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The effect of extracurricular activities on the academic performance of the university students: Evidence from Hajee Mohammad Danesh Science and Technology University (HSTU), Dinajpur, Bangladesh

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Abstract:

The purpose of the study is to examine the effect of extracurricular activities (ECA) on academic performance of the students in Hajee Mohammad Danesh Science and Technology University (HSTU) Dinajpur, Bangladesh. To define the effect more clearly we have disaggregated the extracurricular activities in to several parts such as sports activities, cultural activities, social work activities and political activities. A total of 270 students from nine faculties have been selected to collect data using stratified random sampling method. Students who have received at least two semester results have been considered for collection of valid information. Data were collected by face- to- face interview using a structured questionnaire .We used linear regression model and perform ordinary least square method (OLS) to estimate the regression coefficients. Findings of this study indicate that there is a negative but insignificant association between involvement in overall extracurricular activities and academic achievement. But when we separately estimates the models for different particular extracurricular activities we find that only the involvement in social activities has a significant negative impact on academic performance as measured by cumulative grade point average (CGPA) while other extracurricular activities like sports, cultural activities and political activities has no significant impact on CGPA of the student.

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1. Introduction

Extracurricular activities (ECA) are generally those types of activities that fall outside area of the normal curriculum of school, college or university education, performed by the student. According to **Cadwallader, Garza and Wagner (2002)**, extracurricular activities are defined as the activities in which the students involve after the regular school day has ended. This type of involvement may include athletics, school clubs, marching band, chorus, orchestra, cultural, social, and volunteer and student leadership organizations. Such activities are generally voluntary and there are not involve with any academic curriculum. Extracurricular activities are non regular part of academic study course **(Holland & Andre, 1987)**. Extracurricular activities play an important role in today's secondary education programs. Extracurricular activities can involve sport, cultural, political, voluntary, clubs, debate, scouts, drama, student council, and other social events. Involvement in different activities may positively impact on participant near future success. Researchers **(Eccles, 2003)** indicated that both the type of extracurricular programs and level of participation may impact the individuals' development. **Gerber (1996)** reported that involvement in extracurricular activities improves a higher level of academic achievement. He also finds out that involvement in school related activities was more strongly related with achievement than was involvement in activities outside of school. According to Reeves (2008), there is a strong correlation between student participation in extracurricular activities participation and improved attendance, behavior, and academic achievement. He also interpret that the students who involve in several types of extracurricular activity are better in academic than the students who are not involved. This type of involvement usually includes participation in sports and other school sponsored activities.

The benefit of extracurricular activities develops the intellectual skill, managing the critical situation, team leader effectiveness, developing relationship management and creative decision making **(Villalobos, A. S. *et al.*,2016).** Some researchers **(colemn,1961 ; Baucom & Lantz. 2000; Adler & Adler, 1985; and, Maloney & McCormick,1993)** have found that there is a negative relationship between extracurricular activity involvement and academic performance. Two factors are sometimes responsible for the participation in these activities that may consequence negative impact: an overloaded schedule and a narrow sense of identity **(Tanner, 2017)**. Over expense of time behind the extracurricular activities may cause adverse effects when the students invest less time and energy in study. It is a very complicated phenomenon for assessing the academic performance. There is no systemic way to find out how the different factors of extracurricular activities impact on academic performance. This study attempts to examine the impact of extracurricular activities on academic performance of students in Hajee Mohammad Danesh Science and Technology University (HSTU), Dinajpur, Bangladesh. In this university there are several types of organizations and associations where students get opportunity to take part into different types of extracurricular activities. These organizations can be divided into several categories such as sports associations like HSTU FC, Skating club, Cricket club etc., cultural organizations like Orko Shanskritik Jot, Sejuty Shanskritik Oikko, HSTU Film club etc., Social organizations such as Rotary club, Danesh Blood Bank, Student's Welfare Fund, Rover Scout, Bondhusova etc. and political organizations like Bangladesh Chatra league, Jatiotabadi Chatra dol, Somajtantrik Chatra Front etc. According to Student Affairs and Advisory Division (www.hstusaad.com) of the university there are 24 organizations/associations in the university (Appendix I). Furthermore there are so many small and medium known or

