

# Examining Socio-Economic Factors Affecting Academic Performance of Secondary School Students in Tanzania

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**Abstract:** *Improving academic performance of secondary school students in Tanzania has been a focus of the government, parents and other key education stakeholders. Efforts have been done to improve school facilities, supply of teachers and development of curriculums. Despite the focus on the mentioned factors, the performance of students especially in community schools is still a problem due to narrow focus of all of the possible factors likely to affect the academic performance of secondary school students. This study using explanatory sequential mixed design, examines the socio-economic factors affecting the performance of secondary school students. The study was conducted in Dodoma involving two secondary schools namely Ipala and Hombolo. A total of 214 participants were used. Data were collected through questionnaires, interviews and documentary review and analysed using multiple linear regression analysis and thematic approaches. It was revealed that, parents' level of education, parents' occupation, presence of studying relatives at home, students' motivation, life hardship, lack of advice and gender impact secondary school student's academic performance. It is recommended that, revealed factors should be addressed by all education stakeholders to attain expected performance.*

**Keywords:** Socio-economic, Performance, Secondary School and Students

## 1. Introduction

Education is a process that enables individual to gain knowledge and skills for self-recognition and equip them to face existing challenges within the environment and regular changes occurring in the political, socio-economic, scientific and technological arenas (Education and Training policy, 2014). The Oxford Advanced Learner's Dictionary 6<sup>th</sup> Edition provides that, education is regarded as a process of teaching, training and learning especially in schools and colleges to improve knowledge and develop skills of the people in a given society. On the other hand, it is regarded as a process in which knowledge, skills, techniques and values are transmitted from one generation to another through informal, semi-formal and formal means. Undeniably, the purpose of education is said to be transfer of knowledge, skills and wider attributes through alternative options for learning depending on the nature of the environment, economic positions and social context of learners. This study focuses on formal education in which learners attend formal prepared classes and sessions to fulfill determined curriculum needs at secondary schools level (Mwageni, 2015).

Formal means of transferring knowledge and skills is considered as a strongest tool for developing academic abilities, shaping cultural attributes, acquiring knowledge, skills and moving a nation towards developing its scientific and technological culture. All of these achievements are realized through formal means of learning. Formal means of learning in this perspective, is regarded as a way of learning in which curriculums are developed and officials trained to implement them in a formal classroom or virtually (Dzever, 2015).

Recently, the use of formal means of transferring knowledge, skills and wider attributes has become a key of education in most countries including Tanzania. A group of learners is brought together and taught various skills, knowledge and wider attributes guided by curricular which has been designed and authorized by the government to be used in particular learning institutions. As learners are brought together and taught by learned teachers, one would expect their academic performance to be high, hence, able to meet set curricula standards. Here is where academic performance for learners comes about in the study (Mwageni, 2015).

Academic performance is considered as a state where a student manages to meet the requirements, standards and conditions set by education authorities (Ali et al., 2009). Performance of students is very important since it determines whether they are doing well or not. Parents, teachers, school administrators and other stakeholders attach their effort to students' academic performance in a sense that, if they are not performing well, then they see all other effort of the students in the school programs as a total waste. Debatably, academic performance defines the totality of learners in their school/learning life.

Again, academic performance is seen as a term used for students based on how well they are doing in their studies. This definition tends to view academic performance as the culmination of all activities of students at school. In most cases, the performance can be measured by Grade Point Average (GPA), or Cumulative Grade Point Average (CGPA) and test results of previous students' examinations (Volwerk and Tindal, 2012; Jain and Bakshi, 2014).

Students' good performance therefore, is the evidence that, they were able to meet all standards and conditions set for them to accomplish certain level of education. The performance is used by all education stakeholders like employers and teachers to inform decisions in regard to particular candidates (Strenze, 2007).

Tanzania specifically, the government has been putting efforts to improve the performance of secondary school students. The recent efforts include; introduction of Secondary Education Development Plan (SEDP) 2004-2009, rehabilitation of school facilities, construction of new schools, development of Education and Training Policy, 2014 and introduction of free secondary education program from 2016 to date (Twaweza East Africa, 2016). The aforesaid effort, targets the improvement of schools infrastructure like classes and learning materials; increasing number of teachers and give opportunity to students to join and attend the secondary schools education free without paying fees (Twaweza East Africa, 2016). The resultant include increased enrolment such as total enrolment in form 1-6 increased by 1.8% from 1,774,383 pupils in 2015 to 1,806,955 pupils in 2016 and 1,908, 857 in 2017 (PORALG, 2016; 2017); increase of number of schools; increase of number of teachers such as number of teachers in secondary schools increased from 73,407 in 2013 to 110,163 in 2017 and improved school attendance among secondary students (PORALG, 2017).

