

## A Research of the Relation Between Study Orientations, Gender and School Achievement

Aysel Memiş

Faculty of Education, Bulent Ecevit University, Zonguldak, 67300, Turkey  
E-mail: [ayselmemis@gmail.com](mailto:ayselmemis@gmail.com)

**Abstract:** This study aimed to assess the study orientations of primary school fifth grade students, to determine their relationship with gender and achievement and to find how much the sub-dimensions of study orientation predicted the achievements. The sample consisted of some 234 fifth grade students randomly selected from six state schools in Ereğli in the Black Sea Region. The study orientations of students were measured with the Survey of Study Habits and Attitudes (SSHA), and their achievements were determined depending on the year-end transcripts obtained from the school administrators. According to the survey results, students' study attitude scores were higher than their study habits, and the scores of girls were higher than those of boys. There was a positive and significant relation ( $p < .01$ ) between study orientation and achievements. In all courses, all sub-dimensions other than teacher approval were each a significant predictor.

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**Key Words:** Study orientation, study habit, study attitude, academic achievement, gender differences

### Introduction

Martin (1953), in his study which he analyzed unsuccessful students, pointed to the poor work methods with the highest percentage coming after lack of motivation, among the factors causing failure. It is indicated that for a successful school life, knowing to use the studying and learning approaches, learner's study techniques, learning methods and habits have a very crucial role (Tan, 1996). According to Yildirim (2000) to be successful, the students have to consciously improve their study abilities and evaluate the effectiveness and performance of these abilities. He defines the successful student as the student who knows his own qualifications and is able to use study and learning methods efficiently. It is seen that even the successful students may have wrong and faulty work methods, attitudes and habits. And, it can be estimated easily that the other students may have more mistakes in their work methods, attributes and habits. In most of the failures, these wrong work methods, attitudes and habits have a great percentage. Efficient study can be possible by acquiring competence, attitudes, manner and habits for the actions as doing homework, studying and listening the lesson, which have a very important role for being successful (Tan, 1992). Each student has different study attitudes and habits. Materials were improved for evaluating the study attitudes and habits, which are asserted as determining the success and that can be improved in a positive way in primary school. The first of them was 'study habit – inventory' developed by Wren (1941) to measure and define the students' study behaviors. This scale is aimed to measure the study

attitudes, behaviors, reading and noting techniques and to study the strategies of the students. Then, Wren's survey was reviewed and observed in a broader perspective, concluded that reading abilities such as reading rate or comprehension were ignored. In 1960s counseling services became more popular, Wren's surveys were reviewed and study behaviors were observed more commonly. In 1953 Brown and Holtzman developed an inventory "SSHA-Survey of Study Habits and Attitudes, Form C" and after surveys lasted many years, it was finalized with a few changes. This material, which measures some attitudes in school activities, work methods and motivation, can be used for determining the habits and attitudes of the students, helping the students having difficulty in academic lives and making suggestions for a better study habits. Surveys present that this inventory is useful to predict the academic achievement (Brown & Holtzman, 1967; Brown & Holtzman, 1984). "LASSI-Learning and Study Strategies Inventory" developed by Weinstein and others (Second Edition) was designed for measuring study habits. This material had ten sub-dimensions and eighty bullets and can be used for improving the students' learning and study strategies. "SAMS-Study Attitudes and Method Survey" developed by Michael et al (1985), aimed to measure the students' study habits, motivation and attitudes towards school, used for improving their study habits and being more positive against their wrong attitudes.

### Study orientation, achievement and gender

Surveys indicate that students having good study habits and attitudes are more successful in their academic lives (Agnew et al, 1993; Arslantaş, 2001;

Carter, 1999; Elliot et al, 1990; Gordon, 1997; Jones et al, 1993; Kleijn, 1994; Lawler-Prince et al, 1993; Memiş, 2005; Raju & Asfaw, 2009; Schultz, 1989; Slate et al, 1990; Uluğ, 1981), the surveys about the differences of the students in different genders indicate that girls are more successful academically and have better study habits and attitudes than the boys (Arslantaş, 2001; Brown & Holtzman, 1984; Grabill et al, 2005; Hong & Lee, 2000; Houtte, 2004; Küçükahmet, 1987; Memiş, 2005; Mullen, 1995; Tinklin, 2003).

