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### Evaluation of variables which have an effect on external reading problem of Students in Bangladesh

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#### ABSTRACT

In case of developing country, external reading problem of students is a big issue. Its negative effect is increasing day by day all over the world and some variables are highly significant on the obstacles of external reading. Our main focus of the study is to evaluate those variables on the external reading of students who are facing problem in both secondary and higher secondary schools in Dhaka district. All of them are from both Private and Governmental Schools. We find out some reason of facing many obstacles on the external reading of students in Bangladesh. A questionnaire for such purpose is designed and different statistical methods are applied to analyse the collected data. We develop a questionnaire consisted of 15 items and some questions are developed by using Likert scale. The population of the study consisted of students of secondary and higher secondary schools in Dhaka district. The sample of the study consisted of 300 students who are randomly selected from 52 schools. We consider five Independent variables such as Gender, The number of family members, Family's monthly income, Guardian professional status and Environmental condition. Also dependent variable is considered as the students' degree of suffering from the problem encountered their external readings. A technique of descriptive statistics such as mean, variance and standard deviation are used to determine the variability of various independent variables. We apply t-test to show the difference between the average degree of the students suffering from the external reading problem and the normal level of the degree of suffering on the scale of the instrument answers. ANOVA test is performed for every independent variable and the results shows that all variables are highly significant with external readings. The multiple regressions, a technique of multivariate analysis, adopted to determine the importance of the external readings on various factors. We use dummy variable in case of categorical independent variable and the result of the regression test tells us the offering variables have positive impact on overall external readings. Analysis of our research indicates that the external readings are crucial for the students who are facing problem in both secondary and higher secondary schools. Maximum students are suffering with the external reading problem.

#### INTRODUCTION

Now a day's external reading problem of students are common for any country. It has a great effect on mentality of a student. For the undeveloped country like Bangladesh, it's a big issue in the education system. Bangladesh is one of the least developed countries of the world today. It is plagued with multifarious problems encompassing its social, political, and economical structures. The three and half decades since the country gained independence have been traumatic. Recurring political upheavals, natural disasters, dramatic social changes and economic convulsions contributed to the gloomy nature of the life of the common man. The bulk of the people live in abject poverty either in the run-down rural areas or in destitute urban slums. Only fortunate

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few in the cities and towns have access to whatever goods and services are provided by the government. Therefore, in Bangladesh, poverty eradication is currently at the top of government agendas. The Constitution of the People's Republic of Bangladesh enjoins upon the Government of Bangladesh the obligation to ensure literacy of all the citizens (GOB, 1972). The Government of Bangladesh has made commitments in the World Education Forum (UNESCO, 2000) towards achievement of 'Education for All' goals and targets for every citizen by the year 2015. Pursuant to its constitutional obligations and international commitments, the government is determined to ensure 'Education for All' in the shortest possible time. Active measures are taken for accelerating primary education program in the light of global awareness in the education sector as well as Bangladesh's national goals. However, in a world of global market competition, the secondary level education has also become a part of basic education that should be universally available (Mulford B, 2002a). Secondary schools are vested with the responsibility of imparting knowledge, skills and attitudes essential for individuals to fit into society and be able to contribute fruitfully to its development (Mulford, B., Kendall, L., Kendall, D., Lamb, S., & Hogan, D. (2001). A high school graduate in Bangladesh can expect to earn 200 percent over those with no education. Therefore, Bangladesh hopes to gain from secondary education system more effective citizens who can be productive participants, domestically and abroad, in markets and communities.

#### ***The Structure of the Education System in Bangladesh:***

Education in Bangladesh has three major stages - primary, secondary and higher education. Primary education is a 5-year cycle while secondary education is a 7-year one with three sub-cycles: 3 years of junior secondary, 2 years of secondary and 2 years of higher secondary. The entry age for primary is 6 years. The junior secondary, secondary and higher secondary stages are designed for age groups 11-13, 14-15 and 16-17 years. Higher secondary is followed by higher education in general, technical, technology and medical streams requiring 5-6 years to obtain a Master's degree (Bangladesh Bureau of Educational Information and Statistics (July, 2011). <http://www.banbeis.gov.bd/>)

#### ***Streams of the Education System:***

Bangladesh's present system of education is more or less a legacy from the British (Ali, 1986). It is characterised by co-existence of three separate streams running parallel to each other. The mainstream happens to be a vernacular based secular education system carried over from the colonial past. There also exists a separate religious system of education. Finally, based on use of English as the medium of instruction, another stream of education, modelled after the British education system, using the same curriculum, has rapidly grown in the metropolitan cities of Bangladesh. Primary level education is provided by two major institutional arrangements (stream): general and madrasah. Secondary education has three major streams: general, technical/vocational and madrasah (Directorate of Secondary and Higher Education (July, 2011). <http://www.dshe.gov.bd/>). Higher education, likewise, has 3 streams: general (inclusive of pure and applied science, arts, business and social science), madrasah and technology education. Technology education, in its turn, mainly includes agriculture, engineering, medical, textile, leather technology and ICT. Madrasahs functioning parallel to the three major stages have similar core courses as in the general stream (Primary, Secondary and Postsecondary) but have special emphasis on religious studies. Therefore, at secondary and higher level however diverse the above streams may apparently look, they have certain common elements, and there exists scope for re-integration of graduates of one stream with the other at different levels.

