

Motivation and Learning Strategies of Students in Turkey

ABSTRACT

The purpose of the study is to compare the level of motivation and strategies on two different groups of students in Turkey. One group of students consists of all four level (freshmen to senior) in the public universities and all four level in the private universities. Random sampling was conducted concentrating on a total number of 152 freshmen, sophomore, junior, and senior students. The study used a motivated strategy learning questionnaire (MSLQ) with 18 categories. Six categories were motivation, and 9 learning strategy scales. The responses of students were analyzed based on an independent T-test and one-way ANOVA. The results indicated that there is a significant difference between the types of universities (public/private) in multiple items of motivational strategy. Additional comparisons such as gender (male vs female) and year level (freshmen and sophomore vs junior and senior) showed that a significant differences exist respectively. Results of this study may be used towards development of appropriate plan of actions to improve quality in higher education.

INTRODUCTION

Due to the race for technological advancement, it is imperative for students to retain as much information as they can from the classroom. Not only is the retention of the information important, but one must also have an in-depth understanding of what is going on in the presented teaching. Essentially, students must learn how to learn, while responding to endlessly changing technologies and social, economic, and global conditions (Barron, & Darling-Hammond 2008). This can all be linked to two things, how the information is being relayed to the students and how the students prepare themselves for in-class works and exams.

While old fashioned learning relied solely on pure memorization, recent studies have shown that students who engage in self-regulated learning monitor their own progress toward self-set goals and are therefore able to reflect on the effectiveness of their learning approaches (Credé, & Philips 2011). When compared with students who doubt their learning capabilities, those who feel efficacious for learning or performing a task participate development of academic self-efficacy more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level (Schunk, & Pajares 2002 cited by Meral, Colak, & Zereyak 2012).

HYPOTHESIS

To evaluate motivation and learning strategies of high school students and university students, two hypotheses were examined in the current work.

1. There is no significant difference between public and private university students in Turkey.
2. There is no significant difference between males and females in both college and high school level students in Turkey.
3. There is no significant difference between students at a ninth/tenth grade versus an eleventh/twelfth grade standing in Turkey.

LITERATURE REVIEW

Motivated Strategies for Learning is a complex construct that has inspired innumerable research in recent years (Feiz, Hooman, & Kooshki 2013). One of the major aspects looked at includes self-regulation. Self-regulation refers to processes that learners use to activate and maintain cognitions, emotions, and behaviors to attain personal goals. These goals enable learners to create self-oriented feedback loops to monitor their effectiveness and to adapt their functioning (Zimmerman & Kitsantas 2014). Self-regulation can help researchers in various motivated strategy learning questionnaires.

Self-regulation is seen as situation specific, and self-regulated learning can therefore be used to explain why one student performs better on an academic task than another student (Credé, & Philips 2011). However, it can also be used to compare the works of students academically. The motivational strategies in which students learn and retain information reflect on their overall performance in the classroom. The most key factors to this are potentially that of self-regulation and efficacy.

RESEARCH METHODOLOGY

Questionnaire:

The Motivated Strategies for Learning Questionnaire (MSLQ) is a self-report instrument designed to assess college students' motivational orientations and their use of different learning strategies for a college course (Pintrich, Smith, Garcia, & McKeachie 1991). While the original version of the survey included only 15 categories, the survey presented here has a total of 18. Changes in the questionnaire

are to be expected as “the MSLQ has been under development formally since 1986” (Pintrich, Smith, Garcia, & McKeachie 1991).

Participants:

There were a total of 78 students that participated in the survey from a combination of public and private universities in Turkey. Of these 78 students 31 came from public universities, 47 from private, a total of 16 males and 62 females. Figure 1 shows that there was a total of 20.15% male respondents and 79.49% female. A change was noted between freshman/sophomore students to junior/senior standing students, therefore the classes were added together respectively to better understand any changes in learning. There was a total of 51 freshman/sophomore students and 27 junior/senior students from combined public and private universities.

Table 1: Gender Information for Participants

University Type	Male	Female
Public	9	22
Private	7	40
Total	16	62
Percentage	20.51%	79.49%

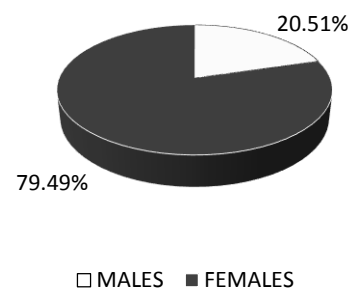


Figure 1: Gender by Percentage

Table 2 and Figure 2 represent the distribution of students, with there being 65% freshman/sophomore students and 35% junior/senior standing students.

