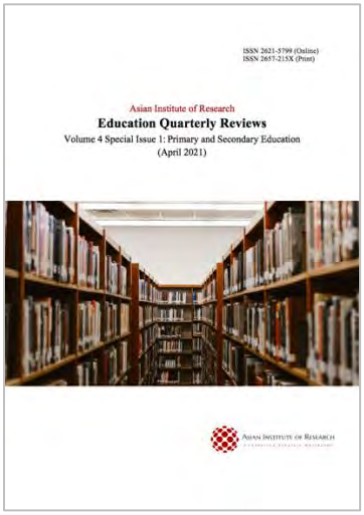

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Examination of 8th Grade Students' Learning Strategies Based on Self-Regulation in Physical Education and Sports Class

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Abstract
This research was conducted to examine 8th grade students' learning strategies based on self-regulation in physical education and sports class. The suitability of self-regulated learning scores to the normal distribution in groups in motor skills was investigated with the Kolmogorov-Smirnov test. Mann-Whitney U test statistics for groups with two categories, to compare self-regulated learning scores in groups without normal distribution ($p < 0.05$) in motor skills; In case the groups had more than two categories, it was studied with Kruskal Wallis test statistics. The statistical importance level was taken as $p < 0.05$. analyzed with. In motor skills, descriptive statistics of self-regulated learning scores in the groups are given as mean ± standard deviation and median. In the research, it was concluded that there was a statistically remarkable differentiation in the type of school, the educational status of the father, the income level of the family, the frequency of doing sports and the participation in competitions in any branch of school sports, and the self-regulated learning scores of the students in their variables. It was concluded that there was no statistically remarkable differentiation between the other variables and self-regulated learning scores in motor skills.

Keywords: Self-Regulation, Learning Strategies, Physical Education Sports

1. Introduction

The phenomenon of lifelong learning has gained importance in the educational environment in our age. In-class and out-of-school activities of students, their efforts to create their individual learning revealed a different orientation towards education. This has led some researchers to rethink some elements of the learning process. The individual learning needs of students; It can be indicated that it brings about self-regulation based learning. The people in the lifelong learning process are people who can determine their own learning processes, take the

initiative, have a positive thinking structure, and demonstrate their cognitive strategies. It can be said that these elements express learning based on self-regulation (Altun, 2005). Self-regulation based learning is the personal regulation strategies of learning processes that emerge in educational settings (Pintirch, 2000). In a more obvious way, is the setting of achievable targets for the individual's understanding capacity and learning environment and determining, controlling and following the cognitive strategies appropriate to these targets and following this process until completion. Self-regulation based learning called academic self-regulation, in the preparation process for the exams, the behaviors carried out in order to reach the set goals were also expressed. Learning based on self-regulation, focuses on motivation elements for the learner and handles self-regulation based learning in four ways cyclically. This process can be explained as follows: The self-assessment and monitoring emerge if learners observe and evaluate their individual achievements based on their past behavior and behavior. For example, when the level of awareness of their learning in free-time activities is informed by their surroundings, or their testing process can contribute to self-assessment. The goal setting and strategy planning; self-regulation learning, occurs when the learners set their own goals and have strategies prepared in line with these goals. For example, students who do not do an assignment that they need to complete on time should follow the work of students who do the assignment on time and learn how to follow. The strategy implementation and monitoring: Self-regulation based learning occurs in situations where students manage to apply the strategy they have determined to perform any learning process. For example, using the categorization strategy to memorize important sports terms will enable it to learn more permanently.

The strategic result monitoring; self-regulated learning occurs according to the achievements and productivity of different strategies used by students. For example, a student who uses the categorization strategy to memorize keywords in sports terms; will learn categories such as basketball, athletics, football better than random categories in the form of words starting with the letters b, a, f.

Looking at these cyclical self-regulation processes, it can be said that students engage in self-regulation processes up to a certain level. However, understanding students who learn in this way can be determined by the success of the lesson and the strategies they use in these lessons. Learning is expressed as a repeating movement in the flow of life. Active learning, on the other hand, is the process of transforming mixed educational situations into cognitive strategies, where all the elements related to learning belong to itself, and the individual makes decisions with different dimensions throughout the learning period and allows self-regulation in these learning elements (Ün, 2009, p.17).