#### ***Secondary Level Education in Bangladesh:***

Post-primary education in the general stream is imparted by junior secondary schools (grade 6-8), secondary schools (grade 6-10) and higher secondary schools, known as Intermediate colleges (grade 11-12). Post primary level madrasahs are known as Dakhil madrasah (grades 6-10), Alim madrasah (grades 11-12). In terms of ownership and management of secondary schools, there are two major types; government secondary schools and non-government secondary schools (including Dakhil madrasahs). Nearly 98% of the post primary (secondary and higher secondary) institutions are owned and managed by private sector (BANBEIS, 2006). However, these institutions are private only in name because 90% of their salaries and wages, and the costs of their physical infrastructure development, durable educational supplies and equipment are provided by the government. Secondary education level institutions in technical and vocational stream include Polytechnics, VTI, Commercial Institutes, Technical Training Center, Textile Vocational Center, Agriculture Training Institute and others. Bangladesh Open University (BOU) also provides distance education for drop-out students at secondary education level with the support of a countrywide network of regional and local centres, radio and television programmes. According to the ministry of Education (MOE, 2004), in 2002 the secondary education system consisted of the following: 16,562 secondary schools (with 8,162,134 students enrolled and 186,949 teachers); 5,536 madrasahs with 2,168,441 students enrolled and 70,247 teachers; and 1,562 technical and vocational education institutions (with 134,016 students enrolled and 8623 teachers). According to the Bangladesh Bureau of Educational Information and Statistics (BANBEIS), in 2009 there were 3,494 non-

government junior secondary schools with 25,185 teachers (of whom 7,094 were female) and 536,754 students enrolled (of whom 312,454 were girls); 317 government secondary schools with 7,038 teachers (of whom 2,456 were female) and 216,211 students enrolled (of whom 98,951 were girls); and 15,272 non-government secondary schools with 181,259 teachers (of whom 43,813 were female) and 6,603,828 students enrolled (of whom 3,385,133 were girls). In addition, there were 6,771 Dakhil madrasah (grades 6-10) with 64,282 teachers (of whom 6,663 were female) and 1,198,180 students enrolled (of whom 687,597 were girls); and 1,487 Alim madrasah (grades 11-12) with 21,124 teachers (of whom 1,907 were female) and 358,756 students enrolled (of whom 149,027 were girls).

Government secondary schools are concentrated mostly in urban centers, resulting in a lack of educational access to the majority of children from rural areas, socio-economically backward families, girls from remote urban periphery areas and ethnic minorities. The public high schools are generally recognised as model schools in respect of their students' performance in the SSC examination (The Daily Star, 2008). The cost of education in these schools is just one third of any private school (The Daily Star, 2005). Therefore, low cost of education also draws a large number of admission seekers to the public secondary schools. Also it is tough to get chance to be admitted in public secondary schools in big cities. In January, 2008, a total of 36,532 students contested for 7,479 seats in the admission tests in Dhaka city's 24 government schools (New Age, 2008). Thus parents' interest, students' SES characteristics, administrative support from the government, teacher competency, and the resources of time, materials, facility have made public schools distinct. There are also some residential 'Cadet colleges' in Bangladesh, governed and run by the armed forces. These schools and colleges follow 'Bangladesh Textbook Board Curriculum' but use English as the medium of instruction. Education in Bangladesh has faced both glory and travails throughout history. The present scenario of secondary education of Bangladesh is the result of evolution of educational practices in Indian sub-continent.

#### ***Proposed Education Policy 2009:***

The government formed a sixteen member committee to update the National Education Policy 2000 which was headed by National Professor Kabir Chowdhury (The Daily Prothom Alo, 2009). The proposed new education policy is formulated in the light of the 'Quadrat-e-Khuda Commission' report of 1974 and 'Shamsul Huq Education Commission Report' of 1997. This is indeed timely, especially in a globalising world in which other countries, such as China, India have pushed themselves into the 21st century by vigorously engaging in knowledge revolution and human resource development. The final draft of the National Education Policy 2009 was formally submitted to the Prime Minister on 7 September, 2009. The salient features of the recommendations of the committee include revising the stages of under-graduate education from three to two, the mandatory inclusion of certain compulsory subjects under all streams of education, making education more need-based and formation of a permanent education commission (The Financial Express, 2009). The Policy paper recommends extending compulsory primary schooling to eight years. Final primary level exams will be held at the end of Class 8 and secondary school scholarships will be awarded based on the results. The new policy also recommends that secondary level studies will extend over four academic years, Classes 9-12, and the government scholarship exams will be taken at the end of Class 10, instead of SSC exams. Final secondary level exams will be held at the end of Class 12. Some fundamental subjects including Bangla, moral education, Bangladesh studies, mathematics, natural environment, social studies, IT and science will be made compulsory in different streams of primary and secondary level curriculum. The policy also calls for some form of technical and vocational education to be introduced at all secondary level institutions. Accordingly, madrasah education will be restructured by including information technology and vocational training among compulsory subjects. It has also recommended formation of a non-government teachers' commission. Such broad proposals are to be welcomed, especially the one requiring all students to be taught certain compulsory subjects such as science and mathematics at the primary and secondary levels (The Financial Express, 2009). Education has been proving to be the centre point of realizing national aspirations in all fields.

