

# Influence of social economic status and interest on Students' academic performance

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**Abstract.** The positioning of any economy in the global light is anchored on the growth and development of its educational institutions hence the more developed these institutions are, the more advanced such economy will be to handle issues related to technological advancements, development of military arsenals, robust & global economy and scientific breakthroughs etc. The performance of these institutions is dependent on the impact of both informal and formal education on the academic performance of students influenced by certain key factors amongst which includes; Socio-economic Status (SES) and Interest. This paper seeks not to only investigate the impact of these two factors but also observe amongst them which has a greater impact on academic performance while steering its attention on two core subjects; Mathematics and English Language. On this premises, let's consider the performance of 210 students in the Senior Secondary One (SS1) spanning across six (6) different Schools within the city of Jos. The data collected were analyzed and tabulated using Microsoft Excel. Results showed that though both factors impact academic performance (either positively or negatively) however SES seems to have a much greater influence on academic performance than interest.

**Keywords:** socio-economic status, interest, academic performance, informal education, formal education.

## Introduction

Education is a key driver in societal and human development has been often deployed as a primal tool in human enlightenment, poverty eradication and development of a global community thus the bedrock of any great civilization stems from the value it places on the growth and development of its educational institutions (where people of varying ages gain education like the Schools, Universities, Polytechnics). The efficacy of these institutions to live up to their desired reputation is a function of the foundations built by both informal education (lifelong process of spontaneous learning cultivated outside the structured curriculum) and formal education (processes of learning cultivated within a systematic and structured curriculum).

Academic performance is generally viewed as the outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments (Steinmay et al., 2014) specifically in Schools, Colleges and Universities. The concept of Academ-

ic performance is multidimensional relating human growth and development with cognitive, emotional, social and physical development as it occurs across time and levels throughout the student's life. Academic performance status of students is a function of how varying factors such as Class environment, Class size, Interest, Socio-economic Status (SES) etc. affect their academics as its most times measured by the grades the obtained by students in different subjects. Some of these factors have more enduring impact on the academic performance of students as compared to others. This discourse focuses on two of such factors namely; Socio-economic Status and Interest and their comparative influence on academic performance while considering two core subjects English Language and Mathematics.

## Literature review

Socio-economic Status (SES) is considered as the social and economic well-being (talking about financial stability) of a child which in most instance is a measure of the financial stability of

child's family background. It is being influenced by varying factors such as the family's income, the level and kind of education accessible to the family, type and prestige of occupation and lastly their social supports. SES could also be viewed as a composite measure of an individual's economic and social standing (combined measure of an individual's work experience, family's economic access to resources and his or her family's social position in relation to others). Socio-economic status (SES), measures the index of the overall social status or prestige in the society alongside education, occupational status and income (Conger and Donnellan, 2007).

Several investigations have been carried out revealing the impact of SES on academic performance. Some of which are stated below; Jeynes 2002 revealed in his investigations that the SES of children is a function of the combined parent's educational level, occupational status and income level. Further studies have associated SES with the IQ level and academic achievement of children and adolescents (National Institute of Child Health and Human Development [Nidch], 2005; White et al., 1993). Investigations on meta-analysis carried out by Liu et al. (2019) showed the existence of a moderate relationship between SES and academic achievement whilst considering 215,649 students from 78 independent samples. Inferences from these literatures spells out clearly that knowledge, skills and morals acquired by children are been influenced by the SES status of their parent and families.