Individuals begin to recognize learning strategies at the first level of teaching, and continue to experience this process at the second level and at the university (Senemoğlu, 2005). Rather than passive learning in the course activities of the students, the active participation in the materials or other teaching processes prepared during the course and the communication with their peers reveals active learning. In this context, students use information more productively (Suzen, 2007, p39).

In the light of scientific and technological developments, some developments and changes also occur in education. In this context, ways of accessing information are diversified and new learning strategies are developed (Gelbal & Kelecioğlu, 2007). Within the framework of these developments, it is aimed that the student will be active in the education and training period as a party that accesses, questions, and concludes information, rather than waiting for information. One of the researches on developing the learning-based strategies and revealing the learning levels they have created for certain purposes is the theme of self-regulation. In this context, parallel to the emerging developments, the basic element in terms of self-regulation is seen that students reveal their own learning strategies mentally, spiritually and physically. (Alcı and Altun, 2007).

The training of individuals with skills such as being active in the learning process of the student, having high self-control, and having high self-confidence is in line with the aims of education. Teacher and student definitions related to new changes, which emerged in education, have also changed. Accordingly, while the teacher is defined as a guide in lesson activities; The student, on the other hand, is redefined as the main actor of this process, who takes the initiative in all aspects and reveals these skills. In the light of these changes, it is stated that the features that can question, think critically, develop problem solving skills come to the fore as

student characteristics. Accordingly, self-regulation that takes the student to the center in the learning process has gained importance (Üredi & Üredi, 2007). Self-regulation is defined as the process in which people realize their ideas and behavior models in an orderly manner and, accordingly, disciplines new learning elements in the scale of their own rules. In another definition; Zimmerman (1994) states that "self-regulation; stated that they have the ability to be effective in the cognitive, motivational and behavioral learning process." In terms of achieving personal goals, it defines planned movements as a whole. It is expressed as the transformation of emotion.

2. Method

Research Model

In the research, scanning model, which is one of the quantitative research methods, was used. Research-based on the scanning model is research processes that aim to defize a present situation as it is. In the scanning model; situations that have occurred or are possible in the past include the research model (Karasar, 2008). The analysis of the data obtained from a large number of subjects regarding the problems in the research and the search for answers involves the relational model (Arseven, 2001). In this context, research is a constative study in the screening model in order to specify the relationship between students' physical education and sports lesson and learning strategies based on self-regulation. The research is limited to 8th grade students in middle school in Kars province, studying in public schools and private schools in 2018-2019 educational year.

Data collection

In the research, domestic and foreign literature searches were made and similar topics and studies were examined. In this context, the method of the research has been determined and "Self-regulated learning strategies scale in motor skills," which was adapted to Turkish culture by BAL (2017), has been used. The questionnaire applied to the participants for data collection is a 7-point Likert-type scale consisting of 49 matters.

Data Analysis

The data obtained within the scope of the research were analyzed in the statistical package program and according to the type of school, the education level of the mother, the education level of the father, the number of siblings, the income level of the family and the frequency of doing sports, Kruskal Wallis H test, gender, own room status, going to the gym Mann-Whitney U test was used according to the situation and participation in competitions in any branch in school sports. Mann Whitney U Test was carried out to determine among which groups the difference was, and Kruskal Wallis H Test was used to determine whether the difference was important. In the study, descriptive statistics of qualitative variables were expressed as frequency n, (%). Descriptive statistics of self-regulated learning scores in groups in motor skills were given as mean ± standard deviation and median (25.-75th percentile). Statistical significance level was taken as $p < 0.05$. In Table 2, the results of normality test of the self-regulated learning scores of the motor skills according to the variables are shown.

3. Results

Results related to sub-problems

In the sub-problems, the distribution of the answers given by the eighth grade students regarding the items in the self-regulated learning strategies in their motor skills for physical education and sports lesson was investigated. It has been investigated whether the learning based on self-regulation for physical education and sports lessons differ according to the gender of the students, the types of schools, the educational statute of the mothers, the educational statute of their fathers, the numbers siblings, their own room status, the monthly income status of their families, the frequency of doing sports, their ability to go to the gym, and their participation in competitions in any branch in school sports.

Results of self-regulated learning strategies in motor skills for physical education and sports lessons;

Table 1: Mann-Whitney U test results according to gender.