### **OBJECTIVES OF THE STUDY**

Every research has some specific objectives. The main objectives of the study are:

- Evaluation of variables which have an effect on external reading problem of students in Bangladesh.
- To show the important role of technology as a method of external readings that enriches the curriculum and increase interaction between students.
- To bridge the gap that exists between the external readings and the textbooks, as these specialized readings are equivalents to the textbooks and go side by side in order to achieve the planned objectives.
- To show a significant relationship between the identified variables and external reading problem.

### **THE THEORETICAL FRAMEWORK AND LITERATURE REVIEW**

Economic disparity, extraction of wealth and socio-political repression made East Pakistan very discontented. Starting from the language movement in the year 1952 to establish Bangla as a national language. The people of East Pakistan had struggled hard for democracy and autonomy, which turned into a war of liberation in 1971. After a protracted nine months long war, Bangladesh finally achieved her independence. Bangladesh inherited, on Liberation in 1971, a literacy rate of 17.61 per cent of the population of all ages (GOB, 2004a). The first Education Commission in Bangladesh appointed under Dr. Qudrat-e-Khuda submitted the report in 1974. The report emphasized on secular education at all level, future work-relevant technical and vocational education, improved assessment system, letter grading in the assessment of student performance in all stages of education and making primary education from grade 1 to 8 and secondary from grade 9 to 12 (GOB, 1974). The report firmly asserted that women's education should be such as to be of help to them in their domestic life, and stressed that subjects such as child-care, the nursing of the sick, preservation of health, food and nutrition must be included. It also suggested that girls should be channelled into 'vocations especially suitable to them', such as primary-school teaching, nursing and typing. An Advisory Committee was appointed in 1978 to have a fresh look at the issues and problems of education which submitted an 'Interim Education Policy 1979' report on 8th February, 1979. The interim education policy document consisting of the recommendations of the National Education Advisory Council, headed by the State Ministry of Education, was hastily formulated as a new blue print for the education sector. The interim policy document put emphasis on increased literacy so that people could take part in the development of the country. The document established the current educational framework with secondary education consisting of three sub-stages; namely, junior secondary (3 years), secondary (2 years), and higher secondary (2 years). In addition, the document stipulated the following: "(a) terminal examination will be conducted by the District Education Authorities for all stages of secondary education; (b) vocational, technical, agricultural and medical education will be included and integrated into secondary and higher secondary education; (c) there will be provision of skills development in any technical subject at junior secondary and secondary levels." In regard to madrasah education, the 'Interim Education Policy' stipulated that it should be reorganized to ensure its equivalence to general education in such a way that the 'dakhil' level would correspond to secondary and 'alim' to higher secondary education (GOB, 1979; UNESCO, 2007).

#### ***External Readings:***

Textbooks are considered the most important sources of knowledge if properly prepared and used with specific functions and can be carried out by a high degree of efficiency than any other publication unless it is closely linked to the curriculum and its objectives did not emerge from this framework and we need the external reading to clarify and enrich the textbook (Ellsworth, N. J. and Zhang, C., 2007). A lot of what are in the textbooks need external readings to clarify them and achieve the desired goals. The teacher cannot assume such responsibility only unless he knows the scientific material that helps him. The good teaching seeks to achieve its objectives and destination without external readings and can't do that without external readings that take care of the school texts (Mer'ee, T. A., 2007). The modern curriculum offers learners experiences and activities under the supervision, direction and guidance including whether inside or outside to acquire a set of attitudes, skills and desired behaviours. That is to provide them with knowledge and information according to their capacities, aptitudes, preferences and desires to assist them on the overall growth physically, mentally and emotionally. Also to prepare them to face life as it should be in accordance with the objectives of education desired (Al-Hamshari and his colleague, 2002). As long as curriculum nowadays is a set of variables through which to modify the behaviour for the better education. Hence, it must be taken into account that is integrated and continuous with all other elements. Other inputs interact with and are affected by the student, the teacher, the buildings, the library, the laboratories, equipments and modern techniques. All of them are working in an integrated manner to serve the educational focus on the learning process-the student. The modern students in their readings depend on external libraries, whether school or public library. The word library is closely connected with the book. Conditions and facilities should be created to make the student accept the information passion ally and appositely to enrich and enhance the information obtained from the text whether he is a student in a school, university or in an institute (Ahmad, Fouzia Khursheed, 2014). New technology is as important as the library in education and external readings, but in light of the volatility and technical knowledge there is no richer for these techniques to cope with the age of progress and knowledge of this advanced technology which has its uses and goals that can be achieved. This does not negate the role of the school, the teacher, and the textbook in education. Libraries are considered the vibrant artery in the heart of the educational process as they provide a source of educational and accesses of external readings that learners rely on. Whenever the development of education is increasing, the need for techniques and libraries consistent with the objectives of education which seeks to produce a generation of conscious and unable connect, communicate and employ information in daily life (Charema, J., 2007). All of that won't be achieved if the student is not familiar with the knowledge and the overlooking of the existing curriculum and that is to enrich the texts with information and technical to make knowledge more permanent and longer in the mind of the learner, because it is obtained from

the approach and prove it, and support the valuable information from other sources through his readings and culture. We want educated, interlocutor students and this can be through research, investigation and effort to reach them. Hence, the urgent need to develop collections of these libraries and to overcome all obstacles that hinder all the services they offer, because it encourages self-learning which is a fundamental pillar of the learner being the first to depend on, to develop his knowledge and knowing. Therefore, all of the previous must be taken into consideration to come out educated generations who know when and how to use the information in their daily lives. Not as we see these days the focus on the aspects and issues that affect negatively the student making us get out generations weak scientifically and culturally due to negatively to the community (Bhattacharya, T., 2005). Still as we are in while the worlds have come a long way in the essence of knowledge and technology.

