



## Primary School Types, Gender and Examination Performance in Maswa District

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### Abstract

*Students' examinations performance is a great challenge as far as quality education is concerned. The study on the implications of primary school categories and gender on pupils' examination performance was conducted in Maswa district because is one the districts in Tanzania where pupils were doing badly in standard seven examinations. Specifically, the study compared pupils mean score in terminal and annual examinations, and examined pupils' academic performance by school type and gender. The study involved 138 respondents who were randomly selected from four primary schools. Data from respondent were collected through structured interviews and focus group discussions. Collected data were processed and analysed using SPSS version 16 computing descriptive statistics get distributions (frequencies and percentages), means and standard deviations. Correlation analysis was also done to capture relationship between distance to schools and pupils' examination performance. The study observed significant difference in performance between female and male pupils in examination performance and a positive relationship between pupils' examination performance and type of school. The study therefore, recommends that school girls should be given ample time to revise what they learn at school and community members should find means of constructing school dormitories for pupils, since boarding pupils seem to academically perform better than day school pupils.*

**Keywords:** School types, gender, examination performance



## 1.0 Introduction

In recent days, in the world, education performance experienced great challenges. While pupils in some countries perform better in others do worse (Laddunuri, 2012; Sumra and Katabaro, 2014). The Organization for Economic Co-operation and Development (OECD) Program for International Student Assessment (PISA) announced the results of the survey of education performance in 2010 (URT, 2014c). The survey was taken from over 70 of the most developed countries in the world and surveyed half of 0.5million 15-year-old pupils. The survey consisted of reading literacy, mathematics and science sections. OECD tests pupils for their preparedness for future challenges and ability to analyse, reason and communicate effectively. Hong-Kong, China, Korea and Finland were in the top 3 in reading literacy. The next rankings for reading were: Singapore, Canada, New Zealand, Japan, Australia and Netherlands. Girls read better than boys in every country, by an average of 39 points, the equivalent to one year of schooling. It was further revealed that pupils do well regardless of their socio-economic background. High performing school systems tend to prioritize teacher with high pay over small class sizes. Schools with good discipline and better student-teacher relationships do better and the percentage of students who "read for pleasure" dropped from 69% in 2000 to 64% in 2009 (Kasia, 2010; Laddunuri, 2012; Hakielimu, 2012). Relatively, performance of South African schools for instances, indicating that some 80% of schools were highly ineffective, produced only 15% of higher grade (HG) passes in mathematics in the Senior Certificate (SC) examinations, compared with 66% produced by only 7% of the country's top performing schools (Moloi and Strauss, 2005; Howie *et al*, 2007).

The results in various studies vary between countries, Southern Saharan countries including Tanzania were observed to perform poorly compared to the rest of Africa (Summra and Katabaro, 2014). In Tanzania, statistics show that, there is a decline in performance among primary schools as recorded at 70.5% in 2006, 54.2% in 2007, 52.7% in 2008 and 49.4% in 2009 (The Guardian, October 31, 2012; URT, 2014a; URT, 2014b; URT, 2014c). Data in Table 1 also show that primary school pupils have been generally performing poorly in their standard seven national examinations over the last one decade.



**Table 1: Pass rate in standard seven examinations 2004-2013**

Year	% Passed standard seven examinations
2004	47.7
2005	61.8
2006	70.5
2007	54.2
2008	52.7
2009	49.4
2010	53.5
2011	58.3
2012	30.7
2013	50.7

**Source:** URT (2014a) and URT (2014c)

There is also disparity between geographical regions. Dar es Salaam region, for example, had the highest pass rate (69.8%) while Shinyanga region had the lowest (31.9%) in 2006. National performance has also been observed to vary between males (55.6%) and females (43.2%) (URT, 2008; URT, 2014b). This disparity exists to some degree in every region. The problem results into increase of illiteracy rate. Literacy rate in Tanzania in 1970s used to be 85% but had dropped to 69% by 2009, which means that only 15% of adults in the country could not read, write and count during the 1970s while in 2009 the percentage had risen to 31% (URT, 2008; URT, 2014a). This shows that the problem is increasing with time, and as a result the whole society suffers from poverty, ignorance as well as health problems while women and children suffer the most.

Poor performance among primary seven leavers remains a major challenge in Maswa District educational sector. An average of 64.1% of standard seven leavers in Maswa District has been reported to have failed in final examination every year between 2002 and 2011 (URT, 2008). In spite of strategies taken by the government to ensure high education performance among pupils, the performance continues to decline as time goes on. Examination performance among pupils is expected to be improved by the use of different potentials, opportunities and scarce resources it has, but still students yearly fail in their final examinations.