However, the performance of students in many community secondary schools is still a problem that has persisted for the long period of time. Majority of students have been failing in their examinations, despite government effort to improve the learning environment (Chakupewa, 2018). For elaborations, community secondary schools entail schools owned by a local community or an institution on behalf of the community (URT, 1995). These schools are built by people and then handed over to the government to run by supplying them with teaching materials, teaching staff, supporting workers, management and administration. It is estimated that, the average overall performance of students in the community schools in grades between division I-IV is calculated to be at (67.67%) while failure rate is higher to more than (54.79%) as per Komote (2011). Chakupewa (2018) studying persistent students poor performance in selected community secondary schools which are Mambali, Semembela, Mogwa, Bukene and Kili in Nzega district council showed the persistence of poor performance, as statistics showed that, in 2012 four (4) (2.6%) candidates out of 152 got division I-III, the rest got division IV and failure; in 2013 twenty eight (28) (28%) candidates out of 100 got division I-III, the rest got division IV and failure; in 2014 nineteen (19) (29%) candidates out of 65 candidate got division I-III and the rest got division IV and failure; in 2015 forty five (45) (31%) candidates out of 145 candidates got division I-III and the rest got division IV and failure; and in 2016 forty (40) (22%) candidates out of 177 candidates got division I-III and the rest got division IV and failure (Chakupewa, 2018).

Besides, taking Ipala and Hombolo secondary schools as another case, summary of results of form four national examinations from 2015 to 2018 show that, students who scored division one to three ranged between 3% and 31% and 14% and 26% for Ipala and Hombolo respectively (NECTA, 2015-2018). Vividly, with summary report as given in table 1 below, almost 70-86% of the all completed students scored either division four or zero.

**Table 1: Form Four National Examinations Results from 2015 to 2018 for Hombolo and Ipala Secondary Schools**

School	2015	2016	2017	2018
Hombolo SS	DIV-I = 0; DIV-II = 1; DIV-III = 9; DIV-IV = 36; DIV-0 = 44	DIV-I = 0; DIV-II = 0; DIV-III = 4; DIV-IV = 26; DIV-0 = 10	DIV-I = 0; DIV-II = 1; DIV-III = 2; DIV-IV = 35; DIV-0 = 42	DIV-I = 0; DIV-II = 4; DIV-III = 17; DIV-IV = 48; DIV-0 = 19
Ipala SS	DIV-I = 0; DIV-II = 1; DIV-III = 2; DIV-IV = 14; DIV-0 = 8	DIV-I = 0; DIV-II = 6; DIV-III = 5; DIV-IV = 20; DIV-0 = 12	DIV-I = 0; DIV-II = 2; DIV-III = 4; DIV-IV = 15; DIV-0 = 4	DIV-I = 0 ; DIV-II = 3; DIV-III = 2; DIV-IV = 24; DIV-0 = 6

Source: NECTA (2015-2018).

Despite effort done by the government of Tanzania towards improvement of the quality of secondary schools education, the performance is still challenging due to the reason that, effort are put on internal environmental factors like books, laboratories, curriculum etc. while leaving the external environmental factors like social and economic environments of students' family. Arguments in relation to poor academic performance especially in community secondary schools are posed on lack of enough teaching facilities, lack of qualified teachers with experience and poor working and living environment due to low pay (Twaweza East Africa, 2016). Other known factors include; lack of reference books and equipment, poor English language proficiency,

background among teachers and students which is a medium of instruction and lack of teachers' motivation. The aforesaid factors, render to failure to cover syllabi and concentration to studies (Mosh, 2014).

While appreciating the effort done by the governments of Tanzania on secondary education to solve aforementioned challenges, the issue of students' academic performance remains a problem. This is due to what is thought by this study as a narrow focus on the socio-economic factors likely to affect the performance of students in Tanzania. Thus, this study examined whether and how socio-economic status of student's families, the level of parent's occupations and education, home activities, students distance from school and gender affect secondary school students' academic performance.

## **2. Factors Affecting Students' Academic Performance: Empirical Evidence**

Khan and Mushtaq (2012) in their study on the factors affecting the high school student academic performance in Islamabad found that, students' performance is positively affected by the level parent's income. A study added that, high income reduces family stress and allow possible delivery of required education facilities to students that can influence their smooth learning, therefore, results into strong performance compared to the lower income family. While the former study setting was Islamabad, the current study extended the former findings by focusing on Tanzania parents' income and how the said factor affect the students' academic performance.