#### ***Previous studies:***

External readings in the past are considered the main spine and reserve the curriculum decision and all the academic levels. It was met by great attention from those concerned in the Jordanian Ministry of Education as we live these days, the euphoria and educational development which based on the student researcher relying on him to obtain the information while the teacher is a guide and a director. In a study Parasuram (Parasuram, K., 2006). aimed at detecting tendencies students middle school in Dubai about reading from the standpoint of their teachers and disclosure of whether gender, educational level and nationality effect on their tendencies, the study tried to also detect association between the tendency to read all of the collection rate in Arabic language and the overall rate of collection. The results indicate that the average tendency of students towards reading below average, which was agreed upon arbitrators and revealed the existence of differences in the tendency of students due to the global level of education and nationality and found linked high between the tendency to read all of the collection rate in the language. Lindsey (Lindsey, G., 2007) tried to detect the impact of family environment in the students' attitudes toward reading where the researcher selected sample of students from environments as family differentiated in terms of culture, level of education and attention to exercise the skill of reading at home, and provide the right environment and encouragement to read, where the results indicate to the family and their level of education and economic plays a big role in the development of students' attitudes toward reading, and that to encourage family and provided reading materials appropriate a large role in the habits of students and their attitudes toward reading, while trends were students who live within the confines of the families that do not bother reading below the required level. Lang (Lang, Raymond., 2001) studying which aimed to detect environmental impact of language in the development of students' attitudes and tendencies towards reading, the students coming from rural areas tend to read a degree higher than the others and that the students who come from families educated more inclined to read, either with regard to the level the economic results of the study did not refer to the existence of significant differences in students' attitudes toward reading variable depending on the level of economic. Nazal (Nazal, S., 1998) investigated (342) students to identify factors influencing the tendency to read such as the father's educational level. As students are local citizens or expatriates and average of Arabic achievement, so it was found the average tendency of students to read is less than the average that jury's agreed upon. Ferguson (Ferguson, D. L., 2008) study objective knowledge of trends, including school students Secondary about the readings external concluded that there are statistically significant differences in the trend towards reading among secondary school students due to Nationality and specialization that the preference reading is low in importance among students in the grade of secondary school. Khudhair (Khudhair., 1988) conducted a study on (658) students from (12) schools in Baghdad to identify the orientation of literacy. He found that (68.5%) of students tend to literary topics, (57.7%) tend to sports topics, (50.15%) tend to religious studies, (29.12%) tend to study mathematics, (18.9%) subjects tend to health and psychological topics, (11.9%) tend to political studies and (8%) tend to social studies and other topics. Collins, Kenway & McLeod (Collins, C., Kenway, J., & McLeod, J., 2000) conducted a study to identify the effect of some variables such as intelligence and encouragement that a student got from school and family to improve female students' tendency. The researcher found that there was a link which was statistically significant for reading with the variables of the study. The highest correlation was between the tendency to read and the family's encouragement.

### **METHODOLOGY OF THE STUDY**

A research design is the arrangement of conditions for collections and analysis of data in a manner that aims to combine relevance to the research purpose with the economy in procedure. Both descriptive and inferential research design was adopted in order to achieve the objectives of the study. The design provides the opportunity for considering different aspects of the problem. The population of the study consisted of students of secondary and higher secondary schools in Dhaka district. All of them were from both Private and Governmental Schools. They were 52 schools which make 68.21% of the schools in the Directorate. They included 9234 students that form 51.45% of all students. Male were 42.4%, while female were 57.6%. 41 schools had libraries that form 78.85% of all the schools in the area. 31 of them were supervised by specialists

in libraries while 10 in which there were libraries but supervised by non-specialists. The rest of schools, the sample of the study, were 11 schools where there were no independent libraries, but a bookcase in a room shared with the laboratory or in the administrative room supervised by teachers who were not specialists in the field. The sample of the study consisted of 300 students who were randomly selected from 52 schools. Here we consider Independent variables as Gender, The number of family members, Family's monthly income, Guardian professional status and Environmental condition. Also dependent variable is considered as the students' degree of suffering from the problems encountered their external readings. The data collection pertaining to this study involves both primary and secondary methods. The primary data was collected using questionnaire from randomly selected samples. We develop a questionnaire consisted of 15 items and some questions are developed by using Likert scale (Allen, Elaine and Seaman, Christopher, 2007). The secondary data were collected from sources like manuals, schools records, magazines and internet. After collecting data we process it and represent various tables & comments. Then we calculate descriptive statistics such as mean, variance and standard deviation. We perform t-test to show the difference between the average degree of the students suffering from the external reading problems and the normal level of the degree of suffering on the scale of the instrument answers. Also apply ANOVA test to show the impact of all the independent variables on dependent variable and finally we fit a regression line with dummy variable for prediction purpose.

