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MULTILEVEL ANALYSIS OF FACTORS ASSOCIATED WITH ACADEMIC ACHIEVEMENT AMONG GRADE EIGHT STUDENTS IN GOZAMIN WOREDA, EAST GOJJAM ZONE, AMHARA REGIONAL STATE: THE ROLE OF INDIVIDUAL AND SCHOOL CHARACTERISTICS

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Abstract:
In this era of globalization and technological revolution, education is considered as a first step for every human activity. It plays a vital role in the development of human capital and is linked with an individual's well-being and opportunities for better living. In Ethiopia rate of enrollment in school has been growing tremendously since 1990's. But the quality of education or student's academic achievement in education is still under questions. Previous studies have never attempted multilevel approach to find student level and school level factors affecting students' academic performance. The main objective of this study was to identify both student level and school level factors affecting student academic performance and to see if there was school variation. Cluster proportional stratified sampling technique was to select sample students. The study has used two level linear regression approaches that enabled us to disaggregate total variation into school level variation and student level variation. The intercept only model showed that school level variance was significant (p=0.000) and 47% of total variation was attributed by schools. The fixed effect model showed that male students performed better than female students. Attitude of students towards learning, high school aspiration, motivation of families to teach, family size of 6-7 and

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class size of 30-40 had positive impact in academic performance. Whereas workload at home was negatively affecting students' academic performance.

Keywords: students' academic performance, multilevel model, Gozamin Woreda

1. Introduction

1.1 Background of the study

In this era of globalization and technological revolution, education is considered as a first step for every human activity. It plays a vital role in the development of human capital and is linked with an individual's well-being and opportunities for better living (Battle & Lewis, 2002). It ensures the acquisition of knowledge and skills that enable individuals to increase their productivity and improve their quality of life. This increase in productivity also leads towards new sources of earning which enhances the economic growth of a country (Saxton, 2000).

The social and economic development of the country is directly linked with students' academic performance. The students' performance (academic achievement) plays an important role in producing the best quality graduates who will become great leader and manpower for the country thus responsible for the country's economic and social development (Ali et.al, 2009).

Ethiopia has recently experienced massive improvement in access to education. Primary school enrolment has increased five-fold since 1994, and there are now more than 14 million children in school compared to five million in 2000. Secondary school enrolment has also shown a modest improvement, with a 3.2% increase in the net enrolment rate between 2005/06 and 2009/10. These are extraordinary achievements in terms of increasing enrolment, but education quality still remains a daunting challenge. Some commentators suggest deteriorations in quality and pupils' progress might be the inevitable corollary of an expanded education system that is more inclusive of pupils from underprivileged members of society. To address the challenges in educational quality, the government has recently devised two major plans – the Education Sector Development Plan (ESDP IV) and the General Education Quality Improvement Program (GEQIP), where the emphasis is on enhancing student achievement through better teaching and learning processes. In particular, GEQIP has focused strongly on improving equity and access so as to reduce current rates of drop-out and improve completion and progression to secondary schooling. The program mainly seeks to increase investment in key inputs, such as textbooks, teacher training and development, and school infrastructure improvements (Young lives, 2012).

Parents are a child's first educator. A child's family and home environment has a strong impact on his/her language and literacy development and educational achievement. This impact is stronger during the child's early years but continues throughout their school years. Many background variables affect the impact of the family and home environment (such as socio-economic status, level of parental education, family size, etc.) but parental attitudes and behavior, especially parents' involvement in home learning activities, can be crucial to children's achievement and can overcome the influences of other factors.

The question of whether schools differ significantly in increasing students' academic achievement is essential in education. Hence, identifying school factors that make schools more effective is crucial. Coleman and his colleagues (1966) were the first who studied the association between school inputs and student achievement using national probability samples of elementary and secondary students. In their pioneering work, Coleman et al. estimated education production functions in order to quantify the association between students' academic performance in standardized tests and school and family input measures. One of the key findings of the Coleman report was that when the socioeconomic background of the students was held fixed, the differences among schools accounted "*for only a small fraction of differences in pupil achievement*" (Coleman et al., 1966, p. 21).

Schools, just like the people within them, have different characteristics. This study attempted to uncover school differences and tie them to students' academic outcomes.