The relationship between SES and academic performance has been explained by varying models (social causative, social selection and sociocultural-self) but key amongst these is the sociocultural self-model as it integrated and extends the key tenets of the social causation and social selection models (Stephens et al., 2012). It proposes that (1) social economic conditions and individual characteristics or attributes are interdependent forces that influence each other, and (2) both social economic conditions and individual characteristics or attributes indirectly influence individuals' behavior through the self. In this model, self is defined as "a product of the ongoing mutual constitution of individuals and structures and serve to guide people's behavior by systematically shaping how people construe situations" (Stephens et al., 2012, p. 733). The kind of environment (culture, perception, financial level etc.) a child is exposed to or raised up in thus influences his/her cognitive development which invariable influences his/her academic performance levels. Buchmann, 2002 noted in his research that the differences in the availability of facilities and investments level in education of a household can eventually lead to inequal-

ities in students' academic achievements. Some empirical studies have also showed this trends as student's low socio-economic status is associated with poor cognitive and academic development and language problems (Morgan et. al., 2009) thus stressing the positive relationship between SES and students' academic performance.

Interest is another factor which though differs from SES is equally intricate in producing a lasting influence of performance amongst students. Interest predicates a student decision to either engage or dis-engage from a particular activity, subject or hobby thus influencing their performance in such an activity or subject. The investigations put forth by Adeyemi, 2014 complements this propositions as it suggests that Interest has to do with a learner's pre-disposition to react positively in certain ways towards certain aspects of the environment and is usually developed in relation to and remains allied to more basic motives. Interest could be viewed as an intrinsic motivation, that is, when individuals are intrinsically motivated, they engage in activities for their own sake and out of interest in the activity (Wigfield et al, 1998 in Goulart & Bedi, 2011). Abande (2010), opined that interest is a state of curiosity or concern about something or the attention given to something or to an activity. Magnus (2008), further stated that interest encompasses the positive, pleasant feelings an individual has when trying to study a subject-matter. Based on these findings one could probably say that interest seems to be that fulcrum behind complete student participation and hence with interest there is no need to compel a learner to engage in an activity as it comes naturally to them because there is that inner conviction to engage in that activity. Thus if strong interest is successfully built in a child in the study of a particular subject such student will tend to perform extreme well thus leading to high academic performance.

On these premises one could therefore suggests that; students that have develop a strong interest for a subjects like say Mathematics, English Language would find it easy to learn and develop skills that will help him/her perform well in such and also develop career opportunities in it. For interest to stand the test the test of time it depends whether it is individualistic (which is more enduring and lasting over time) or situational (is short term and depends on the environment one finds himself or herself). Several researches has linked interest to high performance in academics some of which include those conducted by; Adeyemi and Adeyemi (2014) were they noted that when students lose interest in their studies, failure rate will be higher while adding an anti-social dimension to it, they wrote that students may engage

in very many unlawful activities like cultism, robbery, prostitution and tyranny among other vices. Jayanthi, Balakrishnan, Abdullateef, and Nasirudeen (2014) while researching on factors contributing to academic performance noted that interest affected academic scores, Tella, Tella and Adeniyi (2011) working with 500 JSS students on locus of control, interest in schooling and self-efficacy as predictors of academic achievement in Osun State Nigeria, found that interest jointly and independently significantly predicted achievement, Lawanto, Santoso and Liu (2012) in their own work on understanding of the relationship between interest and expectancy for success in engineering design activity with grades 9-12 students found that there was a significant relationship between students' interest and expectancy for success. Thus interest is a primal predictor in influencing academic performance either positively or negatively.

Having considered several literatures on the influences of SES and Interest on academic performance, the researcher seeks to conduct a comparative investigation of which of these two has a greater influence on academic performance. The researcher thus at the end of this discourse hopes to address questions such as; Is SES or Interest enough a factor to influence academic performance or Does the influence of one supersede the other or are the two factors co-dependent as it impacts academic performance. To give answers to these questions the researcher while comparing the influence of both factors (SES and Interest) and its influences on academic performance will be focus his attention on students' performance in Mathematics and English language while considering four different secondary schools within the Jos Metropolis.