Shepps & Shepps (1971), used SSHA developed by Brown and Holtzman to analyze the relation between 'study habits and attitudes' and 'mathematics and reading abilities' of 6<sup>th</sup> grade students. In this survey, the boys' total points of their study habits and attitudes determine their reading abilities whereas the girls' total points determine their mathematics achievement. Uluğ (1981) analyzed the influence of study habits and attitudes on school achievement. The result of the survey applied on secondary school students by using pretest-posttest model showed that there is a close relation between study habits and school achievement, and that the grades of students having efficient study habits are higher than those not having study habits. De Monteith & De Wet (1984) compared the success and the failures of smart and medium leveled students in Republic of South Africa. As a result, unsuccessful students who were thought to be smart were found different in using their studying time and habits, it was implied that unsuccessful students had less efficient work methods. Schultz (1989) surveyed the influence of academic evaluating program on the students' study habits and attitudes, grade-points averages and self-respect. As a result of the data assessment of pretest-posttest, the successful students' academic performances were found higher. Elliot and others (1990) observed the relation between 'problem solving' and 'study habits and academic performance' of the students who are at failure limit, and found a significant relation. It was indicated that efficient problem solving should include planning ability, organization, appropriate habits and attitudes and the behaviors needed for problem solving. Carter (1999) observed the relation between study habits, attitudes, the motivation and academic achievement of the university students. As a result of the research, statistically, there was a significant relation between study habits and academic achievement. Okpala et al (2000) observed that there was a positive relation between study habits and academic competence of the students in macro-economy classes. Özmert et al (2001) observed the factors causing failures of 1<sup>st</sup> grade students and determined that the students whose

success at school were lower had shorter study time. Gettinger & Seibert (2002), in the study named "The contribution of the study abilities to academic competence" implied the importance of the study abilities. The purpose of this study was to indicate the contribution of the study abilities to academic competence clearly and identify the efficient study strategies which help students. It was stated that the skillful students may have difficulty in school as they did not have study abilities.

For a successful learning life, efficient study habits should be acquired in the first years of school life and it is liable that the students, who cannot acquire these habits and positive attitudes, encounter with many problems in later years of their school lives. 5<sup>th</sup> grade of primary school is an important transition phase that students' study habits and attitudes become clearer, the elements affecting their success in a negative way can be presented easily, with favorable interference, the students can be provided more efficient learning lives. Accordingly, the purpose of this survey is to observe the 5<sup>th</sup> grade students' study habits and attitudes, and to find out the relation between gender and achievement. Concurrently, to what extent the study orientation of boys and girls predicts achievement and study orientation of the achievement, is very important for the survey.

### **Methodology**

#### **Population and sample**

The sample consisted of some 234 fifth grade students randomly selected from six state schools in Ereğli in the Black Sea Region during the spring semester of 2009. 129 students (%55.1) were girls and 105 students (%44.9) were boys.

#### **Data collection tools**

##### **Survey of study habits and attitudes (SSHA)**

In 1953, Brown and Holtzman developed "SSHA Form C", and after many researches lasting years, they finalized the inventory by making some alterations (Brown & Holtzman, 1967; Brown & Holtzman, 1984). To determine the study orientations of the students, the inventory adjusted for 5<sup>th</sup> grade students by Memiş (2005) was used. There were 52 items and 4 sub-dimensions in SSHA. These 4 sub-dimensions consist of delay avoidance (DA), work methods (WM), teacher approval (TA) and education acceptance (EA). Delay avoidance means that the students should be punctual in their academic studies and avoid delays and it measures systematic and regular study. Work methods are the knowledge of the students about how to study and their competence to perform their academic studies. Teacher approval, expresses the opinions of the students about their teachers and teachers' behaviors in class. It is a sub-dimension that the students evaluate various

criteria of their teachers. Another sub-dimension is education acceptance. By this dimension, the students are aimed to adopt the purpose of education, application and needs (Brown & Holtzman, 1967). Different surveys should be used for each of the dimensions. Every two of the surveys form the total of upper dimension [delay avoidance + work methods = study habits (SH); teacher approval + education acceptance = study attitudes (SA)], the total of the two upper dimensions [study habits + study attitudes = study orientations] form study orientations of the students. The students get max 26 scores for each of the sub-dimensions (DA, WM, TA, EA), for the upper dimensions (SH, SA) they get 52 scores, for the study orientation they get 104 scores.

