

Socio-demographics as Correlates of Students' Academic Motivation

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Educational psychologists, over the world, are more concerned to measure the academic motivation of high school students. They considered academic motivation as primary indicators of students' learning process as well as their academic achievement. The present study was aimed to find out the demographic factor correlates with academic motivation of high school students in Bangladesh. In this regard, 294 high school students in tenth grade from six high schools were selected through multi-stage random sampling method. A Bangla version of "Academic Motivation Questionnaire" (Fatematuzzohra et al., 2010), originally developed by Vallerand et al. (1989), was used to measure student's academic motivation. Academic motivation was varied significantly with reference to 'location of the school' ($t=6.865$, $p<.01$), 'father's occupation' ($F=3.667$, $p<.05$), and 'monthly household income' ($F=5.993$, $p<.05$). Regression model explained approximately 16% variance ($R^2=.162$, $F(7, 286)=7.916$, $p<.01$) of academic motivation, in which 'location of school' independently explained 13.6% variance. Implications for understanding the socio-demographic factors relating student's academic motivation are discussed.

Keywords: academic motivation, self-determination theory, socio-demographic factors

Student's academic motivation is an essential element that is necessary for quality of education. It has a direct as well as an indirect influence on learning processes. It can be influenced by a lot of factors. In high school settings, there is a need to identify and analyze the factors that can affect high school student's academic motivation. It is a significant important factor for academic learning and achievement across childhood through adolescents (Elliot & Dweck, 2005); it is related to various outcomes such as curiosity, persistence, learning and performance (Deci & Ryan, 1985); it is what gets us going, keeps us going and determines where we're trying to go (Slavin, 2006); or it is a student's desire regarding academic subjects when the student's competence is judged against a standard of performance or excellence (DiPerna & Elliot, 1999; Eccles, & Wigfield, 2002). A child, who is academically motivated, wants to learn, likes learning-related activities, and believes school is important. Students are more academically motivated when one of the four conditions is present: a) when they feel competent enough to complete the task at hand; (b) when they see a direct link between their actions and

outcomes and have some control over their task; (c) when the task has interest or value to them; (d) when completing the task brings social rewards (Pintrich, 2003; Seifert, 2004). Academic motivation asks us a question, "Why do we go to school?"

According to 'Self Determination Theory' (SDT), academic motivation is multidimensional in nature and it comprises of three types of motivation: intrinsic motivation, extrinsic motivation and amotivation (Deci & Ryan, 2002). Intrinsic motivation is animated by personal enjoyment, interest or pleasure and plays a significant role in achievement, competency and academic learning. Deci and Ryan (1985) posit that intrinsic motivation stems from innate psychological needs of competence and self-determination. It relates several constructs such as exploration, curiosity, learning goals, intrinsic intellectuality, and intrinsic motivation to learn (Harter, 1981; Gottfried, 1985). For example, a student who reads more than is required for a class simply to learn something new is intrinsically motivated to learn. It takes place when someone engages in an activity in order to experience stimulating sensations. For

example, a student who goes to class in order to experience the excitement of a stimulating class discussion. Extrinsic motivation is a motivation to perform and succeed for the sake of accomplishing a specific outcome. Students who are very grade-oriented are extrinsically motivated. According to SDT, there are three types of extrinsic motivation. External regulation is regulated through external means such as rewards and constraints (e.g., I go to school in order to have a better salary later on; Vallerand et al., 1992). Introjected regulation, in which an individual begins to internalize the reasons for his or her actions (e.g., I go to school because I want to show myself that I can succeed in my studies; Vallerrand et al., 1992). Identification, the extent to which the behavior becomes valued and judged important for the individual (e.g., I go to school because eventually it will enable me to enter the job market that I like (Vallerand et al., 1992). In amotivation, individuals neither intrinsically nor extrinsically motivated. Amotivated individual experience feelings of incompetence and they perceive their behavior as caused by forces out of their own control. They actually do not know why they are in the world or why they go to school. Realistically, they do not get any pleasure from their academic activities.