Komunte (2015) examining socio-cultural factors affecting community secondary schools academic performance in Mvomero district in Tanzania revealed that, level of parents support to the students' academic involvement and parental social economic features affect students' performance. Other related factors as revealed by Ushie et al. (2012) on influence of family structure on students' academic performance in Agege local government area-Lagos, Nigeria include family financial status and parents' occupation. Also, Aikens and Barbarin (2008) on socioeconomic differences in reading trajectories: the contribution of family, neighbourhood and school contexts revealed that, size of the family is likely to affect students' academic performance. However, the former studies did not examine how other factors like students distance from and to schools and gender affect their performance which are focused by the current study.

Ogwen et al. (2014) studying the social cultural factors affecting the student academic performance in KCSE revealed that, parental income had no significance on academic performance in secondary school students. This is against studies of Ushie et al. (2012) and Komunte (2015) who revealed that, parents' occupation had effect on students' academic performance. However, Ogwen et al. (2014) study used the sample of parents who are working in manual works/informal jobs that might be a limiting factor to support the other study findings. The current study extended that of Ogwen et al. (2014) due to its focus on both parents both in informal and formal settings. Again, the current study intended to harmonise findings of the former studies by examining the relationship between parents occupation and students performance.

Abubakar and Usaini (2015) in their study of the impact of parents' occupation on academic performance of secondary school students in Kuala Terengganu, Malaysia found that, there is positive relationship between performance and nature of parent occupation. Furthermore, the study added that, students whose parents had decent employment like lawyers, accountants and teachers were performing better than their counterparts who come from parents with informal occupation. The similar study was done in Nigeria by Odoh et al. (2017) on the influence of parents education and occupation on the performance of accounting students where it was found that, the parents level of education has positive relationship with the students' performance and the parents occupation was significantly influencing student performance in Nigeria. The current study extended aforementioned findings by testing them in Tanzania setting.

Again, Considine and Zappala (2002) studying the factors affecting the student's performance from the disadvantaged area in south Sydney Australia found that, family structure has negative impact on the academic performance of the students especially those from single parent families with low income level. Also, Agyeman, Frimpong and Ganyo (2016) studying performance of the college students found that, the family type has positive impact on the student performance. Mwageni (2015) studying the association between social cultural factors with the pupils academic performance in primary schools in Namtumbo, Tanzania found that, family structure like polygamy, single parent family and negative parent attitude towards education have negative impact to the performance of pupils in primary school. Also, a study posed that, parent's education has positive impact in pupil performance. However, former studies did not pay attention on the aspect of the relationship between gender and students' location from schools effect their performance. Hence, the current study extended their findings in Dodoma.

Moreover, Agyeman, Frimpong and Ganyo (2016) studying the influence of social and cultural factors on the students' academic performance found that, the place of residence have contribution on their performance. This study tried to compare the performance of students who lived in college accommodation and those who lived outside the campus. However, the current study focused on students living outside schools compound and how the distance from and to school affect their performance.

### 3. Study Methodology

#### 3.1 Study Design

This study used explanatory sequential mixed methods design. This is a type of mixed methods design which involves two phases, a researcher collects quantitative data in the first phase, analyses the result and then use the result to plan the second qualitative phase. In this plan, the quantitative result typically inform the type of participants to be purposefully selected for the qualitative phase and the type of questions that will be asked to participants (Creswell, 2014; Tashakkori & Teddlie, 2010). In this fact, at first, the study collected quantitative data through questionnaires to find out socio-economic factors affecting students' academic performance. Again, the significant factors were used to inform researchers to collect qualitative data through interviews and documentary review in order to find out how the revealed factors affected students' academic performance. The design was preferred due to the fact that, it allows two phases of collecting data hence, suiting the study which has two established cases which are factors affecting students' academic performance and how such factors affects their performances. Again it helped researchers to ensure that, all of the factors that were not significant to the study are dropped from the study.

#### 3.2 Study Area

The study was conducted at Ipala and Hombolo secondary schools. Hombolo is a secondary school located at Hombolo ward and Ipala is located at Ipala ward both found in Dodoma region. Both of the schools accommodate day students of which most of them their home are located far from the school. The area for study was preferred due to the continued trend of poor performance in their form four national examinations whereby 70-86% of students who sat for form four examinations between 2015 and 2018 scored division four classification as table 1 revealed in the introduction part.