unknown, registered or unregistered groups and organizations where students are attached with of their own interest. So, there is a huge scope to involve students into attach themselves into different types extracurricular activities. Our main interest is here that whether the involvement of the students has an impact of their academic achievement or not.
The specific objectives of the study are:

i) To examine the effects of student's involvement in extracurricular activities on the academic performances of the students.
ii) To find other determinants of academic performance of university students.

2. Review of literature

In this section we have provided a comprehensive review of relevant literature on the association between student's involvement in extracurricular activities and academic performance of the students. In the United States, children and adolescents spent more than half of their daily time in leisure activities **(Eccles, 2003).** The involvement of non-technical skills such as communication and academic behavior is importance for student improvement. Involvement in extracurricular activities provides an extra support in the improvement of non-knowledgeable skills **(Convey& Carbonaro, 2010).** From the study of **Reeves (2008)** it is found that the student's involvement in extracurricular activities makes a vital role for teamwork effectiveness and individual responsibility. He further mentioned that discipline, responsibility and academic performance are all important elements of student transcript that influence institutions admission test**.** The performance related nature of extracurricular activities especially involvement in sport activity, is an ideal topic for building students' character (Fejgin, 1994). He also found that students who usually involve in competitive sport activities improve a better internal locus of control. Student participation in extracurricular activities such as drama, and journalism is related with achieving higher grade points average and ambiguous for higher levels of education **(Guest & Schneider, 2003).**In a recent study in Singapore Management University, **Seow & Pan (2014)** find a positive impact of participation in extracurricular activities on academic achievements on the other hand highly expenditure of time behind participation has a up till a certain point beyond which participation leads to negative impact on academic outcomes. According to **Suleman (2014),** statistical analysis and discussion shows significant the negative effect of over-schedule involvement in extracurricular activities on the academic performance. On the other hand, those students involve in extracurricular activities normally and expense daily 40 minutes the student of control group perform excellent. An experiment conducted by **Samsudin *et. al.* (2014),** the effect of physical, educational, and social cultural activities selected three public universities on students 'academic performance in Peninsula Malaysia. They have found no significant positive correlation between engagement in extracurricular activities and student academic achievement. According to **Rivera (2010),** student's participation in extracurricular activities had influenced the academic achievement. The student who was highly involving in athletics mark was a very poor-performing. Another research conducted by **Whitley (1998)** indicated that participation in extracurricular activities had a great impact on his academic achievement. The students participated in sport had a higher GPA than the students who did not participate in sports. A comparative observation by **Taras (2005)** on the role of physical activity on adolescent student's academic achievement find out that some short-term progresses were associated with physical activity, but there was no continue long-term academic well performance as a consequence of more vigorous physical activity. One study particular **Logan and Scarborough. (2008**) discussed participation in

extracurricular activities enhances not only academic achievement but also personal skill development given a precedent about a student impacted through participation in activities. **Mehus (1934)** pointed out that student's who participate in elocution and debate activities, publication and departmental clubs achieve higher academic than those involved in athletics, music and drama. **Din (2006)** found that student participation in playing sports did not have any effect on academic achievements. Students who participate in sport did obtain lower grade point after the end of sport season. There is no significance difference between the academic achievement before and after the end of sport season. According to **Craft (2012),** the students who participate in extracurricular activities achieve higher GPA than those who does not participate. Those students participate in extracurricular activities also benefit from the hidden curriculum such as team work, leadership, dedication, success, failure, positive relationship with others etc. The review of literature ends with a mixed and ambiguous results. Some researchers find positive impact, some finds negative impact and few finds no association between students involvement in extracurricular activities on academic performance. These areas of study are also characterized by the use of variety of indicators for measuring both the academic performance and extracurricular activities. Furthermore, most of the previous studies on this realm were conducted on the developed countries. Therefore we made an attempt to examine the effects of extracurricular activities on academic performance in respect of developing countries like Bangladesh.

