JEM

# Journal of

# **EDUCATIONAL MANAGEMENT**

A Bi-annual Publication of
THE INSTITUTE FOR EDUCATIONAL PLANNING AND
ADMINISTRATION
(IEPA)
University of Cape Coast, Ghana.

Journal of Educational Management Vol. 3 (67-86) November 2000

## THE INFLUENCE OF HOME ENVIRONMENT ON THE ACADEMIC PERFORMANCE OF SECONDARY SCHOOL GIRLS IN ZANZIBAR

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#### ABSTRACT

This study is concerned with the home factors that affect girls' continued participation in the second level educational system in Zanzibar. It focuses on how variations in household work habits, intellectual stimulation at home and parental expectations and attitudes towards their children impacted on girls' and boys' academic performance. The study was conducted in only one of the two main Islands of Zanzibar -Four instruments -Unguia. auestionnaire, interview, observation and document analysis - were used. A total of 145 persons were selected through random and purposive sampling. These included 80 JSS students, 16 teachers, 4 head teachers, 5 Ministry of Education Officials, and 40 parents. The results indicated that the aspects of home environment examined are contributory factors that affect the academic performance of secondary school girls in Zanzibar.

There is evidence of inequitable allocation of resources and values at the household level, which favour the boys in terms of homework habits, intellectual stimulation, and parental expectations and attitudes.

#### Introduction

Zanzibar is part of the United Republic of Tanzania. It consists of two main islands: Unguja and Pemba, and other smaller islands, all located about 40 kilometres in the Indian Ocean off the coast of Dar es Sallam and Mombassa. Administratively, Zanzibar has five regions, each with two districts. According to the 1988 Population Census, Zanzibar had a population of about 640,685. The average population growth was 3% per

annum in the 1980s. In 1996 the population was estimated to be 750,000. The population consists of people from different ethnic background, the majority of whom are Africans. About 59% of this population live in Unguja and 40% in Pemba; the remaining one percent lives in the smaller islands. The female population is estimated to be 51%, while the one for the male is 49%.

The official language is Kiswahili, which is spoken by the whole population. English is taught as a second language at the primary school level and is the medium of instruction at the secondary school level. The main religion of the people is Islam and there is an Arabic cultural influence in the country. Arabic, therefore, is taught in all government schools.

Since independence in 1964, education in Zanzibar has been free and became compulsory from the age of seven to sixteen in 1992. The education system comprises ten years of basic education (seven years of primary and three years of junior secondary, two years of senior secondary and a further two years of higher secondary leading to university education. In 1998,

there were 139 primary schools with and enrolment of 135, 225 pupils and 113 secondary schools with an enrolment of 32,309 (MOEZ, 1998).

## Background to the study

This study is concerned with the home factors that affect girls' continued participation in the second level educational system of Zanzibar. The introduction of free education policy in (immediately after the Revolution) increased access to education tremendously. The number of primary schools increased from 62 in 1963 to 139 in 1989. Within the same period, the number of pupils in primary and secondary schools increased from 19, 106 and 734 to 135, 225 and 32, 309 respectively (MOEZ, 1998). The policy created an enabling environment for girls to access schooling, such that the enrolment of girls and boys at the basic school level has been almost the same for the past decade (see Table 1). But the gender gap in the system sets in at the selection to the senior secondary that is the second two-year cycle that completed ordinary level (O Level) secondary education

Table 1: Trends in Form One Enrolment of Females and Males in Zanzibar (1982 – 1998)

Year	Females	%	Males	%	Total
1982	3107	48.9	3207	51.1	6314
1984	1435	49.8	1771	50.2	3206
1986	2810	50.0	2805	50.0	5615
1988	2681	50.1	2669	49.9	5350
1990	3237	51.7	3023	48.3	6260
1992	3417	51.6	3195	48.4	6612
1994	5050	50.3	4990	49.7	10040
1996	4563	48.9	4762	51.1	9325
1998	5801	48.8	6069	51.2	11891

#### Source:

Budget Speech 1988 and 1992, Ministry of Education, Zanzibar. Figures for 1994 – 1998 were computed from MOEZ Annual Statistical Abstracts.

