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An Examination of the Decision-Making Skill Perceptions of Third Grade and Fourth Grade Students in Primary School

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Abstract

Our life is shaped by the decisions we make. Our experiences show how these decisions affect our lives. Decision-making is a thinking skill and can be taught over the process. Primary school is an educational institution where the foundations of students' future experiences are laid and where students overcome problems by taking part in decisions. The experiences acquired in those ages undoubtedly impact their future experiences. A review of the literature reveals a need for decision-making studies on primary school students in Turkey. The purpose of this study is to examine the decision-making skill perception of third and fourth grade students in terms of several variables. Students' gender, age, grade level and their teachers' and parents', participation in the decision were covered as variables in this study using the survey model, a quantitative research method. The population of the study comprises Istanbul province while five schools based in the European and Asian sides of Istanbul constitute the sampling. The easily accessible sampling method was used in the selection of sampling. "The Marmara Decision-Making Skill Perception Scale for Primary School Students" was used for data collection. The scale is a four-point Likert-type scale with 5 factors and 17 items. According to the results, students' decision-making skill perception is at a medium level. Based on gender, students' decision-making skill perception differs significantly in favor of the male students, although there is no significant difference in terms of age, grade, and whether or not the student's opinion is asked in decision-making processes at home and school.

Keywords: Thinking skill, decision-making, primary school

İlkokul Üçüncü ve Dördüncü Sınıf Öğrencilerinin Karar Verme Beceri Algılarının İncelenmesi

Öz

Hayatımız verdiğimiz kararlarla şekillenmektedir. Bu kararların yaşamımızı ne kadar etkilediğini deneyimlerimiz bize göstermektedir. Karar verme düşünme becerileri içerisinde bulunan ve süreç öğretimi yapılabilen becerilerden birisidir. İlkokul ileriki yaşantıların temellerinin atıldığı ve öğrencilerin kararlara katılarak problemlerle baş ettiği eğitim kurumudur. Bu yaşlarda edinilen deneyimlerin ileriki yaşantıları etkileyeceği kuşkusuzdur. Alan yazın incelendiğinde Türkiye'de ilkokul öğrencileriyle karar verme çalışmalarının yapılması ihtiyacı hissedilmektedir. Bu araştırmanın amacı, ilkokul üçüncü ve dördüncü sınıf öğrencilerinin karar verme beceri algılarının çeşitli değişkenler açısından incelenmesidir. Araştırmada öğrencilerin cinsiyet, yaş, sınıf seviyesi, okulda ve evde kararlara katılma durumu değişken olarak ele alınmış yöntem olarak nicel araştırma yöntemlerinden tarama modeli kullanılmıştır. Çalışmanın evrenini İstanbul ili, örneklemini ise Anadolu ve Avrupa yakasında yer alan beş devlet okulu oluşturmaktadır. Örneklem seçiminde kolay ulaşılabilir örnekleme yönteminden yararlanılmıştır. Verilerin toplanmasında "İlkokul Öğrencileri için Marmara Karar Verme Beceri Algısı Ölçeği" kullanılmıştır. Ölçek 5 faktörlü, 17 maddeli, 4'lü likert tipinde bir ölçme aracıdır. Sonuçlara göre; öğrencilerin karar verme beceri algıları orta düzeydedir. Öğrencilerin karar verme beceri algıları cinsiyete göre erkek öğrenciler lehine anlamlı bir farklılık göstermekte iken yaş, sınıf düzeyi, öğretmenin ve ailenin karar durumunda öğrencinin fikrini almasına göre anlamlı bir farklılık göstermemektedir.

Anahtar kelimeler: Düşünme becerisi, karar verme, ilkokul

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1 | INTRODUCTION

Information is everywhere now. One may not confine it merely to the institutions with certain boundaries. Therefore, schools must be transformed into institutions that can create knowledge and equip individuals with such skills as understanding, analyzing and problem- solving, rather than merely communicating the information.