1.2 Statement of the problem

The question of quality education should not be measured only by the number of enrollment and by the school inputs because there are some other factors affecting student's academic performance. In Ethiopia rate of enrollment in school has been growing tremendously since 1990's. But the quality of education or student's academic achievement in education is still under questions. Education has an important role in changing the societies over all activity but this will not be realized unless its quality is assured. Students' good academic achievement enables them to have the desired knowledge, skills and attitude. The government of Ethiopia is taking different measures to ensure quality education. This is sometimes limited to supplying school materials and qualifying school teachers but there are other factors which have potential effect on students' academic performance.

A study based on data taken from 540 grade 4 and 8 students, and 194 teachers in four regions of Ethiopia using frequency distributions reported that Poor family socio-economic background is a major problem that influences quality of education in schools (Academy of science, 2012). A study in Lay Gayint Woreda on Grade 8 students using multiple regression shows that School leadership, library service, job satisfaction of teachers, sex and workload are significant factors affecting students' academic records (Yibeltal, Tewodros and Hailemariam, 2014).

Poor children and those living in rural area show slow progress in education. Similarly, teachers qualification, subject knowledge, motivation of teaching and factors related to households and students circumstances have predictive nature on students' achievement (Young lives, 2012). This was reported from the analysis using percentage and frequency distribution. Elfinesh (2011) reported that teaching materials, class size, qualification of teaching staff, pupil-text books ratio and student teacher ratio were among others used to measure quality of education.

All of the studies in past used single level analyses as their major data analyses methodology. Using single level analyses, we cannot avoid aggregation and disaggregation problems. Thus, to avoid these problems, the present researchers used a 2-level multilevel analysis, using factors at the individual level and school level. Besides, the previous studies did not consider ecological theoretical perspective.. Therefore, this study fills methodological and theoretical gaps which were scant in the previous studies. Identifying factors at the individual and school level provided for intervention and policy development.

In general, studies in the past reported based on either descriptive analyses or less sophisticated models that didn't address school variation in students' academic performance as well. Hence, the present study tried to identify significant factors both on school level and individual level by using more sophisticated model called multilevel regression in Gozamin woreda, East Gojjam Zone.

1.3 Objective of the study

A. General objective

The main objective of this study was to analyze factors associated with students' academic achievement based on primary school leaving certificate result.

B. Specific objectives are:

i. To examine to what extent individual demographic variables were related to students' academic achievement.

ii. To investigate to what extent substantial individual variables were related to students' academic achievement above and beyond individual demographic variables.
iii. To examine to what extent school level variables are related to students' academic achievement after individual level variables are adjusted.
iv. To examine how academic achievement varies among the study variables.

1.4. Significance of the study

This study had an important significance in pointing out important factors that were affecting students' academic performance. It was used to take measures to ensure quality education. The findings were useful for policy makers and program coordinators to adjust the existing situation. Especially, educational experts in East Gojjam zone in general and Gozamin woreda in particular can use this study as an input to provide better situations in the teaching learning process. Moreover, this study gives further insights for researchers who are interested in this area.

1.5. Operational definition of important terms

Individual level variables are demographic variables and/or personal characteristics or attributes that may predict students' achievement among grade 8 students. Individual-level variables occur within the students.
School Level variables which are external to the individual student, yet likely have a direct influence on the students' academic achievement.
Academic Achievement in this study is the students' grade eight primary school leaving examination result.

2. Research methodology

2.1 Research methodological approach

Although considerations surrounding convenience, timing and cost may influence the decision regarding the choice of methodology, a quantitative research was deemed appropriate, primarily because of the descriptive nature of the study. According to Polit and Hungler (1992), quantitative research involves the systematic collection of information under considerable control, and analyzing that information using statistical techniques. The quantitative methodological approach was employed in the present study because it enables the researcher to systematically analyze large amounts of information that will be gathered with the scales and questionnaires.

2.2 Research design

The design according to Coolican (2004) is the overall structure and strategy of the research study. The design of the present study was correlational and cross-sectional. This design was employed where data were gathered once-off by means of self-report questionnaires and scales. Sutton and French (2004) argue that cross-sectional studies can be more informative in terms of causal relationship when one of the variables of interest has fixed values (the value of the variable does not change over time, e.g., sex).

2.3 Study population and sampling procedures

2.3.1 Study site

The population of this study constituted grade eight students among Gozamin Woreda schools. There is about 30 second cycle primary schools in Gozamen Woreda from which data were collected.

2.3.2 Sampling technique

The present study employed a proportionate cluster sampling method. First cluster of schools were formed. Following this, 18 representative sample of schools were selected randomly using simple random sampling technique especially using lottery method. After obtaining a random sample of schools, a representative sample of sections was randomly selected using lottery method from each school. Finally, among randomly selected sections, students were selected using simple random sampling technique especially employing a random number table method to get the required sample size. Both boys and girls were selected proportionally.