At the level of form three, a common examination is administered to select students who will access the senior secondary level. In the examination girls have tended to perform lower than boys. Consequently, girls are not equitably represented in the senior secondary school system (see table 2), and consequently in higher

education (see table 3) and the labour markets. The low performance of girls at this critical examination is one of the most formidable constraints to the reduction of the gender gap in secondary and higher education in Zanzibar. It is the major cause of the relatively low transition rate of girls from junior secondary to senior secondary.

Table 2
Selection of Students from JSS to SSS

		Total (	Students Passed							
Year	Girls	%	Boys	%	Total	Girls	%	Boys	%	Total
	20.62	40.0			4200		20.5	2.50	<i>(</i> 1.5	550
1988	2063	48.0	2237	52.0	4300	222	38.5	350	61.5	572
1989	2061	50.3	2036	49.7	4097	197	38.5	315	61.5	512
1990	1912	50.4	2880	49.6	3792	127	39.5	212	60.5	349
1991	1998	50.7	1941	49.3	3939	138	34.8	259	65.2	397
1992	2607	52.4	2371	47.6	4778	138	38.0	228	62.0	363
1998	3685	50.2	3659	49.8	7344	1043	45.4	1255	54.6	2298

#### Source:

Budget Speech Ministry of Education, Zanzibar, June 1993 (for data 1988 – 1992); 1998, data, computed from MOEZ, Annual Statistical Abstract 1998, Page 52.

JSS – Junior Secondary School SSS – Senior Secondary School

Table 3: Number of Students who graduated from Technical Colleges in Zanzibar 1980, 1985 and 1993

Year Kaarume Technic Male Fe		echnical College Female	Mikunguni 7 Male	Female
1980	36	0	36	0
1985	53	16	18	17
1993	24	5	21	8
Total	113	21	75	25

Source: Ministry of State - Women and Children Affairs, 1994

The basic argument is that girls' increased access to senior secondary education is very important in making improvement in the reduction of gender gap in education in Zanzibar. Increasing girls' access to education, however, requires girls' improved performance in the common examination in ISS. The critical question for this study is: what factors account for the relative lower performance of girls at this examination?

Studies have shown that girls' performance at lower levels of education in Tanzania is about the same as that of boys. (Tadreg. 1990; Mbilinyi and Mbughuni, 1991). The issue is why the difference at the secondary level? researchers have tried to use socioeconomic factors to explain the variation in school performance between two different groups (Coleman, 1966; Jenck, et al. 1972; Sewell and Hauser, 1976: Bloom, 1980). But the socio-economic variable is a very complex one, including income, level of parental education, parental occupation, neighbourhood and home environment and others. It is a load status characteristic that is not easily made operational from a policy perspective. To unpack this complex variable, the authors used

an aspect of it, the home environment, where we felt that the critical dynamics originate and converge.

The major assumption is that besides the school environment and resources, the home environment plays a significant role in academic performance. The home has been viewed as a place where the child is prepared to take up the challenges of schooling. (Simmons and Alexander, 1978; Mbilinyi, 1972). Many studies on education performance indicate that learning which occurs in the home is much more important than that which occurs in school (Epstein, 1988; Lightfoot, 1978; Walberg, 1984). Home environment comprises a set of variables that constitute the emotional climate of the family provided by the interaction process between the adult members and children. This process mediated by levels of education, income, type of job, and the size of the family constitutes a large chunk of the form and substance of the family life dynamics.

The effect of home environment on students' academic performance can be explained in two ways. First, at the early stage of development a child is born to a family and grows up within the scope and characteristics of his or her

environment. The child at this stage acquires the initial social behaviour and manners. It is argued that the child's intellectual potentialities for success in school education depend on the initial efforts of the parents in cultivating this potentiality and thereby establishing a good functional relationship with teachers (Durojaiye, 1976). Secondly, after school hours, children spend the rest of the time at their homes. Some parents may show interest in helping their children in their studies while at home, while others may not. Research consistently has documented the importance for student achievement of family involvement (Epstein, 1983, 1988; Laichter, 1974; Welberg, 1984). During the later elementary years, parental contributions to school achievement may be most efficiently mediated through parents' support at home of school initiated activities (Snow, et al. 1991). From a grounded perspective, parental assistance and or non-assistance may affect boys and girls differently.