The contribution of this paper is manifolds:

1. In this article we used OLS regression model considering other important control variables, while most of the previous studies used descriptive analysis and simple bi-variant approach.

2. With the findings of overall impact of extracurricular activities, we also disaggregate the estimations for different types of extracurricular activities such as sport activities, cultural activities, Social work activities and political activities separately.

3. To the best of our knowledge this is the first study in the context of Bangladesh relating the association between extracurricular activities and academic performance, therefore, this paper feels the void of literature of Bangladesh on this issue.

3. Methodology

3.1 Sampling

Stratified random sampling process was used for collecting data. Population size is considered on the whole students of HSTU who has got minimum two semester academic result. There are nine faculties, among them eight faculties are of undergraduate and one is of postgraduate faculty. All the faculties are considered as sample. From each faculty, 30 samples were selected. The total sample size is 270 including both male and female students. The surveyors collected data from both in-campus and out-campus residence student.

3.2 Questionnaire Design and Data collection

The survey instrument used in this study was designed to identify whether or not the extracurricular activities of the student's Hajee Mohammad Danesh science and Technology University (HSTU) have an impact on their academic performance. A structured questionnaire used for data collection where face to face interview was taken from the students. The respondent is provided enough time and proper cooperation to answer the

questions. There are five parts in the questionnaire paper. In first part includes the information regarding student's faculty, department, age, sex, height and weight. In second part is about students' family status related questionnaire such as family residence, father's and mother's education level and years of schooling, house hold head and house hold average monthly income. In third part students' monthly expenditure pattern such as food, education, mobile, residence, health, and other expenses were included. In forth part asked the questions of current information about participation in extracurricular activities, student's involvement in sport, social, cultural and political activities and the extent students spent time behind of those extracurricular activities. In last or fifth part ask to the questions about academic achievement in last semester CGPA, class attendance and study hours. Other information collected from the respondents about present residential status and involvement in income generating activities.

3.3 Econometric model

In our study we used a linear regression model as follow:

$$Y = \alpha + \beta X_i + \delta_i Z_i + \varepsilon$$

Where,

Y Denotes the predicted or expected value of the dependent variable. In this analysis, academic performance measured as CGPA is the dependent variable.

$\mathbf{X_i}$ represents the key independent variables. In this study our main key independent variables is extracurricular activities (ECA)

β is the estimated regression coefficients of our key variable: the participation in extra-curriculum activities.

$\mathbf{Z_i}$ expresses the other control variables those also may have impact on CGPA includes age, sex, family residence, father's and mother's education level, household monthly income, student monthly expenditure, study hours weekly, last semester class attendance, student present residence status in campus or out campus

α is the value of **Y** when all of the independent variables (X_i) and control variables (Z_i) is zero.

$\boldsymbol{\delta_i}$ is the estimated regression coefficients of controls variables

ε is the stochastic disturbance term.

Our key interest is to estimate the value of β.

3.3.1 Outcome variable

Students' academic achievement as measured by the Cumulative Grade point Average (CGPA) is the outcome variable. We consider CGPA instead of semester GPA because unlike semester GPA it reflects long-term academic performances of a student.

3.3.2 Key independent variables

The key independent variables of the study are student involvement in extracurricular activities. We have considered four specific types of extracurricular activities: sports, social work, cultural activities, and political activities.

3.3.3 Control variables

This study controls a set of exogenous variables including age of the student, sex, family residence, father's and mother's education level, house hold monthly income, student total monthly expenditure, study hours weekly, last semester class attendance, student present residential status in campus or out campus.