#### ***t – Test:***

A *t*-test is any statistical hypothesis test in which the test statistic follows a Student's *t* distribution if the null hypothesis is supported. It can be used to determine if two sets of data are significantly different from each other, and is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known. When the scaling term is unknown and is replaced by an estimate based on the data, the test statistic (under certain conditions) follows a Student's *t* distribution (Welch, B. L., 1958).

In testing the null hypothesis that the population means is equal to a specified value  $\mu_0$ , one uses the statistic

$$t = \frac{\bar{x} - \mu_0}{s/\sqrt{n}} \quad \text{With } (n-1) \text{ degrees of freedom}$$

Where,  $\bar{x}$  is the sample mean,  $s$  is the sample standard deviation of the sample and  $n$  is the sample size. The degree of freedom used in this test is  $(n - 1)$ .

$$s = \sqrt{\frac{1}{N-1} \sum_{i=1}^N (x_i - \bar{x})^2}$$

The method for comparing two sample means is very similar (Elliott, A. C., & Woodward, W. A., 2007). The only two differences are the equation used to compute the *t*-statistic, and the degrees of freedom for choosing the tabulate *t*-value. The formula is given by for unequal sample size and equal variances:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{S(1/n_1 + 1/n_2)^{1/2}} \quad \text{With } (n_1+n_2-2) \text{ d.f}$$

$$S_1^2 = \frac{1}{(n_1 - 1)} \sum f_{1i} (x_{1i} - \bar{x}_1)^2$$

$$S_2^2 = \frac{1}{(n_2 - 1)} \sum f_{2i} (x_{2i} - \bar{x}_2)^2 \quad S^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{(n_1 + n_2 - 2)}$$

Where,  $\bar{x}_1$  = sample mean of the 1<sup>st</sup> sample,  $\bar{x}_2$  = sample mean of the 2<sup>nd</sup> sample,  $s$  is the sample standard deviation of the sample and  $n_1, n_2$  is the 1<sup>st</sup> and 2<sup>nd</sup> sample size.

#### ***Analysis of Variance (ANOVA)***

Analysis of variance (ANOVA) is a collection of statistical models used to analyze the differences among group means and their associated procedures (such as "variation" among and between groups), developed by statistician and evolutionary biologist Ronald Fisher. In the ANOVA setting, the observed variance in a particular variable is partitioned into components attributable to different sources of variation. In its simplest form, ANOVA provides a statistical test of whether or not the means of several groups are equal and therefore generalizes the *t*-test to more than two groups. It is mainly used to determine the impact of groups of independent variables on the dependent variable (Plackett, R. L., 1960). ANOVAs are useful for comparing (testing) three or more means (groups or variables) for statistical significance. It is conceptually similar to multiple two-sample *t*-tests, but is more conservative (results in less type I error) and is therefore suited to a

wide range of practical problems. It's a statistical analysis tool that separates the total variability found within a data set into two components: random and systematic factors (Eisenhart, C., 1947). The random factors do not have any statistical influence on the given data set, while the systematic factors do. Analysis of variance (ANOVA) is calculated by the following Fisher's F statistic

$$F = \frac{\text{Variance between treatments}}{\text{Variance within treatment}}$$

$$F = \frac{SST/d.f}{SSE/d.f}$$

$$F = \frac{MSST}{MSSE}$$

Where, MSST is the mean sum of square of treatment effect

MSSE is the mean sum of square of error

d.f is the degrees of freedom

**Regression Analysis**

In statistical modeling, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables (Cohen, J., Cohen P., West, S.G., & Aiken, L.S., 2003). More specifically, regression analysis helps one understand how the typical value of the dependent variable (or 'criterion variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed (Rencher, Alvin C.; Christensen, William F., 2012). Most commonly, regression analysis estimates the conditional expectation of the dependent variable given the independent variables – that is, the average value of the dependent variable when the independent variables are fixed. Sometimes independent variables are categorical and in that case some researcher use dummy variable (Suits, Daniel B., 1957). Sometime In regression analysis, it is also of interest to characterize the variation of the dependent variable around the regression function which can be described by a probability distribution. Regression analysis is widely used for prediction and forecasting. It is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships. A linear regression equation is usually written

$$Y_i = \beta_0 + \beta_1X + \epsilon \dots \dots \dots (1)$$

Where, Y = the dependent variable, X = the independent variable (Dummy variable),  $\beta_0$  = the intercept term,  $\beta_1$  = the slope or regression coefficient of the model,  $\epsilon$  = the error term. A multiple regression equation is usually written by

$$Y_i = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_2 + \dots \dots \dots \beta_nX_n + \epsilon_n \dots \dots \dots (2), \quad i=1, 2, 3, \dots \dots \dots n$$

Where, Y=the dependent variable, X=the independent variable (Dummy variable),  $\beta_0$ =the intercept term,  $\beta_1, \beta_2, \beta_3, \dots \dots \dots \beta_n$ = the slope coefficient or regression coefficient of the model,  $\epsilon$ =the error term. The equation will specify the average magnitude of the expected change in Y given a change in X.