## **Materials and methods**

### **Participants**

A descriptive survey was adopted while using random sampling for students population totaling One Hundred and Forty (140) first year students (age range = 14 – 17 years) at four (4) Senior Secondary School (Public and Private) offering core subjects in Mathematics and English language. The setting of the four different schools (two public and two private) names withheld with averages of thirty five (35) students each. These schools were located within the Jos Metropolis, Jos – North, Plateau State. The selection made was based on the foundation of core subjects of Mathematics and English offered at Junior Secondary School and the selection of both public and private schools is to see the response of the factors of Interest and SES as it affects respondents from different schools. From this, twenty (20)

females and Ten (15) males are selected for School A; for School B, Fifteen (17) males and Fifteen (18) females are selected; for School C, Eighteen (20) males and twelve (15) females are selected while for School D, Twenty - three (23) males and seven (12) females. Guidelines and permission were obtained from the School Administrators, Students and their parents before questionnaires were distributed of which consent was given.

### **Measures and Procedures**

Primal to the success of this research is the use of data collected by the selection and use of right and appropriate tools mainly questionnaires. Questionnaire was used for the study because it is effective for collecting data from a large number of people within short possible time (Amedahe and Asamoah-Gyimah, 2014). Students involved completed a demographic questionnaire (age, gender, parent's level of education, parent's occupational status, Interest and annual household income) while using exams scores from two core subjects (English Language and Mathematics) as indicators for harnessing information on students' academic performance.

### **SES**

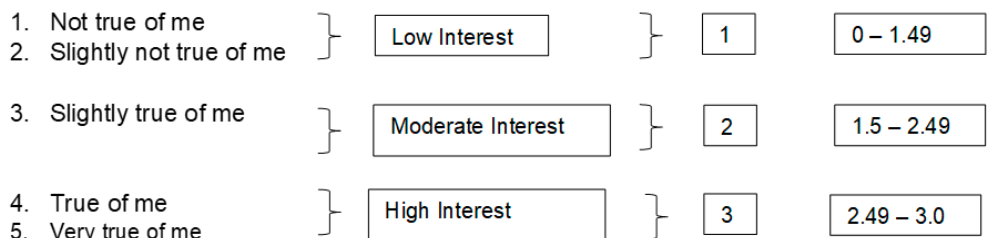
Generally speaking according to researches carried out by (Bradley and Corwyn, 2022) it was concluded that although no consensus exist on the measurement of SES, it is agreed that a stable measure thereof should incorporate education, occupation and income. Based on this premises, the study made use of the following; parents' occupation, parents' educational level, household annual income to estimate family SES levels. The level of parents' education measurement was done using 5 - point likert scale: 1 = Primary School, 2 = Secondary School, 3 = High School, 4 = Four year University, 5 = Postgraduate while the Parents occupation was measured using Occupational Prestige Scale (Li, 2005), from which a total of 140 occupations were rated and scores standardize as 0 -100. On this it was observed that higher scores represented parents with higher prestige job which invariably earn more as compared with parents with lower prestige scores thus implying they will earn lower incomes. The annual household income was measured using a 7 – point likert scale; 1 = less than 40,000; 2 = between 40,000 and 80,000; 3 = between 80,000 and 150,000; 4 = between 160,000 and 320,000; 5 = between 320,000 and 640,000; 6 = between 640,000 and 1,280,000; 7 = more than 1,280,000 Naira per year. With income between 1 – 3 likert scale tagged as low, 4 – 5 tagged as Medium and 6 – 7 tagged as

High Income.

**Interest**

The student interest was measured based on adaption from a 27-item Mathematics Interest Inventory used in Wong and Wong (2019) thus resulting in a 5 – point scale, ranging from 1 = not true of me, 2 = slightly not true of me, 3 = slightly true of me, 4