#### Lesson achievement

The year-end grades of the students in Mathematics, Science, Turkish and Social Sciences lessons were taken from the school management to identify the lesson success of the students. Project and performance papers were added and the grades were evaluated on the scale of 100 points.

#### Data analysis

Büyüköztürk (2007) expressed that the data obtained from the big groups can be regarded as close to the normal range and accordingly parametric statistics can be chosen. The size of the sample which is regarded as 30 and more to assume that the range doesn't show deviation from the usual range. In the

light of this information, to reveal the differences parametric statistical methods were used. The relation between the gender and success of the students and their study orientations were observed, relation with the sub-dimensions were evaluated. The multiple regression analysis which allows us to comment on interpreting the total variant which was explained in dependent variant by predictor variants, the statistical significance of variant explained and predictor variants, the kind of relation between predictor variants and dependent variants, was used to get information about predicting lesson achievements by the sub-dimensions of study orientation.

#### Results

When we analyzed the end-term grades of the students, it was seen that the average grades of Science lesson (74.81, sd=14.38) and Turkish lesson (74.08, sd=15.25) were the highest, Social Sciences (73.91, sd=15.05) lesson was following them, the average grade of Mathematics lesson (68.64, sd=18.53) was the lowest. When we analyze the grades of students according to their gender; it was seen that the girls had higher average grades than the boys, whereas this difference was lower in Mathematics and Science, it was found that there were more difference in favor of girls in verbal lessons.

**Table 1. The average lesson achievement of the students.**

Lesson	Gender	P	Min.	Max.	Average	sd
Mathematics	Girl	129	31.57	98.13	69.09	17.79
	Boy	105	33.69	98.88	68.10	18.96
	Total	234	31.57	98.88	68.64	18.30
Science	Girl	129	41.94	97.95	75.44	14.27
	Boy	105	37.62	98.50	74.03	14.53
	Total	234	37.62	98.50	74.81	14.38
Turkish	Girl	129	45.38	98.50	76.36	14.63
	Boy	105	36.01	97.63	71.27	15.58
	Total	234	36.01	98.50	74.08	15.25
Social Sciences	Girl	129	37.60	97.88	75.26	14.92
	Boy	105	40.53	98.00	72.25	15.12
	Total	234	37.60	98.00	73.91	15.05

The grades of the students taken from sub-dimensions according to the data resulted from SSHA can be seen in the Table 2.

**Table 2. SSHA scores (N=234).**

		Gender	Average	sd	t
<b>Study Habits</b>		Girl	34.71	13.69	2.388**
		Boy	30.90	9.89	
		Total	33.00	12.25	
	Delay Avoidance	Girl	17.30	10.77	2.072**
		Boy	14.91	5.33	
		Total	16.23	8.82	
	Work Methods	Girl	17.40	5.47	1.906
		Boy	15.98	5.91	
		Total	16.76	5.70	
<b>Study Attitudes</b>		Girl	36.45	9.10	3.344*
		Boy	32.29	9.90	
		Total	34.58	9.67	
	Teacher Approval	Girl	18.64	5.10	2.351**
		Boy	16.95	5.83	
		Total	17.88	5.49	
	Education Acceptance	Girl	17.81	4.83	3.806*
		Boy	15.33	5.10	
		Total	16.70	5.10	
<b>Study Orientation</b>		Girl	71.16	19.61	3.216*
		Boy	63.18	17.88	
		Total	67.58	19.23	