Education systems aim to raise individuals who can turn knowledge into a new format through thinking, which requires improving thinking skills. According to the Ministry of National Education (2007), thinking is a process of investigating, comparing and connecting information and concepts, and whereby creating other ideas. Thinking is the cognitive product resulting from this process. According to Fisher (1995), thinking is a set of cognitive activities that involve identification of a problem, creating and solving, decision-making, creating options and investigating the ideas. Thinking involves both the critical and creative aspects of mind (Tok, 2008). This description emphasizes that the skill is related to a set of cognitive and physical processes.

According to Chuska, (1986, p. 9-12, as cited in Karantık, 2016), four conditions are needed for thinking to occur and the resulting ideas to be effective. Each of these conditions is equally important when stepping into the process of thinking. They are listed as follows:

- There must be something to think about: an action, topic, idea, problem, an object, person, a living being or situation.
- There must be something that will trigger an individual to think such as an experience, observation, belief or emotions.
- There must be ways in which to think, such as comparing, summarizing, classifying.
- There must be something to think for, a purpose or a reason that requires thinking, such as resolving a conflict, making a decision on something, clarifying a particular issue.

Thinking is a skill that can be taught. Therefore, thinking skills must be developed in the learning and teaching processes (Doğanay, 2004). The activity of thinking was initially associated with an individual's natural talent or genetic predisposition; however, currently it is concluded that thinking/thinking skills can be taught; i.e., they are a part of education. For example, Robinson (1987) writes in his report that teaching to raise children as active thinkers has increasingly been seen as an immediate target of education. This is because students must acquire and process information to become successful in a world defined by the rapid advent of technology. Rapid changes and developments also shape the qualifications required for a growing individual. All the updated curricula have gradually included such skills upon the results of several recent studies, as well as with the awareness that those skills can be taught, based on such research. Despite the inclusion of such skills in the Turkish Education System, especially as of 2005, academic activities push students to merely memorize information, without even understanding and inquiring, whereas thinking skills remain neglected in these activities.

However, much importance has been placed on the development of skills at the primary school curricula for over a decade. Such skills include the following (the Ministry of National Education [MEB], 2005):

- Critical thinking skill: Critical thinking is the skill that involves interpretation and inference by approaching given issues with an inquiry-driven, skeptical approach.
- Creative thinking skill: Students should create novel and unique information and products based on their own thinking, while coming up with inventions with a unique approach to the facts.
- Communication skill: The communication skill involves effective use of skills such as speaking, listening, reading and writing.

- Inquiry skill: The inquiry skill is realizing, comprehending, planning and testing a problem by asking right, meaningful questions.
- Problem solving skill: Problem solving is the skill that involves solving problems a student encounters in his/her life.
- Information technology skill: The information technology skill involves the ability to use technology while researching, finding, processing and evaluating information.
- Entrepreneurial skill: The entrepreneurial skill is adopting harmonious behaviors in personal relationships, planning, putting the plans into practice and risk taking.
- Good command of the Turkish language with correct and effective use: This is the ability to correctly, fully and quickly grasp what is read, listened and seen.

Thinking skills are among the topics other countries also place importance on. In fact, critical thinking, creative thinking, problem- solving and decision-making skills are accepted as thinking skills according to a study (Developing Minds: A Resource Book for Teaching Thinking) conducted in 1991 with the assistance of 60 prominent researchers and educators by ASCD (Association For Supervision and Curriculum Development) (as cited in Kaya, 2008). This study focuses on the decision-making skill among the thinking skills.

Beyth-Marom et al. (1987) suggest that thinking skills are a means to make good choices. Accordingly, thinking skills are necessary instruments in society, characterized by rapid change, numerous alternatives for action and endless individual and collective options (Cotton, 1991). Such remarks especially refer to decision-making, one of the intertwined thinking skills such as problem solving, critical thinking and creative thinking. The fact that we are forced to make decisions, with various degrees of significance, in our daily lives seamlessly exemplifies use of theoretical knowledge in real life. The knowledge acquired at school should also make it possible to make right decisions.