Table 2: School Year Information for Participants

	Freshman/Sophomore	Junior/Senior
Public	18	14
Private	33	13
Total	51	27
Percentage	65.38%	34.62%

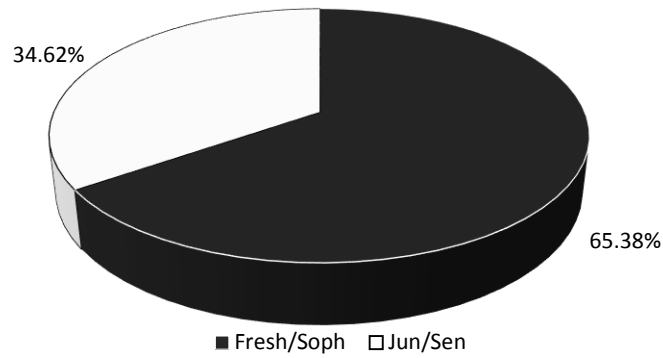


Figure 2: Percentage of Students by Year

This survey was given to a number of students from public and private universities in Turkey. As shown in the graph below, there were several more students who attend a private school that responded to the survey. In total there were 78 respondents; 31 of which attend public universities and 47 attend private universities.

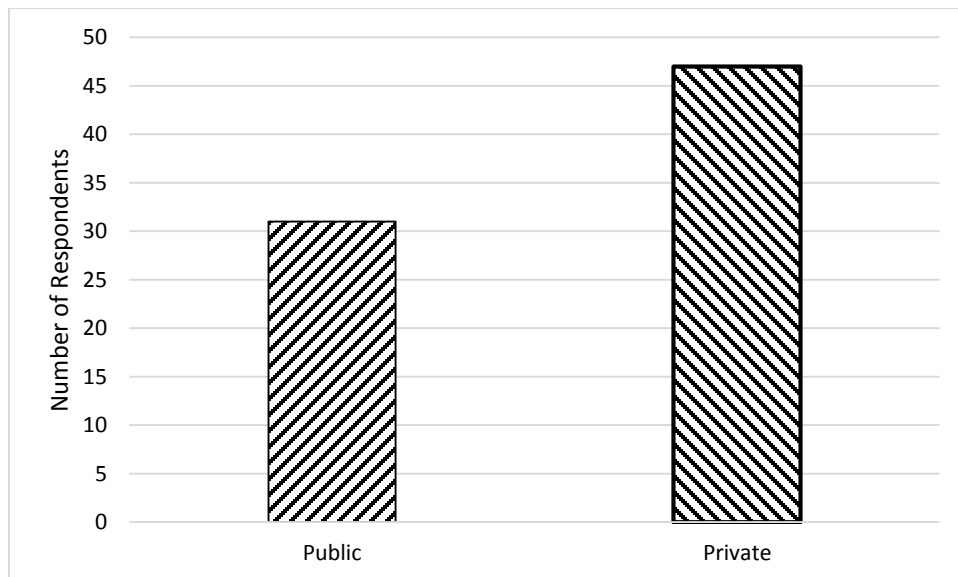


Figure 3: Respondents by Institution

DATA ANALYSIS/PROCEDURE

IBM SPSS 22 ® software was used to perform the Independent sample T-test. Both were used to determine the mean values of 18 categories among students. The purposes of this test were to determine if there are significant differences in learning. The following categories were grouped and compared:

- ✓ Public and private universities regarding those 18 categories.
- ✓ Male and female respondents
- ✓ Freshmen/sophomores and juniors/seniors.

RESULTS

Results of statistical analyses are summarized in descriptive and independent t-test in Tables 3, 4, 5, 6, 7 & 8. Tables 3 & 4 show the result of descriptive statistics first hypothesis and independent sample t- test respectively for each MSLQ scale. Independent sample t – test (Table 4) showed that private and public university students have a significant difference in Organization. The average mean resulted in a slightly higher value (5.86) for private university while the public university's mean was 5.71 (Table 3). Additionally, significant differences were observed in Test Anxiety and Achievement Goal Questionnaire with p-values ($p=0.001$ and $p=0.00$) lower than alpha level of 0.05 respectively.