Examination results for 2009 show that, level of performance in Maswa district dropped up to 31.5% compared to 72.5% in 2006. Nationally, pupils' performance in standard seven examinations has dropped from 70.5% in 2006 to 49.4% in 2009 while the average performance rate of Maswa District is about 35.9% (URT, 2008; URT (2014a; URT, 2014c). These statistics show that there is a serious examination performance problem in Tanzania in general and in Maswa District in particular, despite ongoing initiatives and interventions to implement the Primary Education Development Programme (PEDP) in the



country. The problem affects not only the education sector but also social, technological, economic and political aspects of life. Children are the most affected by the problem because severity of illiteracy rate for long time may greatly cause lack of knowledge and skills of a community necessary to function as a literate and numerate member of the broader society. The reasons for this situation are numerous and clear as teacher's commitment found to be the main source of the problem. To contribute this discussion, this study, therefore, intended to examine the implications of primary school categories and gender on pupils' examination performance. The specific objectives of the study were to compare pupils mean score in terminal and annual examinations, and examine pupils' academic performance by school type and gender.

## 2.0 Methodology

The study was conducted in Maswa district, due to poor pupil's examination performance of the district in comparison to other Districts in the Region. Maswa district is located in the remote area where most of teachers and other employees do not prefer to work in the area due presence of unpleasant working environment. Cross-sectional research design was used because the study involved collection of data from different respondents at one point in time and compare them.

Both primary and secondary data were collected. Primary data were collected from pupils, teachers and education officers because are the ones who are affected and well understand the problem. *Structured interviews were applied in collecting primary data from teachers, pupils and selected educational officers whereby questionnaire was designed and utilized as a main tool for primary data collection.* Maswa district consists of 119 primary schools of which, 4 primary schools were purposively selected for the study:2 with good performance which are Dekapoli (private boarding school) and Binza (day public School) and the rest 2 are Buyubi and Mwabuki both being public day primary schools had poor performance in national examinations. Because all schools came from the same environment, thus, it was expected to get the same responses. The sampling frame from the four selected schools was 1251 standard four, five, six and seven pupils and 64 teachers.

The sample size was computed using Yamane's (1967) formula which is  $n=N / [1+N (\epsilon)^2]$  where n=sample size estimate= 140 N=sampling frame=study population. 1= constant and  $\epsilon$ = error of the prediction=10%.  $n=1251 / [1+1251 (0.1)^2] = 92$  pupils.  $n= 64 / [1+64 (0.1)^2] = 39$  Teachers. Key informants were 7 in total, 4 of them being head teachers, one educational officer and two (2) Ward education coordinators.



The study involved the application of the probability sampling techniques that involved Simple Random Sampling (SRS). The lottery method was employed to obtain both teachers and pupils by tossing pieces of papers and drawn them at random whereby each member was given equal chance of being selected. The study also involved non-probability sampling techniques (purposive sampling) to select key informants and the four two primary schools. Collected primary data using questionnaire were edited, coded, entered in SPSS spread sheet, cleaned and verified prior to analysis. Processed data were analysed by using Statistical Package for Social Sciences (SPSS16) software through computing descriptive and inferential statistics, and by running correlation to capture relationship of variables and comparing them as well.

### 3.0 Results and Discussion

#### 3.1 Distribution of respondents

There were different respondent categories involved in the study, of which most of them were pupils who accounted for a large proportion of the sample of about 67 % , while teachers were about 28%, head teachers/academic masters accounted for 3%, ward educational officers accounted for 1% while district educational officer was about 1% only as shown in Table 2.

**Table 2: Respondents category**

Category	Frequency	Percent
Pupils	92	67
Teachers	39	28
District educational officer	1	1
Ward education coordinator	2	1
Head teacher	4	3
<b>Total</b>	<b>138</b>	<b>100.0</b>

#### 3.2 Comparison of pupils' examination performance

##### 3.2.3 Terminal and annual examinations performance

In order to study the relationship between annual and terminal examination performance, means between the two variables were compared by the use of paired samples t-test, with the null hypothesis that average annual examination performance was the same as that of terminal examination performance (in %) respectively against alternative hypothesis that they were different as indicated in Table 3. that the findings show that average annual examination performance was not significantly different from that of terminal examination



performance as at ( $P>0.5$ ). This means that there was no significant difference between pupils' performance in terminal and annual examinations.