Self determination theory states that students are motivated if they have a need to feel a sense of competence, a sense of relatedness to others, and a sense of autonomy (Anderman & Midgley, 1997). Tucker, Zayco, and Herman (2002) studied the academic motivation of 117 African American students from first through twelfth grades. Perceived relatedness and autonomy were directly influenced student's academic engagement. Hwang, Echols, and Vrongistinos (2002) interviewed sixty high achieving African American students about their reasons for choosing their majors and for studying, and about their educational values. They found that students did not hold an intrinsic motivation only, instead; they integrated a combination of intrinsic and extrinsic motivation. Parker (2007) analyzed the relationship between motivation and learning, as well as the gender's impact on motivation to learn. Thirty researchers revealed a strong relationship between motivation and

learning, but only small researches on gender differences in motivation to learn.

Ample studies were conducted to measure students' academic motivation at different countries with reference to different cultures and ethnic groups. Rusillo and Arias (2004) showed the effect of gender on academic motivation of secondary school students, in which girls were showing lower levels of extrinsic motivation, taking more responsibility for their failures than their male counterparts. Gender differences were not significant in intrinsic motivation and academic self-concept of students. Bugler, McGeown, and Thompson (2015) investigated gender differences in adolescents' academic motivation and classroom behavior. Girls reported higher levels of academic motivation than the boys did. Academic motivation was significantly associated with a student's classroom behavior. The importance of parent's education and their involvement in children's academic success is an unquestionable assumption. Academic performance of students heavily depends on their parental involvement, the higher the parental involvement the higher the level of quality in the academic success of students (Barnard, 2004). Parent's education level has a significant impact on child's educational aspiration (Kunje, Selemani-Meke, & Ogawa, 2009). A study conducted by Ogoye (2007) showed that illiterate parents are unable to assist their students in doing homework.

Sharma (1984) conducted a study to measure a relationship between school student's academic achievement and their parent's education. Parental education was significantly positively correlated with students' academic motivation and achievement. Acharya and Joshi (2011) found that parental financial support directly influences students' achievement motivation. Krueger (2004) showed that parent's financial constraints significantly negatively impacts on child's educational achievement. Kohl, Lengue, and McMahan (2000) indicated a significant positive relationship between academic achievement and parental education. Highly educated parents encouraged their children more to achieve high academic attainment. Bakar and David (1986) recognized

mother's education on their children's school achievement. In their study, mother's educational level was found to be a significant factor in their student's academic achievement. In Philips's et al. (1998) study, parental education was found to be significant on the student's academic achievement and motivation. Kunje et al. (2009) observed that wealthier families had more influential effect on their students' academic motivation than that of poorer families. Muola (2010) observed that student's motivation in academic work is mostly dependent on parent's monthly income. Onsomu (2006) showed that students who were from home with better quality house, better facilities and more learning materials, at least three meals/day, many possessions, had better academic motivation and achievements in school.

The school's physical environment exerts dominant influence on students' academic motivation as well as their academic performance (Obayan, 2003). Likely of physical environment, geographical location of schools (e.g., rural vs. urban) has a significant influence on school student's academic achievement (Sunday & Olatunde, 2011). It is commonly argued that the long distance to school reduces the ability of learners to focus their attention in studies due to long walks or getting to class late. When schools are located far distance from home, academic performance of learners is affected, as most of them remain with little time to concentrate on their studies due to the long distances they travel to reach their schools (Galabawa, 2002). Mhiliwa (2015) found that the longer distance travelled by students to school made them reach schools late, had led them to mass failure, and led to cause the drop out of schools. A study of Sunday and Olatunde (2010) showed a significant difference in students' academic motivation and achievement in terms of school location (e.g., urban vs. rural). Students from urban areas had better academic motivation and achievement scores than their rural counterparts.

Rationale of the study

Previous research on academic motivation was carried out in terms of socio-cultural and personality variables. To date, there is a scarcity of researchers focusing on socio-demographic

factors of academic motivation. In our country, very few researches had been conducted on academic motivation. Though there are some researches in our country, but these are more scattered, focusing a single or two more factors at a time. The findings of this study will help us to sort out the important significant socio-demographic factors influence academic motivation of high school students. If there are some significant factors on academic motivation, or whether there are some amotivated students, then the parents as well as the teachers will be able to take necessary steps to motivate them. It will also enable us to predict dropout behavior of students at high school levels (Vallerand, Blais, Briere, & Pelletier, 1989).