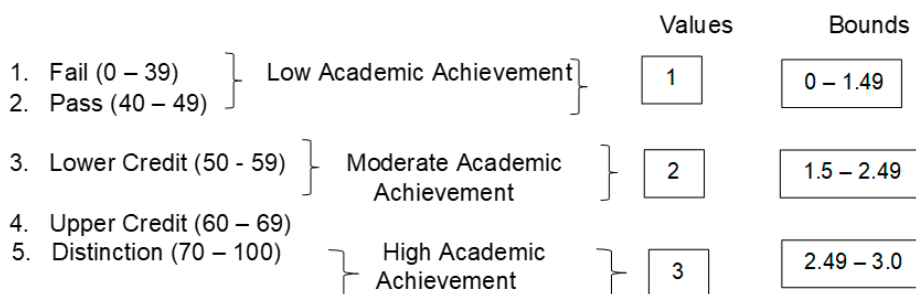
= true of me, 5 = very true of me, which was used for this investigation based on students responses to interest shown in the core subjects of Mathematics and English that were selected for the investigations. This 5 – point scale was further skewed into 3 – point scale namely low interest, moderate interest and high interest.



**Fig. 3.1: Pictorial representation of Student’s Interest Rate**

Based on the pictorial representation above, students with high interest in core subjects (Mathematics, English) are assigned values 3, students with moderate interest are assigned values 2 while students with low interest are assigned values 1 respectively.

Measurement of academic achievements of students in core subjects (Mathematics, English) were carried out using academic records as obtained from the scores of students in their 3rd term promotion examinations. Based on these; a 100% academic scale of scores was adopted such that 70 – 100 % = A (Distinction), 60 – 69% = B (Upper Credit), 50 – 59% (Lower Credit), 40 – 49% = D (Pass), 39 – 0% = F (Fail). This is being graded as below:



**Fig. 3.2: Pictorial representation of Student’s Academic Achievement**

The validity of the instruments was established based on recommendations of five (5) experts; two (2) English language teachers, two (2) Mathematics teachers and one educational psychologist. All experts utilized where randomly selected from schools within the Jos, Plateau State, Nigeria and it was based on their corrections that the Wong and Wong’s (2019) comprising of 27-item interest scale was modified to 20-item interest scale suitable for the current study.

**Data analysis and results**

The data gathered from this investigation was analyzed and results presented using bar charts as represented in Fig. 4.1 and 4.2 with pictorial representations of the varying effects (positive or negative) interest has on students achievement in the schools (3 private and 3 public) in Jos, Plateau State.

The Bar Chart represented in Fig 4.1 reflects summarized sum of scores and interest status amongst six (6) schools; three (3) private and three (3) public in the Jos, Plateau State as it relates to core subjects (Mathematics and English language) offered by students.

The chart shows that interest rates corresponds to academic achievement rates as such students having high interest in the core subjects are found to have high academic achievement rate as compared with students with medium and low interest rates.

The Bar Chat in Fig.4.2, reflects SES status plotted against Summation of Exam Scores of core subjects in the Six Schools. Fig. 4.2 shows a fairly general trend of increasing Interest positively affecting examination scores in core subjects, though a careful observation of public schools shows that a times a moderate SES status could positively influence examination scores of core subjects.



