
HOUSEHOLD VARIABLES ASSOCIATED WITH PRIMARY SCHOOL PUPIL'S DROPOUT IN TANZANIA**¹Caroline Ngereza, ¹Stephen P. Mnyawi, ¹David Ngwilizi****¹Institute of Rural Development Planning Lake Zone Centre P.O.Box 11957 Mwanza, Tanzania****¹Corresponding Author's email: cngereza@irdp.ac.tz****Abstract**

This paper describes household variables associated with primary school pupil's dropout in Tanzania using the 2011/2012 Household Budget Survey data. A paper aiming to examine household variables associated with primary school pupil's dropout and recommending possible solution to reduce pupil's dropout. Cross-tabulation of child dropout status and independent variables in categorized forms were done to assess the degree of association. χ^2 -test showed that, ten variables were significantly associated with the primary school pupil's dropout status. Socio-demographic variables of a household head (sex, marital status, education and occupation of household head), socio- demographic variables of a school-age child in a household (age, orphanage status of a child and relationship to the head of household) household location, region and household size were all significant at 5% level. It is recommended that, government to provide good infrastructure and education facilities in rural area as in urban area in order to reduce dropout rate at rural area. Also, family planning education and programmes should be addressed to parents so as to reduce household size and it is important for the government and other education stakeholders to emphasize on early age primary school enrolment of a child, this will reduce dropout rates.

Key words: Household, Primary School, Pupil, Dropout

1.0 Introduction

Education is one of the fundamental rights of the individual. According to the Constitution of the United Republic of Tanzania (2008), Article 11 stipulates that everyone has the right to education. Also, UNICEF (2012) points out that education is one of the fundamental human rights of individuals. In this context, Article 26 of the Universal Declaration of Human Rights, which was adopted by the United Nations General Assembly in December 1949, formed the basis of universal rights to education. Education is generally seen as a powerful means to reduce poverty and achieve economic growth (Breton, 2004). It empowers people, improves individuals' earning potential, promotes a healthy population, a major determinant of democracy and builds a competitive economy (UNESCO, 2007; World Bank, 2006; Hanushek & Wössmann, 2007; Hannum & Buchmann, 2005; Castelló-Climent, 2008).

Since the start of the Education For All (EFA) campaign after the World Education Forum in Jomtien in 1990, remarkable progress has been made in getting young children in developing countries into primary education. In addition, under Primary Education Development Programme (PEDP), the enforcement of the law on compulsory primary education for all children of school-going age was renewed, school fees were abolished and schools are not allowed to collect contributions from parents. The impact of these efforts resulted in a large expansion in enrolments with net enrolment ratios increasing impressively to 97.3 percent in 2007 from 58 percent in 2000 (MoEC, 2006b; MoEC, 2010). However, still hundreds of millions of children drop out of school at too young an age (UNESCO, 2007b).

1.1 Global Experiences of School Dropouts

Dropout is one among the most serious problems in educational systems around the world today. According to the study by Schiefelbein and Wolf (1992), the problem is greatly pronounced in Latin America and the Caribbean, which has experienced the highest dropout in the world. In Latin America for example, it is approximated that about 42% of pupils dropout of school annually. The main cause is the low socio-economic status of the parents that their children are more likely to drop out of school. It was reported at Jomtien Conference that, about 100 million (94 %) of out-of-school children were found in Malawi, Tanzania, Somalia, Egypt, and Sudan (United Nations Education Scientific and Culture Organization (UNESCO, 2007).

Carnoy (2006) showed that in Africa, more than 25 million primary school age children dropped out of school after being enrolled. It was found that the main reasons that led to such increased number of

dropouts were: increased education costs, low participation by children in remote and rural areas, those with disabilities, refugees and internally displaced people due to war, working children looking for extra income, and those affected with HIV/AIDS which had contributed to an increasing number of orphans, hence increasing dependency and child headed families and finally children dropping out of school.