#### 3.3 Data Collection

The methods applied for data collection are questionnaires, unstructured interviews and documentary review. The questionnaires were used to collect data from secondary school students from both Ipala and Hombolo. A total of 210 students including form two and four classes were given questionnaire tools whereby, for Hombolo secondary school, fifty five (55) form four students were used and fifty (50) form two students were included. For Ipala secondary school, fifty five (55) form four students and fifty (50) form two students were included. The selection of form four and form two students was due to the fact that, they are examination classes, namely the form two national examinations and form four national examinations. Again, unstructured interviews were used to collect data from teachers. In this regard, one (1) head master and one (1) academic master were interviewed for both Ipala and Hombolo. The use of interviews was due to the fact that, they were used as key informers which required collecting opinion and experience from them concerning the study at hand, hence, making a total of 214 respondents.

Moreover, documentary review was used in this study. This method allowed the study to elicit the empirical studies relating to secondary school students performance. The data were collected from the already done researches, Secondary Education Development Plan (2004-2009), reports like form four national examination results and books. The use of more than two methods allowed data triangulation. The table below shows the category of respondents that were included in the study and their gender.

**Table 2: Category of Respondents**

Ipala Secondary School	Category	Number & Gender of Participants			Percentage (%)
		M	F	T	
	Form II students	27	25	52	24.3
	Form IV students	27	26	53	24.7
	Academic teacher	1	-	1	0.5
	Head teacher	1	-	1	0.5
Hombolo Secondary School	Form II students	27	25	52	24.3
	Form IV students	27	26	53	24.7
	Academic Master	1		1	0.5
	Head Master	1		1	0.5
	<b>Total</b>	<b>112</b>	<b>102</b>	<b>214</b>	<b>100</b>

Key: M= Male; F= Female; T= Total

Source: Researchers (2020)

#### 3.4 Data Analysis

Due to the fact that, the study used mixed approach, also during analysis mixed method was applied. On the side of quantitative approach, data were analyzed through Statistical Packages for Social Sciences (SPSS) computer applications version 22.0 by using

multiple regression method. Regression was used to model how one dependent variable behaves depending on the values of a set of other independent variables. This is to say, it helped to find out the influence of socio-economic factors to the performance of secondary school students. Again, qualitative data were analysed through thematic approach. This is a popular approach for analysis qualitative data. It focuses on identifying, analysing and interpreting patterns of meaning within qualitative data (Braun & Clarke, 2006). Steps that were used in analysis of qualitative data were; one, coding and transcription; two, examination and interpretation of the resultant codes into descriptive themes and lastly, the interpretation of themes.

### 3.4.1 Using Multiple Regression

#### Respondents Average Score

210 student's information collected from Hombolo and Ipala secondary schools to examine the significant variable influencing their academic performance. Out of these, 102 (48.6%) were female and 108 (51.4%) were male. Out of 102 females, 68 scored F average score, 30 had D average score and only 4 had C and above score average. Out of 108 males, 66 had F score average, 35 had D score average and only 11 had C and above score average as displayed in table 3

**Table 3: Sex by Average Score**

Table of Sex by Average Score				
Respondent's Gender	Grade of average score			
	F	D	C and above	Total
Female	68	30	4	102
Percent	32.4	14.29	1.9	48.57
Male	66	35	7	108
Percent	31.4	16.67	3.33	51.43
Total	134	65	11	210
Percent	63.8	30.95	5.24	100

Multiple linear regression is the generalization of simple linear regression model. Multiple linear regression analysis allows more than one variable to predict the response variable which must be continuous. The explanatory variables can be continuous and/or categorical variables. The model is given by the equation  $y = \beta_0 + X_1\beta_1 + X_2\beta_2 + \dots + X_p\beta_p + \varepsilon$ , where by  $y$  is the response variable,  $\beta_0$  is the intercept (value of  $y$  when all other betas are zeros),  $\beta_1, \beta_2, \dots, \beta_p$  are regression parameters.  $X_1, X_2, \dots, X_p$  are response variables and  $\varepsilon$  is the random error component reflecting the difference between the observed and fitted linear relationship

### 3.4.2 Multiple linear regression pre-assumptions

Multiple linear regression assumes that:

- The response variable must be continuous. In this study, the response variable was the students' average score which is continuous and therefore, the assumption satisfied.
- Normality. All continuous variables (predictors and response variable) must be normally distributed. In this study only the response variable was continuous (students average score) and all predictors are categorical. For the response variable, normality assumption tested by Kolmogorov-Smirnov and Anderson-Darling test for normality. Kolmogorov-Smirnov test observed to be 0.10360326 which is less than the critical value, significant at 0.01 LOS. Anderson-Darling was 1.69191158 significant at 0.05. Both Kolmogorov-Smirnov test and Anderson-Darling shows that the response variable was normally distribute with mean 27.28725 and standard deviation 8.516627 as shown in table 3.1.