**RESULTS AND DISCUSSION**

The present study aimed to determine the effect of some variables on the external reading problem that face students in both secondary and higher secondary schools in Dhaka district. To answer the questions of the study, we calculated the means and standard deviation for each item in the questionnaire. Likert scale and statistical processes required were done.

**Table 1:** Frequency and percentage distribution of the variables of the respondents

Variable	No. of frequency	Percentage (%)
Gender		60
Male	180	40
Female	120	
Total	300	100
family members		57.7
1-4	173	32.3
4-7	97	10
7 and above	30	
Total	300	100
Family's monthly income		
Below 15000	52	17.3

15000-25000	102	34
25000-35000	78	26
35000-45000	43	14.4
45000 and above	25	8.3
Total	300	100
Guardian professional status		14
Govt. Service	42	32.7
Private service	98	47
Business	141	6.3
Others	19	
Total	300	100
Environmental condition		
High	51	17
Medium	171	57
Poor	78	26
Total	300	100

**Table 2:** Means and standard deviations to the sample's responses on the instrument of the study

No. of questions	Subjects	Mean	Standard Deviation
1	Lack of cooperation between students and the librarian to provide required books for reading.	4.68	0.8742
2	Curriculum is not contribute to urge students of external readings.	3.98	0.9771
3	Lack of modern technology that help in external readings (internet, T.V, computer)	4.07	0.8012
4	Not joining the specialized teacher in training courses that techs them how to employ the technologies and the library while reading	4.12	0.8132
5	Not keep up with public libraries for technical and scientific developments that serve the readings foreign	4.53	0.8601
6	The closure of the equipped libraries and laboratories in the faces of students	3.85	0.9554
7	Students' unwillingness of external readings	3.76	0.9812
8	The lack of books and modern technologies which are related to school courses in all stages	4.61	0.8651
9	The difficult material conditions that prevent the arrival of some students for public libraries where there readings foreign	4.32	0.8597
10	The lack of class library of books basket for each class.	4.23	0.8543
11	Students are not provided with plans to show them the references that enrich the curriculum.	4.76	0.7218
12	Non urged parents to external readings and the provision of library within the home	3.87	0.9453
13	Not assigning students with writing reports and researches using modern technologies	4.02	0.8132
14	Weakness of students in the skill of employing modern techniques while reading	4.77	0.7002
15	The lack of magazines, technologies, newspapers and its diversity in the school library	3.94	0.9123
Average		4.23	0.8623

Having been calculated means and standard deviations for each item of the questionnaire, we do the following steps of statistical analysis to answer the hypothesis of the study to see if there is an effect of the variables on students' external reading in both stages, secondary and higher secondary. t - test for one sample is used to check the difference between the average degree of the students' suffering from the external reading problem and the normal level of the degree of suffering on the scale of the instrument answers. Our hypotheses are as follows:

$H_0$ : there is no significant difference between the averages of each paragraph of the study

$H_1$ : there is a significant difference between the averages of each paragraph of the study

Test	Value	d.f	P value
t - test	33.75	299	.000

It is found from the results shown in table that t - value is 33.75 with a degree of freedom 299 which have a statistical significant at P value .000. That means there are a lot of obstacles stood against the external reading which has a negative reflection on the students' performance in the class.

**Table 3:** Means and standard deviations for the subjects' responses on the instrument of the study related to Gender.



Gender	Mean	Standard Deviation
Male	4.77	0.8827
Female	3.69	0.8419
Average	4.23	0.8623

Table 3 indicates that there are differences between the means of the male's and female's responses. To check these differences, t-test for independent samples is used and the following hypotheses are considered for the test.

$H_0$  : There is no difference of the effect of external readings according to gender.

$H_1$  : There is a difference of the effect of external readings according to gender.

Test	Value	d.f	P value
t - test	17.451	298	0.001

t - value is 17.451 with a degree of freedom 298 which is statistical significant at P value .001. However, there are differences between the male's and the female's responses in the suffering degree of external reading problem. From this statistical analysis, it is clear that the female's conditions differ from the ones that the male faced.

**Table 4:** Means and standard deviations of the subjects' responses on the instrument of the study according to the Environmental condition.

Environmental condition	Mean	Standard deviation
High	3.64	0.8923
Medium	4.71	0.8319
Poor	4.35	0.8612
Average	4.23	0.8623

Table 4 represents the differences between the means of the subjects' suffering degree according to the environmental condition. Apply one way ANOVA (There are more than two category) to check these differences. Our hypotheses are:

$H_0$  : There is no any significant effect of external readings on Environmental condition

$H_1$  : There is a significant effect of external readings on Environmental condition

ANOVA Table

Source of variation	d.f	Sum of squares	Mean sum of squares	F. value	significance
Between groups	2	3.782	1.891	70.298	0.001
Within groups	297	7.981	0.0269		
Total	299	13.987			

The result shows that there are statistically significant differences in the subjects' suffering degree from the external reading problem due to the Environmental condition. It is identified that the value of F-stat is 70.298 and is significant as the level of significance is less than 5% ( $p < 0.05$ ). This indicates that there is a statistically significant association between external readings and Environmental condition. Hence it can be concluded that external readings have significant impact on Environmental condition.