There are a number of definitions regarding the decision-making skill in the literature. Decision-making can be briefly explained as the art of making preferences (Bağırkan, 1983). Based on another definition, decision-making has to do with identifying the options and choosing one of them by implementing a list of criteria (Baysal, 2009). There is an emphasis on the suggestion that decision-making is making a choice, in these definitions. One should make decisions with various degrees of importance continuously throughout their daily life.

This is a skill that can be taught like other thinking skills as explained above. Both family environment and school life should provide opportunities for individuals to experience and develop their decision-making experiences. It is also an important issue that how early these opportunities are provided. While the body of literature is examined, though there are very few studies (Pekdoğan, 2016) on pre-school education, some studies are remarkable for the primary school period (Yaşar, 2019; Uçar, 2019; Demirbaş-Nemli, 2018; Kaskaya, Calp & Kuru, 2017; Wolfson & Nash, 1968), but still few in number. The studies are carried out mostly on university students in education (Deniz, 2002; Ertural, 2019; Akpınar & Akpınar, 2017; Yüceloğlu-Keskin, Günay-Derebaşı, Bostancı & Kabadayı, 2016; Avşaroğlu, 2007; Alver, 2005). On the other hand, it is seen that decision-making is mostly dealt with in the field of management. However, it is necessary to determine individuals' perceptions on the decision-making skill at an early age, when the foundations of later ages are laid, and to take improving measures in this regard. Therefore, it is thought that this research will be important in terms of shedding light on the activities of the Ministry of National Education, Higher Education Institutions and the studies of academicians.

The main purpose of this study is to examine the decision-making skill perception of third grade and fourth grade students in primary schools based on various variables (e.g. gender, age, grade, inclusion of the student in the decision-making process by the teacher or family).

The following questions are addressed based on this main purpose:

- What is the decision-making skill level of the third and fourth grade students in primary school?
- Are the decision-making skill levels of the third grade and fourth grade students in primary schools different based on gender, age, grade, or inclusion of the student in the decision-making process by the teacher or family?

2 | METHOD

The methodological aspects, such as the type, validity and reliability of the study, as well as the data collection instruments, data collection process and data analysis are addressed under this chapter.

RESEARCH MODEL

The survey model, a descriptive research method, was adapted in the study. Survey research is generally conducted on relatively larger samples, compared to other types of research, involving the identification of opinions of respondents on a particular subject or event or their traits such as interests, skills, abilities, attitudes etc. (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz & Demirel, 2017). The research investigates the decision-making skill perception of the third grade and fourth grade students in primary school according to several variables in an attempt to obtain the largest sample possible.

Table 1. Demographics of the Students Who Participated in the Study

Gender	F	%
Female	284	48.80
Male	298	51.20
Age	F	%
8 years	80	13.75
9 years	271	46.56
10 years	204	35.05
11 years	27	4.64
Grade Level	F	%
Third Grade	314	53.95
Fourth Grade	268	46.05
Inclusion in Decision-Making by the Teacher	F	%
Yes	541	92.96
No	41	7.04
Inclusion in Decision-Making by the Family	F	%
Yes	488	83.85
No	94	16.15
TOTAL	582	100.0

A look into Table 1 indicates that 48.80% of the students who participated in the study are female students, while the 51.20% is male students. 13.75% of the students are 8; 46.56 % is 9; 35.05% are 10; and 4.64% are 11 years of age. 53.95% of the overall population are third grade students, and 46.05% are fifth grade students. 92.96% of the students state that their teacher asks for their opinion in decision-making processes, while 7.04% state the contrary. 83.85% of the students state that their family asks for their opinion in decision making, while 16.15% state the contrary.