\*p&lt;.01; \*\*p&lt;.05

In accordance with the information in Table 2, when we analyzed the arithmetic average of 2 sub-dimensions of study orientation, it was seen that the scores of the students in study habits (33.00) were lower than the scores in study attitudes (34.58). Among the sub-dimensions of study attitudes and study habits, the highest arithmetic average of the students was in 'teacher approval' (17.88), the lowest average was in 'delay avoidance' (16.23). The results concurred with the research results. (Memiş, 2005). In terms of gender, it was conspicuous that the scores of study habits and study attitudes were similar to general distribution. In two sub-dimensions and study orientation, the girls got higher points than the boys. Except of the work methods, in study orientation and its sub-dimensions, there was significant difference between the scores of the boy and the girls. The relation between study achievement and study orientation with its sub-dimensions can be seen in

Table 3.

In all of the sub-dimensions forming SSHA, there is a positive and significant relation with lesson achievement ( $p<.01$ ), they are similar in terms of lesson achievement ( $p<.01$ ). When we analyze the general scores, the highest relation is between Mathematics achievement and study orientation ( $r=.512, p<.01$ ). In terms of gender, the highest study orientation scores of girls belong to mathematics ( $r=.535, p<.01$ ), the boys' belong to Turkish lesson ( $r=.535, p<.01$ ). When we analyze the relation between lesson achievement and study habits and attitudes which are sub-dimensions of study orientation, it can clearly be seen that there is a higher relation between the grades of study habits and achievements. In general scores, the highest relation with study habits belongs to Mathematic lesson achievements ( $r=.514, p<.01$ ), with study attitudes belongs to Turkish lesson achievements

( $r=.382, p<.01$ ). The relation between mathematics achievements and scores of study habits of the girls ( $r=.504, p<.01$ ) and the boys ( $r=.561, p<.01$ ) are higher than the other lessons. Here is that boys got the highest relation score. Analyzing study attitudes and achievement; similarly, for the girls the highest relation score belongs to mathematic lesson achievements ( $r=.394, p<.01$ ), for the boys it belongs to Turkish lesson achievements ( $r=.382, p<.01$ ). Delay avoidance and work methods which are the sub-dimensions forming study habits, have the highest relation with mathematics. For both of the lesson achievements, boys have the highest relation level. Teacher approval which is one of the sub-dimensions of study attitudes has the lowest relation with lesson achievements. Education acceptance, different from the other sub-dimensions, has the highest relation with Turkish lesson ( $r=.442, p<.01$ ), girls have the highest relation with Science ( $r=.416, p<.01$ ), boys have the highest relation with Turkish

lesson ( $r=.481, p<.01$ ). On the other hand, the significant relations between study orientation and its sub-dimensions can be seen in the table ( $p<.01$ ). There is significant and high relation between study orientation and its two sub-dimensions; study habits ( $r=.905, p<.01$ ) and study attitudes ( $r=.842, p<.01$ ). In the relation between study habits and its sub-dimensions, the relation with delay avoidance ( $r=.904, p<.01$ ), similarly the relation with girls' delay avoidance and the relation with boys' work methods were found higher. It is observed that the relation points similar to the two sub-dimensions of study attitudes, are higher than the other dimension in education acceptance for girl and boys.

The information about how the achievement of the students is predicted by the sub-dimensions of the study orientation can be seen in Table 4, for girl and boys it can be seen in Table 5 and 6.