2.3.3 Sample size

To determine the sample size for this study, a single population proportion formula was employed (Naing, Winn &Rusli, 2006).

$$n = \frac{Z^2{}_{\alpha/2} s^2}{d^2}$$

Where, n is sample size, s^2 is sample variance determined by pilot survey, variance=202.1, d is margin of error=2%, $\alpha = 0.05$. Substituting all these in the formula n= 194.1. We took design effect=2 in which 2*194.1=388.2. Adding 20% allowance (77.6), Total sample students=466

2.4 Variables

2.4.1 Explanatory (predictor) variables

Explanatory variables are of two types. These are student level and school level.

1. Student level explanatory variables include Gender of a student, age of a student, distance from school, family economic status, high school aspiration, attitude towards learning, existence of somebody succeeded in education from family, motivation of families to teach, household size, workload at home, and
2. School level explanatory variables include perceived job satisfaction of teachers; school inputs such as (laboratory based teaching, availability of chalk, tables, chairs, and black boards), class size, gender of school directors.

2.4.2 Criterion (outcome) variable

The criterion (outcome) variable was the result of students from primary school leaving exam or academic achievement in 2015/2016 academic year.

2.5 Pilot study

Prior to the main study, a pilot study was conducted using 40 grade eight students in the study area who were not included in the main study. These students were characteristically similar to the participants in the main study. Pilot test of instruments was intended to improve the precision, reliability, and cross-cultural validity of data. Following the analysis of the pilot study data, ambiguous or unclear items were rephrased.

2.6 Data analysis methodology

2.6.1 Data screening

Before performing the main data analyses, the data were screened for missing or invalid data, outliers, and other assumptions for both univariate and multivariable analyses (i.e., normality, linearity, and homoscedasticity) with frequencies, and scatter plots. Frequency distributions, skewness and kurtosis of the data, and normal probability plots were inspected to examine normality of variables. In order to examine linearity, bivariate correlation analysis and scatter plot matrix were utilized. Finally, the tests of homoscedasticity assumption were performed for criterion variable with the examinations of box plots and Levene's tests (Tabachnick & Fidell, 2007).

2.6.2 Multilevel modeling

Society is arranged in a hierarchy, with individuals or other lower-level units being nested in higher level units. For instance, individual students are nested within schools that are nested within districts and so on. Traditionally, Hox (2010) contended that information from one level may be analyzed at another level through aggregation or disaggregation.

Multilevel methods address these concerns by allowing data to be analyzed at its natural level, recognizing that the lower level units are nested in higher level. Most regression methods assume that all cases are independent, but the nested and hierarchical nature of society means that this assumption is likely to be violated. When violated, standard errors are artificially small and type I error may occur (Hox, 2010).

In hierarchical methods, we must recognize that part of the variance is due to Level 1 factors and part of the variance is due to Level 2 factors (Raudenbush & Bryk, 2002). This different variance can be analyzed apart using the intraclass correlation coefficient (ICC), which identifies the proportion of total variance that is between Level 2 units. All data analyses were performed with STATA version 13 (Raudenbush & Bryk, 2002). All analyses were done by utilizing an alpha level of 0.05.

In two Hierarchical Linear Modeling (HLM), level-1 intercepts and coefficients were the outcomes in the level-2 model; consequently, student outcomes were predicted not only by level-1 predictors but also level -2 predictor variables. Since the response or outcome variable is a continuous, we employed multilevel linear regression.

Let X is student level explanatory variables and Z is school level explanatory variables. Then even though there are 3 multilevel models: intercept only model, fixed effect model and random coefficient model, we used only the first two.

A. Intercept only model

This is also called null or base line model. It contains only intercept and corresponding error terms. It is used to decompose the total variation into school level and student level and to identify if school variation is significant or not.