Table 3: Descriptive statistics for Institution Types

		Group Statistics			
School Type		N	Mean	Std. Deviation	Std. Error Mean
Organization	Public	31	5.71	1.39	.25
	Private	47	5.86	.88	.12
Test Anxiety	Public	31	3.24	1.34	.24
	Private	47	3.65	1.70	.24
Achievement Goal Questionnaire	Public	31	5.40	.56	.10
	Private	47	5.08	1.07	.15

Independent sample t-Test results suggest that students in private universities in Turkey have higher Test Anxiety compared to their fellow students in public universities (Table 3). However, public university students have higher level of goal achieving motivations (Goal Achievement Mean Public =5.40 > Goal Achievement Mean Private = 5.08) than public university students.

Table 4: t-Test results for Institution Types

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Organization	Equal variances assumed	13.19	0.00	0.58	76.00	0.57	-0.15	0.26	-0.66	0.36
	Equal variances not assumed			0.53	45.78	0.60	-0.15	0.28	-0.72	0.42
Test Anxiety	Equal variances assumed	6.87	0.01	1.13	76.00	0.26	-0.41	0.36	-1.14	0.32
	Equal variances not assumed			1.18	73.41	0.24	-0.41	0.35	-1.10	0.28
Achievement Goal Questionnaire	Equal variances assumed	15.75	0.00	1.55	76.00	0.12	0.33	0.21	-0.09	0.74
	Equal variances not assumed			1.75	72.94	0.08	0.33	0.19	-0.05	0.70

Tables 5 and 6 below illustrate the descriptive statistics for Male and Female students both in private and public universities. The t-Test results showed that four categories resulted in significant difference between males and females in Extrinsic Goal Orientation, Self-Efficacy, Peer Learning and Theory of Intelligence (Table 6).

Table 5: Descriptive statistics for Gender

		Group Statistics			
Gender		N	Mean	Std. Deviation	Std. Error Mean
Extrinsic Goal Orientation	Male	16	5.31	0.74	0.19
	Female	62	4.89	1.36	0.17
Self-Efficacy	Male	16	5.08	0.55	0.14
	Female	62	5.23	1.17	0.15
Peer Learning	Male	16	4.49	0.76	0.19
	Female	62	4.36	1.34	0.17
Theory of Intelligence	Male	16	4.65	0.91	0.23
	Female	62	4.00	1.62	0.21

Descriptive statistic and Independent Sample t-Test results (Table 5 & 6) illustrate that the Male students have significantly higher extrinsic goal orientation (Male Mean=5.31 > Female Mean=4.89) than female students both in public and private universities. Significant difference between genders in Self-Efficacy ($p=0.03$) shows that Female students believe in their own capacity more than male students (Mean Female=5.23 > Mean Male=5.08). This is validated with Peer Learning category, where male students depend on their peers more than their female fellow students (Male Mean=4.49 > Female Mean=4.36). Additionally, male students have higher Theory of Intelligence with mean = 4.65 compared to female students, whose Theory of Intelligence Mean resulted in 4.00 (Table 5).

Table 6: t-Test results for Gender

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Extrinsic Goal Orientation	Equal variances assumed	6.09	0.02	1.17	76.00	0.24	0.42	0.35	-0.29	1.12
	Equal variances not assumed			1.64	44.17	0.11	0.42	0.25	-0.09	0.93
Self-Efficacy	Equal variances assumed	4.62	0.03	-0.50	76.00	0.62	-0.15	0.30	-0.75	0.45
	Equal variances not assumed			-0.74	52.52	0.46	-0.15	0.20	-0.56	0.26
Peer Learning	Equal variances assumed	7.11	0.01	0.37	76.00	0.71	0.13	0.35	-0.57	0.83
	Equal variances not assumed			0.51	41.96	0.61	0.13	0.26	-0.39	0.65
Theory of Intelligence	Equal variances assumed	4.51	0.04	1.54	76.00	0.13	0.65	0.42	-0.19	1.49
	Equal variances not assumed			2.11	42.50	0.04	0.65	0.31	0.03	1.27

Table 7: Descriptive statistics for Class/Year Level

Group Statistics					
Class		N	Mean	Std. Deviation	Std. Error Mean
Elaboration	Freshmen/Sophomore	51.00	5.52	0.70	0.10
	Junior/Senior	27.00	5.46	1.34	0.26
Critical Thinking	Freshmen/Sophomore	51.00	5.59	0.73	0.10
	Junior/Senior	27.00	5.25	1.41	0.27
Meta Cognitive Self-Regulation	Freshmen/Sophomore	51.00	4.86	0.68	0.10
	Junior/Senior	27.00	4.65	1.04	0.20
Time Study Management	Freshmen/Sophomore	51.00	4.91	0.74	0.10
	Junior/Senior	27.00	4.53	1.14	0.22
Help Seeking	Freshmen/Sophomore	51.00	4.21	0.95	0.13
	Junior/Senior	27.00	3.66	0.52	0.10