**Table 3.** The relation between gender, achievement and study orientation.

	M			S			T			SS			DA			WM			SH			TA			EA			SA					
	G	B	T	G	B	T	G	B	T	G	B	T	G	B	T	G	B	T	G	B	T	G	B	T	G	B	T	G	B	T	G	B	T
M	1	1	1																														
S	.89	.88	.88	1	1	1																											
T	.8	.8	.8	.9	.9	.9	1	1	1																								
S	.8	.8	.8	.9	.9	.9	.9	.9	.9	1	1	1																					
DA	.43	.49	.42	.42	.43	.40	.39	.47	.40	.4	.4	.4	1	1	1																		
WM	.40	.49	.44	.39	.45	.42	.33	.49	.42	.3	.4	.4	.3	.5	.3	1	1	1															
SH	.50	.56	.51	.48	.50	.48	.44	.55	.48	.4	.5	.4	.9	.8	.9	.6	.8	.75	1	1	1												
TA	.31	.23	.27	.29	.21	.26	.23	.25	.26	.2	.2	.2	.2	.3	.2	.4	.5	.50	.3	.5	.43	1	1	1									
EA	.40	.39	.39	.41	.43	.42	.36	.48	.44	.4	.4	.4	.3	.5	.3	.4	.6	.54	.4	.6	.53	.6	.6	.66	1	1	1						
SA	.39	.34	.36	.38	.35	.37	.32	.39	.38	.3	.3	.3	.4	.3	.4	.6	.57	.4	.6	.53	.9	.9	.92	.9	.8	.90	1	1	1				
SO	.53	.50	.51	.52	.47	.49	.46	.52	.50	.5	.4	.4	.8	.7	.7	.6	.8	.76	.9	.9	.90	.6	.7	.74	.7	.8	.79	.7	.9	.8			

M: Mathematics S: Science; T: Turkish; SS: Social Sciences; G:Girl; B:Boy; T:Total

**Table 4.** The results of multiple regression analysis about lesson achievement prediction.

Variance	Mathematics				Science				Turkish				Social Sciences			
	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t
Delay Avoidance	0.542	.129	.261	4.190*	.382	.102	.235	3.745*	.397	.108	.230	3.687*	.391	.107	.229	3.646*
Work Methods	0.872	.224	.272	3.886*	.594	.177	.236	3.350*	.596	.187	.223	3.189*	.631	.186	.239	3.385*
Teacher Approval	-0.193	.256	-.058	-7.55	-.287	.202	-.110	-1.421	-.340	.213	-.122	-1.595	-.323	.212	-.118	-1.523
Education Acceptance	0.663	.290	.185	2.289**	.780	.229	.277	3.410*	.932	.241	.312	3.866*	.814	.240	.276	3.387*
	R = 0.539; R <sup>2</sup> =0.290 F(4,229)= 23.389				R = 0.533 R <sup>2</sup> =0.284 F(4,229)= 22.674				R = 0.541 R <sup>2</sup> =0.293 F(4,229)= 23.674				R = 0.527 R <sup>2</sup> =0.278 F(4,229)= 21.993			

\*p&lt;.01 \*\*p&lt;.05

**Table 5.** The results of multiple regression analysis about lesson achievement prediction (girl).

Variance	Mathematics				Science				Turkish				Social Sciences			
	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t
Delay Avoidance	.471	.137	.285	3.439*	.358	.110	.270	3.245*	.366	.118	.269	3.107*	.362	.116	.262	3.115*
Work Methods	.675	.285	.207	2.364**	.520	.230	.199	2.260**	.422	.245	.158	1.720	.509	.243	.187	2.099**
Teacher Approval	.034	.363	.010	.093	-.111	.293	-.040	-.379	-.193	.312	-.067	-.619	-.233	.309	-.080	-.755
Education Acceptance	.766	.396	.208	1.935	.761	.319	.258	2.384**	.734	.340	.243	2.157**	.896	.337	.290	2.661*
	R = 0.544 R <sup>2</sup> =0.296 F(4,124)= 13.033				R = 0.537 R <sup>2</sup> =0.288 F(4,124)= 12.545				R = 0.480 R <sup>2</sup> =0.230 F(4,124)= 9.277				R = 0.525 R <sup>2</sup> =0.276 F(4,124)= 11.800			