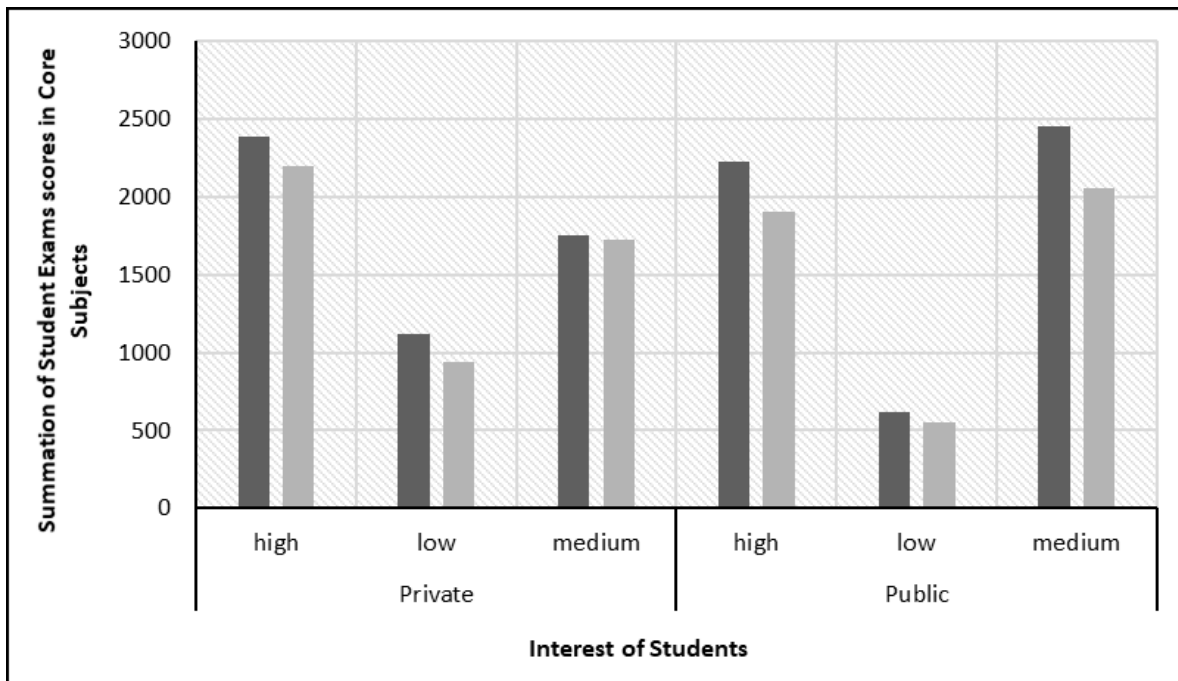


Fig. 4.1: Summarized Sum of Exam Scores, Interest Status of Students in Six Schools

