

LOCUS OF CONTROL AND TIME AND STUDY MANAGEMENT AS PREDICTORS OF ACADEMIC ACHIEVEMENT

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Abstract. As contradictions among past studies on the effect of locus of control on academic achievement and dearth of researches on the effect of time and study management on academic achievement in Bangladeshi context, the present study was aimed to investigate the effect of locus of control, and time and study management in predicting academic achievement in Bangladeshi context. Study population was secondary school students, of whom a sample of 113 respondents was selected through multi-stages sampling techniques. Findings revealed significant positive correlation among locus of control, time and study management, and academic achievement. Locus of control, and time and study management environment explained 42.5% of variance of academic achievement. Findings also suggested that locus of control, and time and study management were significant predictors of academic achievement and both variables had positive effect on academic achievement.

Keywords: locus of control, time and study management, academic achievement

Introduction

Locus of control has generated much research in a variety of areas in psychology, mainly in educational psychology. It is a generalized expectancy pertaining to the connection between personal characteristics and/or actions and experienced outcomes. It concerns the beliefs that individual hold regarding the relationship between action and outcomes. Locus of control may be internal or external. Individuals who have a highly internal locus of control tend to believe that they have a high degree of control over what happens in their lives. These individuals tend to see the good and bad things that happen to themselves and others as a result of their own actions or lack of action. Individuals who have external locus of control believe that the events in their lives are controlled by external factors like luck, fate, others' behavior. These individuals tend to see the good and bad things that happen to them and others as being controlled by factors outside of their control.

Another variable in the present study was time and study management. Beside using different learning strategies (i.e., rehearsal, elaboration, organization, critical thinking, self-regulated learning etc.), students are able to manage and regulate time of study, and place of study. Time management involves scheduling, planning, and managing one's study time. It includes not only setting aside blocks of time to study, but the effective use of that study time, setting realistic goals. It varies from an evening studying schedule to weekly and monthly schedule (Pintrich et al., 1991). Study environment management refers to the setting where the student does her class work (Pintrich, et al., 1991). A learner's study environment should be organized, quiet, and relatively free of visual and auditory distractions. Successful learners will be sensitive to the physical learning environment and their time management – making adjustments as necessary.

Quality of education is one of the major topic of discussion in Bangladesh as a large number of students have passed in the public examinations like

SSC, HSC, but failed to get enrolling in public universities for higher education. Academic achievement is the outcome of education that is one of a chief indicator in evaluating the quality of education. It can be defined as the educational goal that is achieved by a student over a certain period and measured by examination and other continuous assessment. In the present study, the word 'academic achievement' refers the annual academic results by students in school. A large number of studies conducted in foreign context to investigate the effect of locus of control on academic achievement (Jeffreys, 1998; Shepherd et al., 2006; Reynolds & Weigand, 2010; Barzegar, 2011; Fini, & Yousefzadeh, 2011; Nejati et al., 2012; Ogunmakin & Akomolafe, 2013). However, there were contradictions in findings among studies. Some past studies suggested the locus of control as a strong predictor of academic achievement (Shepherd et al., 2006; Barzegar, 2011; Fini, & Yousefzadeh, 2011). Landine & Stewart (1998) conducted a study on a sample of 108 twelve-grade students and found that locus of control and academic achievement was significantly positively correlated. Mohammadi et al. (2015) conducted a study on 335 medical students and found significant positive relation between locus of control and academic achievement. Atibuni et al. (2017) conducted a study on 203 university students and found that academic locus of control was a strong predictor of academic achievement. Some past studies also suggested there was no relation between locus of control and academic achievement (Jeffreys, 1998; Reynolds & Weigand, 2010; Ogunmakin & Akomolafe, 2013; Choudhury & Borooah, 2017). In their study, Choudhury & Borooah (2017) suggested non-significant relation between locus of control and academic achievement. Contradictions among past studies on locus control effect on academic achievement demanded more research on locus of control. Stegers-Jager et al. (2012) found that academic achievement also significantly positively correlated with time and study management environment. Kaur et al. (2009) found significant positive relationship of home environment compo-

nents of protectiveness, conformity, reward, and nurturance with self-concept and academic achievement. Song & Hattie (1984) conducted a study on a sample of Korean adolescents and found that self-concept is a mediating variable between home environment and academic achievement. However, there is dearth of research in Bangladeshi culture that tried to find out the relationship between time and study management and academic achievement. As contradictions among studies on locus of control and scarcity of research findings in time and study management in Bangladeshi culture, demands research. The present study was conducted on secondary school' students. In Bangladesh, there are 3 main layers of education – primary, secondary, and tertiary level. Age range for Bangladeshi students at secondary level is 11 to 16+. During this stage, rapid physical and psychological changes occur in the life of students. They feel extra pressure to adjust with these changes. During this stage of development, they are becoming free from their guardians' constant supervision. So, it is important to find out factors those will be predictors of their academic outcome.