Data collection instruments

“Personal Information Form", which was prepared by the researchers in order to be acquainted with the students, who constitute the sample, in terms of various aspects, was used. This form consists of five questions prepared to determine the gender, age, grade level of the student, and the involvement of the teacher and family in the decision. “The Marmara Decision-Making Skill Perception Scale for Primary School Students” that was developed by Ada, Baysal & Demirbaş Nemli (2017) to determine the decision-making skill perception of the third grade and fourth grade students in primary school was administered in the study as a data collection instrument, which is a four-point Likert-type scale with 5 factors and 17 items. While the scale was being developed, an item pool was created, presented to expert opinion, some prospective items were removed from the scale in line with expert opinions, and after some items were revised and corrected, the prospective scale was made ready for pre-application. The exploratory factor analysis technique was used to determine the construct validity of the scale. The explanatory factor analysis technique was used to determine the construct validity of the scale. The KMO (Kaiser- Meyer-Olkin) and Barlett Tests were performed to determine the scale’s suitability for factor analysis, and the KMO value was determined as .876. Cronbach Alpha reliability coefficient was obtained as 0.781 for the entire scale in the study. Barlett Test value in research was found as 5,9433 and the p value of the Barlett test was found to be significant at the 00 level.

It was observed that 9 items are positive and 8 items are negative in the scale consisting of 17 items. In addition, four items each are included in Factor-1-2 and 3, three items in Factor-4, and two items in Factor-5. The reliability coefficients of the sub-factors of the scale in the study are as follows: 0.839 for Factor-1; 0.821 for Factor-2; 0.809 for Factor-3; 0.716 for Factor-4 and 0.721 for Factor-5. The Cronbach Alpha reliability coefficient for the whole scale was found to be 0.781. It is seen that the Cronbach Alpha values of all sub-factors and the scale are above 0.70. The naming of each factor is as follows: "Factor-1: Feeling, Limiting and Defining the Problem”, “Factor-2: Information Gathering”, “Factor-3: Generating Alternative Solution Options "," Factor-4: Decision Making”and“Factor-5: Decision Application and Evaluation”. In this study, the scale was used by evaluating the total score. The scale was graded in 4-point Likert type in line with the opinions of experts. The scale was ranked as "I always behave like this (4)", "I often behave like this (3)", "sometimes I behave like this (2)", "I never behave like this (1)". Positive items in the scale were scored as 4-3-2-1, and negative items as 1-2-3-4. Thus, decision-making perception of each student was calculated. While the lowest score that can be obtained from the final scale is 17, the highest score is 68. The higher the score is, the higher the decision-making perceptions of the students are.

Data analysis

The students were requested to fill out the data collection instruments at the end of the spring semester of the 2017-2018 Academic Year. In data collection, researchers provided information on the purpose of the research, survey and the principle of volunteering; students were asked to keep themselves anonymous in order to ensure reliability. The response time for the scale was around 20 minutes. Statistical procedures were performed on the data collected from a total of 582 students. The collected data was transferred to the computer environment through scoring and coding according to the features of the scale. “SPSS” 25 package program was used for data analysis in the study. The statistical procedures were based on the .05 level of significance. The Kolmogorov-Smirnov normality test was conducted in order to understand whether the research data matches with the normal distribution. Non-parametric statistical techniques are used since the groups are not characterized by normal distribution. The arithmetic mean and standard deviations, independent Group T Test, Mann-Whitney U Test and The Kruskal-Wallis H Test were used in data analysis. In addition, when the categories of variables were examined, non-parametric tests were used as there were categories less than 30 in the sample and the large differences between the categories supported that the groups did not show normal distribution.

3 | FINDINGS

Findings obtained from research data analysis are presented under two categories according to the order of the questions within the scope of the study; namely, the decision-making skill of third grade and fourth grade students in primary school and differentiation of this level based on the variables covered.

FINDINGS REGARDING THE LEVEL OF THE DECISION-MAKING SKILL PERCEPTION OF THIRD GRADE AND FOURTH GRADE STUDENTS IN PRIMARY SCHOOL

Table 2. Arithmetic Means and Standard Deviation Values Associated with the Decision-Making Skill Perception of Third Grade and Fourth Grade Students in Primary School

n	Max	min	ss	$\bar{X}$
582	68	23	6,111	42,12

The arithmetic mean of third grade and fourth grade students (n=582) is 42.12, while the standard deviation is 6.111 according to Table 2. The decision-making skill perception of students is at a "medium level".

