

## Student Motivation and Learning Strategies of Students from USA, China and Bangladesh

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### ABSTRACT

To better understand the motivation and strategies used by students around the world, a comparative study among three different countries was performed. The current study used the Motivated Strategies for Learning Questionnaire (MSLQ) questionnaire to collect responses from students in public and private universities of Bangladesh. The results were also used to compare the differences between public and private universities of Bangladesh, as there is a national debate on the quality of these two types of universities in Bangladesh. The number of students that participated in this study was 164 with 143 from private universities and 21 from public universities. The number of lower responses from public universities may be an indicator of their lack of motivation to participate in this study. MSLQ questionnaires have been used and adapted by universities across the world as a valid instrument to measure the level of motivation and the learning process. The survey consists of 18 questions to evaluate motivation and learning strategies. There was no significant difference between public and private universities in Bangladesh in most of the categories. However, some differences were observed among these three countries indicating that students from different geographical regions may have different levels of motivation and learn differently.

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## 1. INTRODUCTION

A large body of previous research was conducted to understand the relationship between motivation and learning strategies of students. An individual student's level of motivation may depend upon his or her background, perspective and perception of the world around them. For example, some students may have a thirst for knowledge and their role in transforming the world and others may be motivated by the prospect of gaining meaningful employment in their field. The level of motivation is critical to success as a higher level of motivation to achieve a goal helps the student stay focused and overcome challenges in their path. Both intrinsic and extrinsic levels of motivation is important for the development and achievement of individual goals. To succeed in higher education, a student must develop a higher level of motivation towards learning and develop appropriate strategies to achieve their individual goals.

A study to compare how the motivational and learning strategies of students from different countries would help in understanding how students from different cultures learn and identify the qualities that would highlight their strengths with respect to learning. This study compares students from Bangladesh with

students from America and China. The student samples from Bangladesh were collected from both public and private universities.

A total of 164 students from eight private universities and two public universities in Bangladesh were asked to complete the MSLQ survey. This survey has 81 items which helps in assessing the motivational orientations and the use of different learning strategies of the students. The MSLQ survey includes six motivation scales and nine learning strategy scales. Each item is graded on a Likert scale between 1 and 7. The descriptive statistics and independent sample t-test were performed using the SPSS statistical tool to analyze and summarize the students' responses.

## Background

Until the 1960s, the views of human learning, motivation and achievement were focused on the conditioning and learning of environmental variables after which the focus shifted towards cognition with psychological theories and research [2]. In the 1960s, the instrument commonly used for measuring environmental press was The College Characteristics Index. The variables in the College Characteristics Index could primarily measure the perception of environmental press and intellectual and non-intellectual climate, using critical ratios and "t" statistics [3]. The recent tools are more focused on measuring the techniques that students use to study and learn new things. The self-regulated learning components seem to have a higher impact on the students' performance level than the motivational beliefs [4]. The most recent and widely used tool is the Motivated Strategies for Learning Questionnaire which is used to assess the motivational orientations and the use of learning strategies by students [5].

Not many studies have been done comparing the eastern and western culture influence on students and their motivational and learning strategies. The research done by Jessie Ho, et al [6] shows that the respondents from China and Australia did not have much difference in terms of the "conceptual meaning attached to all self-leadership factors [6]. The self-regulated learning includes aspects such as cognition, individual motivation and goal directed behavior [7], [8], [9]. These self-regulated learning components vary from student to student and the need to understand it is even more important because of the rapidly expanding open education system, which could include students from all around the world. There also seems to be a positive correlation between the relevance of the subject or its content and a student's interest. The learning process has a strong relationship between motivation and relevance [10]. Many discussions have been done regarding the way in which online learning can be used for the delivery of training, assessment and support [11]. Scientists are also working on providing solutions for the implementation of self-organizing and self-sustaining systems in the open education environment [12]. With all this set, it is vital to understand the students across the globe better. It will almost become a necessity for students to be self-regulated and independent learners in order to meet the new academic challenges that the online environment would require [13]. Many authors [14], [15], [16] have agreed to the facts that by making the teachers understand the learning styles and strategies of students, the learning experience for students could be made very effective. Therefore, it is very important to compare and study the motivation and learning strategies of students from different countries as it will help in understanding the effects of diverse cultural backgrounds and experiences on student learning [1]. Institutes also need to understand this better in order to reduce the attrition rate of students with increasing academic demands.