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.10360326	Pr > D	<0.010
Cramer-von Mises	W-Sq	0.27699306	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1.69191158	Pr > A-Sq	
Mean	27.28725			
Standard deviation	8.516627			

**Table 3.1: Goodness of fit tests for normal distribution of response variable**

To visualize, histogram of a response variable also shows that, the response variable was normally distributed.

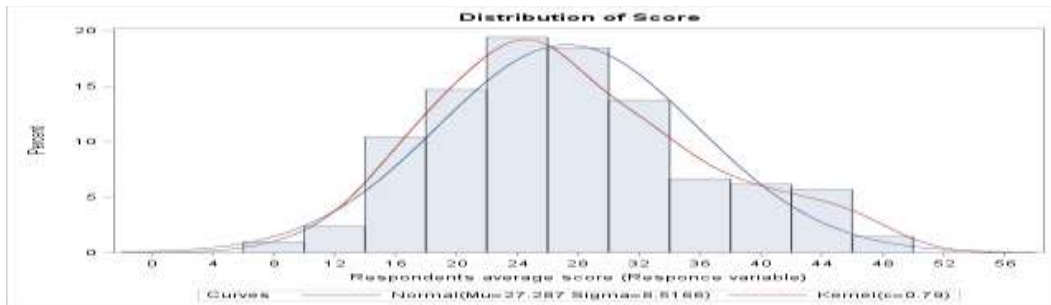


Figure 1.1: Histogram and Kernel for response variable

- iii. There should be no significant outliers for every single continuous variable. The assumption tested by boxplot and observed that, the response variable had no significant outliers.

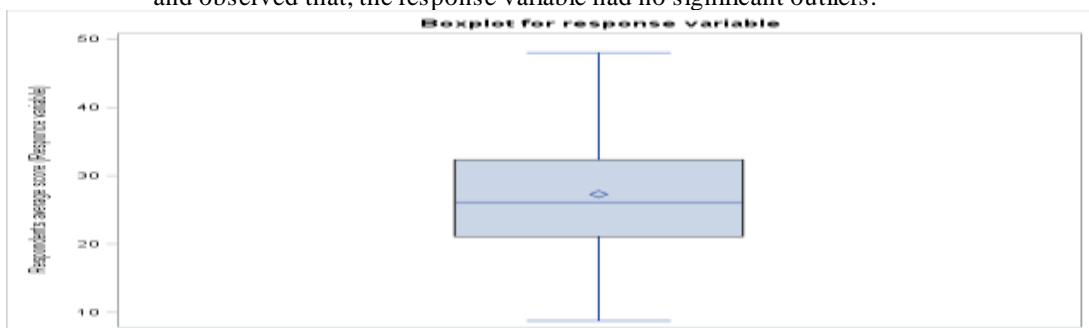


Figure 1.2: Boxplot for response variable (respondent average score)

- iv. Other assumptions, including the assumption on the error term (error term must be normally distributed with mean zero and unknown standard deviation), and multicollinearity tested after model being fitted.

**Variables in the equation**

A total of 12 predictor variables included in the model all were categorical. Gender, Respondent’s parent type of work and Motivation status of respondents were binary. The variable Distance of respondent’s school from home had three levels, Age of a respondent had three levels, Father’s education of a respondent had four levels, Mother’s education of a respondent had four levels and Respondent’s parent type of work had five levels. Respondent’s duties at home had five levels, Respondents motivation method had five levels, Respondents number of studying relatives had four levels and Respondents motivating things to study had four levels. All variable with more than two levels, were coded as dummy variables as shown in table 3.3.

Variable	Number of levels	Levels	Reference group
Respondent's age	3	13-16	13-16
		17-20	
		21-24	
Respondents school distance from home	3	0-2Km	0-2Km
		3-5Km	
		6-8Km	
Respondents father education	4	Informal	
		Primary	
		Secondary	
		Tertiary	Tertiary
Respondents mother education	4	Informal	

		Primary	
		Secondary	
		Tertiary	Tertiary
Respondents parent employment status	2	Employed	Employed
		Unemployed	
Respondents parent type of work	5	Business & fishing	
		Employed	Employed
		Pastoral	
		Peasant & Pastoralist	
		Peasant only	
Respondents duties at home	5	Chores & Farming	
		Domestic chores	Domestic chores
		Farming	
		Grazing	
		Other	
Respondents motivation method	5	Advice on education	Advice on education
		Gift	
		Life hardship	
		Never	
		Other	
Respondents number of studying relatives	4	1-3 Relatives	
		4-7 Relatives	
		More than 7 relatives	
		Non	Non
Respondents motivating things to study	4	Educated relatives	
		Life hardship	Life hardship
		Other	
		Personal goals	
Respondent's Gender	2	Male	Male
		Female	
Respondents motivation status	2	Yes	Yes
		No	

Table 3.3: Predictors level and reference groups.

