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DETERMINING THE STUDY SKILLS OF STUDENT TEACHERS

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Abstract
Background: It is known that success of a student is affected by the skills of motivation, time management. Studies have showed that there is positive relationship between academic achievement and study skills of a student.
Purpose: It is thought that study skills of learners should be defined to be more successful on teaching-learning process. The aim of this study is to examine the study skills of student teachers if there is a significant difference regarding to discipline and gender.
Research Design: Survey research design was used in the study.
Setting: Research was implemented at Karadeniz Technical University (KTU) in Trabzon city of Turkey in 2007-2008 academic years.
Study Sample: The sample of this study consists of 135 student teachers from the Science and Technology Education Program at Department of Primary Science Education and from Department of Secondary Science and Math Education (Physics, Chemistry and Biology Education Programs) in Faculty of Education at KTU.
Data Collection and Analysis: Data gained from a questionnaire developed by Bay et al. (2005) consisting of 26 items on a 5 point likert scale. The scale has three dimensions: motivation, time management and preparation for the exam-exam anxiety. The answers of the students for the scale items were scored from 1 (strongly agree) to 5 (strongly disagree). Data were analyzed by using SPSS version 13.0 for Windows. The cronbach alpha value of scale is 0, 89.
Findings: The findings of the questionnaire showed that study skills of student teachers' from each department were at the average level. There was not found any significant difference between the study skills of science student teachers on the gender.
Conclusions: It is concluded that student teachers have deficiencies about motivation, time management and preparation for an exam.

Key words: *Study Skills, Time Management, Motivation, Exam Anxiety, Science Student Teachers.*

1. INTRODUCTION

Teachers are seen as the most important element of instruction. However, learning is the responsibility of the students. He/she should prepare himself/herself for learning mentally.

Students generally use some study skills which is developed by the students themselves during their education process from elementary to higher education. These study skills are generally inefficient and inappropriate. Studies have showed that there is a positive relationship between academic achievement and study skills of a student (Yip and Chung, 2002; Lammers et al., 2001; Carter, 1999; Atılgan, 1998; Jones et al., 1996; Kleijn et al., 1994; Agnew et al., 1993; Lawler-Prince et al., 1993; Elliot et al., 1990; Schultz, 1989).

There are factors which influence study skill of students such as motivation and time management, exam anxiety. The success of students is affected by these factors (Bay et al., 2005). Student motivation can be described as a student's willingness, needs, desires and passions to participate in and be successful in learning process (Bomia et al., 1997). Time management expresses using time profitable while studying to reach the aims (Telman, 1996). Moreover, exam anxiety influences students' success. This factor may influence the success negatively (Hill& Wigfield, 1984). Anthony's (2000) study compared to the perceptions of the faculty and the students in relation with academic achievement in the first year math courses. According to this study, motivation was thought an important factor influencing the student's success.

The aim of this study is to examine if there is significant difference regarding the study skills of student teachers according the department and gender.

1.1. Problem

The problem of this study is whether there is significant difference regarding the motivation, time management, preparation for the exam-exam anxiety skills and general of study skills of student teachers according the department and gender.

2. METHODOLOGY

The survey research design was used in the study. Research was implemented at Karadeniz Technical University (KTU) in Trabzon city of Turkey in 2007-2008 academic years. The study is conducted with 135 student teachers from the Science and Technology Education Program at Department of Primary Science Education and from Department of Secondary Science and Math Education (Physics, Chemistry and Biology Education Programs) in Fatih Faculty of Education at KTU. The sample of the study is given in Table 1.

Table 1. *The* Sample of the Study According the Disciplines.

Department	**Discipline**	**N**
Primary	Science	87
Secondary	Physics	16
	Chemistry	11
	Biology	21
	Total	135

Data was gained from a questionnaire developed by Bay et al. (2005) consisting of 26 items on a 5 point likert scale. The answers of the students for the scale items were scored from 1 (strongly agree) to 5 (strongly disagree).

The scale has three dimensions: motivation, time management and preparation for the exam-exam anxiety. The questions of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 are related to motivation dimension. The scores for motivation dimension are between 11 and 55. The questions of 12, 13, 14, 15, 16, 17 and 18 are related to time management. The scores for time management dimension are between 7 and 35. The questions of 19, 20, 21, 22, 23, 24, 25 and 26 are for preparation for the exam-exam anxiety dimension. The scores for this dimension are between 8 and 40.

The study skills of student teachers gain positive direction while the total score of scale goes up. The maximum score for the scale regarding the study skills is 130. Data were analyzed by using SPSS version 13.0 for Windows. The cronbach alpha value of scale is 0, 89.

3. FINDINGS

In this part, the data of student teachers from the Science and Technology Education Program at Department of Primary Science Education and from Department of Secondary Science and Math Education (Physics, Chemistry and Biology Education Programs) about dimensions of motivation, time management, preparation for the exam-exam anxiety and general of study skills are compared according the gender and department.