**Table 5:** Means and standard deviations of the subjects' responses on the instrument of the study according to the Guardian professional status.

Guardian professional status	Mean	Standard deviation
Govt. service	4.13	0.8713
Private service	4.77	0.8203
Business	4.64	0.8419
Others	3.36	0.9219
Average	4.23	0.8623

The result indicates the differences between the means of the subjects' suffering degree according to the Guardian professional status. One way ANOVA is used to check these differences.

$H_0$  : There is no any significant effect of external readings on Guardian professional status

$H_1$  : There is a significant effect of external readings on Guardian professional status

ANOVA Table

Source of variation	d.f	Sum of squares	Mean sum of squares	F. value	significance
Between groups	3	1.892	0.6307	32.510	0.000
Within groups	296	5.742	0.0194		
Total	299	9.912			

It is clear from the results shown in table that there are statistically significant differences in the subjects' suffering degree from the external reading problem due to Guardian professional status. F value is 32.510 that has a statistical significant at the level of  $\alpha = 0.01$  and the p value is less than 0.01. Appropriate guidance has to be reflected positively on a student and create conditions for them to read with the help and guidance of their teachers.

**Table 6:** Means and standard deviations of the subjects’ responses on the instrument of the study due to the number of family members

Number of the family members	Mean	Standard Deviation
1-4	4.58	0.8415
4-7	4.35	0.8624
7 and above	3.77	0.8831
Average	4.23	0.8623

Table 6 shows the apparent differences between the means of the subjects’ suffering degree according to the number of the family members. ANOVA table are as follows.

H<sub>0</sub> : There is no any difference of the effect of external studies on the family members.

H<sub>1</sub> : There is a difference of the effect of external studies on the family members.

ANOVA Table

Source of variation	d.f	Sum of squares	Mean sum of squares	F. value	significance
Between groups	2	2.341	1.1705	41.953	0.000
Within groups	297	8.286	0.0279		
Total	299	14.764			

From the result, it is identified that the value of F-stat is 41.953 and is significant as the level of significance is less than 1% (p< 0.01). Hence it can be concluded that external studies have significant impact on the family members.

**Table 7:** Means and Standard Deviations of the Subjects’ Responses on the Instrument of the study according to the Family’s Monthly Income

Family’s monthly income	Mean	Standard deviation
Below 15000	4.43	0.8321
15000-25000	4.82	0.8292
25000-35000	4.28	0.8634
35000-45000	4.11	0.8865
45000 and above	3.51	0.9015
Average	4.23	0.8623

Result shows the differences between the means of the subjects’ suffering degree according to the family’s monthly income level.

H<sub>0</sub> : There is no any significant effect of external readings on family income

H<sub>1</sub> : There is a significant effect of external readings on family income

ANOVA Table

Source of variation	d.f	Sum of squares	Mean sum of squares	F. value	significance
Between groups	4	3.673	0.9183	23.914	0.001
Within groups	295	11.322	0.0384		
Total	299	17.453			

From ANOVA table we conclude that there are statistically significant differences in the subjects’ suffering degree from the external reading problem due to the family’s monthly income. F. value is 23.914 that has a statistical significant at the level of 5% (p<0.05). The economic conditions are considered the key to overcome difficulties and obstacles face external readings which are considered synonymous of the curriculum. If there is no material, so how can a student be able to buy the basic necessities or more? As more income they have that reflects positively on a student and create conditions for them to read with the help and guidance of their teachers especially if we know that the prices of books and stationery are rising in the midst of price increases, and difficulties in which we live these days.

Now we fit a regression model for dependent and independent variables. We consider dummy variable in case of categorical independent variable to run our model.

$$\text{External readings problem (Y)} = \text{Constant} + \beta_1 (\text{Gender}) + \beta_2 (\text{Family members}) + \beta_3 (\text{Family’s monthly income}) + \beta_4 (\text{Guardian professional status}) + \beta_5 (\text{Environmental condition}) \dots \dots \dots (**)$$

**Table 8:** Results of regression analysis for the effect of external readings on various independent variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df <sub>1</sub>	df <sub>2</sub>	Sig. F Change
(**)	.878	.771	.703	.1342	.771	26.821	5	294	.000

**Predictors:** (Constant), Gender, Family members, Family's monthly income, Guardian professional status, Environmental condition

**Dependent Variable:** The students' degree of suffering from the problem encountered their external readings.

From table 8, it has been seen that R value is .878. Therefore, R value (.878) for the overall dimensions suggested that there is a strong effect of these five independent variables on the students' degree of suffering from the problems encountered their external readings. It can also observed that the coefficient of determination i.e. the R-square ( $R^2$ ) value is .771, which representing that 77.1% variation of the dependent variable (The students' degree of suffering from the problem encountered their external readings) is due to the independent variables (Gender, Family members, Family's monthly income, Guardian professional status, Environmental condition), which in fact, is a strong explanatory power of regression.