In Sub-Saharan Africa, it is found that the number of out-of-school children rose by 17% between 1990 and 2000 (most likely because of the introduction of cost sharing in social services and particularly in education sector following the structural Adjustment Programmes), thus adding to millions of dropouts (UNESCO, 2000). Report from UNESCO (2004) showed that about half of the Sub-Saharan African countries, the survival rate of grade five (i.e the proportion of children enrolled in grade one who eventually reached grade five) was below 66%.

1.2 School Dropouts in Tanzania

Since independence in 1961, Tanzania has taken various measures of reform education. The reforms include; curriculum reviews, abolition of discrimination, nationalization of schools, retraining of teachers to match the new curriculum, accepting and implementing the concept of Universal Primary Education (UPE) and Education For All (EFA) and many others (Nyerere, 1967). This resulted into increase in primary school enrolment by 5.1% from 8,222,667 pupils in year 2014 to 8,639,202 pupils in year 2016 (URT, 2016).

However, much as primary school enrolment has been a success, the concern now is with regard to the internal efficiency of primary education that is the ability to retain pupils until they graduate from primary school. Enrolment rate have soared, but dropout rate are high, nearly 40% in some regions (Ruth, 2006). And the cohort completion rate has dropped from 78% in 2006 to 62.5% in 2008 (RAWG, 2009).

The problem of dropout has been critical in Tanzania in primary schools. According to the Ministry of Education and Vocational training, dropout in the country is caused by truancy, pregnancy, death, illness, parent/guardian illness and lack of school needs (URT, 2002-2010). The main causes for dropout in primary schools is truancy (95.6%) followed by death (4.1%) (URT, 2016). A report by (NBS, 2002) showed that children from poor households are unlikely to attend school and when they do, they suffer higher dropout rates than children from better-off families. Also Galabawa (2001) argued that, some of the factors were: cost sharing, death of parents due to HIV/AIDS, economic constraints, teenage

pregnancy and truancy. Now, for Tanzania the problem has thus shifted from getting children into school to keeping them in school.

1.3 Statement of the Research Problem

The Tanzanian government is undertaking various initiatives towards poverty reduction in order to improve social and economic development and provision of quality education so that all children get access to universal education. The implementation of Primary Education Development Plan (PEDP), COBET and abolition of school fees is one of such initiatives. In spite of various efforts both at national and local levels, still dropouts among primary school pupils have remained to be a national problem. A report by (URT, 2016) showed that there was rapid increase of number of dropout from year 2013 (6.86%) to 2015 (10.63%). The dropout is highest in STD III (15.3%) and STD VI (21.2%) in 2015.

Through a review of literature in Tanzania, several studies have looked at the factors that lead to primary school dropout but there are scanty of studies done on household variables associated with primary school dropouts throughout Tanzania. Therefore, this study has been conducted to examine the household variables associated with primary school pupil's dropouts.

2.0 Methodology

The study utilized data collected by National Bureau of Statistics (NBS) of 2011/2012 Tanzania Household Budget Survey. The study used this data because is the current survey in Tanzania which collected information on social-economic variables of households of the country. The data has been cleaned, re-organized by removing the entries that were not needed. The selected variables for this research were: school attendance status of the child, highest grade level a child completed, these two variables helped to extract dropout status of the child in the household which used as dependent variable. Independent variables are region, household location, household size, sex, age, orphanage status of a child, relationship of a child to the household head, sex, age, marital status, education and occupation of household head. The sampling unit used in this research was a household. A total of 5918 households were selected to be included in the study.

2.1 Selection of child in the households and child variables

Due to the fact that there were no direct questions (in the Household Budget Survey questionnaire) on children who dropped out of school; the researchers went through several stages to select children from the households for the study. At the first stage, households with children of current age 5 to 16 were selected by considering the children who had joined early and those who had joined late in primary school. At the second stage, children with the highest grade level of school completion grades 1 to 7 were selected (from the households selected in the first stage).