## 2. RESEARCH METHOD

This was a cross sectional study aimed at identifying the statistically significant MSLQ scale for students from Bangladesh, America and China. For this purpose, the Motivated Strategies for Learning Questionnaire is used to assess students' motivational orientations and use of different learning strategies through their course of education. The questionnaire consists of a total of 81 items of which 31 items assess goals and value beliefs, 31 items are used to assess the use of different cognitive and metacognitive strategies and another 19 items that are used to assess student management of different resources [17]. The questionnaire was completed by students from both public and private universities in Bangladesh. The responses were measured on a 7 point Likert scale. A total of 164 students participated in this study from Bangladesh of which 143 students are from the eight private universities and 21 students are from the two public universities. Figure 1 represents the distribution of respondents in each of the public and private universities.

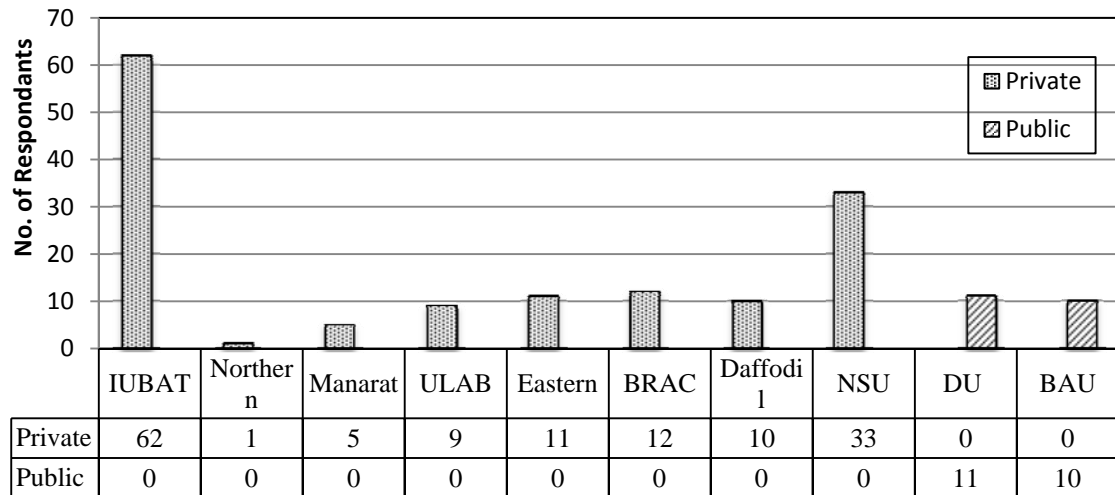


Figure 1. Number of Respondents Reported by Students

This data from the universities was compared to the responses of the students from America and China as collected by Ning Fang and Xiuli Zhao [1]. Ning Fang and Xiuli Zhao surveyed 109 sophomore engineering students from American and Chinese Universities. Seventy one students from Utah State University (USU) in the United States and 38 from Beijing Forestry University (BFU) responded to the same MSLQ survey and are rated on the same Likert scale from 1 to 7. The study also gives the descriptive statistics and independent sample t-tests on which the analysis was done. In both cases, with the descriptive statistics and independent sample t-tests results, the MSLQ scale, which is statistically significant, was identified ( $p < 0.05$ ) and compared.

### 3. RESULTS AND ANALYSIS

The descriptive statistics and the independent sample t-tests results for the private and public universities in Bangladesh were calculated using the SPSS statistical tool. The descriptive statistics and independent sample t-tests for the American and Chinese students [1] indicate a significant difference between Chinese and American students in three motivation scales and six learning strategies. The American students scored significantly higher than the Chinese students in the motivational scales, namely, extrinsic goal orientation, control of learning beliefs and one learning strategy referred to as "Time/Study environment". The students from China were better than the American students in five learning strategy scales, namely, Rehearsal, organization, critical thinking, time/study environment, metacognitive self-regulation and peer learning [1]. The independent t-tests of the students in Bangladesh show that there is a significant difference between private and public universities in Bangladesh only with respect to organization.