\*p&lt;.01; \*\*p&lt;.05

**Table 6.** The results of multiple regression analysis about lesson achievement prediction (boy).

Variance	Mathematics				Science				Turkish				Social Sciences			
	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t
Delay Avoidance	1.047	.363	.294	2.884*	.561	.285	.206	1.971	.662	.294	.227	2.257**	.562	.300	.198	1.874
Work Methods	1.038	.379	.324	2.742*	.659	.297	.268	2.219**	.726	.306	.276	2.372**	.784	.313	.307	2.505**
Teacher Approval	-.389	.366	-.120	-1.063	-.442	.287	-.178	-1.542	-.460	.296	-.172	-1.554	-.416	.302	-.161	-1.377
Education Acceptance	.451	.452	.121	.998	.790	.355	.277	2.228**	.930	.366	.304	2.541**	.629	.374	.212	1.682
	R = 0.570 R <sup>2</sup> =0.325 F(4,100)= 12.034				R = 0.542 R <sup>2</sup> =0.293 F(4,100)= 10.377				R = 0.589 R <sup>2</sup> =0.347 F(4,100)= 13.257				R = 0.524 R <sup>2</sup> =0.274 F(4,100)= 9.458			

\*p&lt;.01; \*\*p&lt;.05

Study orientation with its sub-dimensions explains 29 percent of total variance in Mathematics and Turkish achievements, 28 percent of total variance in Science and Social Sciences achievements. It is observed that all of the sub-dimensions except teacher approval which is one of the sub-dimensions forming study attitudes scores in all lessons, are significant predictor ( $p<.01$   $p<.05$ ).

That education acceptance, one of the sub-dimensions of study attitudes, is the most important predictor in all lessons except Mathematics draws attention. In Mathematics delay avoidance and work methods are predictor variances.

While the sub-dimensions of study orientation predict mathematics lesson achievement (30%) at most for the girls and for the boys they

predict Turkish lesson achievements (35%), the similarity between Science and Social Sciences draws attention. It is seen that the sub-dimensions of the study orientation of the boys predict Mathematics, Science and Turkish lesson achievements higher than of the girls. When t-test results about the relevance of regression co-efficiency were observed, in both of the genders, delay avoidance and work methods that are sub-dimensions of study habits, draw attention as a significant predictor of Mathematics lesson achievements. To predict the Science lesson achievements, while 3 sub-dimensions except teacher approval one of sub-dimensions of study habits and education acceptance are significant for girls, for boys work methods, one of sub-dimensions of study attitudes are significant predictors. In Turkish lesson achievements, for girls delay avoidance and education acceptance, for boys addition to these sub-

dimensions work methods are significant predictors. While Social Sciences lesson achievements of girls are predicted significantly by all of the sub-dimensions except applying the teacher, only study method is a significant predictor for the boys ( $p < .01$ ,  $p < .05$ ). For the girls, the most important predictor variant is delay avoidance in all lessons except in Social Sciences and education acceptance follows. But in Social Sciences education acceptance is a more important variant than delay avoidance. For boys work methods and education acceptance are the most significant variants in all lessons except Mathematics. And in Mathematics work methods is the most important, delay avoidance is the second important variants.

The regression analysis made to identify how much study orientation is predicted by lesson achievements can be seen in Table 7.

**Table 7. Multiple regression analysis results on prediction of study orientation.**

Variant	Study Orientation				Study Orientation (Girl)				Study Orientation (Boy)			
	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t
Mathematics	.296	.134	.281	2.208**	.428	.191	.388	2.234**	.226	.181	.239	1.251
Science	.043	.259	.032	.164	.418	.362	.304	1.157	-.297	.376	-.241	-.792
Turkish	.241	.209	.191	1.155	-.349	.280	-.261	-1.248	.765	.340	.666	2.248**
Social Sciences	.054	.223	.042	.242	.151	.319	.115	.473	-.162	.295	-.137	-.548
	R=0.526 R <sup>2</sup> =0.277 F(4,229)= 21.920				R=0.551 R <sup>2</sup> =0.303 F(4,124)= 13.504				R=0.539 R <sup>2</sup> =0.291 F(4,100)= 10.24			

\* $p < .01$  ; \*\* $p < .05$

When the prediction of study orientation points and achievement; it is seen that success of all lessons explains 28 percent of total variant, Mathematics achievement comes into prominence as the significant predictor. When Table 8 in which it can be derived that other lesson achievements has not much influence, is observed, Mathematics achievement, like the general range, for the girls is a significant predictor and for the boys Turkish lesson achievement is an important predictor ( $p < .05$ ).