The key summary statistics of the variables used in the study are shown in table-1

Table 1: Summary Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
Dependent variable					
CGPA	270	3.314333	0.2690699	2.56	3.96
Key independent variables					
Participation in ECA (Overall)	270	0.5222222	0.5004335	0	1
Weekly time spent in ECA (Overall)	270	6.42037	10.2397	0	50
Participation in ECA (Sports)	270	0.2481481	0.4327404	0	1
Weekly time spent in ECA (Sports)	270	2.135185	4.727054	0	28
Participation in ECA (social work)	270	0.2814815	0.4505569	0	1
Weekly time spend in social work	270	1.301852	2.96864	0	21
Participation in ECA (cultural)	270	0.2333333	0.423738	0	1
Weekly time spend in cultural	270	1.364815	3.629606	0	28
Participation in ECA (political)	270	0.1444444	0.3521926	0	1
Weekly time spend in political	270	1.618519	4.991334	0	28
Control variable					
Age	270	22.27778	1.369024	18	28
Sex	270	0.5814815	0.4942322	0	1
Family Residence (Urban=1)	270	0.4962963	0.5009148	0	1
Fathers education	270	11.48148	4.019195	1	16
Mothers education	270	9.366667	3.713083	1	16
Household monthly income	270	27814.81	18178	2500	100000
Sex	270	0.9148148	0.2796755	0	1
Students Total expenditure (Monthly)	270	5609.4	1754.305	2500	17100
study hour weekly	270	19.81481	12.95341	1	90
Class Attendance	270	89.23704	14.67527	60	100
Student Residence (In Campus=1)	270	0.5111111	0.5008048	0	1

4. Results and Discussions

In this section we have summarized and analyzed the collected data by the "STATA" software. Following are the results of our analysis represented in the table-2 and table-3. To better understand the impact of extracurricular activities on academic outcomes we firstly analyze the relationship between overall extracurricular activities and academic achievement, the result of which is represented in Table-2. Then we have further analyzed the impact of involvement in different types of extracurricular activities on students cumulative GPA such as spots activities, cultural activities, social activities and political activities, the result of which is summarized in the Table-3 (The detailed data are shown in Appendix II-V)

Table-2: Effect of Extra-Curricular Activities (Overall) on CGPA

	Model 1	**Model 2**
Dependent Variable	CGPA	CGPA
Participation in ECA (Overall)	-0.0236	-
	(0.0285)	-
Weekly time spent in ECA (Overall)	-	-0.00212
	-	(0.00155)
Others Covariates		
Age	0.0164	0.0174
	(0.0109)	(0.0108)
Sex (male=1)	-0.0944***	-0.0897***
	(0.0301)	(0.0301)
Family Residence (Urban=1)	-0.0163	-0.0196
	(0.0298)	(0.0301)
Fathers education	0.00889	0.00946*
	(0.00567)	(0.00554)
Mothers Education	-0.00424	-0.00482
	(0.00570)	(0.00560)
Household Income	-1.50e-06	-1.58e-06*
	(9.33e-07)	(9.29e-07)
Students Total expenditure (Monthly)	-1.36e-05*	-1.36e-05*
	(8.15e-06)	(8.00e-06)
Study Hours (Weekly)	0.00765***	0.00762***
	(0.00123)	(0.00121)
Class Attendance	0.00332***	0.00305***
	(0.000952)	(0.000996)
Student Residence (In Campus=1)	-0.0759**	-0.0744**
	(0.0309)	(0.0309)
Constant	2.672***	2.673***
	(0.275)	(0.273)
,		
Observations	270	270
R-squared	0.306	0.310