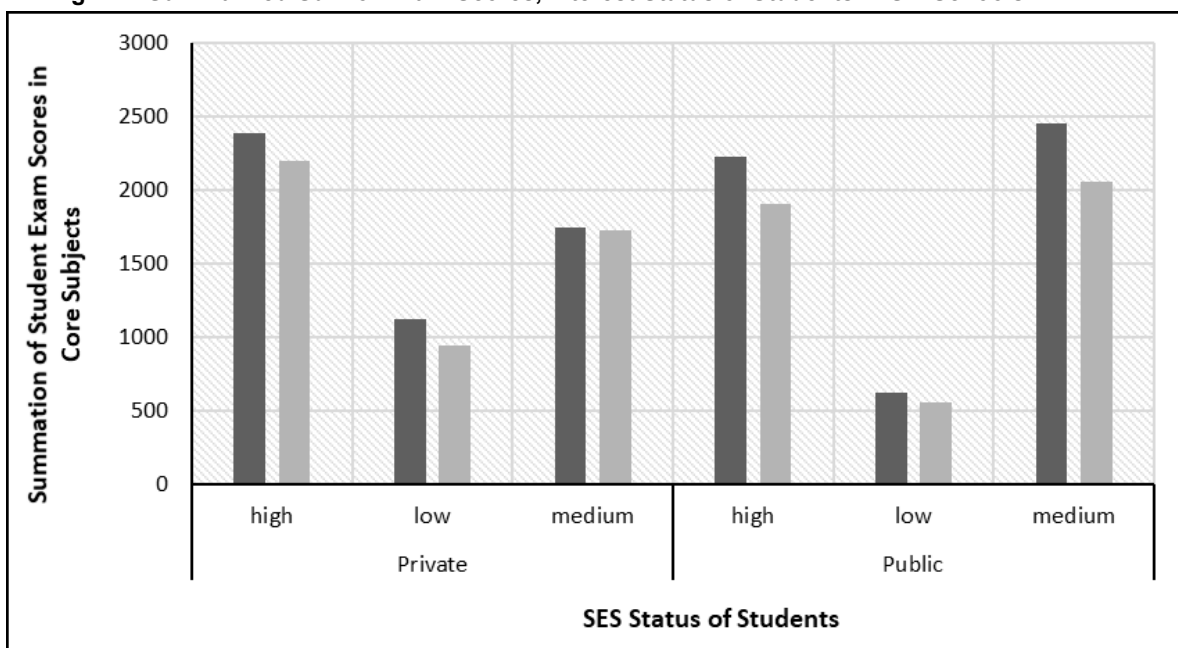


Fig. 4.2: Summarized Sum of Exam Scores, SES Status of Students in Six Schools

**Conclusion**

The results shows that academic achievement is not a function of the school (public and private) that students attend rather it is function of the SES status of students as reflected by the parents wiliness to give his or a ward (children) the best that education can afford based on the resources they have.

Also key from the research is the fact that in as much as SES status of students is essential of particular interest also is the interest each student has on

the subject he is offering. For even with a high SES status, a student might still not perform adequately well if he/she doesn't develop great interest for the core subject offered as showed in the research.

The researcher recommends that parents and teachers can help positively improve academic achievement amongst pupils by spurring or channeling their interest towards certain subjects and also encouraging their interest in activities that they seem to have flares for.

**APPENDIX I**  
**Social Economic Status Questionnaire**

Instructions: This research instrument consists of eighteen items based on the Social Economic Status with particular focus on students in Jos, Plateau State. This questionnaire is divided into two sections namely; Social and Medical History with each of these been tailored at uncovering the Social Economic Status of families and their effect on academic performance of students in Jos. The items stated are followed by various options in which candidate are expected to answer the most appropriate option with the ultimate sincerity. Your choice of option shall be treated with high confidentiality.

**SECTION A**

Name .....

Name of School .....

Class .....

Sex .....

Age .....

**SECTION B**

**SOCIAL HISTORY:**

**Family history and other general information**

1. Age: Parent/guardian: \_\_\_\_\_; Child: \_\_\_\_\_
2. Gender: Parent/guardian: \_\_\_\_\_; Child: \_\_\_\_\_
3. What is your ethnic origin?
  - a. White
  - b. Black
  - c. Oriental/Asian
  - d. Asian Pacific Islander
  - e. Hispanic
  - f. Native American
  - g. Other
4. What is your marital status?
  - a. Never married
  - b. Separated
  - c. Divorced
  - d. Widowed
  - e. Married
5. How many people are currently living in your household, including yourself?  
 \_\_\_\_\_
6. What is the primary language spoken at home?  
 \_\_\_\_\_
7. Please describe the home where you live
  - a. It is owned or being bought by you (or someone in the household) Yes No
  - b. It is rented for money by you (or someone in the household) Yes No
  - c. It is occupied without payment or money or rent Yes No
  - d. I live with friends Yes No
  - e. I live with family Yes No
  - f. I have no permanent residence Yes No
  - g. Other

**Education**

8. What is the highest level of education you have completed?
  - a. 12th grade or less
  - b. High school graduate or GED
  - c. Some college/AA degree/Technical school training
  - d. College graduate (BA or BS)
  - e. Graduate school degree: Master’s or Doctorate degree (MD, PhD, JD)

**Insurance**

9. How do you pay for your health care and medical expenses?
  - a. Government funding (Medicaid, Medicare, etc.) Yes No

- b. Private insurance Yes No
- c. Self-pay, out of pocket Yes No

### Employment

- 10. Are you employed? Yes No
- 11. Who earns income to support your family? \_\_\_\_\_
- 12. How many hours each week do(es) the above person(s) work? \_\_\_\_\_
- 13. What best corresponds to the above person(s) current work situation  
Person: 1 2 3
  - a. Working full time
  - b. Working part time
  - c. Not working and not looking for work
  - d. Unemployed and looking for work
  - e. Disabled or retired and not looking for work
  - f. Currently in school
- 14. Do you have other resources to support your family? Yes No
- 15. If you answered "Yes" to the above question; what resources do you use?
  - a. Food stamps
  - b. WIC
  - c. Child support
  - d. Public assistance for housing/ utilities
  - e. Disability income for adults/child
  - f. Other