#### Discussion

The average scores of students in Science and Turkish lessons are higher than Social Sciences and Mathematics achievements. The girls have higher scores than the boys, this difference decreases in Mathematics and Science whereas in verbal lessons it increases in favor of girls. The study attitudes scores (34.55) consisting of teacher approval and education acceptance scores are higher than study habits scores

(33.00) for the 5<sup>th</sup> grade students. However, Küçükahmet (1987) and Tulum (2001) found the study attitudes of the university students very low. Consequently, it is seen that adopting the aims of teacher and education, applications and needs, are not as much as demanded for the university students. Regarding the sub-dimensions, teacher approval (17.88) which is the thought of the students about their teachers' behaviors and methods, has the highest arithmetic average, delay avoidance (16.23) which includes being punctual and avoiding delays in their academic lives, has the lowest arithmetic average. The results concurred with the research results (Memiş, 2005). In study orientation and its sub-dimensions, girls got higher scores than the boys, there are significant differences between the scores of girl and boys except for work methods including the information of students how to study for their academic studies. In the researches in which

Küçükahmet (1987) made with university students , Memiş (2005) made with 5<sup>th</sup> grade students, they found the scores of girls higher than of boys. Arslantaş (2001), in his study with the students in secondary school, found their efficient study habits different according to their gender. It was concluded that the study habits of girls found more advanced than of the boys. Between the lesson achievements and between the study orientation and lesson achievement, there is a positive and significant relation ( $p<.01$ ). The highest relation is between Mathematics and study orientation ( $r=.512$ ,  $p<.01$ ). Özbey (2007) stated that students whose Mathematics achievement is higher, uses study habits more, they are more aware of study habits. Regarding the sub-dimensions, the highest relation with study habits belongs to Mathematics ( $r=.514$ ,  $p<.01$ ), with study attitudes belongs to Turkish ( $r=.382$ ,  $p<.01$ ). The relation between study habits and Mathematics achievement of girls ( $r=.504$ ,  $p<.01$ ) and boys ( $r=.561$ ,  $p<.01$ ) are higher than the other lessons. Here is that boys get the higher relation score. There is more relation between lesson achievement and study habits, consisting of the total score of delay avoidance and work methods including all of the academic behaviors of students, than study attitudes. Arslantaş (2001), in result of his survey, stated that successful students had efficient study habits. Carter (1999), in result of his study in which he observed the relation between 'study habits and attitudes' and 'motivation and academic achievement', found a statistically significant relation between study habits and academic achievement. Okpala and others (2000), to explain the academic achievement of the students, observed that there is a positive relation between study habits and academic competence. study orientation with it sub-dimensions explains 29 percent of total variant in Turkish and Mathematics achievements, 28 percent of total variant in Science and Social Sciences. Çetin (2009) stated that study habits scores of the 4<sup>th</sup> grade students explained 11 percent of Turkish, Mathematics and Social Sciences achievements. In all lessons, all sub-dimensions except teacher approval were significant predictors ( $p<.01$ ,  $p<.05$ ). Education acceptance, one of the sub-dimensions of study attitude and consisting of adopting the application was the most important predictor in all lessons except Mathematics. In Mathematics, delay avoidance and work methods, sub-dimensions of study attitudes, were predictor variants. The sub-dimensions predicted Mathematics at most (%30) for girls and Turkish (%35) for boys. Shepps & Shepps (1971), in his survey in which he measured study orientation with the same inventory and compared the relation between Mathematics and reading abilities of the 5<sup>th</sup> grade students, the total

scores of boys' study habits and attitudes, defined the reading success, for girls they defined Mathematics achievement. Sub-dimensions of study orientation for boys predicted Mathematics, Science and Turkish achievements higher than for girls. Achievements of all lessons' study orientation explained 28 percent of total variant, Mathematics achievement drew attention as a significant predictor. In this survey in which it was determined that other lessons' achievements were not important and efficient, Mathematics achievement was a significant predictor of study orientation for girls and Turkish achievement was a significant predictor of study orientation for boys ( $p<.05$ ).

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