2.2 Data Analysis

Cross-tabulation of dropout status of the child and independent variables in categorized forms were done to assess the degree of association. The chi – square test has been described as a test for dependence or relatedness in contingency tables. The Chi-square test was useful in testing the compatibility of observed frequencies in two way tables for the purpose of studying the relationship between the two variables of classification. It thus makes it possible to test the statement of independence of two variables. The Chi – square (χ^2) test is defined as:

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{\{O_{ij} - E_{ij}\}^2}{E_{ij}}$$

where:

r is the number of rows and c is the number of columns in a two way table,

O_{ij} is the observed frequency in the i^{th} row and j^{th} column,

E_{ij} is the expected frequency in the i^{th} row and j^{th} column and

$(r-1)(c-1)$ is the degrees of freedom (df).

The detailed description of variables used when conducting Cross-tabulation is given in Appendix 1.

3.0 Results and Discussion

3.1 Results

A test of association is used to discover if there is a relationship between two categorical variables. In this paper, the level of significance was taken to be 0.05. The chi square values were calculated by using the actual observations and expected values.

The χ^2 -test in appendix 2 showed that, ten variables were significantly associated with the primary school dropout status. The ten variables were the socio-demographic variables of a household head (sex, marital status, education and occupation of household head), household location, region and household size; the socio-demographic variables of a school-age child in a household (age, orphanage status of a child and relationship to the head of household).

3.2 Discussion

Household location

The association between primary school dropout and household location showed that, children whose household are in rural location (4.5%) were more likely to drop out of school compared to other location (urban (0.9%) and mixed (3.1%)). This is due to the fact that it is easier to access schools in urban areas as compared to rural areas (Okumu, Nakajjo and Isoke 2008). This phenomenon could perhaps be attributed to the fact that there is good infrastructure and education facilities in urban than rural.

Sex of a Child and Household Head

Sex of a child was found to be significant; findings showed that, males (3.4 %) were more likely to drop out of school than females (2.6%). This result complemented with the study done by (Mansory, 2007, Kimondo 2007) who found that girls retained in school longer than boys, especially where there is income earning opportunities. Study done by (UNESCO, 2004) found that there were 104 million children who dropped out of school and entered into employment such as construction materials, in agriculture, sex trade and fishing. This result contrary the study done by (UNICEF, 2005) who taking into account of the gender dimension of dropouts, noted that girls were more likely to drop out of school than boys. Holmes (2003) also argued that the girl child is more likely to drop out of schools than the boys, which could be attributed to UPE, which has reduced the opportunity cost to parents of sustaining both boys and girls in schools.

Similarly, Sex of a household head was found to be significant. The finding showed that children in female headed household (3.8%) were more likely to drop out of school compared to children living in male headed household. This is because, many studies found that single-female headed households face greater financial and time constraints than two-parent households in general which may impact differently on children's academic achievement (Guo & Harris, 2000; Pong et al., 2003).

Age of a Child

The association between primary school dropout status and age of a child showed that, households with child of ages 13 to 16 years (about 4.8% of them) had children who dropped out of school, 9 to 12 years (about 1.7% of them) had children who dropped out of school and lastly were 5 to 8 years (about 0.5% of them) had children who dropped out of school. This showed that, the older the child the greater was the risk of child dropping out of school. This result reinforces the well know finding that the older the child is, the greater the chances of not completing the basic cycle of primary school (Cameron, 2005; EPDC, 2009). These findings implied that as children grow up, they begin to take on their own decisions and the influence of parents tends to decrease. The fact is that; for older children the risk of dropping out of school increases due to the pressure of working or to getting married (UNESCO, 2005). Also there is evidence that, in developing countries the younger children in large families are more likely to stay in school (Buchmann & Hannum, 2001; Emerson & Portela Souza, 2002), because the older children do the household chores or contribute to the household income by earning some extra money.

Orphanage of a Child and Relationship of child to the household head

The association between primary school dropout and orphanage status of a child showed that, households with children; who their father were died (about 4.8% of them) had children who dropped out of school, compared to other households (2.8%). The association is significant at ($\chi_1^2 = 7.438, p = 0.006$), this showed that there were association between orphanage status of a child and primary school dropout.