From the above discussion, the present study was aimed to investigate whether or not locus of control, and time and study management were significantly predicted the academic achievement of the Bangladeshi school students. The present study would provide information about the students' locus of control, and time and study management that facilitate their learning. Such information would also helpful to teachers and guardians for taking some interventions effort to students for better academic achievement. Finally, this study would be helpful to increase the quality of education. The main objective of the study was to investigate the prediction ability of locus of control, and time and study management to the academic achievement. Another objective of the present study was to identify the unique contribution of locus of control, and time and study management in predicting the academic achievement.

Method

Participants

The present study population was secondary school students in Bangladesh. The study sample comprised of 120 students from 4 schools which were selected conveniently. From each school total 30 students were selected purposively from grade IX and grade X. In the present study, 113 respondents' responses were used finally and rest 7 were excluded due to missing responses. Among respondents, 46.9% from class IX and 53.1% from class X, and 23% from humanities group, 34.5% from commerce group, and 42.5% from science group. Among the respondents, 46% were female and 54% were male. Their last year academic results were taken as their academic achievement.

Data collection instruments

In the present study, the Bangla version (Ilyas, 2000) of the Internal Control Index (Duttweiler, 1984) was used for collecting data about respondents' locus of control. It was 5-point measure that comprised of 28 items. A half of the items were favorable to internal control and these items were scored from 1 (rarely) to 5 (usually). Rest half of the items were favorable to external control and these items were scored from 1 (usually) to 5 (rarely). Higher score indicated higher internal locus of control and lower score indicated higher external locus of control. The reliability co-efficient was 0.84. Correlation coefficient between Bangla version and original version was 0.92. The *Cronbach's Alpha* of the measure in the present study was 0.869.

To collect necessary data for measuring the time and study management, the time and study management scale of the Bangla Version (Ahmed et al., 2014) of the "Motivated Strategies for Learning Questionnaire (MSLQ)" were used (Pintrich et al. 1991). This was 7-point Likert type measure that comprised of 7 items and scores were ranged from 7 to 49. Among 7 items, item 3 and item 7 were reversely coded. The *Cronbach's Alpha* was 0.76 for

the time and study management scale in the original study of the development of the MSLQ as reported by authors. In the Bangla version, the *Cronbach's Alpha* was 0.877 for this measure. In the present study, the *Cronbach's Alpha* was 0.829.

Study design

The cross-sectional survey design was used to collect data for the present study.

Procedure

The measures described above, along with personal information form, were administered on the study sample in classroom settings. They were informed about the purpose and importance of the present study and necessary rapport was established with them. Respondents were given written instructions along with the questionnaire. They were requested to read the items of the questionnaire very carefully and express their feelings. They expressed their opinion by putting tick (✓) mark on the appropriate response boxes those were best expression of their feelings. They were also requested not to omit any item in the questionnaire and also told that there was no right or wrong answer. They were assured that the information collected from them would be strictly confidential and would be used for only research purposes. After completing their task, they were thanked for their cordial cooperation.

Results

The collected data were analyzed to estimate the *mean* and *standard deviation* of locus of control, time and study management, and academic achievement. Results of the analysis are presented in Table 1.

Table 1. Mean and standard deviation of locus of control, time and study management, and academic achievement

<i>Variable</i>	<i>Mean</i>	<i>Standard Deviation</i>
Locus of Control	87.52	11.47
Time and study Management	42.16	9.11
Academic Achievement	4.19	0.93

Table 1 shows that *mean* and *standard deviation* for locus of control were 87.52 and 11.47, for time and study management were 42.16 and 9.11, and for academic achievement were 4.19 and 0.93.

To ascertain the correlations among locus of control, time and study environment, and academic achievement, the collected data were subjected to the Pearson Product Moment Correlation Coefficient analysis. Results of the analysis presented in Table 2.

Results from Table 2 indicate that the academic achievement was significantly correlated with both locus of control ($r = 0.335, p < 0.01$), and time and study management ($r = 0.578, p < 0.01$). Table also shows significant correlation between locus of control and time and study management ($r = 0.429, p < 0.01$).