Table 1 and Table 2 show the descriptive statistics of students from America, China [1], and Bangladesh. The scales which have a significant difference statistically could be identified with scales having a *p value* less than 0.005. Table 1 gives the mean and standard deviation values of the MSLQ scales.

Table 1. Descriptive Statistics of Students from USA, China and Bangladesh

MSLQ Scales	American Students (n = 71)		Chinese students (n=38)		Bangladesh Private (n=143)		Bangladesh Public (n=21)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Intrinsic goal orientation	4.59	1.06	4.83	1.1	5.06	1.38	5.3	0.69
Extrinsic goal orientation	5.22	1.21	4.61	1.25	5.18	1.38	5.2	1.17
Task value	5.52	1.28	4.75	0.91	5.43	1.2	5.6	0.75
Control of learning beliefs	5.77	1.13	4.6	0.98	5.3	1.31	5.51	0.94
Self-efficacy for learning & performance	5.17	1.24	4.95	0.96	5.21	1.17	5.17	0.69
Test anxiety	3.77	1.66	3.96	1.42	4.62	1.43	4.78	1.36
Rehearsal	3.81	1.13	4.38	1.14	5.29	1.12	5.73	0.76
Elaboration	4.35	1.04	4.43	0.91	5.21	1.13	5.48	0.78
Organization	3.87	1.39	4.81	1.23	5.17	1.24	5.63	0.6
Critical Thinking	3.54	1.33	4.59	1.5	5.03	1.06	5.15	0.63
Metacognitive self-regulation	4.14	0.73	4.5	0.83	4.87	0.97	4.97	0.65
Time/Study environmental management	4.78	0.93	4.32	0.51	4.98	0.98	5	0.7
Effort regulation	4.73	0.65	4.61	0.67	4.9	1.1	4.73	1.02
Peer learning	3.23	1.68	4.25	1.21	5.19	1.23	4.95	1.15

Table 2. Independent Sample t-tests for American, Chinese students and for private and public university students in Bangladesh

MSLQ Scales	Independent sample t-tests for American and Chinese students				Independent sample t-tests for Private and Public university students in Bangladesh			
	t	Df	p	SE	t	df	p	SE
Intrinsic goal orientation	-1.1	107	0.275	0.11	-1.23	48.32	0.224	0.17
Extrinsic goal orientation	2.51	107	<b>0.014</b>	0.24	-0.06	162	0.952	0
Task value	3.67	98.8	<b>0.000</b>	0.35	-0.65	162	0.517	0.05
Control of learning beliefs	5.38	107	<b>0.000</b>	0.46	-0.68	162	0.495	0.05
Self-efficacy for learning & performance	0.97	107	0.333	0.09	0.29	39.66	0.771	0.03
Test anxiety	-0.58	107	0.564	0.06	-0.49	162	0.624	0.04
Rehearsal	-2.52	107	0.013	0.24	-1.73	162	0.086	0.13
Elaboration	-0.4	107	0.691	0.04	-1.04	162	0.298	0.08
Organization	-3.52	107	<b>0.001</b>	0.32	-2.71	50.03	<b>0.009</b>	0.36
Critical Thinking	-4.21	107	<b>0.000</b>	0.38	-0.73	39.26	0.472	0.12
Metacognitive self-regulation	-2.35	107	<b>0.021</b>	0.22	-0.48	162	0.635	0.04
Time/Study environmental management	3.29	106.9	<b>0.001</b>	0.3	-0.04	162	0.965	0.01
Effort regulation	0.93	73.7	0.354	0.11	0.61	162	0.541	0.05
Peer learning	-3.68	97.9	<b>0.000</b>	0.35	0.92	162	0.361	0.06

Table 2 indicates that there is a significant difference across all students only with respect to organization which deals with strategies that help students select appropriate information and construct connections among the information to be learned [17]. The average values for organization is much higher for students in Bangladesh than for students in America and China. The comparison of the organization results for all of the students can be viewed in the histogram in Figure 1. It is evident that a high percentage of students from Bangladesh have provided a higher rating for their organization skills than the Chinese and American students.