At the lowest (student level) we have:

$$Y_{ij} = \beta_{oj} + \varepsilon_{ij}$$

And at the second (school) level, we have:$\beta_{oj} = \gamma_{00} + {}_{u0j}$

Hence $Y_{ij} = \gamma_{00} + {}_{u0j} + \varepsilon_{ij}$

whereε_{ij} *is residual at student level and* ${}_{u0j}$ *is residual at school level.*

B. Fixed effects model

Slopes are assumed not to vary across groups (schools). That is the effect of student level explanatory variables is fixed across schools. Intercepts vary across schools but slopes are the same. The model for univariate case is given by:

At the lowest (student level) $Y_{ij} = \beta_{0j} + \beta_{1j}X_{ij} + \varepsilon_{ij}$

And at the second (school) level $\beta_{0j} = \gamma_{00} + \gamma_{01}Z_j + \cup_{0j}$ *and* $\beta_{1j} = \gamma_{10} + \gamma_{11}Z_j$

Hence $Y_{ij} = \gamma_{00} + \gamma_{10}X_{ij} + \gamma_{01}Z_j + \gamma_{11}Z_jX_{ij} + \cup_{0j} + \varepsilon_{ij}$, $i = 1,2, \ldots N_i \;\; j = 1,2, \ldots J$ 1.1

Where Y_{ij} result of ith student in jth school, J is number of groups. N_iNumber of individuals in each group.μ_{oj}=the error at level two, E_{ij}=the error at level one, X_{ij} is the explanatory variable at ith student level and jth school, Z_j is the explanatory variables at school level.

3. Result section

3.1 Descriptive analysis

Table 1: Students' achievement that shows the maximum and the minimum values

	N	Minimum	Maximum	Mean	Std. deviation
Student average result	443	36	86	58.54	9.35

The total number of students who responded were 443. The maximum academic achievement was 86 and the minimum was 36. The mean academic achievement of students was 58.54. The standard deviation was 9.35 which show high variability among students' results.

As the descriptive analysis indicates that, 123 (27.8%) of students reported that they reside far from the school, 243 (54.9%) of them reported the distance from their home to school is medium and 77 (17.4%) of students responded that they reside near to school.

Regarding family socio-economic status based on community contexts, 39 (8.8%) students reported that they came from poor families, 346 (78.1) reported that they came from medium family socioeconomic status, and the remaining 58 (13.1%) students responded they came from rich family socioeconomic status.

In relation to any one successful in schooling, 233 (52.6%) students revealed that no one is academically successful in their family; whereas 210 (47.4%) reported that there was someone who was academically successful in their family. Regarding family size, 55 (12.4%) reported that their family size was 4-5, 152 (34.3%) reported that their

family size was 2-3, 167(37.7%) reported that their family size was 6-7 and 69 (15.6%) reported their family size was above 7.

3.2 Unconditional model/ the intercept only model

Data analysis began by fitting the following null or unconditional model:

$Y_{ij} = \gamma_{00} + u_{0j} + e_{ij}$, where Y_{ij} is the achievement observed for the i^{th} student nested in the j^{th} school. γ_{00} is the grand mean, u_{0j} represents the variability between schools in terms of students' mean achievement, and e_{ij} represents the variability in the achievement of students nested in the j^{th} school. In this study, we verified whether the variance components which represent the variation between schools mean ($\sigma_\mu{}^2$) was significantly different from zero. However, if this was not significant, there would be no point in analyzing the data at multilevel level.

Table 2: Results from unconditional model

Fixed effect	**Coefficient**	**Std. error**	**p-value**	**{95% c. interval}**
Average school mean for academic achievement	58.51	1.55	0.000	[55.47, 61.56]
Random effect	Variance component	χ^2	p-value	
Variance between schools	41.55	223.49	.000	
Variance within schools (level -1 effect)	46.41			

The table above shows the results obtained after fitting the model to the data in the present study. It can be observed that the estimated mean achievement (58.51) is different from zero (p = .000). However, the most notable result is the existence of statistically significant variation in average academic achievement levels of students among schools ($\sigma_\mu{}^2$ = 41.55. p=.000) and their achievement levels within schools ($\sigma_e{}^2$ = 46.41). In this regard from the analysis, with 95% of confidence, the mean result/ achievement of students was expected to fall within the interval [55.47, 61.56]. The intraclass correlation, which represents the proportion of variance in academic achievement between schools, was 0 .47. This indicates that 47% of the variability in academic achievement is due to differences between schools.

3.3 Conditional/ Fixed effect model

Table 2: Effects of students' demographic variables on academic achievement

Fixed effect	**Coefficient**	**p**	
Gender:	-1.85	.005*	

female			
age	-.059	.431	
Random effects	Variance components	$\chi 2$	p
Variance between schools	41.05	223	.000
Variance within schools (level -1 effect)	45.59		

In the conditional model, there was a negative significant association between student gender and mean academic achievement of students. In this respect, female students scored less likely than male students as the coefficient indicates (-1.85, p< .005, Male = 1 and Female = 0). In the same model, age did not significantly predict academic achievement. The within school variance component for this model was 45.59. The reduction from the unconditional model where the variance in the unconditional model was 46.41 which indicates approximately 1.78% of the true within school variance in academic achievement was explained by gender and age.