FINDINGS REGARDING THE DECISION-MAKING SKILL LEVELS OF THIRD GRADE AND FOURTH GRADE STUDENTS IN PRIMARY SCHOOLS BASED ON GENDER, AGE, GRADE, INCLUSION OF THE STUDENT IN THE DECISION-MAKING PROCESS BY THE TEACHER OR FAMILY

The independent Group T test was conducted to determine whether the decision-making skill perception of third grade and fourth grade students in primary school differs according to the gender variable. The data obtained is presented in Table 3.

Table 3. Results of the Independent Group T Test Conducted for the Differentiation of the Decision-Making Skill Perception of Third Grade and Fourth Grade Students in Primary School by Gender

				T test		
Gender	n	$\bar{X}$	sd	T	Sv	P
Female	284	41.25	5.981			
Male	298	42.95	6.126	3.394	579.656	.001

According to Table 3, while the arithmetic mean of the decision-making skill perceptions of the third and fourth-grade female students is 41.25 and its standard deviation as 5.981; the arithmetic mean of male students' decision-making skill perceptions is seen 42.95 and its standard deviation is 6.126. Decision-making skill perceptions of third and fourth grade students (n = 582) show a significant difference at the 01 level in favour of male students by gender. That is, it can be interpreted that male students' decision-making skill perceptions are higher than female students.

The independent Kruskal-Wallis H Test was conducted to determine whether the decision-making skill perception of third grade and fourth grade students in primary school differs by the age variable. The data obtained is presented in Table 4.

Table 4. Results of the Kruskal-Wallis H Test Conducted for the Differentiation of the Decision-Making Skill Perception of Third Grade and Fourth Grade Students in Primary School by Age

Age	n	X_{order}	X^2	sv	*P*
8 years	80	267.53			
9 years	271	(n=291.37	2.067	3	*.559*
10 years	204	294.25			
11 years	27	313.33			

A look into Table 3 shows that there is no significant difference in the decision-making skill perception of third grade and fourth grade students (n=582) by age (x2= 2,067; sd=3; p=,556).

The independent Group T test was conducted to determine whether the decision-making skill perception of third grade and fourth grade students in primary school differs by the grade variable. The data obtained is presented in Table 4.

Table 5. Results of the Independent Group T Test Conducted for the Differentiation of the Decision-Making Skill Perception of Third Grade and Fourth Grade Students in Primary School By Grade

				T test		
Grade	*N*	$\bar{X}$	*sd*	*T*	*Sd*	*p*
Third grade	*314*	*42.04*	*6.277*			
Fourth grade	*268*	*42.21*	*5.919*	*.345*	*580*	*.730*

There is no significant difference in the decision making skill level of students (n=582) by grade (p>.05) according to Table 5.

The independent Whitney U Test was conducted to determine whether the decision-making skill perception of third grade and fourth grade students in primary school differs by students' inclusion in decision-making by the teacher. The data obtained is presented in Table 6.

Table 6. Results of the Whitney U Test Conducted for the Differentiation of the Decision-Making Skill Perception of Third Grade and Fourth Grade Students in Primary School Based on Student's Inclusion in Decision-Making by the Teacher

Inclusion in the Decision Making Process	N	Xorder	∑order	U	z	p
Yes	541	294.19	9156.0			
				9.636	-1.403	.160
No	41	256.02	10497.0			

There is no significant difference in the decision-making skill perception of the students (n=582) who participated in the study based on students' inclusion in the decision-making process by teachers according to Table 6 (u=9,636; z= -1,403; p=,160).

The independent Whitney U Test was conducted to determine whether the decision-making skill perception of third grade and fourth grade students in primary school differs according to the variable of students' opinion inclusion in the decision-making process by the family. The data obtained is presented in Table 7.