It has been argued that the aspects of the home environment that influence academic performance of the child include:

- i. work habits of the family,
   i.e. the degree of structure
   and routine in home
   management;
- academic guidance and support (i.e. parental encouragement on school work);
- iii. intellectual stimulation (i.e. activities by family members to provide intellectual interest);
- iv. language model and quality of language used by the parents, and;
- v. Parental academic aspirations and expectations (Bloom, 1980).

The focus of this study is to find out how three of these aspects explain relative lower academic performance of secondary school girls in Zanzibar compared to the boys.

Consequently, the study was guided by the following three questions:

 How homework habits influenced girls' and boys' academic performance.

- 2. How intellectual stimulation at home differently influenced girls' and boys' academic performance
- 3. How parental expectations and attitudes towards their children and across gender differently affected girls' and boys' academic performance.

#### Method

## Sample

The study was conducted in only one of the two main islands. This reduces the Unguia. generalization of the findings. But the issues and lessons may not likely differ because of historical and cultural similarities between the Islands. Four schools were studied While Ben bella and Vikokotoni schools are urban, Mahonda and Mkwajuni are rural. A total of 145 persons were selected through random and purposive sampling. These included 80 JSS students, 16 teachers, four headteachers, 40 parents and five Ministry of Education officials.

#### Instruments

Four instruments – questionnaire, interview, observation and

document analysis – were used to collect the data. Ouestionnaire was used to collect information on the general performance of students, parental follow-up of children's progress, home environment and children preparation for Entrance Examination. The structured interview was used to obtain information on academic performance of students and to probe teachers and headteachers. Observation technique was used to observe children's routine before and after school hours. The document analysis was used to get background information.Documents analysed included students' progress reports, and Class Attendance Registers.

## Findings and Analysis of Data

The presentation of findings and analysis was guided by the three research questions stated above.

How did homework habits influence girls' and boys' academic performance?

The researchers tried to find out the variation in work habits in terms of gender from various home environments. Tables 4 and 5 show the main activities performed by students before and after school hours respectively. Work habits before school hours.

The concern here was how household work habits before school hours affect girls' versus boys' performance. These are captured in table 4.

areas. Only 10% of the boys from the urban areas were involved in household chores. This level of participation by the boys, though low, did happen because the boys did not have sisters at home. There was no information on boys' participation in household chores in the rural areas. One could argue that it would be less than the urban.

Table 4
Main Activities Performed by students before School Hours

		Urb	an		Rural					
Activities	Girl	Girls		'S	Gir	ls	Boys			
	Frequence N=20	cy %	Frequence N=20		Frequer N=2		Frequency N=20	y %		
Household										
Chores	14	70	2	10	18	90	-	-		
Fetching Fir Wood and V		30	-	-	10	50	-	-		
Household i generating a		-	3	15	1-1	-	7	35		
Preparation School World		30_	2	10	-	-	4	20		

Source: Computed from Students' Questionnaire

Table 4 shows the activities/tasks performed by girls and boys before school hours. Household chores which include cleaning the house and surroundings, preparation of breakfast and washing of all the utensils used for supper constitute the first and main activities performed by girls. The rate of their involvement varies from 70% in the urban areas to 90% in the rural

The second activity was fetching firewood and water for the household's daily use. This was found to be more of an activity for girls in the rural areas (50%) than the urban ones (30%). The variation was as a result of the availability of pipe-borne water close to the households in the urban areas. Boys, in both urban and rural areas, were completely not involved

in this activity. The third activity performed before school was helping the family in income generating activities. These activities include cattle and goat rearing, poultry keeping, and vegetable gardening. This activity was found to be fully the affair of the boys. The rates of involvement were 20% for urban boys and 40% for rural boys.

to school. This was reported for the girls who were in most of the cases fully occupied in the mornings with household chores. In the urban areas 30% of the girls and 10% of the boys were found involved in this activity. In the rural areas 20% of the boys and none of the girls were involved.