Variable		Median (25th-75th percentile)	U	p
Gender	**Male**	224 (196-267)	-0.389	0.697
	Female	224 (196-267)		

As seen in Table 1; In the sample of male and female students; according to the result of the Mann-Whitney U Test conducted to reveal whether there is a remarkable differentiation among girls 'and boys' motor skills self-regulated learning strategies; no statistically remarkable differentiation was observed among female students and male students in self-regulated learning strategies in motor skills.(U=-0,389; p=0,697, p>0.05). In this sample, it can be said that gender has no important effect on self-regulated learning strategies in motor skills within the scope of research. In addition, when Table 1 examines the students' data on self-regulated learning strategies in motor skills; The median values of male students are (Med = 224 (196-267)), and the median values of female students are (Med = 224 (196-267)). Although the median values of male students are lower than the median values of female students, the difference among these two groups is not important (U = -0.398; p = 0.669, p> 0.05). More clearly, it can be stated that male and female students participating in the research have self-regulated learning strategies in motor skills close to each other.

Table 2: Kruskal Wallis test results according to the school type

Variable		Median (25th-75th percentile))	χ^2	p
School type	Middle School	226 (196-269)	50.135	0.001
	Boarding Secondary School	251 (219-287)		
	Imam Hatip Secondary School	196 (189.75-211.5)		
	Special Education Schools	217.5 (183.75-257)		

According to the analysis results in Table 2, the difference among students' self-regulated learning strategies in motor skills was examined with the Kruskal Wallis H Test. When the median (25 -75 percentile) values at the end of the test (χ ^ 2 = 50,135, p <0.05) are examined; It was concluded that there was a statistically remarkable differentiation in the self-regulated learning strategy scores of the students in motor skills, and as a result of bilateral comparisons, this difference resulted from boarding and imam hatip secondary schools. Self-regulated learning scores of imam hatip secondary school students in motor skills showed a statistically remarkable differentiation from the scores of students in special education schools (p = 0.001 <p = 0.05); that there is a statistically remarkable differentiation from the secondary school students (p≤0,001 <p = 0.05); It was concluded that there is a statistically remarkable differentiation (p≤0,001 <p = 0.05) from the boarding secondary school students. In addition, it was concluded that boarding secondary school students had statistically remarkable differentiation (p = 0.002 <p = 0.05) in motor skills of self-regulated learning scores from students in special education schools.

It has been observed that there is a remarkable differentiation in self-regulation strategies of students studying in boarding secondary school type compared to students studying in other school types Med = 251 (219-287). The type of school in which students with the least self-regulation skills study is the imam hatip secondary schools. Med = 196 (189.75-211.5). According to these results, it can be said the school types where students have the highest self-regulation skills are public schools have low self-regulation skills are public schools. It can be said that the students who study in imam hatip school type among the public schools have low self-regulation skills and that the school type has a slight effect on self-regulation skills.

Table 3: Kruskal Wallis test results according to the mother's education level

Variable		Median (25-75 percentile)	χ^2	p
Educational Status of the mother	Reading and writing	215 (196-251)	10.782	0.148
	Primary school	218 (196-259)		
	Middle school	229 (196-270)		
	High school	232 (194-274)		
	Associate degree	237 (193.5-278.5)		
	License	215 (196-279.5)		
	Master	211 (183-253.5)		
	Doctorate	196 (149.5-249)		

According to the analysis results in Table 3, No remarkable differentiation was observed among self-control learning strategies and maternal education levels in motor skills. The difference among students' self control learning strategies in motor skills was examined with Kruskal Wallis H Test. When the (χ^2 = 10,782, p>0.05) median (25 -75 percentile) values were examined at the end of the test, it was observed that there was a remarkable differentiation in the level of mother education (Med = 229, (196-270)) compared to other education levels. It is seen that the education level with the least self control learning strategies in motor skills is the level of the doctor (Med = 196 (149.5-249). According to these results, it is seen that the students achieved the highest results in maternal education levels, associate and undergraduate education levels, and the highest at secondary level in the level of self-regulated learning strategies in motor skills. Although students' self-regulation skill levels do not make a remarkable differentiation, it can be said that they are inversely proportional to the educational status of the mother. As can be seen in Table 3; The self-regulation skills of the students whose mother education level is increased is decreased. In this sample, although the self-regulation skills vary slightly according to the education level of the mother, it cannot be said that the education level of the mother has a important effect on the self-regulation skills of the students.