**Table 3: Comparison of performance in terminal and annual examinations**

Examination type	N	Mean score	STD
Terminal examination	99	57.5	15.03
Annual examination	99	56.3	15.87
<i>t-value = 1.209, Not significant P= 0.230 (i.e P&gt;0.5).</i>			

### 3.2.4 Terminal and annual examination performance by sex

To study the relationship between annual/terminal examination performance and sex of the pupils, analysis of variance (ANOVA) was used to compare the means of the variables under study. Use of one way ANOVA classification assumed that variables to be influenced by one factor which was sex, in this case. With the null hypothesis that average annual and terminal examination performance (in %) were the same in both pupils' sex, against alternative hypothesis that there were differences (at least one mean differ from the rest). The study involved a sample of 49 male and 43 female pupils from four different schools of Maswa district.

The findings in Table 4 show that average scores in terminal examinations between male and female students were significantly different at level 0.015 or ( $P<0.05$ ) while there was no significant difference among the two sex in annual examinations ( $P>0.05$ ). This means that boys performed better than girls in terminal examinations, but not in annual examinations.

**Table 4: Average score in annual and terminal examinations by sex (n = 138)**

Performance	Sex	n	Mean score	Std. Deviation
Average score of terminal examination in (%)	Male	49	61.0	14.3
	Female	43	53.6	15.0
Average score of annual examination in (%)	Male	49	59.0	16.5
	Female	43	53.4	14.8

The findings further show that the performance of boys and girls in examinations was influenced by various reasons as shown in the Table 5. These included pupils' commitment and time management as reported by 99.5% of boys and 54.4% of girls, less working loads and not being committed, heavy work load, not supported (19.8% boys and 44.9% girls).



**Table 5: Reasons for boys and girls for poor and better performance (n = 138)**

	Reasons	Frequency	Percent
Boys' reasons for performance	Students' commitment, time management	110	79.5
	Less working load,	1	0.7
	Not committed, heavy working load, not supported	27	19.8
Girls' reasons for performance	Students' commitment, time management	75	54.4
	Less working load,	1	0.7
	Not committed, heavy working load, not supported	62	44.9

### **3.2.5 School type and pupils academic performance in (%)**

To study the relationship between annual/terminal examination performance and pupil's school type analysis of variance (ANOVA) was used to compare means of the variables as shown in Table 6. The null hypothesis was stated that: average annual and terminal examination performance (in %) was the same in both school types (i.e. day and boarding schools) against the alternative hypothesis that there were differences (at least one mean differed from the rest). The study involved 61 day school pupils and 38 boarding school pupils from four purposively selected schools. The findings show that the mean score in terminal and annual examinations significantly differed by school type ( $P<0.001$ ).

**Table 6: School type and pupils performance in terminal and annual examinations (n = 92)**

Examination type	School Type	n	Mean score	Std. Deviation
Terminal examination (%)	Public day school	56	53.0	13.6
	Private boarding school	36	64.7	14.6
Annual examination (%)	Public day school	56	51.5	14.6
	Private boarding school	36	64.1	14.9

### **3.2.6 Correlation between annual/terminal examination performance and pupils distance to/from the school**

To study the relationship between annual/terminal examination performance and pupils distance to/from the school, pupils were asked to estimate the distance to/from the school



(in kilometre) and the responses were correlated with examination performance. The Pearson correlation coefficient was used to determine the relationship existing between pupils' examination performance and the distance to/from the school. According to Maddalla (1988), Brink (2010) and Berger (2012), the Pearson correlation coefficient ( $r$ ) for variables under study measures linear relationship. The findings in Table 6 show that there was negative relationship between both annual examination (-0.100) and terminal examination (-0.081) performance and the distance to/from the school but their negative association was not significant ( $P>0.05$ ). Thus, it can be concluded that the current examination performance in Maswa district was negatively influenced by the distance to/from the school, so since findings revealed that the more the distance to/from the school the poorer in the examination performance become due to the sense that variables under study correlate negatively.

**Table 7: Correlation between performance and distance to/from school**

Performance		Average score of terminal examination in (%)	Average score of annual examination in (%)
Distance to and from school (km)	Pearson Correlation	-0.1	-0.1
	Sig. (2-tailed)	0.4	0.3
	n	99	99

The results were significant  $P>0.05$

#### 4.0 Conclusion and Recommendations

There was significant difference in performance between female and male pupils in terminal examination performance; boys seemed to perform better than girls. While on the other hand there was a modest positive relationship between pupils' examination performance and school type of school. This implies that those pupils studying in public day schools experienced poor examination performance compared to those in private boarding schools. The study recommends that school girls should be given conducive environment to learn and ample time to revise what learn at school, parents and care givers should ensure equity and equality in the distribution of activities that children have to after schooling, both boys and girls should do them and get time studies as well. Parents and care givers should provide equal opportunity among their children by regarding each child having equal opportunity in all aspects of life, including education. Local community members with the help of Local government authorities should create conducive teaching and learning environment in public primary schools by building dormitories in which pupils enjoy being there, studying hard and hence, do better in examinations.



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