Likewise, findings showed that, there was significant association between relationship of a child to the household head and primary school dropout status. The dropout rates were with the children who lived with their parents were by only 2.6% of them dropped out to school compared to those children who lived in the household with other relatives (4.2%).It is a common place that a student who lives under

the same roof with their biological parents has high schooling survival rate than that whose parents passed away, got divorced or moved to work in other areas (Nicaise *et al.*, 2000).

Household size

Household size was found to be significant; findings showed that, the results implied that, children who lived in the households with 7 or more household members (3.9%) were more likely to drop out of school than children who lived in the households with 1-4 household members (2.5 %). A larger family size means less learning opportunity for each of its household members and its influence becomes much stronger for older siblings (Nicaise *et al.*, 2000; Rosati & Rossi, 2003).

Age of household head

Age of household head and primary school dropout was found to be insignificant. Households with household head of ages 65 years and above (about 3.9%) had more children dropped out school, of ages 46 to 64 years (about 3.5% of them) had children dropped out school, of ages 25 to 45 years (about 2.4% of them) had children dropped out school and lastly of ages 18 to 24 years (about 3.8% of them) had children dropped out of school.

Marital status of Household head

The association between primary school dropout and marital status of household head showed that; households with household head who married or living together (11.9% of them) and the households with household head who never married (2.8% of them) had children dropped out of school. The relationship is highly significant at ($\chi^2_3 = 20.192, p < 0.001$), this showed that there were relationship between marital status of the household head and child dropout to school.

Education of household head

There was statistically significance association between education of household head and primary school dropout status. The primary school dropout rates in the household with parents who acquired primary (3.7%), secondary education (2.9%), higher education (1.3%) and adult education (6.7%). This implied that Parents with low levels of education are more likely to have children who do not attend school. Also, as suggested by Leclercq (2001), educated parents are more aware of the possible returns to their children's education and they are more likely to have access to information and social networks necessary for their children to engage into relatively human capital intensive activities yielding high

returns to education. He further argued that an academic attainment of parents enhances positive attitudinal change towards children's education.

Occupation of Household head

The association between primary school dropout and occupation of household head showed that, households with household head that were employed (about 1.5% of them) had children who dropped out of school, self employed (about 3.3% of them) had children who dropped out of school, and households with other activities (about 3.2% of them) had children who dropped out of school. The association is significant at ($\chi^2 = 11.161, p = 0.004$), this showed that occupation of household head had association on primary school dropout.

4.0 Conclusion and Recommendations

The main objective of this study was to examine household variables associated with primary school dropout in Tanzania. It was observed that socio-demographic variables of a household head (sex, marital status, education and occupation of household head), household location, region and household size; the socio-demographic variables of a school-age child in a household (age, orphanage status of a child and relationship to the head of household) had significant effect on primary school dropout.

The study findings indicate that children whose household are in rural location were more likely to drop out of school compared to other location. We therefore recommend that, Government to provide good infrastructure and education facilities in rural area as in urban area.

As the number of members of household increases, the likelihood of primary school dropout increases. In order to handle this, Family planning education and programmes should be addressed to both parents so as to reduce the household members. Also findings indicate that, older children are more likely to drop out of primary school than the younger children. It is important for the Government and other education stakeholders to emphasize on early age primary school enrolment of a child, this will reduce dropout rates.