Table 4: Kruskal Wallis test results according to the father education level

Variable		Median (25 -75 percentile)	χ^2	p
Education Status of Father	Reading and Writing	212 (184.5-240)	22.317	0.002
	Primary school	226 (196-264.75)		
	Middle School	221 (196-262)		
	High school	227 (196-274)		
	Associate Degree	231 (194-275)		
	License	247 (196-283)		
	Master	220 (182-260)		
	Doctorate	197 (131-219)		

According to the analysis results in Table 4, a remarkable differentiation was observed among the self-regulated learning strategies of the students and their father's educational status. The difference among students' self-regulated learning strategies in motor skills was examined with Kruskal Wallis H Test. When the median (25 -75 percentile) values at the end of the test ($\chi^2 = 22{,}317$, p<0.05) were analyzed, it was observed that there was a remarkable differentiation in the level of education of the father (Med = 247 (196-283) compared to other educational levels. Self-regulated in motor skills. the level of father education with the least learning strategies is the level of the doctor (Med = 197 (131-219). When the median values of the Kruskal Wallis H Test are analyzed, it is seen that there is a statistically remarkable differentiation in the self-regulated learning scores of the students in motor skills, and as a result of the pairwise comparisons, this difference is due to the students whose father is a doctorate. The self-regulated learning scores of the students whose father's education was in the doctorate level were statistically significantly different from the students whose father's education was in

primary school (p = 0.049 <p = 0.05); that his father's education level was statistically different from that of high school students (p = 0.020 <p = 0.05); It was concluded that the education level of his father was statistically important (p = 0.008 <p = 0.05). According to these results, it can be mentioned that students with a high level of father education had a minor effect on their self-regulation strategies.

Table 5: Kruskal Wallis test results according to the number of siblings

Variable		Median (25 -75 percentile)	χ^2	p
Number of brother or sisters	**0**	217 (172-272)	1.950	0.856
	1	229.5 (196-271.25)		
	2	221 (195.5-265.5)		
	3	224 (196-265.5)		
	4	223 (196-261)		
	5 and above	221 (196-268.5)		

According to the analysis results in Table 5, no remarkable differentiation was observed among the self-regulated learning strategies of the students and the number of siblings. The difference among students' self-regulated learning strategies in motor skills was examined with Kruskal Wallis H Test. When the median (25th-75th percentile) values at the end of the test ($\chi^2 = 1{,}950,$ p>0.05) are examined, the number of siblings 1 (Med = 229.5 (196-271.25)) is higher than the number of other siblings. It has been observed. When students' self-regulated learning strategies in motor skills and median values of Kruskal Wallis H Test are analyzed, the minimum number of siblings is seen as 0 (Med = 217 (172-272)) in self-regulated learning strategies in motor skills. According to these results, the self-regulated learning strategies scale of the students was found to be high with two and three siblings and the highest with one siblings. In this context, as the number of siblings in the sample increases, although the self-regulation skills of the self-students vary slightly, it cannot be mentioned that this situation has an effect on self-regulation strategies.

Table 6: Mann-Whitney U test results according to their room status.

Variable		Median (25 -75 percentile)	U	p
Do you have your own room?	Yes	229 (196-271)	-1.832	0.067
	No	219 (196-260)		

According to the analysis results in Table 6, no remarkable differentiation was observed among students self regulated learning strategies and their own room status. (U=-1832; p= 0,067, p>0.05). In this sample, it can be said that there is no remarkable differentiation in self-regulated learning strategies in motor skills. Also, in Table 6, when students' self-regulated learning strategies in motor skills and their data are analyzed, it can be said that the number of students who have their own room status (Med = 229 (196-271) is higher. It can be said that the relationship among this variable and self-regulation skills is not encountered in the literature, making the study important in this sense.

Table 7: Kruskal Wallis test results according to the family income level.