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The main result of the effect of overall extracurricular (sport/ social/ cultural/ political) activities on academic outcomes are shown in Table 2 where model 1 shows the result for participation (yes/no) in extracurricular activities (ECA) and Model 2 shows the result for time spent (weekly) in ECA. Result shows that the both the participation and time spent on the extracurricular activities have the negative but statistically insignificant impact (coefficients -0.0236 and -0.00212, respectively) on academic achievement (CGPA) of the students. The results indicate that the student who participates in any ECA has a 2 percent lower CGPA than those of the student who does not participate. Furthermore the model 2 indicates that one hours increase in the time spent weekly in any ECA results in 0.2 percent decrease in the CGPA of the students. We also considered other important covariates that may have impact on academic achievement of the student. The students being male are more likely to have a lower CGPA than those of the female counterpart. Likewise, the students residing inside the campus hall are more likely to have a lower CGPA than those who resides outside the campus. Again the student's monthly expenditure is found to have a statistically negative impact on their CGPA. On the other hand, father's education of the student has a positive and significant relation with the student's academic outcomes. Similarly, the students who study more are likely to have higher CGPA. Again, class attendance has also found to have a positive and significant effect on academic achievement of students. But, there is no significant impact of age and family residence of the student on CGPA.

Table 3: Effect of different types of extra-curricular activities on CGPA

	Model 1	**Model 2**
Dependent Variable	CGPA	CGPA
Panel A (Effect of Sports Activities on CGPA)		
Participation in Sports)	-0.0108	-
	(0.0369)	-
Weekly time spent in Sports	-	-0.00138
	-	(0.00432)
Observations	270	270
R-squared	0.305	0.305
Panel B: (Effect of Social Works Activities on CGPA)		
Participation in Social Work	-0.0573*	-
	(0.0300)	-
Weekly time spent in Social Work	-	-0.00912**
		(0.00410)
Observations	270	270
R-squared	0.313	0.313
Panel C: (Effect of Cultural Activities on CGPA)		
Participation in Cultural Activities	-0.0437	-
	(0.0365)	-
Weekly time spent in Cultural Activities	-	-0.00390
		(0.00379)
Observations	270	270
R-squared	0.309	0.307
Panel D: (Effect of Political Activities on CGPA)		
Participation in Political Activities	-0.0202	-
	(0.0413)	-
Weekly time spent in Political Activities	-	-0.00172
		(0.00269)

Observations	270	270
R-squared	0.305	0.305

Note: All regression includes a range of other covariates as in Table-2.
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Panel A of Table 3 shows that the participation in sports and time spent weekly in sport both has a negative but not significant (coefficient -0.0108, and -0.00138 respectively) effect on the cumulative GPA of the students. The result also show that student who involved in sports activities tends to have 1.08 percent lower cumulative GPA than the student who are not involved in sports activities and one hours increase in the time in social work results in a 0.13 percent decrease in the cumulative GPA of the student.

Panel B of Table 3 shows that the participation as well as the weekly time spent of students in social works has a negative and significant (coefficient -0.0573* and -0.00912** respectively) effects on the cumulative GPA of the students. The result also show that student who involved in social work activities tends to have 5.73 percent lower cumulative GPA than the student who are not involved in social work activities and one hours increase in the time in social work results in a 0.912 percentage decrease in the cumulative GPA of the student.
Panel C of table 3 shows the association between student's involvement and weekly time spent in cultural activities and their academic performances. Here we find a negative relationship, though not significant (coefficient -0.0437 and -0.00390 respectively), between participation as well as weekly time spent in cultural activities and achievement of CGPA. Those students who participates spend more time on cultural activities tends to have lower CGPA.

Finally, the panel D of table 3 shows that the student's involvement in political activities has a negative but not significant (coefficient -0.0202 std. error 0.0300) effects on the cumulative GPA of the students. Weekly time spent in political activities has also a negative but not significant (coefficient -0.00172 std. error 0.00269) impact on cumulative GPA. That means student who involved in political activities tends to have 2 percent lower cumulative GPA than the student who are not involved in political activities and one hour increase involvement in political activities per week 0.1 percent decrease in students cumulative GPA.

5. Conclusion

This paper made an attempt to examine the effects of extracurricular activities on the academic performance of the student in Hajee Mohammad Danesh Science and Technology University, Dinajpur, Bangladesh.
The results of the study suggest that there is no significant effect of overall extracurricular activities on academic performances of the university students. Further, when we specify the students' involvement on a particular type of extracurricular activity and separately estimates the models for different particular extracurricular activities we find that only the involvement in social activities has a significant negative impact on academic performance as measured by cumulative grade point average (CGPA) while other extracurricular activities like sports, cultural activities and political activities has no significant impact on CGPA of the student. We have also identified the other determinants of academic performances of the students.