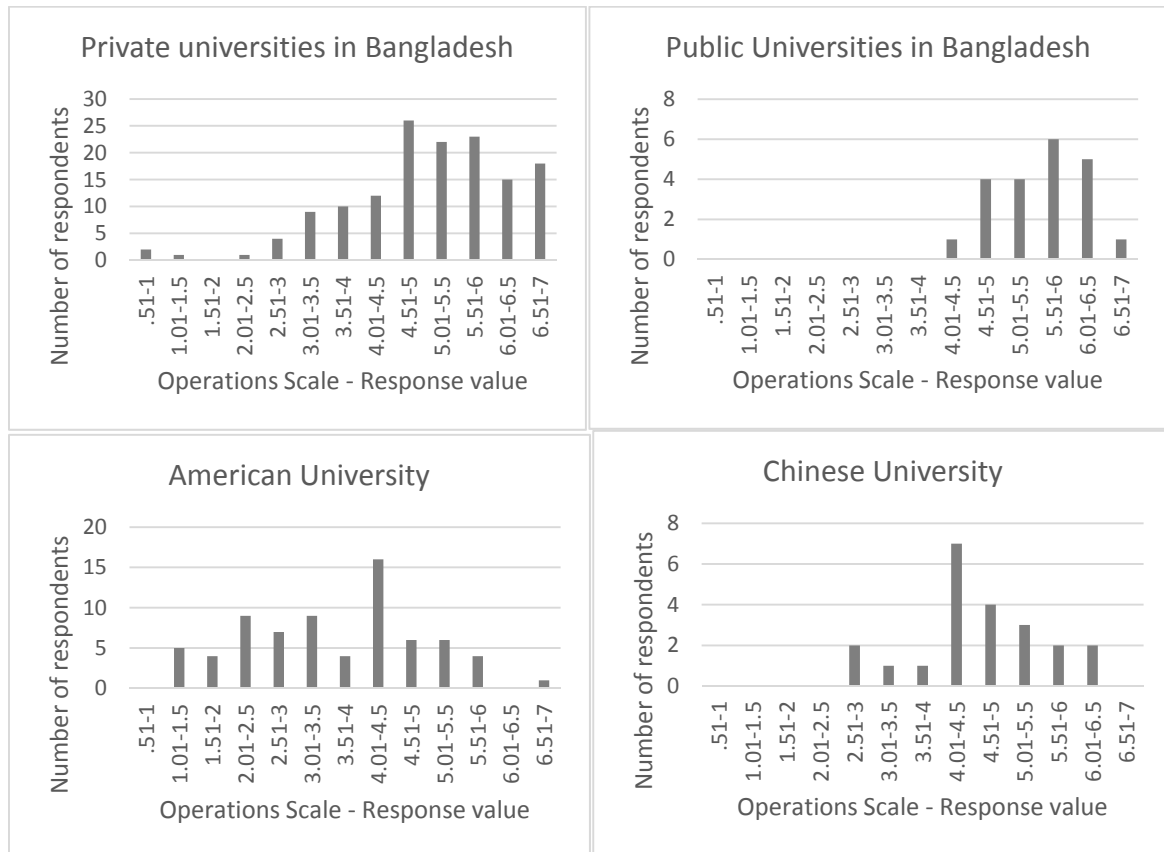


Figure 2. Comparison of Responses from American, Chinese and Bangladeshi Students

#### 4. CONCLUSION

Based on the analysis from the data, it's concluded that there is a significant statistical difference between the students from America, China and Bangladesh with respect to their organization skills. The results show that the students from private and public universities in Bangladesh have better organization skills than the students in American and China. Among themselves, the students in public universities in Bangladesh have better organization skills than the students in private universities. By comparing only the averages of the MSLQ scales, the students in Bangladesh have scored fairly higher on all of the scales than the students in America and China with the exception of their control of learning beliefs.

#### 5. DISCUSSION

With the globalization for higher education, it is becoming increasingly important to understand and evaluate how students from different cultural backgrounds are motivated to learn and the learning strategies used by them. The study revealed some surprising results about the differences in motivational and learning strategies with higher organizational skills among students of Bangladesh compared to the other countries studied in this paper. In Bangladesh, the reported higher organizational skills among students of public universities may be attributed to the fact that these students in general have stronger academic background than those of private universities. The results of this study can be used by higher education institutions of Bangladesh to help motivate students and develop better learning strategies to become a better learner.

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