Table 7. Results of the Whitney U Test Conducted for the Differentiation of the Decision-Making Skill Perception of Third Grade and Fourth Grade Students in Primary School by students' Opinion Inclusion in Decision-Making Processes by the Family

Inclusion in the Decision Making Process	N	Xorder	∑order	U	z	p
Yes	488	293.91	43428.0			
				2.176	-.789	.430
No	94	278.99	6225.0			

There is no significant difference in the decision-making skill perception of the students (n=582) who participated in the study based on the inclusion of the student in decision-making by the family according to Table 6 (u=2,176; z= -,789; p=,430).

4 | Discussion and Conclusion

According to the findings obtained, the results of this study are covered under two main categories.

Results regarding the evaluation of the decision-making skill perception of third grade and fourth grade students in primary school

- *The decision-making skill level of third and fourth grade students in primary school is at a "medium level". This result indicates that the decision-making skill perception of third and fourth grade students are not at the desired level.*

The results of the studies conducted abroad (Nickerson, 1988; Perkins, 1985; Reid & Paradis, 1989) indicate that thinking skills do not develop after attending school for 12-13 years, that students 'thinking and reasoning skills are lower than desired at secondary, high school and university levels and that students' thinking skills do not develop naturally by itself during basic education. Therefore, the desire to develop thinking skills is a problem that many countries have tried to solve in recent years. (as cited in Güneş, 2012). The present research reveals that the decision-making skills perceptions of third and fourth grade primary school students should be improved. Although primary school is a period when very important decisions are not made, it can be considered as a period of forming a good foundation for other periods. In Turkey, the results of some studies conducted with older sample (for example, Tok, 2010) suggest that decision-making skills do not naturally develop spontaneously.

Results regarding the decision-making skill levels of third grade and fourth grade students in primary schools by gender, age, grade level, inclusion of the student in the decision-making process by the teacher or family

The results obtained according to the variables in the study are classified and discussed below.

- *There is a significant difference by gender in the decision-making skill perception of students, in favor of male students.*

Gender is a variable that affects the thoughts and behaviours attributed to individuals by culture in addition to the biological structure, and it is in question that to be affected by the roles assigned by the society as much as possible. Firstly, the family and then the school play an active role in the adoption of these roles, so that girls and boys learn the roles assigned to them and turn them into behaviour. Male children in Turkish society appear to be more active from past to present at all levels in the political, economic and cultural life and they are especially kept much more in the foreground in the family environment. Considering all these cultural characteristics, though a conclusion emerges in favour of men in the perception of decision-making, one of the important results of the research can be interpreted as an expected situation within the sample boundaries, different results are also noted in literature studies.

Tekin and Ulaş (2016) used the Decision Making Skills Evaluation Scale in their research on the decision-making skills of primary school fourth grade students. As a result of the research, a significant difference was not observed in the sub-dimensions of making dependent decisions in terms of the gender variable and in making decisions having considered their desires and in making decisions based on their skills, a significant difference was found in favour of female students in the independent decision-making sub-dimension. The result of the research suggests that female students attending the fourth grade of primary school act according to their own opinions when faced with a decision compared to male students. Karakaş-Günal (1999) conducted a research by using the four-factor scale (dependent decision- making, independent decision- making, decision- making according to their abilities and decision- making by taking into account their wishes) developed by fourth and fifth grade students to solve problems in daily life. Differences were observed in decision-making skills according to gender, items and factors within the scope of the scale. A difference was found in favour of girls in the first and third sub-dimensions of the scale, and in favour of boys in the fourth sub-dimension (making decisions based on their wishes). In the research conducted by Ersoy and Deniz (2016) with gifted five, six, seven and eighth grade students, it was found that the decision-making skills of female students were higher than that of boys.

Uçar (2019) collected data from first-year primary school students in his research titled "An Investigation of the Decision- Making Skills of First Grade Students in Terms of Various Variables". In the research, the difference between the arithmetic mean scores of the total and none decision- making conduct sub-dimension scores of male and female students (being determined, independent decision-making, emotions in decision- making, and difficulty in decision) was not found statistically significant. In other words, students' decision-making characteristics do not change according to their gender. Çakmakçı (2009) could not find a difference in all sub-dimensions (dependent decision-making, independent decision-making, making decisions based on their abilities, and making decisions based on their desires) of the scale which he used in both pre-test and post-test results in the research that he conducted an experimental study with fourth-grade students Wolfson and Nash (1968); designed their research to determine how teachers and students perceive classroom decision-making opportunities, at the first, second, and third grade levels. They stated in their research that although there was no difference in students' decision-making perceptions in terms of gender, girls perceived themselves more than boys when making decisions.