Table 2. *The* Means of All Student Teachers about Dimensions of Motivation, Time Management, Preparation for the Exam-Exam Anxiety and General of Study Skills

Dimensions	N	Minimum	Maximum	Mean	Std. Deviation
Motivation	135	16,00	52,00	33,93	6,94
Time management	135	8,00	32,00	19,12	4,36
Preparation for the exam-exam anxiety	135	10,00	39,00	23,21	5,95
General of study skills	135	52,00	119,00	76,26	13,28

According the Table 2; all of the students' mean score of motivation dimension is 33, 93 (average level); mean score of time management dimension is 19, 12 (average level); mean score preparation for the exam-exam anxiety dimension is 23, 21 (average level); general of study skills mean score is 76, 26 (average level)

Table 3. *The* Mean Scores and P (Significance Level) Values for the Gender

Dimensions	Department-Discipline	Gender	N	Mean	Std. Deviation	p
Motivation	Primary-Science	Female	46	34,43	8,08	0,62
		Male	41	33,68	5,66	
	Secondary-(Physics+ Chemistry+Biology)	Female	29	32,24	6,42	0,09
		Male	19	35,84	7,17	
Time management	Primary-Science	Female	46	19,85	4,63	0,17
		Male	41	18,56	4,03	
	Secondary-(Physics+ Chemistry+Biology)	Female	29	17,69	3,88	0,02
		Male	19	20,74	4,50	
Preparation for the exam- exam anxiety	Primary-Science	Female	46	22,48	6,97	0,78
		Male	41	22,85	4,99	
	Secondary-(Physics+ Chemistry+Biology)	Female	29	23,45	6,03	0,23
		Male	19	25,37	4,88	
General of study skills	Primary-Science	Female	46	76,76	15,09	0,57
		Male	41	75,10	11,58	
	Secondary-(Physics+ Chemistry+Biology)	Female	29	73,38	11,27	0,03
		Male	19	81,95	14,05	

According the t test outputs on gender, there isn't statistically significant difference (p>0, 05) for the student teachers from the Science and Technology Education Program at Department of Primary Science Education. But for Department of Secondary Science and Math Education (Physics, Chemistry and Biology Education Programs), there is statistically significant difference on time management dimension and general of study skills on gender.

Table 4. *The* Mean Scores and Standard Deviations Values for Departments

Dimensions	Department-Discipline	N	Mean	Std. Deviation
Motivation	Primary-Science	87	34,08	7,01
	Secondary-(Physics+ Chemistry+Biology)	48	33,67	6,88
Time management	Primary-Science	87	19,24	4,38
	Secondary-(Physics+ Chemistry+Biology)	48	18,90	4,36
Preparation for the exam- exam anxiety	Primary-Science	87	22,66	6,09
	Secondary-(Physics+ Chemistry+Biology)	48	24,21	5,63
General of study skills	Primary-Science	87	75,98	13,50
	Secondary-(Physics+ Chemistry+Biology)	48	76,77	13,01

As it is seen in Table 4, mean scores are nearly same about all of the dimensions for student teachers of Department of Primary Science Education and for Department of Secondary Science and Math Education (Physics, Chemistry and Biology Education Programs)

Table 5. *The* Analysis Of Variance Values of Study Skills According the Departments

Dimensions		Sum of squares	Df (degree of freedom)	Mean Square	F	p
Motivation	Between groups	5,30	1	5,30	0,11	0,74
	Within groups	6457,10	133	48,55		
	Total	6462,40	134			
Time management	Between groups	3,70	1	3,69	0,19	0,66
	Within groups	2546,41	133	19,15		
	Total	2550,10	134			
Preparation for the exam-exam anxiety	Between groups	74,62	1	74,62	2,12	0,15
	Within groups	4675,57	133	35,16		
	Total	4750,19	134			
General of study skills	Between groups	19,49	1	19,50	0,11	0,74
	Within groups	23618,43	133	177,58		
	Total	23637,93	134			

According the analysis of variance value, there isn't statistically significant difference according the departments (p>0, 05).

4. CONCLUSIONS

The results of the questionnaire about study skills showed that study skills of student teachers student teachers from the Science and Technology Education Program at Department of Primary Science Education and from Department of Secondary Science and Math Education (Physics, Chemistry and Biology Education Programs)
are at the average level.

There isn't statistically significant difference related to gender regarding to the study skills for the student teachers from the Science and Technology Education Program at Department of Primary Science Education. However, for student teachers from Department of Secondary Science and Math Education (Physics, Chemistry and Biology Education Programs), the dimension of time management and general of study skills are significant according the gender. The mean scores of male students on time management and general study skills are higher than female students' mean scores. The students answered for the items of "I am not able to study for a long time without break" and "I feel so tired before starting to study" regarding to motivation dimension are 'agree' level. Also their answers for the items "I start to study one day before an exam" and "I do not study on a definite plan" regarding to time management dimensions are similar to the items above.

It is known that the factors, motivation and time management, are very important for students' success (Anthony, 2000; Hulick and Higginson, 1989). The student teachers' answers toward 'agree level' about items of "I study for my exams, but I can not remember anything about the subject during the exam" and "I think I studied very well for the exam. However, I can not remember many things in the exam" regarding to preparation for the exam-exam anxiety dimension can be resulted from their deficiencies about motivation and time management dimensions.

It is concluded that student teachers have deficiencies about motivation, time management and preparation for an exam. This result is coherent with the study of Bay et al. (2005).

All of the dimensions as motivation, time management and exam anxiety, have influence on the student teachers' academic achievement. Conclusion, it is very important to overcome the defined disabilities for student teachers to develop study skills. There can be some seminars or motivating implications to orientate the student teachers for more productive studying manner.

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