**Table 9:** Results of regression coefficients of the model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta ( $\beta$ )		
(**)	(Constant)	.794	.122		10.987	.001
	Gender	.389	.487	.253	9.453	.002
	Family members	.701	.201	.498	7.864	.000
	Family's monthly income	.742	.158	.532	8.916	.000
	Guardian professional status	.617	.292	.412	8.976	.002
	Environmental condition	.642	.276	.417	5.876	.001

**Dependent Variable:** The students' degree of suffering from the problem encountered their external readings.

In this table, unstandardized coefficients indicated how much the dependent variable varies with an independent variable, when all other independent variables are held constant. The beta coefficients indicated that how and to what extent dimensions such as Gender, Family members, Family's monthly income, Guardian professional status and Environmental condition influence the students' degree of suffering from the problem encountered their external readings. It has been found that, Family's monthly income ( $\beta = .532$ ,  $t=8.916$ ,  $p<0.000$ ), Family members ( $\beta = .498$ ,  $t=7.864$ ,  $p<0.000$ ), Environmental condition ( $\beta = .417$ ,  $t=5.876$ ,  $p<0.001$ ) and Guardian professional status ( $\beta = .412$ ,  $t=8.976$ ,  $p<0.002$ ) have the highest influence or significant impact on suffering from the problem encountered their external readings, whereas Gender ( $\beta = .253$ ,  $t=9.453$ ,  $p<0.002$ ), has a relatively lower impact on suffering from the problem encountered their external readings.

External readings problem (Y) = 0.794 + 0.253 (Gender) + 0.498 (Family members) + 0.532 (Family's monthly income) + 0.412 (Guardian professional status) + 0.417 (Environmental condition)

## CONCLUSION

In the classroom, children discover and develop much of their sense of who they fail is extremely important to their self-esteem and have more positive attitudes towards future profession. There are also some variables which are very effective on external readings problem. From this study it is clear that there is an impact of the level of studying management on the problems associated with external reading and to employment of modern technologies. There are a lot of obstacles that has been showed in the study sample through answering the questioner completely, and the mean is 4.23, standard deviation is 0.8623 and also the test shows t value 33.75 which is highly significant at p value ( $p = 0.000 < \alpha = 0.001$ ) that means it's been necessary to overcome those obstacles related to books and modern technologies of all kinds to facilitate the return of students to curricula and extra curricula studying. All of the results reached by the study that there is a statistically significant differences due to the Gender, Number of family members, Family's monthly income, Guardians professional status and Environmental condition. In all cases F value is very high at the level of significance,  $\alpha = 0.05$  and p value is very poor. This gives an indication of a clear and evident interest of families in education and overcome the difficulties face their children to get education from everywhere regardless the number of their families to cope with the scientific age and explosion witnessed by this age. This comes from their parents' faith that science, knowledge and progress build this country and to eradicate ignorance and illiteracy as there is a need to create the conditions and possibilities to their kids to be educated and focus on external readings as they are the synonymous of the curriculum. It is true that the financial condition is very important for external readings in specific. That is because to overcome these difficulties and create conditions to get the book. The lack of money plays a role in getting the books easily as there are things that have priorities and special arrangements. It is clear from the results that there are statistically significant

differences in the subjects' suffering degree from the external reading problem due to Guardian professional status as F value is 32.510 that has a statistical significant at the level of  $\alpha = 0.01$  and the p value is less than 0.01. So we conclude that Guardian professional status is considered the key to overcome difficulties and obstacles face external readings which are considered synonymous of the curriculum. The study shows that the R value is 0.878 which means that there is a strong effect of these five independent variables on the students' degree of suffering from the problem encountered their external readings. It can also observed that the coefficient of determination i.e. the R-square ( $R^2$ ) value is .771, which representing that 77.1% variation of the dependent variable (The students' degree of suffering from the problem encountered their external readings) is due to the independent variables. Finally, we can say that external readings are crucial for the students who are facing problem in their study life and most of the students are suffering with these external reading problem.

### RECOMMENDATION AND FUTURE WORK

Based on the results of the study, the importance of the recommendation is clearly visible. In-service courses should be regularized for all teachers by the MOE and other stake holders in education. Those who participate should be given a certificate for the areas they have been learning as a way of encouraging them. Moreover, further learning by teachers to upgrade their professional standards should be encouraged. Schools should be encouraged to initiate and diversify their in-come-generating activities to broaden and strengthen their financial base. These should include farming, hiring of school vehicles, sports facilities and halls for seminars and weddings. Allocation part monthly of the money to buy books and technical equipment serving reading external. Focus on activities extracurricular and allocation the marks to research and writing reports work on any obstacles stand in the face of external readings. The government should address the emerging issues relating to the bursary fund allocation. The task should be given to schools as teachers know their needy and deserving students better. In addition, part of the CDF kitty should be used in construction of workshops, laboratories and equip libraries in schools that are lacking. Concerted efforts are required. Insecurity and threats to the operations of CSDP activities especially in very remote communities must be checked by the local and state governments. This will enhance the monitoring exercise of CSDP official in order to replicate projects where applicable. Government should provide a clear road map for various levels of education to enhance a better understanding of the entrepreneurship programme. Technical, Vocational Education and Training (TVET) teachers and instructors should adapt to changes by making themselves available for training and re- training on the nitty-gritty of entrepreneurship education. The government should periodically organize sensitization workshops and seminars for teachers on the relevance of entrepreneurship education in schools. Since our research only based on the students of Dhaka district, so for future study we will collect data from different place (district) in Bangladesh and then we analysed our data for every district. We compare then to each other and make a good prediction about the full condition of education system in Bangladesh.

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