#### 4. Results and Discussion

##### 4.1 Results of Regression Analysis

Regression analysis was performed to explore the significant variables influencing students' performance. All variables were included in the model. For the variable age, the average performance for students aged 17-20 decreased by a factor of -3.73026 (significant at 5%) compared to students aged 13-16 years. The average performance for students aged 21-24 increased by a factor of 1.15199 compared to students aged 13-16 years, but the variable was not significant and therefore, dropped from the model. For the variable distance, students from 3-5km and 6-8km their average academic performance decreased by a factor of -0.39231 and increased by 1.08436 respectively compared to students from 0-2km. But both variables were not significant and therefore,

dropped from the model. All categories for father's education were not significant. Respondents mothers' education influenced the average performance by factor of 6.66246 (an increase), 2.25640 (an increase) and 3.86679 (an increase) for a student whose mother pursue tertiary, primary and secondary education respectively. Primary and secondary education were not significant and dropped from the model. Parents' employment status had a great influence towards the students' performance. For a student whose father is unemployed the average performance increases by a factor of 5.82878 significant at 5%.

Parent's work of a respondent affected the academic performance by -0.24108, -1.03499, -0.25083 and -4.83140 for business and fishing, pastoralist, peasant and pastoralist, peasant only and parents having other activities compared to students whose parents are formally employed. All categories for father's employment status were not significant and dropped from the model. All categories for domestic works of a student after school hours were not significant. Motivation method used, average performance of students decreased by a factor of -6.34205, -4.01329, -15.14010 and -5.67139 for students motivated by gift, life hardship, never motivated and for other motivations respectively compared to students who received proper advice about education.

Students with 1-3, 4-7 and more than 7 studying relatives, their average academic performance increased by a factor of 5.63055, 1.57742 and 4.52533 respectively. For students with 4-7 relatives, the category was not significant and dropped out. The average pass score for students with no breakfast at home decreased by a factor of -0.78354 compared to students with breakfast at home before school. All motivation methods were not significant. For sex variable, the average score for female students decreased by a factor of -3.40991 (sig. at 10%) compared to male students. Students who were not motivated their performance increased by a factor of 13.49038 compared to motivated students.

### Model selection

To select the best model to explain the students average score, stepwise analysis performed so as to investigate the significant variables influencing the students score. Stepwise model selection is a procedure of model fitting which starts with no predictor in the model. Each predictor variable is evaluated with respect to how much R-square would be increased by adding it to the model. At each step, variables that are already in the model are first evaluated for removal, and if any are eligible for removal, the one whose removal would least low R-square is removed. Variable entered provided that p-value is less than the cut-off value set at 0.05 level of significance. Table 1.5 shows the parameter estimates for significant variables after stepwise multiple regression analysis.

Variable	Parameter estimate	Standard error	F Value	Pr > F	VIF
Intercept	26.29999	2.16131	148.07	<.0001	0
Age (17-20 years)	-3.59534	1.0784	11.12	0.001	1.11426
Father's education (Secondary)	-3.21758	1.91583	2.82	0.0947	1.02364
Mother's education (informal)	4.31441	2.59178	2.77	0.0976	1.09344
Unemployed parents	6.34042	1.96789	10.38	0.0015	1.14288
Parents with other activities	-5.06354	1.10121	21.14	<.0001	1.13771
Motivated student by gift	-5.89067	1.67901	12.31	0.0006	1.09023
Motivated students by life hardship	-3.64121	1.46799	6.15	0.014	1.10313
Motivated students by other things	-4.98801	2.6732	3.48	0.0636	1.04212
Number of studying relatives(1-3)	4.53955	1.1308	16.12	<.0001	1.21877
Number of studying relatives (>7)	3.26822	1.96447	2.77	0.0978	1.19946
Female students	-3.36024	1.08109	9.66	0.0022	1.14647