The collected data were subjected to the linear regression analysis to ascertain the direction of relationship of locus of control and time and study management with academic achievement. Results are presented in Table 3.

Results from Table 3 suggested that locus of control and time and study management explained 42.50% of variance of academic achievement. Results related to effects of predictor variables on academic achievement and these variables' unique contribution in influencing the academic achievement were presented in following Table 4.

Results from Table 4 indicate that locus of control ($\beta = 0.329, p < 0.01$), and time and study management ($\beta = 0.462, p < 0.01$) were significant predic-

tors of academic achievement. Table 4 also indicates from partial correlation coefficient (r_p) that unique contribution to the variance in academic achievement for locus of control was 10.49%, and for time and study management was 34.47%.

Table 2. Correlations among locus of control (LOC), time and study management (TSM), and academic achievement (AA)

Variables	AA	LOC
LOC	0.335**	
TSM	0.578**	0.429**

** $p < 0.01$

Table 3. Model summary of regression analysis of academic achievement for locus of control (LOC) and time and study management (TSM)

R	R^2	Adjusted R^2	F	df_1	df_2	P
0.652	0.425	0.417	107.591	2	110	.000

Predictor variables: locus of control, time and study environment

Table 4. Results regression analysis of academic achievement for locus of control (LOC) and time and study management (TSM)

Predictor variables	Unstandardized coefficients		Standardized coefficients	r_p	$r_p^2 * 100$
	B	SE	β		
LOC	0.027	0.006	0.329**	0.324	10.49
TSM	0.051	0.009	0.462**	0.561	34.47

* $p < 0.01$; Dependent variable: academic achievement

Discussion

The present study was designed to investigate effect of locus of control, and time and study management on academic achievement in Bangladeshi

culture. Another objective of the present study was to ascertain the unique contribution of locus of control, and time and study management to the academic achievement.

Results from the Table 2 showed significant positive correlations among locus of control, time and study management, and academic achievement. Results from the Table 3, the R^2 values suggested that locus of control, and time and study management were explained 42.50% of variance for academic achievement. This finding suggested that both variables were strong predictors of academic achievement. The corresponding β values in the Table 4 showed the direction of effect of locus of control, and time and study management on academic achievement. Both locus of control, and time and study management were positively influence the academic achievement of respondents. These findings were consistent with previous findings (Messer, 1973; Findley & Cooper, 1983; Song & Hattie, 1984; Pintrich et al., 1991; Landine & Stewart, 1998; Shepherd et al., 2006; Kaur et al., 2009; Barzegar, 2011; Fini, & Yousefzadeh, 2011; Stegers-Jager et al., 2012; Hasan & Khalid, 2014; Mohammadi et al., 2015; Atibuni et al., 2017). Table 4 also suggested unique contribution of locus of control, and time and study management in influencing academic achievement. Locus of control contributed 10.49% variance while controlling other variable and time and study management contributed 34.47% while controlling locus of control.

The positive correlation between locus of control and academic achievement and positive effect of locus of control on academic achievement suggested that students having higher internal locus of control would be more achievement oriented. They believe on their own ability and own effort. To achieve somethings, they would be work hard. This finding was supported by previous findings (Messer, 1973; Findley & Cooper, 1983; Fini, & Yousefzadeh, 2011; Nejati et al., 2012; Hasan & Khalid, 2014). Through effective time management one sets goals and tries to accomplish these goals by control over

the study environment. So, positive correlation between time and study management and academic achievement, and positive effect of time and study management on academic achievement was desirable. This finding was also supported by some past studies (Song & Hattie, 1984; Pintrich et al., 1991; Landine & Stewart, 1998; Kaur et al., 2009; Stegers-Jager et al., 2012).

The present study had some limitations. The sample of the present study was selected only from 4 schools of Bangladesh. As study did not cover wide geographical areas, it would be difficult to generalize the findings over whole of Bangladesh. Again, data for the present study were collected from only grade IX and grade X students.

Findings of the present study recommended further researches would be needed in several areas with including new variables. For example: (i) the effects of locus of control, and time and study management on learning of different types of contents should be examined under experimental conditions; such studies may reveal interactions between locus of control, time and study management, and types of contents; (ii) new studies should be focused on why and to what extent successful students have locus of control, and use more effective time and study management than unsuccessful students; (iii) possible links between basic elements of an educational system and students' use of locus of control, time and study management should be explored; (iv) future research should be examined what really would happen if all students go through use of effective time and study management as early as possible in their educational experiences. Finally, more experimental research would be needed on the role of locus of control, and time and study management strategy on both cognitive and affective outcomes in technology-based learning environments. The results of the recommended studies might have great influences and serious implications both for educational researchers and practitioners in Bangladesh.