Variable		Median (25 -75 percentile)	χ^2	p
Family Income Level	0-1000	211 (193.25-247.5)	13.291	0.021
	1001-2020	222.5 (196-267.75)		
	2021-5000	232.5 (197-274.75)		
	5001-7500	231.5 (197.5-267.5)		
	7501-10000	222 (186,75-264.75)		
	10001 ve üzeri	218.5 (193.5-258)		

According to the analysis results in Table 7, a remarkable differentiation was observed among students self-regulated learning strategies in motor skills and their family income level. Kruskal Wallis H Test result; When ($\chi^2 = 13{,}291$, p<0.05) median (25 -75 percentile) values, the family income level is 0-1000 TL (Med = 211 (193.25-247.5), the average value of self-regulated learning scores in the motor skills of the students is lower, the family income level is 2021-5000 TL (Med = 232.5 (197 -274,75), it was concluded that the self-regulated learning scores of motor skills of students with higher median value. In the comparison of these two groups, there was a statistically remarkable differentiation in self-regulated learning scores in motor skills, and as a result of binary comparisons, this difference was caused by the 0-1000 TL and 2021-5000 TL groups; self-regulated learning scores of students in motor skills were statistically important (p = 0.019 <p = 0.05), students with a family income level of 0-1000 TL had lower median value of self-regulated learning scores in motor skills, family income level 2021- It has been concluded that students with 5000 TL have higher median value of self-regulated learning scores in motor skills. According to these results, it can be said that family income level has an effect on students' self-regulation strategies and a positive relationship can be mentioned among income level and self-regulation strategies.

Table 8: Kruskal Wallis test results according to the frequency.

Variable		**Median (25 -75 percentile)**	χ^2	**p**
Frequency of Doing Sports	Non	216 (188-261.5)	16.060	0.001
	At least 1 day a week	225 (196-260.5)		
	At least 2 days a week	242 (200.5-285)		
	At least 3 days a week or more	225 (197-275)		

According to the analysis results in Table 8, a remarkable differentiation was observed among the self-regulated learning strategies of the students and the educational status of the mothers. When the Kruskal Wallis H Test ($\chi^2 = 16{,}060$, p<0.05) median (25 -75 percentile) values are examined, the median values of those who do not do sports at all (Med = 216 (188-261,5) are the lowest, the highest median value was observed in the students doing sports at least 2 (Med = 242 (200.5-285) days a week. It was concluded that there was a statistically importance difference among the self-regulated learning scores of the students in motor skills and the frequency of doing sports, and as a result of the pairwise comparisons, this difference resulted from the group that didn't do sports at all. The result has been reached that self-regulated learning scores of the students who do not do sports at all are statistically significantly different from those who do sports at least 3 days a week (p = 0.019 <p = 0.05); that it is statistically significantly different from students who do sports at least 2 days a week (p = 0.003 <p = 0.05). In line with these results, it can be said that students with high frequency of doing sports have higher self-regulation strategies.

Table 9: Mann-Whitney U test results according to the state of going to the gym.

Variable		**Median (25 -75 percentile)**	**U**	**p**
Go to the gym	Yes	226 (196-268)	-1.327	0.184
	No	223 (196-267)		

According to the analysis results in Table 9, no remarkable differentiation was observed between students' self-regulated learning strategies in motor skills and their going to the gymnasium Mann-Whitney U Test result (U = -1,327; p = 0.184, p> 0.05). Considering the median (25 -27 percentile) values; It can be said that the number of students attending the gym (Med = 226 (196-268) is higher. In this sample, it can be said that there is no important effect on self-regulated learning strategies in motor skills.

Table 10: Mann-Whitney U test results according to the level of participation in competitions in any branch.

Variable		Median (25 -75 percentile)	U	p
Participating in competitions in any branch of school sports.	Yes	230 (198-275.5)	-4.371	0.001
	No	215 (193-254)		

According to the analysis results in Table 10, a remarkable differentiation was observed between students' self-regulated learning strategies in motor skills and their participation in competitions. Mann-Whitney U Test result; (U = -4,371; p = 0.001, p <0.05) Considering the median (25 -27 percentile) values, it can be said that participation in competitions in any branch of school sports (Med = 230 (198-275,5)) is higher. The self-regulated learning scores of the students in motor skills were higher than the students who didn't participate in the competition (Med = 215 (193-254) in the self-regulated learning scores of the students participating in the competition (Med = 230 (198-275.5). It was concluded that. According to these results, as can be seen in Table 10, it can be said that there is the right ratio between students' participation in the competition in any branch and their self-regulation strategies.

4. Discussion

This research was carried out to examine 8th grade students' self-regulation based learning strategies in physical education and sports class. For this purpose, below are the results obtained from the findings and the results that support or contradict the research in the literature review. Self-regulated learning strategies in motor skills include physical education and sports lessons, gender of the students, school type, mother's educational status, father's educational status, number of siblings, their own room status, family's income level, frequency of doing sports, going to the gym and school sports According to the situation of participating in the competitions in a branch, it was examined whether they differed and as a result; In terms of gender differences in self-regulation based learning strategies of students, no statistically remarkable differentiation was observed between female students 'self-regulation based learning strategies in motor skills and male students' self-regulation based learning strategies in motor skills.