5.0 References

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6.0 Appendix

Appendix 1: Distribution of socio-demographic characteristics of household head and child in percentage

Variables	Categories	Frequency	Percent
Region	Dar es Salaam	1422	24.0
	Others	4496	76.0
Household location	Rural	2356	39.8
	Urban	1877	31.7
	Mixed	1685	28.5
Sex of Child	Male	2955	49.9
	Female	2963	50.1
Age of Child	5-8	1276	21.6
	9-12	1789	30.2
	13-16	2853	48.2
Orphanage status of Child	Mother died	256	4.3
	Father died	561	9.5
Relationship of child to the household head	Son/Daughter	4552	76.9
	Other Relatives	1366	23.1
Household size	1-4	1902	32.1
	5-6	2116	35.8
	7 or above	1900	32.1

Variables	Categories	Frequency	Percent
Sex of Household head	Male	4411	74.5
	Female	1507	25.5
Age of household head	18-24	52	0.9
	25-45	3252	55.0
	46-64	2005	33.9
	65 or above	609	10.2
Marital Status of household head	Never married	5827	98.5
	Married/Living together	79	1.3
	Separated/Divorced	8	0.1
	Widowed	4	0.1
Education of household head	Pre-school	2	0.0
	Primary education	3775	63.8
	Secondary education	608	10.3
	Higher education	1503	25.4
	Adult education	30	0.5
Occupation of household head	Employed	1157	19.6
	Self employed	4035	68.2
	Other	726	12.3

Appendix 2: Association between socio-demographic characteristics of household head and child in the household and dropout status

Variables	Categories	Dropout Status		p-value	χ^2
		Dropout	Non Dropout		
Region	Dar es Salaam	17 (1.2)	1405 (98.2)	< 0.001	20.241
	Others regions	158 (3.5)	4338 (96.5)		
Household location	Rural	107 (4.5)	2249 (95.5)	< 0.001	49.684
	Urban	16 (0.9)	1861 (99.1)		
	Mixed	52 (3.1)	1633 (96.9)		
Sex of a Child	Male	99 (3.4)	2856 (96.6)	0.075	3.175
	Female	76 (2.6)	2887 (97.4)		
Age of a Child	5-8	6 (0.5)	1270 (99.5)	< 0.001	71.980
	9-12	31 (1.7)	1758 (98.3)		
	13-16	138 (4.8)	2715 (95.2)		
Orphanage of a Child	Father died	27 (4.8)	534 (95.2)	0.006	7.438
	Other	148 (2.8)	5209 (97.2)		
	Mother died	9 (3.5)	247 (96.5)	0.590	0.291
	Other	166 (2.9)	5496 (97.1)		
Relationship of a child to the household head	Son/Daughter	117 (2.6)	4435 (97.4)	< 0.001	10.281
	Other Relatives	58 (4.2)	1308 (95.8)		
Household size	1-4	48 (2.5)	1854 (97.5)	0.014	8.575

Variables	Categories	Dropout Status		p-value	χ^2
		Dropout	Non Dropout		
	5-6	53 (2.5)	2063 (97.5)		
	7 or above	74 (3.9)	1826 (96.1)		
Sex of Household head	Male	117 (2.7)	4294 (97.3)	0.018	5.601
	Female	58 (3.8)	1449 (96.2)		
Age of household head	18-24	2 (3.8)	50 (96.2)	0.062	7.348
	25-45	79 (2.4)	3173 (97.6)		
	46-64	70 (3.5)	1935 (96.5)		
	65 or above	24 (3.9)	585 (96.1)		
Marital Status of household head	Never married	166 (2.8)	5661 (97.2)	< 0.001	20.192
	Married/Living together	9 (11.4)	70 (88.6)		
	Separated/Divorced	0 (0.0)	8 (100.0)		
	Widowed	0 (0.0)	4 (100.0)		
Education of household head	Pre-school	0(0.0)	2 (100.0)	0.035	10.367
	Primary education	109(3.9)	3666 (96.3)		
	Secondary education	8 (2.9)	600 (97.1)		
	Higher education	56 (1.3)	1447 (98.7)		

Variables	Categories	Dropout Status		p-value	χ^2
		Dropout	Non Dropout		
	Adult education	2 (6.7)	28 (93.3)		
Occupation of household head	Employed	17 (1.5)	1140 (98.5)	0.004	11.161
	Self employed	135 (3.3)	3900 (96.7)		
	Other	23 (3.2)	703 (96.8)		