

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

## Quamrul Mazumder, Kawshik Ahmed, Siwen Zhao

## Abstract

- Motivated Strategies for Learning Questionnaire (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 current study used the Motivated Strategies for Learning Questionnaire (MSLQ) questionnaire to compare the
- differences between public and private universities of 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 The survey consists of 18 questions to evaluate motivation and learning strategies.
- The results of the responses from Bangladesh were compared with a previous study between students of USA and China [9].
- There was no significant difference between public and private universities in Bangladesh in most of the categories
- Some differences were observed among these three countries indicating that students from different geographical regions may have different levels of motivation and learn differently.

### Introduction

- An individual student's level of motivation may depend upon his or her background, perspective and perception of the world around them.
- 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
- 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.
- This survey has 81 items includes six motivation scales and nine learning strategy scales which helps in assessing the motivational orientations and the use of different learning strategies of the students.
- 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.



#### Figure 1: Number of Respondents Reported by Students

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## **Methods and Materials**

To identify the statistically significant MSLQ scale for students from Bangladesh, America and China, 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 [11].

This data was compared to the responses of the students from America and China as collected by Ning Fang and Xiuli Zhao [9]. 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.

## Results

The descriptive statistics and independent sample t-tests for the American and Chinese students [9] 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 selfregulation and peer learning [9].

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 [9], and Bangladesh. The scales, which have a significant difference statistically, could be identified with scales

having a p value less than 0.005.

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MSLQ Scales	American Students (n = 71)			e students =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 1: Descriptive Statistics of Students from USA, China and Bangladesh

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categories.

One of the factors that may influence higher organizational skill among public university students is that the admission criteria of public universities are higher and therefore admit students with higher academic abilities.

There are several limitations of this study such as lower response rates of certain group of student such as public universities of Bangladesh, data collected from one US university and one Chinese university, only three different countries were involved in the study, respondents from different background may interpret the questions differently, etc.

The above data may not represent the average student responses from these countries. To improve the reliability, the author is currently collecting MSLQ data from one African country, one European country and a few other countries across the world.





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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				Independent sample t-tests for Private and				
	and Chinese students				Public university students in Bangladesh				
	t	Df	р	SE	t	df	р	SE	
insic goal orientation	-1.1	107	0.275	0.11	-1.23	48.32	0.224	0.17	
insic goal orientation	2.51	107	0.014	0.24	-0.06	162	0.952	0	
Task value	3.67	98.8	0.000	0.35	-0.65	162	0.517	0.05	
rol of learning beliefs	5.38	107	0.000	0.46	-0.68	162	0.495	0.05	
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	0.001	0.32	-2.71	50.03	0.009	0.36	
Critical Thinking	-4.21	107	0.000	0.38	-0.73	39.26	0.472	0.12	
ognitive self-regulation	-2.35	107	0.021	0.22	-0.48	162	0.635	0.04	
/Study environmental management	3.29	106.9	0.001	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	0.000	0.35	0.92	162	0.361	0.06	



## **Discussion & Conclusions**

It can be concluded that there is a significant statistical difference between the students from America, China and Bangladesh with respect to their organization skills.

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.

US students appears to have higher level of motivation in the areas of intrinsic goal orientation, task value and control of their learning beliefs whereas the Chinese students showed higher organization skills, critical thinking abilities, metacognitive self-regulation, time-study environmental management and peer learning