In similar studies; In Paterson (1996) 's "In the biology course, where self-regulation strategies and traditional teaching methods are used in learning, students examine their academic achievements and the self-regulation strategies they use in learning in terms of gender" study, there was no remarkable differentiation between the skills of using learning strategies and gender.

In another study, Yamaç (2011) reached the following conclusion regarding the "In Examining the Relationships Between Self-Regulatory Learning Strategies and Mathematics Attitudes and Achievements of Primary Fifth Grade Students" gender variable: There was no difference in the performance target orientations of the students according to the gender variable. Atun (2016) used a "motivating strategies scale in learning (ömsö)" in his research on "The effect of inquiry-based science teaching on the development of self-regulation skills for 5th-grade students". According to the results obtained from this scale, no remarkable differentiation was found in comparing the findings before and after education with the gender variable.

Aydın, (2012), Demiralp, (2012), Gömleksiz, (2012), Üstün, (2012), found that self-regulation based learning does not differ by gender in their studies. In another study that shows that it supports this research; Rao, Moely and Sachs (2000) didn't find any difference in self-regulation based learning strategies according to gender. In the study of Bal (2017), learning strategies didn't achieve a remarkable differentiation in the sub-dimensions depending on the gender variable (p <0.05). It was stated that there was no difference between the gender variable and self-regulation learning strategies of this study. Although studies similar to this study can be found in the literature, findings related to important difference were mostly encountered. (Kaşkaya, Ünlü, Sağırlı & Efe, 2009), in their research for university students, it was observed that female students showed remarkable differentiation by stating that they used self-regulated learning skills at a higher level than men. Some studies

have been found to find different results with this research. Looking at these studies; Dadli (2015); In the study titled “Investigation of the Relationship Between Self-Regulation Skills and Self-Efficacy and Academic Achievements” of Secondary School 8th Grade Students, it determined values in favor of female students in the gender variable. Aktan (2012) stated that self-regulation strategies in different sub-dimensions differ significantly in favor of female students. In their research, Kadıoğlu, Uzuntiryaki, Çapa and Aydın (2011) and Ilgaz (2011) found that self-regulation based learning strategies have higher value in the skill of using, in favor of female students. In addition, Tonguç (2013), Canca (2005), Alcı and Altun (2007) found that learning strategies reveal remarkable differentiation in cognitive dimensions in favor of girls. Meece and Holt (1993), Schunk (2009) and Lai (2011) found high-level learning strategies in favor of female students at different levels. In their research in Zimmerman and Pons (1995), they found that self-regulation strategies were used at a higher level in female students. Üredi and Üredi (2005), on the other hand, found a remarkable differentiation in favor of male students in the dimension of learning strategies based on self-regulation regarding mathematics lesson. In their study, Leung and Chan (1998) found that remarkable differentiation was in favor of men. In the literature review; It can be said that learning strategies based on self-regulation are higher in the gender variable in favor of female students. In this case, it can be said that female students put more self-regulation strategies into practice than male students.

In this context, the fact that the expectation of being more organized and more organized due to the way students are raised in the society is higher than that of male students may enable them to earn these strategies more easily. According to the school type of students' learning strategies based on self-regulation, it was concluded that there was a statistically remarkable differentiation, and as a result of binary comparisons, this difference resulted from boarding and imam hatip secondary schools. When the results are investigated, it is seen that the lowest median value of self-regulated learning scores in motor skills is in imam hatip middle school students, and the highest median value is in boarding secondary school students.

In Dadlı (2015) and Karahan (2012) 's works; It was concluded that educational institutions where mothers graduated didn’t cause a remarkable differentiation in students' self-regulation skill scores. In addition, in the study of Dadlı (2015), the self-regulation skill scores of students whose mother was university graduates were higher than the others, while the self-regulation skill scores of students whose mothers were primary school graduates were higher than those whose mothers graduated from secondary and high schools. In the work of Aktan (2012), with the self-regulation skill scores of students whose mother education level is university graduates, the self-regulation skill scores of students whose mother is a high school graduate, in favor of students who are university graduates, and the self-regulation skill scores of students whose mother is a secondary school graduate, and whose mother is a primary school graduate; there was a remarkable differentiation in favor of students. It can be said that the results obtained in this context are parallel to the research. It is seen that the learning strategies based on self-regulation of the students' motor skills are statistically important according to the educational level of the father, and as a result of the pairwise comparisons, this difference is due to the students whose father is a doctorate. When the results are examined; It was concluded that the students whose father's education was doctorate had the lowest median value of self-regulated learning scores in motor skills.