Objective

The main objective of the study is to find out the relationship of socio-demographic characteristics such as gender, location of the school, monthly household income, parent's education, parent's occupation, etc. with academic motivation of high school students.

Hypotheses

Based on the literature review, the following hypotheses were formulated for the study:

1. To know whether academic motivation of high school students varies with reference to socio-demographic factors.
2. To know whether there are main and interaction effects in terms of parental education and occupation.
3. To know whether there is any stronger predictor of academic motivation.

Method

Target population and participants

In this study, the target population was the high school students of Chittagong district, Bangladesh. For the present study, 294 high school students at tenth grade were selected through multi-stage random sampling from six schools. Among them, 144 were boys and 150 were girls. They were balanced according to the location of schools (urban vs. rural). Participants were also considered from different socio-demographics.

Instruments used

Two instruments were used for the data collection of the study: 1) Academic Motivation Scale (AMS-28) and 2) personal information form (PIF).

Academic Motivation Scale (AMS-28): The Bangla high school version of 'Academic Motivation Scale' (Fatematuzzohra et al., 2010), originally developed by Vallerand et al. (1989) was used to measure academic motivation of high school students. It was a 28 item questionnaire and was assessed on a 7-point Likert type scale. This questionnaire was divided into seven different sections. These sections were: intrinsic motivation-to know (items 2, 9, 16, & 23), intrinsic motivation-toward accomplishment (items 6, 13, 20 & 27), intrinsic motivation-to experience stimulation (items 4, 11, 18, & 25), extrinsic motivation-identified (items 3, 10, 17, & 24), extrinsic motivation-interjected (items 7, 14, 21, & 28), extrinsic motivation-external regulation (items 1, 8, 15, & 22), and amotivation (items 5, 12, 19, & 26). The original 'Academic Motivation Scale' (AMS-28) had satisfactory levels of internal consistency ($\alpha=.810$) and temporal stability over a one month period ($r=.790$). In addition, results of a confirmatory factor analysis confirmed the seven-factor structure of the AMS. The Bangla high school version scale also had a satisfactory level of internal consistency reliability ($\alpha=.760$).

Personal Information Form (PIF): A PIF was provided along with the AMS to collect data on some demographic and family factors such as age, gender, class, residence, parent's education, parent's occupation, family type, monthly household income, sibling's academic achievement, etc.

Procedure

The multi-stage random sampling procedure was followed to conduct the study. At first, from 18 sub-districts of Chittagong district only 6 sub-districts were randomly chosen by a lottery method. Then, from all of the schools in each sub-district only one school was selected for that sub-district through a random method. After that fifty students were randomly chosen from each of six schools. Six data were omitted due to incompleteness, so finally, we had 294

corrected data. To complete the data collection procedure, we went through six high schools. At first we took permission from school authorities to conduct our study at their respective schools. After getting permission from school authorities, we requested the target students to cooperate with us. Students who showed eagerness to participate in the study were supplied a set of questionnaires. The questionnaires along with PIF were administered to each of the 294 respondents individually. The participants were instructed to give the answer for each question attentively. Students who did not understand the questionnaire properly were given necessary explanations. They were requested to read each statement and express their feelings by putting a tick mark (✓) on the appropriate point. They were assured that it was purely an academic research and that their personal information would be kept secret. After filling up the questionnaires they were thanked for their cooperation and support.