Table 3: The effects of student characteristics on academic achievement

Fixed effects	Coefficient	p	
Gender: **Female**	-1.86	.005*	
Age	-.06	.430	
Attitude towards learning	.23	.003*	
High school aspiration	.29	.032*	
Random effects	Variance components	χ^2	p
Variance between schools	40.82	219	.000
Variance within schools (level -1 effect)	44.56		

In the next model, attitude towards learning and high school aspiration were entered; after controlling students' demographic variables, there was a positive significant association between attitude towards learning and academic achievement of students. This shows a unit increase in attitude towards learning increases students' academic achievement. Similarly, there was a positive significant association between high school aspiration and academic achievement. The result indicates a unit increase in students' high school aspiration increases the average academic achievement. Gender of students remained significant in predicting average academic achievement after interest to learn and high school aspiration were added to the model. The within school variance component for this model was 44.56. The reduction from the conditional model 2 where the variance was 45.59 which indicates approximately 2.6%

of the true within school variance in academic achievement was explained by attitude towards learning and high school aspiration.

Table 4: The effects of student related variables on academic achievement

Fixed effects	**Coefficient**	**P**	
Gender: female	-1.81	.007*	
age	-.057	.449	
Attitude towards learning	.024	.575	
High school aspiration	.28	.042*	
workload	-.67	.000*	
Distance from school: far	-.04	.958	
Near to school	.58	.526	
Random effects	Variance components	χ^2	p
Variance between schools	40.87	219.22	.000
Variance within schools (level -1 effect)	44.02		

When workload and distance between their home and school were entered, there was a negative significant relation between workload and average academic achievement. This implies a unit increase in workload decreases students' academic achievement. Distance between their home and school did not significantly predict the average students' academic achievement. On the other hand, high school aspiration which was significant in the previous model found to predict academic achievement significantly (.267, p< .042). Similarly, gender continued significantly to predict academic achievement.

Table 5: Effects of family related variables on academic achievement

Fixed effects	**Coefficients**	**P**	
Gender: female	-1.59	.002*	
age	-.05	.500	
Attitude towards learning	.02	.661	
High school aspiration	.23	.824	
workload	-.76	.004*	
Distance from school: far	-.11	.888	
Near to school	.66	.474	
Motivation of family to teach	.34	.002*	
Family SES:			

poor	.11	.931	
rich	-.91	.365	
Anyone successful in the family: yes	-.45	.529	
Family size: 2-3	1.05	.329	
6-7	1.34	.084	
Above 7	.37	.725	
Random effects	Variance components	χ^2	p
Variance between schools	39.63	199.86	.000*
Variance within schools (level -1 effect)	43.92		

When motivation of family to teach, family socio-economic status, anyone successful in the family and family size were added, family's motivation to teach positively and significantly predicted average academic achievement of students. The result shows as level of motivation of family to teach their kids increases, students' academic achievement also increases. However, family size categories did not significantly predict average academic achievement except family size in the category 6-7 marginally predicted academic achievement. Gender and workload still significantly predicted the average academic achievement.

Table 6: Effects of school level variables on academic achievement

Fixed effects	**Coefficient**	**p**	
Gender: female	-1.50	.028*	
age	-.056	.448	
Attitude towards learning	.030	.463	
High school aspiration	.12	.907	
Workload	-.096	.040*	
Distance from school: far	-.25	.751	
near to school	.61	.67	
Motivation of family to teach	.708	.000*	
Family SES: poor	.043	.972	
rich	-.97	.329	
Anyone successful in the family: yes	-.18	.796	
Family size: 2-3	.73	.498	
6-7	1.31	.011*	

Above 7	.24	.816	
School inputs	1.97	.002	
Class size: 30-40	6.82	.04*	
40-50	-.19	.931	
50-60	5.32	.388	
Perceived job satisfaction	.001	.965	
Gender of school directors: female	3.26	.215	
Random effects	Variance components		p
Variance between schools	31.07	159.73	.000
Variance within schools (level -1 effect)	43.78		

In the next model, (full model), when school level variables were entered, school inputs significantly predicted students' academic achievement. The result shows an increase in school inputs enhances students' performance. Besides, class size significantly predicted students' average academic achievement. Students in the class size category 30-40 scored higher in their average academic achievement than the rest of the categories. However, perceived teacher's job satisfaction, gender of school directors did not significantly predict average academic achievement of students. In this model, gender continued to predict average academic achievement. On the other hand, workload, family's interest to teach which were not significant in the previous model, significantly predicted the average academic achievement of students.