**Table 1.5: parameter estimates for significant variables**

Students aged 17-20, score decreased by a factor of -3.59534 to 13-16 students. Students whose fathers pursued a secondary certificate, their score decreased by a factor of -3.21758 to tertiary educated fathers. Students whose mothers had informal education, their score increased by a factor of 4.31441 to tertiary mother students. Students with unemployed parents, their score



increased by a factor of 6.34042 to employed parents' students. Students whose parents have other activities, their score decreased by a factor of -5.06354 to students whose parents are employees. Gift motivated students, life hardship motivated students and students motivated with other thing their score decreased by a factor of -5.89067, -5.89067, -3.64121 and -4.98801 to education advised students. Students with 1-3, and more than 7 studying relatives, their score increased by factor of 4.53955 and 3.26822 respectively to students with no studying relatives. The average score for female students decreased by a factor of -3.36024 to male students.

#### 4.2 Qualitative Results and Discussion

This part presents and discusses how the factors that were significant during multiple regression analysis influence/affect the academic performance of students. It deals with data collected from interviews with head teachers whereby two participants one from each school were selected and academic master teachers of which one from each school were selected. For identification purpose, Head Master category, participants were named HM-1 and HM-2 while academic master category, participants were named AM-1 and AM-2. The socio- economic factors affecting the academic performance of students in secondary schools revealed include; parents level of education, parents' occupation, age, number of studying relatives, motivation and gender of students.

##### Parent's Education Influence on Students' Performance

As revealed during multiple regression analysis, parents' occupation affect students' academic performance. Specifically, mothers with higher education level had greater effect on students' performance compared to fathers. Impliedly, mothers with higher level of education are likely to influence students' performance compared to those with low level education. The influence of mother's education on students' performance is due to the fact that, most of the time mothers are close to children. Again, mothers with high education are likely to care and stay focused on students' performance compared to those with low level of education. The influence of parents' level of education factor is also supported by Torso (2006) and Odoh et al. (2017).

During interviews with key informants, mothers follow up was revealed as a reason as to how parents education influence students' performance. One of the participants from head masters' category said;

“..Parents' with higher education put effort and make follow-up to ensure children are studying compared to non- educated.” (HM-1)

Another participant from academic master added;

“..Mothers with higher education advises their children to study, make follow up to their home works and attendance at school. They believe education is a key to success.” (AM-2)

In this regard, emphasis should be made to parents who did not attend tertiary education to make follow up to their children academic performance. Parents with low level of education fail to make follow up to the children performance which might be attributed by the fact that, they have no education experience hence, do not value education for their children. If they will be made aware and change their psychological make-up, they will be making follow up to their children performance hence able to perform well in their studies.

##### Parents' Occupation Influence on Students' Performance

Parents' employment status has great influence towards students' performance as it was revealed in the multiple regression analysis above. This factor is also supported by the interview responses from key informants who revealed that, the reason parents with employment influence students' performance is that, they support their children financially by ensuring required facilities for studying are available. During interview, one of the participants from academic master's category said

“..Employed parents ensure their children have books, exercises, pens, good uniform and sometimes attending tuitions.” (AM-1)

Again another participant from head master's category added;

“..For example, I have children and I make sure that, they have the required needs to perform well in their education. I have to make sure that all of the needs are met.” (HM-2)

The results regarding this factor are supported by Torso (2006); Aikens et al. (2008) and Odoh et al. (2017) who revealed that, parents' occupations had effect on students' performance. Low income affects negatively the students' performance compared to parents with higher income. It is due to the evidence that, having dependable income, allows parents meet all of the financial related needs to their children. This factor is again supported by Khan and Mushtaq (2012) who revealed that, parents' level of income had influence on students' performance.

### **Motivation, Life Hardship and Advice Influence on Students' Performance**

The mentioned above factors had influence on students' academic performance. During interviews it was revealed that, students who were not receiving gifts their performance decreased. Again, life hardship affect students' performance as sometimes students fail to have breakfast at home and those lacking advice on education. One of the participants from academic master category said;

“..Life is hard, some families fail to afford basic needs. A student leaves home without breakfast. Do not expect such a student to perform well.” (AM-1)

Another participant added;

“..Despite the advice we are offering at school, still students lack good advisers outside schools. Some parents are busy with work and others do not have time or do not value education or are ignorant.” (AM-2)

Lack of gifts was also a revealed as a factor affecting students' academic performance. There are students depending on gifts to perform well in their studies. If schools or parents/guardians do not give gifts to students to appreciate their achievements in studies they are likely to perform poorly. Also, if students see their fellows receiving gifts due to their academic performance, they get motivated to perform so that they can also receive gifts next time. Failure to give gifts at home is attributed by poor financial bases and poor knowledge on the contribution of motivation to students' performance. One of the participants from head master's category said;

“the school tries to give gifts to best performers at the end of the term. This motivates others to pull up their effort. I think parents also should be doing so to their children to keep up their performance.” (HM-1).