As can be seen, while some researches did not find a significant difference in decision-making skill levels or perceptions according to gender variable as different from the results of this study, and also the results are obtained in favour of girls in some researches. This suggests that further research should be conducted on childhood decision-making skills.

- *The decision-making skill perception of students differs significantly while there is no meaningful difference in terms of grade and asking the student's opinion in decision-making processes at home and school.*

Uçar (2019) reached the conclusion that the decision-making characteristics (total and all sub-dimensions) scores of primary school first grade students do not differ according to the age variable. Similarly, Wolfson and Nash (1968) concluded that there is no difference in decision-making perceptions of first, second and third grade students in terms of age. These results are similar to the results of the present research. However, in some of the researches in the literature, significant differences were found in terms of age in favour of later age. For example; Davidson (1991), worked with primary school students aged 7-14 years in his research that he examined children's decision-making skills. As a result of the research, it was observed that the decision-making skills of children differ at the age level. It was concluded that the prior knowledge of the children also affects the decision- making. It has been determined that as children grow, they use less information and make more precise decisions at the decision-making level. Levin, Weller, Pederson, and Harshman (2007) examined the decision-making adaptation of children of different ages. They divided the children into groups as 5-7 and 8-11 years old in the experimental study.

They presented risky situations to children using materials and asked them to make choices among them and make decisions. According to the results of the research, while children aged 5-7 years achieved more uncertain results in decision-making situations, children aged 8-11 reached more specific decisions. Denise (1989) conducted a research with primary school second, fifth and eighth grade students on decision making and examined how students' decision strategies changed depending on their decision situation. According to the findings of the research, he reached the conclusion that second grade students cannot use decision strategies effectively, but fifth and eighth grade students can use rational decision strategies (as cited in Öncül, 2013). These studies do not coincide with the present research in terms of their results. It suggests that the present research may have resulted from the fact that it was conducted in a short age range (8-11 years).

Although there is no exact research questioning the decision-making status of the teacher and the family according to the variable of getting the student's opinion in the case of decision among the studies examined in the literature, Kaskaya, Calp, and Kuru (2017) stated that teachers and families are the factors that affect decision-making in their research that they did with primary school fourth-grade students. According to this research, family has an effect on both the reasons for preference and the preference itself Yet, in the research conducted by Deveci (2011), it was stated that the support provided by the family to the individual has positive results in the decision-making process of the individual and this support affects the decision-making style of the individual (Kaskaya, Calp, & Kuru, 2017). These emphasizes do not resemble with the present research. Wolfson & Nash (1968) found wide differences in perception of students' decision-making roles in the research that he did with first-year students. At the same time, students 'perceptions were found to be different from their teachers' perceptions on average. Although the differences in the students still continue at the end of the school year, the students saw themselves more decisive (Wolfson & Nash, 1965).

Some suggestions are given below based on the results of the research.

• It is noteworthy that the number of studies on elementary school decision making skills is limited in Turkish literature. It may be recommended to plan studies on decision-making skills especially at primary school level.

• Decision-making skills perceptions of primary school third and fourth grade students can be determined by new researches in the context of private and public schools and intermittent grade levels (by using different sample groups).

• In this research, while students' perceptions of decision-making skills show a significant difference in favour of male students according to gender, but some researches in the literature did not find a difference and in some studies, it was found a difference in favour of girls. From this point of view, further studies can be conducted on how the gender variable affects the decision-making situation in primary school students.

• Based on the results of the current research, it is synthesized that the results related to the variables other than the gender variable also differ. For this reason, it may be recommended to carry out further studies on decision-making skills according to various variables.

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