Results

Before performing the final analysis, reliability analysis was performed to know whether the scale used in the study had an acceptable reliability. Good internal consistency reliability ($\alpha=.793$) was found in the total scale. Gender had no significant effect on academic motivation of high school students (table 1). 'Location of the school' had a significant effect on student's academic motivation ($t(292) = 6.865, p<.01$), in which students belonging to the schools located in urban areas had significantly higher academic motivation scores ($M=150.35$) than their rural counterparts ($M=133.41$; table 1). A significant effect of monthly household income on academic motivation was found ($F(4,293) = 5.933, p<.01$; table 1), in which the highest mean academic motivation score ($M=146.88$) was obtained by the students whose families had up to 50000 more monthly household income, while the lowest score ($M=134.70$) was obtained from the students whose families had <20000 monthly household income. This result indicates that if a family's monthly household income is increasing, a student's academic motivation is also increasing.

To know the main and interaction effect of parental education on academic motivation

Table 1. Comparison of Mean Academic Motivation Scores Regarding Gender and Location of School

Demographics	Levels	N	M	SD	Significance
Gender	Boys	144	141.52	21.43	t (2, 292)= .140
	Girls	150	141.89	24.03	
Location of School	Urban	147	150.35	20.66	t (2, 292)= 6.865**
	Rural	147	133.41	21.62	
Monthly Household Income (MHI)	≤20000	125	134.70	22.14	F (3, 290)= 5.933**
	>20000-≤35000	111	145.83	23.73	
	>35000-≤50000	42	146.00	18.73	
	>50000	16	146.88	19.74	

**p< .01

an ANOVA test was performed. No significant main effect (father’s effect and mother’s effect independently) as well as an interaction effect (father’s and mother’s effect combindly) were found in academic motivation in terms of parental education (table 2). With respect to parental occupation, significant main effect (father’s effect) was found on student’s academic motivation (F (2, 288) = 3.667, p<.05). But, the effect of mother’s occupation independently as well as the interaction effect (both father’s and mother’s occupation combindly) had no significant effect on student’s academic motivation (table 2).

Table 2. Factorial Analysis to Examine the Effect of Parent’s Education and Occupation on Student’s Academic Motivation

Demographics	Sources	F
Parent’s Education	Father’s Education (FE)	2.009
	Mother’s Education (ME)	.902
	Interaction between FE*ME	.635
Parent’s Occupation	Mother’s Occupation (MO)	3.667*
	Father’s Occupation (FO)	.818
	Interaction between MO*FO	2.194

*p<.05

Model summary of regression analysis (table 3) revealed that when gender, location of the school, father’s education, mother’s education, father’s occupation, mother’s occupation, and monthly household income were all entered as independent variables, the combination of variables was significantly correlated with academic motivation (R = .403); and the model explained approximately 16% of variance in academic motivation (R2 = .162, F (7,286) =7.916, p <.01).

Table 3. Model Summary of Regression Analysis Predicting Academic Motivation

Criterion	Predictors	R	R ²	ΔR ²	F (7, 286)
Academic Motivation	Gender, Location of the School, FE, ME, FO, MO, MHI	.403	.162	.142	7.916**

Notes: FE=Father’s education, ME=Mother’s education, FO=Father’s occupation, MO=Mother’s occupation, MHI=monthly household income

**p< .01

A stepwise regression model was run to see whether a demographic variable was the best predictor of academic motivation (table 4). The most predictive variable was found to be the ‘location of the school’ which accounted for a 13.9% variance in academic motivation

Table 4. Stepwise Regression for Relative Significant Effect of Demographic Variables in Predicting Academic Motivation

Criterion	Predictors	Standardized Coefficients Beta	t	R	ΔR^2
Academic Motivation	Step-I			.139	.136
	Constant	.373	42.617		
	Location of school		6.865**		
	Step-II			.156	.150
	Constant		22.571		
	Location of school	.382	7.080**		
	Mother's occupation	.131	2.421*		

Step-I: ($R^2=.139$, $F(1, 292) = 47.131$, $p < .01$)

Step-II: ($R^2=.156$, $F(2, 291) = 5.861$, $p < .01$)

** $p < .01$, * $p < .05$

($R^2=.139$, $F(1, 292) = 47.131$, $p < .01$). The second predictive variable was the 'mother's occupation'. A variance of .017%, adding in the total variance (step II) was accounted for the predictor of 'mother's occupation' in academic motivation ($R^2=.156$, $F(2, 291) = 5.861$, $p < .01$).