In this factor, again the issue of parents' income resurfaces as revealed by Odoh et al. (2017). Debatably, parents' failure to give gifts to their children is attributed by the low level of income. Here, awareness should be made to parents on the significance of motivating their children to boost their academic performance.

### **The Effect of Studying Relatives on Students' Performance**

During multiple regression analysis it was observed that, there was great significance for students having relatives who are also studying on their academic performance. The result revealed that, the presence of seven and above studying relatives at home influenced students' academic performance. In this regard, interviews were done to find out how such factor affected/influenced students' performance. During interviews it was revealed that, having large number of studying relatives influence students' performance because of several reasons; one, students make sure that, they are following up studying ways passed by relatives; two, relatives are likely to make follow up to ensure that, everyone in the family is performing well; three; relatives advise each other to ensure that, good performance is maintained among them; and four, it is assumed to be a shame to see fellows studying while others are not in the same family. In the interview with participants from the head master's category said;

“..How shameful it is for one to be lazy in the family while others are working hard in their studies. The presence of relatives influence performance.” (HM-2)

Another participant added;

“..I expect a student receiving advises to perform well compared to those without relatives.” (HM-1)

Another participant from academic master category said;

“..Having many relatives studying in the family creates team work. The studying commitment becomes high.” (AM-2)

Looking at the above responses one would debate that, students with many studying relatives are likely to perform well because they have the role model to look at compared to those without many studying relatives. Despite the fact that, this factor affect students' performance but not all families have many studying relatives at the same time. The stress is made for those families with many studying relatives to ensure that, they are using such opportunity to succeed academically. It can be made possible if studying relatives are conscious of working as a team in their studies.

### **Influence of Gender on Students' Performance**

For gender variable, the average score for female students decreased by a factor of -3.40991 (sig. at 10%) compared to male students as revealed during multiple regression analysis. In this regard, students' gender affect students' academic performance. During interviews, it was revealed that, female gender is affected by several factors including biological, society perceptions and inferiority complex. One of the participants from head master's category revealed that;

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“..Female students’ performance is not convincing. It is attributed by their biological status and society perceptions towards them.” (HM-2)

Another participant from academic master’s category added;

“..Inferiority complex is a challenge. Females think that they cannot handle science.” (AM-2)

This is also supported by Komonte (2011) who revealed that, females are likely to perform poorly at school due to their involvement in performing domestic chores, and societal poor perceptions about them on education. Again, the poor performance can be attributed by their biological make up. This should be a call for the government and other education stakeholders to rethink of the position of females in education and develop possible strategies for empowering it to become good performers in their studies.

## 5. Conclusion

Factors including parents’ level of education, parents’ occupation, presence of studying relatives at home, students’ motivation, life hardship, advice and gender affect secondary students’ academic performance. In this regard, government, parents and other education stakeholders still have role to play based on the revealed factors by ensuring that, they are addressed towards better secondary school students’ academic achievements.

## 6. Recommendations

To improve the academic performance of secondary school students, one, the government should consider including the socio economic factors revealed as part of the major factors affecting the academic performance students, two, parents should be made aware and reminded of their academic role to their children. They should make follow up to their children studies and motivate them to improve performance. Again, parents should make sure that, they are investing to their children by ensuring that all of the studying requirements are given and advised on the significance of studying. Lastly, community efforts are significant towards successful improvement of secondary schools academic performance. At this juncture, community should be educated to ensure favorable environment for students.

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#### ADDITIONAL READINGS

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#### KEY TERMS AND DEFINITIONS

**Academic performance:** It is the measurement of student achievement across various academic subjects. It is measured by using classroom performance, graduation rates and results from standardized examinations. It is measured by using GPA or CGPA.

**CGPA:** It stands for Cumulative Grade Point Average. It measures a student's performance for all of student's courses.

**Community schools:** These are schools built by people/community and then handed over to the government to run by supplying them with teaching materials, teaching staff, workers, management and administration.

**GPA:** It is a short term of Grade Point Average. It is a number that indicates how well or highly one scored in average. GPA is calculated by using the number of grade points a student earns in a given period of time.

**Socio-economic factors:** These are factors concerned or related with the interaction of social and economic spheres of life. In this article, it is used to indicate the combination of social and economic factors affecting the academic performance of secondary school students.