Although extracurricular activities are needed for healthy life, refreshment of mind, grow leadership; maintain organization, time management, discipline, punctual etc. this study suggest that over scheduled of time on extracurricular may lead to lower academic results.
The study has some major limitations. The data used for this study is cross-sectional. One avenue for future research is to use panel data to estimate the effects of ECA on academic performances of the students. In this study we did not consider the issue of endogeneity. As the student's involvement decision in extracurricular activities may be influenced by the unobserved preferences and skill, the decisions to participate in ECA may be endogenous variable. Disregarding the issue of endogeneity problem, the estimated results may not show casual effects rather simply reports correlation. So the future research on this issue may consider the endogeneity concerns.

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APPENDIX-I

List of the organizations along with the category of the organization.

Name of the Organizations	Category	Name of the Organizations	Category
Bangladesh Chattra league	Political	Debating society of HSTU	Social/Voluntary
Somajtantrik Chattra Front	Political	HSTU NEWS 24.com	Social/Voluntary
Orko Sangskritik Jot	Cultural	Bangladesh Vaterinary Association	Social/Voluntary
Sejuti Sangskritik Oikko	Cultural	Rover Scout	Social/Voluntary
HSTU Film Club	Cultural	Prothom-Alo Bondhushova	Social/Voluntary
HSTU Art & Literature Association	Cultural	HSTU MUNA	Social/Voluntary
Turbo Crater	Cultural	EEE Club of HSTU	Social/Voluntary

HSTU Journalist Association	Social/Voluntary	Rotaract Club of HSTU	Social/Voluntary
Student Welfare Fund	Social/Voluntary	Shuvo Songho	Social/Voluntary
Danesh Blood Bank	Social/Voluntary	HSTU Badminton Club	Sports
HSTU Mojar School	Social/Voluntary	HSTU Football Club	Sports
Sonaton Bittarthy Songsod	Social/Voluntary	HSTU Skating Club	Sports

APPENDIX-II

Effect of Extra-Curricular Activities (Sports) on CGPA		
	Model 1	**Model 2**
Dependent Variable	CGPA	CGPA
Participation in ECA (Sports)	-0.0108	-
	(0.0369)	-
Weekly time spent in ECA (Sports)	-	-0.00138
	-	(0.00432)
Others Covariates		
Age	0.0172	0.0170
	(0.0111)	(0.0110)
Sex	-0.0984***	-0.0973***
	(0.0310)	(0.0309)
Family Residence (Urban=1)	-0.0151	-0.0156
	(0.0304)	(0.0308)
Fathers education	0.00885	0.00897
	(0.00560)	(0.00562)
Mothers Education	-0.00447	-0.00451
	(0.00571)	(0.00569)
Household Income	-1.55e-06*	-1.57e-06*
	(9.33e-07)	(9.32e-07)
Students Total expenditure (Monthly)	-1.36e-05*	-1.37e-05*
	(8.04e-06)	(7.96e-06)
Study Hours (Weekly)	0.00766***	0.00767***
	(0.00124)	(0.00123)
Class Attendance	0.00339***	0.00338***
	(0.000949)	(0.000959)
Student Residence (In Campus=1)	-0.0781**	-0.0789**
	(0.0310)	(0.0310)
Constant	2.644***	2.648***
	(0.277)	(0.276)
Observations	270	270
R-squared	0.305	0.305