### Income

- 16. What is your total combined family income for the past 12 months, before taxes, from all sources, wages, public assistance/benefits, help from relatives, alimony, and so on?  
If you don't know your exact income, please estimate.  
1 = less than 40,000; 2 = between 40,000 and 80,000; 3 = between 80,000 and 150,000; 4 = between 160,000 and 320,000; 5 = between 320,000 and 640,000; 6 = between 640,000 and 1,280,000; 7 = more than 1,280,000 Naira per year.
  - a. Less than N40,000
  - b. N40,000 – N80,000
  - c. N80,000 – N150,000
  - d. N160,000 – N320,000
  - e. N320,000 – N640,000
  - f. N640,000 – N1,280,000
  - g. More than N1,280,000
  - g. Don't know
  - h. Chose not to answer

### MEDICAL HISTORY

- 1. How would you describe your general health?
  - a. Excellent
  - b. Very good
  - c. Good
  - d. Fair
  - e. Poor
- 2. Please indicate whether you have ever had a significant problem with any of the symptoms or conditions listed below.
  - Chest pain or pressure. Yes/ No
  - Chest pain with exertion. Yes/ No
  - Heart Attack. Yes/ No
  - Rapid/Irregular heartbeats. Yes /No
  - Fainting/Lightheadedness. Yes/ No
  - High blood pressure. Yes/No
  - Rheumatic fever. Yes /No
  - Calf pain with exercise. Yes/No
  - Varicose veins. Yes / No
  - Phlebitis. Yes/ No

Stroke. Yes/ No  
High blood cholesterol. Yes /No  
High blood triglycerides. Yes /No  
High blood pressure. Yes/ No  
Diabetes. Yes/ No

**APPENDIX II**  
**Interest Questionnaire**

Instructions: This research instrument consists of eighteen items based on Interest of Students with particular focus on students in Jos, Plateau State. The items stated are followed by various options in which candidate are expected to answer appropriately. Your choice of option shall be treated with high confidentiality.

Interest in core subjects of Mathematics and English language.

**SECTION A**

Name .....  
Name of School .....  
Class .....  
Sex .....  
Age .....

**SECTION B**

Are you interested in joining the following activities? Please put a "☐" next to the items you have strong interest in.

I. Language

- a. Writing stories, play scripts or poems \_\_\_\_\_
- b. Participating in the editorial work of newspaper \_\_\_\_\_
- c. Playing riddles, crosswords, Chinese word games or other word games \_\_\_\_\_
- d. learning another language \_\_\_\_\_
- e. Debating competition \_\_\_\_\_
- f. Contributing articles to newspapers and magazines \_\_\_\_\_

II. Logic/Mathematics and Science

- a. Participating in Mathematics competitions \_\_\_\_\_
- b. Carrying out scientific experiments \_\_\_\_\_
- c. Playing logic and reasoning games \_\_\_\_\_
- d. Collecting information and data to carry out analytical studies \_\_\_\_\_
- e. Joining a chess club or chess competitions \_\_\_\_\_

III. Leadership/Self – recognition/Social and interpersonal relationships

- a. Organizing society \_\_\_\_\_
- b. Joining leadership training activities or programs \_\_\_\_\_
- c. Working with others to organize activities \_\_\_\_\_
- d. Joining activities that are challenging or may help understand yourself \_\_\_\_\_
- e. Joining community activities \_\_\_\_\_

IV. Computer Technology

- a. Writing Computer programs \_\_\_\_\_
- b. Surfing in the Internet to collect information \_\_\_\_\_
- c. Designing pictures with a computer \_\_\_\_\_
- d. Publishing newspapers with the help of computer programmes \_\_\_\_\_
- e. Designing and hosting web sites \_\_\_\_\_

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