Discussion

This study was aimed to find out the significant socio-demographic factors affecting high school student's academic motivation. Necessary statistical analyses were performed to know whether the hypotheses were accepted or rejected. Gender had no significant effect on academic motivation of high school students. Academic motivation scores were almost same respectively, for boys and girls. But our present study was opposite to the past findings in which better female students scored better than that of the male students (Bulger et al., 2015; Cole & Espinoza, 2008; Jaeger & Eagan, 2007). Students from urban schools significantly showed better academic motivation scores than their rural counterparts. Our present finding was in accordance with several past findings (Cole & Espinoza, 2008; Jaeger & Eagan, 2007; Sunday & Olatunde, 2011). The students from urban areas usually have better academic facilities than the students from rural areas.

'Location of the school' had a robust impact on academic motivation of high school students. It can be said that they have had a good extrinsic

as well as intrinsic motivation. According to SDT, students from urban areas were motivated themselves by their personal enjoyment, interest or pleasure in some way. That's why they play a significant role in achievement, competency and academic learning. In some other ways, they were motivated by their innate psychological needs of competence & self-determination. Their self determination helped them to learn to motivate or to feel competent & to create unique accomplishments for themselves. It could be assumed that they were not only intrinsically motivated, but they were also extrinsically motivated. Students from urban areas are very competitive and are very grade-oriented in nature. They usually get a good external regulation from their past results or they have a good feedback from the good job histories of the past students of their school. Their introjections (i.e., internalize the reasons for his/her actions) and identification (i.e., the behaviors that become valued and judged for a particular student) helped them to motivate themselves to achieve a good quality education.

Students were from families with more monthly household income showed better academic motivation scores than the students from families with low monthly household income. This result was in line with the study of Tuttle (2004), who found that the students from high income families scored higher than those from low income families. Raychaudhuri et al.,

(2010) and Yousefi, et al., (2010) also found a positive correlation between family income and academic achievement of students. The students with better income resources can access to get better quality of education. That may be the reason why these students showed better academic performance. The results of the study revealed that parent's education had no significant main effects on academic motivation of the school students. This result was inconsistent with the study of Davis-Kean (2005), who concluded that parents' education are moderate to strong predictor of academic motivation. Acharya and Joshi (2009) also found that parents' education can affect the achievement motivation of students.

Parental occupation, particularly maternal employment, an important key demographic on academic motivation, was significantly found in the present study. Students whose mothers were service holder significantly showed higher academic motivation scores ($M=151.80$) than the students whose mothers were housewives ($M=141.17$). This finding was inconsistent with the work of Nock and Kingston (1988), suggested that maternal employment reduces the amount of time spent with their children, and changes the degree of their involvement in children's education. It was also inconsistent with the work of Muller, 1995, in which students whose mothers employed full time or part-time showed lower academic motivation and academic achievement. As shown in this study, it appears that the working mothers could be able to manage their time to spend with their children. Moreover, their higher level of education helped her children to motivate to attain a good academic atmosphere and academic motivation. Beyond their job duties, they were more able to spend more times to their children's academic issues, problems, needs, desires, that motivate her child to attain a better academic motivation.

Conclusions

Though all of the demographic variables considered in the study had no significant effect on academic motivation in particular, but they had a significant combined effect on academic motivation. So, it is very much obvious to say that the variables considered in the present study

were found to be good either. 'Location of the school' and 'mother's occupation' was remained significant predictors of academic motivation. It can be concluded from this study that some demographic characteristics have significant correlation with academic motivation of high school students in Bangladesh.

Implications of the study

Academic motivation has different implications for academic achievement. If a student has high levels of academic motivation, knowing whether the student is extrinsically or intrinsically motivated, may be important in making predictions about his/her academic career. It is important for both parents and educators understand why promoting and encouraging academic motivation from an early age is imperative. Because, students usually form their self-concept, values and beliefs at their young ages; so the development of early academic motivation has a significant implication for their later academic success. Students with high academic motivation are more likely to have a good level of academic achievement and to have a lower level of dropout rates (Blank, 1997).

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