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

APPENDIX-III

Effect of Extra-Curricular Activities (Cultural) on CGPA		
	Model 1	**Model 2**
Dependent Variable	CGPA	CGPA
Participation in ECA (Cultural)	-0.0437**	-
	(0.0365)	-
Weekly time spent in ECA (Cultural)	-	-0.00390**
	-	(0.00379)
Others Covariates		
Age	0.0162	0.0176
	(0.0109)	(0.0108)
Sex	-0.0975***	-0.0980***
	(0.0304)	(0.0304)
Family Residence (Urban=1)	-0.0127	-0.0140
	(0.0303)	(0.0301)
Fathers education	0.00949*	0.00886
	(0.00557)	(0.00555)
Mothers Education	-0.00443	-0.00403
	(0.00569)	(0.00571)
Household Income	-1.43e-06	-1.54e-06*
	(9.23e-07)	(9.26e-07)
Students Total expenditure (Monthly)	-1.47e-05*	-1.44e-05*
	(8.18e-06)	(8.07e-06)
Study Hours (Weekly)	0.00768***	0.00767***
	(0.00122)	(0.00122)
Class Attendance	0.00340***	0.00331***
	(0.000937)	(0.000949)
Student Residence (In Campus=1)	-0.0779**	-0.0775**
	(0.0310)	(0.0308)
Constant	2.665***	2.642***
	(0.274)	(0.271)
Observations	270	270
R-squared	0.309	0.307

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

APPENDIX-IV

Table 5: Effect of Extra-Curricular Activities (Social Work) on CGPA		
	Model 1	**Model 2**
Dependent Variable	CGPA	CGPA
Participation in ECA (Social Work)	-0.0573*	-
	(0.0300)	-
Weekly time spent in ECA (Social Work)	-	-0.00912**
	-	(0.00410)
Others Covariates		
Age	0.0166	0.0183*
	(0.0106)	(0.0106)
Sex	-0.0930***	-0.0968***
	(0.0313)	(0.0307)
Family Residence (Urban=1)	-0.0155	-0.0245
	(0.0297)	(0.0301)
Fathers education	0.00966*	0.0100*
	(0.00559)	(0.00557)
Mothers Education	-0.00544	-0.00537
	(0.00563)	(0.00564)
Household Income	-1.31e-06	-1.43e-06
	(9.20e-07)	(9.24e-07)
Students Total expenditure (Monthly)	-1.32e-05*	-1.25e-05
	(7.96e-06)	(7.93e-06)
Study Hours (Weekly)	0.00747***	0.00745***
	(0.00123)	(0.00124)
Class Attendance	0.00329***	0.00294***
	(0.000905)	(0.000941)
Student Residence (In Campus=1)	-0.0772**	-0.0744**
	(0.0307)	(0.0307)
Constant	2.670***	2.660***
	(0.265)	(0.265)
Observations	270	270
R-squared	0.313	0.313

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

APPENDIX-V

Table 6: Effect of Extra-Curricular Activities (Political) on CGPA		
	Model 1	**Model 2**
Dependent Variable	CGPA	CGPA
Participation in ECA (Political)	-0.0202	-
	(0.0413)	-
Weekly time spent in ECA (Political)	-	-0.00172
	-	(0.00269)
Others Covariates		
Age	0.0174	0.0182*
	(0.0108)	(0.0109)
Sex(male=1)	-0.103***	-0.100***
W	(0.0305)	(0.0306)
Family Residence (Urban=1)	-0.0132	-0.0151
	(0.0301)	(0.0301)
Fathers education	0.00855	0.00873
	(0.00562)	(0.00559)
Mothers Education	-0.00420	-0.00480
	(0.00577)	(0.00570)
Household Income	-1.56e-06*	-1.56e-06*
	(9.41e-07)	(9.38e-07)
Students Total expenditure (Monthly)	-1.37e-05*	-1.29e-05
	(7.82e-06)	(7.98e-06)
Study Hours (Weekly)	0.00758***	0.00761***
	(0.00125)	(0.00124)
Class Attendance	0.00349***	0.00328***
	(0.000966)	(0.000968)
Student Residence (In Campus=1)	-0.0818***	-0.0754**
	(0.0314)	(0.0313)
Constant	2.631***	2.633***
	(0.270)	(0.272)
Observations	270	270
R-squared	0.305	0.305

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

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