REFERENCES

- Ahmed, O., Khanam, M. & Asad, S. (2014). Transadaptation of the motivated strategies for learning questionnaire. *Dhaka Univ. J. Psych.*, 38, 1-19.
- Atibuni, D.Z., Ssenyonga, J., Olema, D.K. & Kemeza, I. (2017). Locus of control as a predictor of academic attitudes among university students. *Int. J. Educ. Policy Res. & Rev.*, 4(6), 125-137.
- Barzegar, M. (2011). The relationship between learning style, locus of control and academic achievement in Iranian students. *Proc. Int. Conf. Educ. & Tech.*, 13, 195-199.
- Choudhury, S.A. & Borooah, I.P. (2017). Locus of control and academic achievement of undergraduate college students of Guwahati City. *Int. J. Humanities & Social Intervention*, 6(4), 67-70.
- Duttweiler, P.C. (1984). The internal control index: a newly developed measure of locus of control. *Educ. & Psych. Measurement*, 44, 209 – 221.
- Findley, M.J. & Cooper, H.M. (1983). Locus of control and academic achievement: a literature review. *J. Personality & Soc. Psych.*, 44, 419-427
- Fini, A.A.S. & Yousefzadeh, M. (2011). Survey on relationship of achievement motivation, locus of control and academic achievement in high school students of Bandar Abbas (Iran). *Procedia*, 30, 886 – 870.
- Hasan, S.S. & Khalid, R. (2014). Academic locus of control of high and low achieving students. *J. Res. & Reflection Educ.*, 8(1), 22 – 33.
- Ilyas, Q.S.M. (2000). *The translated Bangla version of the Duttweiler's 'Internal Control Index' (ICI)*. Dhaka: University of Dhaka.
- Jeffreys, M.R. (1998). Predicting nontraditional student retention and academic achievement. *Nurse Educ.*, 23(1), 42-48.
- Kaur, J., Rana, J.S. & Kaur, R. (2009). Home environment and academic achievement as correlates of self-concept among adolescents. *Stud. Home Comm. Sci.*, 3(1), 13-17.

- Landine, J. & Stewart, J. (1998). Relationship between metacognition, motivation, locus of control, self-efficacy, and academic achievement. *Canadian J. Counselling*, 32, 200 – 212.
- Messer, S.B. (1973). The relation of internal-external control to academic achievement. *Child Development*, 43, 1456-1462.
- Mohammadi, Y., Kaykha, A., Sadeghi, A., Kazemi, S. & Raeisoon, M.R. (2015). Relationship of metacognition learning strategy and locus of control with academic achievement of students. *Scientific J. Educ. Strategies Med. Sci.*, 8, 323-328.
- Nejati, M., Abedi, A., Aghaei, A. & Mohammadi, M. (2012). The relationship between locus of control with the academic achievement of the M.A. students by considering the role of life quality and satisfaction with life. *Int. J. Cont. Res. Business*, 4, 254 – 263.
- Ogunmakin, A.O. & Akomolafe, J.M. (2013). Academic self-efficacy, locus of control, and academic performance of secondary school students in Ondo State, Nigeria. *Mediterranean J. Soc. Sci.*, 4, 570-576.
- Pintrich, P.R., Smith, D.A.F., Duncan, T. & McKeachie, W.J. (1991). *A manual for the use of the motivated strategies for learning questionnaire (MSLQ)*. Ann Arbor: University of Michigan.
- Reynolds, A.L. & Weigand, M.J. (2010). The relationships among academic attitudes, psychological attitudes, and the first-semester academic achievement of first-year college students. *J. Student Affairs Res. & Practice*, 47, 175-195.
- Shepherd, S., Owen, D., Fitch, T.J. & Marshall, J.L. (2006). Locus of control and academic achievement in high school students. *Psych. Rep.*, 98, 318-322.
- Song, I. & Hattie, J. (1984). Home environment, self-concept, and academic achievement: a causal modeling approach. *J. Educ. Psych.*, 76, 1269-1281.

Stegers-Jager, K.M., Cohen-Schotanus, J. & Themmen, A.P. (2012). Motivation, learning strategies, participation and medical school performance. *Med. Educ.*, 46, 678 – 688.

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