In Özen (2016) study; “ Self-regulation skill scores of students whose fathers are primary school graduates were found to be higher than other students. Although the difference is not statistically important, it is interesting to find that students whose father is university graduate have lower self-regulation scores than students whose father is a primary school graduate”. The factors that reveal this situation can be determined by tests based on qualitative research methods. When the differences of the students' self-regulation based learning strategies according to the number of siblings in motor skills are considered, no statistically remarkable differentiation was observed.

Ertürk, (2013) in his research, which examines the relationship between the quality of teacher-child interaction and children's self-regulation skills; The self-regulation ability of 48-72 months old children could not find a remarkable differentiation among attention and impulse control scores according to the number of siblings. In the light of these results, when we look at the relationship between self-regulation skills and number of siblings;

It may be thought that the effect of increasing or decreasing number of siblings on students' self-regulation skills may not result in a meaningful result and may result from individual differences of children.

Eke (2017) investigates the relationship between preschool children 'self-regulation skills and parental attitudes; concluded that the number of siblings growing in the family had a positive effect on the control skills of children. When we look at the differences of students' self-regulation based learning strategies according to their room status, no statistically remarkable differentiation was observed. It can be said that the fact that the relationship between this variable and self-regulation skills is not encountered in the literature makes the study important in this sense. When we look at the difference of students' self-regulation based learning strategies according to family income level, the following results are obtained: There is a statistically remarkable differentiation, as a result of binary comparisons, this difference is due to 0-1000 TL and 2021-5000 TL groups; In the comparison of these two groups, the self-regulated learning scores of the students were statistically important ($p < 0.05$), and the median value of the self-regulated learning scores of the students with a family income level of 0-1000 TL was lower; The median value of self-regulated learning scores in motor skills of students whose family income level is 2021-5000 TL. In the literature, Dadli (2015) didn't find a remarkable differentiation among this variable and self-regulation skills.

Aktan (2012) examined socio-economically in his research. The researcher found a meaningful difference between the self-regulation strategies and the socio-economic level of the family and stated that as the income level increases, it also increases in self-regulation based learning strategies. It can be said that it shows parallelism with this study.

Considering whether students' learning strategies based on self-regulation in motor skills differ according to the frequency of doing sports, it was concluded that there was a statistically remarkable differentiation and as a result of the pairwise comparisons, this difference was caused by the group that didn't do sports at all. It was observed that the lowest median value of self-regulated learning scores in motor skills was in students who didn't do sports at all, and the highest median value was in students who did sports for at least 2 days a week.

Considering similar topics and studies for this variable; According to the findings obtained in the study of Arslantürk (2018); It was found that there was no significant difference between physical education and sports teachers' self-efficacy belief levels and not doing sports, how many hours a week they did sports. It can be said that it differs with the results of this research.

No statistically remarkable differentiation was observed in terms of whether students' learning strategies based on self-regulation in motor skills differ according to their going to the gym. It can be said that the relationship between self-regulation strategies in this sample was not found in the literature, making the study important in this sense. Considering whether students' learning strategies based on self-regulation in motor skills differ according to their participation in competitions in any branch of school sports; It was concluded that there was a statistically significant difference and the median value of the self-regulated learning scores in the motor skills of the students participating in the competition was higher than the students who didn't participate in the competition.

When we look at the literature, although there is no study on the relationship between this variable and self-regulation strategies, it has been determined in studies conducted on similar subjects that participation in competitions from out-of-school events increases students' level of attachment to school and their self-confidence is improved. In the Yanık (2018); Goodenow, (1992); Arastaman, (2009); Kalaycı and Özdemir (2013), studies, they found that there was a remarkable differentiation among students' involvement in school sports, their level of commitment to the school and their self-confidence. In this sample, it can be said that the relationship between self-regulation strategies is not frequently encountered in the literature, making the study important in this sense.

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