4. Discussion and conclusions

The study used multilevel approach to determine the individual and school factors which predict 8th grade students' academic achievement among Gozamine Woreda schools. The findings indicated that there exists a statistically significant difference between school means. This was strengthened by the unconditional model which showed variation in academic achievement between schools. The intraclass correlation which showed the amount of variance in academic achievement that is accounted for by between schools was 47%. This result opens the door for further analyses to explain those differences. It was found in model one that boys scored more likely than girls in academic achievement. This result is not strange since there were studies in the past which strengthened the finding of this study. For instance, Oluwagbhunmi (2014) confirmed that male students performed better than female students and the result was statistically significant. The within school variance component for this model was 45.59. In the analysis, we observed a reduction from the unconditional model in which

1.78% of the true within variance in academic achievement was explained by gender and age.

The other source of variability, which had been investigated in this study, was the differences between students at the same school that were related to have a meaningful prediction power for academic achievement. That is, in the 2nd model, after controlling the effects of the students' demographic variables, attitude towards learning and high school aspiration significantly predicted average academic achievement. The result is in line with previous studies. For instance, Erdogan, Bayram, &Deniz (2008) suggest that there is a close relationship between students' attitudes towards academic subject and their overall achievement. Attitude towards learning has a remarkable effect on students' academic performance. The amount of variance in average academic achievement that is accounted for by attitude towards learning and high school aspiration is 2.6%. This implies that academic achievement varies between students in the same school.

In the model that includes workload and distance from school, workload adversely affected students' academic performance. This was the case in this study. Commonsense dictates us that if students are engaged in other activities like household chores, they could not perform academic activities as desired. Yonas (2012) in his study confirmed that if a student has high household work responsibilities in addition to his/her education or studying time, then the low he/she performs their education. These might have a considerable negative impact on their studying time, and then limit their academic performance.

The other source of variability was observed when family related factors were added in the model, motivation of family to teach positively predicted students' average academic performance. Family size in the category 6-7 marginally affected student's academic achievement. In this model, the role of family's interest to teach their students goes in line with other previous studies. Douglas (1984, as cited in Ugwuja, 2010) established a positive correlation between children's academic achievement and parents' motivation. The author laid considerable emphasis upon parental interest as a factor governing children's chances of being awarded grammar school admissions. For the author, the simple most important factor that influences educational attainment of children appears to be the degree of parents' interest in their children's education. In this model, there was an evidence of between students variability 43.92 which showed a decrease in the previous model. The amount of variation in average academic achievement that was accounted for by family related factors was 2.2%. This variation in fact shows very small variability within school

means when family factors were added. I suggest further research would be conducted in order to consolidate the findings in this study or refute the findings of this study.

In the analysis, when school level variables were entered, school inputs significantly predicted students' academic achievement. The result shows an increase in school inputs enhances students' performance. Besides, class size significantly predicted students' average academic achievement. Students in the class size category 30-40 scored higher in their average academic achievement than the rest of the categories. This result is expected as the role of school inputs were clearly indicated in the previous studies which were in line with the findings of the current study. Juma (2011) in his study links performance in examinations to state of teaching and learning resources in schools. He noted that students from poor backgrounds perform poorly in the examinations because the poor are often in areas where schools are seriously deprived of vital facilities, an attitude of helplessness may be inculcated early into children making them feel that being in school is a waste of time. Hence, school facilities do have great role in influencing students' performance.

5. Recommendations

The following recommendations were forwarded based on the findings of this study.

- Parents, teachers, school communities and educational experts should work by focusing the gender equity. Specially, parents take great share in ensuring gender equality among their kids.
- Teachers, parents focus on how to motivate children towards schooling and this in turn enhances student's interest to learn and achieve good grades.
- Family's motivation to teach their kids had positive impact on student's performance. Hence, family members should consolidate this behavior as the finding in this study supports.
- There should be an intervention to decrease children's household workload. Educational experts, teachers and other stakeholders prepare training for parents about the influence of household activities on children's academic performance as workload decreases the children's study time.
- Woreda, Zonal and Regional educational experts should work in fulfilling school facilities. These facilities should be distributed equally to all schools.
- Finally, other researchers are recommended to conduct research in this area using multilevel perspective.

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