The authors observed significant difference in various categories in motivational learning between class levels in both private and public universities (Table 7 & 8). Five categories (Elaboration, Critical Thinking, Meta Cognitive Self-Regulation, Time Study Management and Help Seeking) suggest that freshmen and sophomore students have significantly different learning motivations compared to junior and senior students. Table 7 shows that Freshmen/Sophomore students have higher mean values in all categories except in Time Study Management. This could mean that higher level students have a better understanding and control over the optimal utilization of their studying time. Freshmen and sophomore students tend to seek more help than junior and senior students (Table 7). Additionally, freshmen and sophomore students relate their class material to the readings while they study for the classes.

Table 8: t-Test results for Class/Year Level

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Elaboration	Equal variances assumed	10.38	0.00	0.23	76.00	0.82	0.05	0.23	-0.40	0.51
	Equal variances not assumed			0.19	33.70	0.85	0.05	0.27	-0.51	0.61
Critical Thinking	Equal variances assumed	15.93	0.00	1.36	76.00	0.18	0.33	0.24	-0.15	0.81
	Equal variances not assumed			1.14	33.58	0.26	0.33	0.29	-0.26	0.92
Meta Cognitive Self-Regulation	Equal variances assumed	7.22	0.01	1.10	76.00	0.27	0.22	0.20	-0.17	0.61
	Equal variances not assumed			0.97	37.98	0.34	0.22	0.22	-0.23	0.67
Time Study Management	Equal variances assumed	5.12	0.03	1.77	76.00	0.08	0.38	0.21	-0.05	0.80
	Equal variances not assumed			1.56	37.89	0.13	0.38	0.24	-0.11	0.87
Help Seeking	Equal variances assumed	5.51	0.02	2.79	76.00	0.01	0.55	0.20	0.16	0.94
	Equal variances not assumed			3.30	75.89	0.00	0.55	0.17	0.22	0.88

SUMMARY AND CONCLUSION

The study revealed important information about two groups of students. Significant differences were observed in multiple categories for male/female, freshmen/sophomore/junior/senior for both public and private universities. The results indicated female students believe the material to be more relevant and useful to other classes compared to high school students. Freshmen and sophomore students also have higher recognition of class material as relates to their learning and academic success.

Female students showed higher self-efficacy, higher theory of intelligence, higher extrinsic goal orientation compared to male students. Whereas, male students are more active in peer learning to improve their learning process.

Overall, higher level students are more motivated and better learner than freshmen/sophomore students and female students showed higher level of motivation towards academic success. The study was based on a limited number of students and will be extended to a larger population to better understand the characteristics of private and public university students. Although the current study results may not draw conclusion about the motivation and learning strategies of these two groups of students, it shed some light on an extremely important topic about how to motivate students towards success in engineering.

REFERENCES

- Barron, B., & Darling-Hammond, L. (2008, October 8). Powerful Learning: Studies Show Deep Understanding Derives from Collaborative Methods. Retrieved February 7, 2015.
- Credé, M., & Phillips, A. (2011). A meta-analytic review of the Motivated Strategies for Learning Questionnaire. *Learning and Individual Differences, 21*(4), 337–346.
- Feiz, P., Hooman, H., & Kooshki, S. (2013). Assessing the Motivated Strategies for Learning Questionnaire (MSLQ) in Iranian students: Construct Validity and Reliability. *Procedia - Social and Behavioral Sciences, 84*, 1820-1825.
- Meral, M., Colak, E., & Zereyak, E. (2012). The relationship between self-efficacy and academic performance. *Procedia - Social and Behavioral Sciences, 46*, 1143-1146.
- Pintrich, P., Smith, D., Garcia, T., & McKeachie, W. (1991). A Manual for the Use of the Motivated Strategies for Learning Questionnaire (MSLQ). *National Centre for Research to Improve Postsecondary Teaching and Learning*.
- Zimmerman, B., & Kitsantas, A. (2014). Comparing students' self-discipline and self-regulation measures and their prediction of academic achievement. *Contemporary Educational Psychology, 39*(2), 145-155.