with fewer siblings. This result reveals that the high number of siblings causes an increase in students' self-learning skills.

In the study, it was determined that the decision-making skills of primary school students were at the level of "generally", showing that the decision-making skills of the primary school students participating in the research are in good condition and that primary school students have a sufficient amount of skills in decision-making as well as acting independently in situations that require decision-making.

5. Discussion

Saeednia (2010) reported that 4th-grade primary school students like to learn independently and are willing to do research, but they do not consider themselves sufficient to realize independent learning. This result does not show parallelism with the results of the present study. Different results on self-learning skills may stem from the difference in sample groups and may also be associated with the learning environment created by the teachers in the classroom. For, research done by students in the context of self-learning skills not only increases their curiosity but also enables them to learn by themselves (Arnoldson, 2013).

Akpınar and Aydın (2007) had interviews with classroom teachers to conclude that teachers are aware of the new roles emphasizing the changes in education and accept these roles, but that they find themselves inadequate in practice and need to be trained. It can be suggested that this inadequacy prevents achieving the desired level of success in the learning environment. This reveals that if a student's self-learning skills are expected to be at an advanced level, teachers are the ones who should provide this in the learning environment.

The period between the ages of 6-12 is an important period for the child to gain cognitive skills. At this stage, the child develops a system of conscience, ethics, and values as well as begins to express thoughts about what is happening around him/her and even forms primary preferences (Bacanlı, 2006). In this context, it is even more significant for the 4^{th}-grade students to acquire decision-making skills in primary school (Demirbaş 2018).

It was concluded that students' decision-making skills differed significantly by gender. This significant difference was in favour of male students since they had significantly higher scores than female students. This implies that

their decision-making skills are not similar to each other according to the gender variable. In addition, the gender variable was observed to be influential. Along the same lines, (Uçar, 2019) reported that gender had an effect on students' behaviors while making decisions.

The researcher also discovered that students' skills in making decisions did not differ significantly according to the education level of their parents. This implies that their decision-making skills are similar to each other according to the parental education level variable and that the relevant variable was not influential. In parallel with this result, (Uçar,2019) reported that students' behaviors in making decisions are associated with the education level of their parents.

One may also notice that the number of siblings was also a source for significant difference in students' decision-making skills. This shows that their decision-making skills are similar to each other according to the number of siblings and that the number of siblings is not influential in this sense. Along the same lines, (Uçar 2019) reported that gender had an effect on decision-making behaviors.

In the study, the relationship between the self-learning and decision-making skills of primary school students was found to be moderate, positive, and significant. There was a low and significant relationship between decision-making skills and cognitive skills and a moderate and positive relationship between decision-making skills and affective skills and metacognitive skills. This reveals that as the decision-making skills (Kıranlı et al, 2007) which refer to a design process, increase, the self-learning skills of primary school students increase in a positive way in parallel. In other words, the result reveals that as primary school students' self-learning skills increase, their decision-making skills increase in parallel.

It is believed that the self-learning skills scale developed by (Burak ,2020) and the decision-making skills scales developed by (Sever et al., 2019) are important in terms of the criterion validity of the scales to be used in a different study after the development processes. The use of the scales expressed in the literature by including various sample groups in the research processes may allow the comparison of different research results. In addition, it will make it possible to learn how the differentiation of sample groups causes a difference in the self-learning and decision-making skills of primary school 4th-grade students through future studies.

Not only 4th-grade primary school students' level of self-learning skills and decision-making skills was determined but also there was an investigation into whether there was a significant difference according to some variables. Considering the variables with or without significant differences, results could be examined in depth by conducting research with qualitative approaches.

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