Table 5
Main Activities Performed by Students After School Hours

		Urb	oan		Rural				
Activities	Girls		Boys		Girls		Boys		
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	
	N=20		N=20		N=20		N=20		
Household									
Chores	8	40	2	10	14	70	-	-	
Feeding Anin	mals -	-	4	20	-	-	18	90	
Fetching Wa	ter 4	20	-	-	9	45	-	-	
Farm Work									
(Shamba)	-	-	3	15	2	10	8	40	
Private Study	y 5	25	6	30	7	35	6	30	
Tuition	12	60	10	50	-	-	-	-	

Source: Computed from Students' Questionnaire

The fourth activity was preparation of school work. This included completion of school-home work assignments and preparatory readings for schooling. Students who were unable to complete their homework the previous day either in school or at home had to do them early in the morning before going

Looking at the data, it could be argued that one of the explanations for fewer boys' involvement is that most had time to do their homework the same day. They did not have to rush them in the morning as the girls. In the rural areas, the explanation seems different. More of the rural than the urban boys'

involvement could be related to the disproportionate heavy involvement in household chores and the fetching of firewood and water.

Work habits after school hours

The issue here was how household work affected girls and boys after school hours. Table 5 shows the activities performed by students after school hours. The work habits after school hours follow the same pattern as the work habits before school hours. After school hours girls remain more engaged than the boys with household chores, like preparing meals, caring for younger bothers and sisters and going to the The only activity market. performed solely by the boys is feeding animals, predominantly by the rural boys (90%). Furthermore, boys are more involved in farm work than girls. But these activities are not as time consuming as household chores and fetching of water. This is because household chores and fetching of water are much more recurrent than farm work and feeding of animals.

After school girls are more involved in family chores. One girl from one of the schools studied – Vikokotoni Secondary School had this to say:

"When I come back from school, I take tea. I go to the market to buy

food and cook for the family. After cooking I rush to school for the afternoon classes. I eat my food when I come back from school in the evening. This is tough for me because I do not get time to rest in between" (student interview).

Another girl, this time from another school – Benbella Secondary School had this to say:

"When I come back from school, my mother would have already prepared food and gone to the farm. I have to stay at home to take care of my two younger brothers who are six months old and three years old. I do not have time to attend the afternoon classes and the tuition study" (student interview).

While the girl from Vikokotoni secondary school is a daughter of a petty trader, the one from Benbella Secondary School is the daughter of a peasant farmer. In both cases, the girls had to attend to household chores first. This impacted negatively on their schooling and academic performance. The life of these girls is the life of most girls of the same background in Zanzibar. The same situation prevails in other African societies. Research on girls' education in Malawi reported that in making a time allocation of the way 26 female and 16 male

students spend their after school time, the boys had twice as much time as girls for studying. Girls spend 68% of their time on domestic chores, whereas boys spend only 37.8% of their time on similar tasks. (Davidson and Kanyuka, 1972: 454).

How intellectual stimulation at home influenced girls' and boys' academic performance

The study investigated the educational facilities which were available at home and their accessibility to girls and boys. The facilities examined were those with the potential for stimulating intellectual interest. These included: radio programmes, textbooks and newspapers, and television programmes.

Table 6 summarizes the students' responses on the radio programmes available in order of preference.

The information on the table indicate that the first three programmes were the most popular ones. These are relatively more educational than the rest. "Follow Me" was a Ministry of Education initiative under the English Language Teaching Support Project (ELTSP), to improve the use of English Language among students and the society in general in the Isles. "From the Institute of Kaswahili" programme dealt mainly with different aspects of the Kiswahili Language and Literature. The "News Bulletin" dealt with current affairs, highlighting daily events

Table 6
Radio Programmes in Order of Preferences
as Stated by Students

		Urba	an	000 6 1 10 10	Rural				
Programme	Girls Frequency N=20	% I		oys ncy %	Freque N=		Bo Frequen N=20	cy %	
Follow Me From the Instit	18 tute	90	14	70	13	65	18	90	
of Kiswahili	14	70	11	55	16	80	14	70	
News Bulletin	s 4	20	-	-	9	45	-	-	
Farm Work (Shamba) Private Study Tuition	5 12	25 60	3 6 10	15 30 50	2 7	10 35	8 6 -	40 30	

Source: Computed from Students' Questionnaire

within and outside Zanzibar and Tanzania

Two things seem clear from the above. One is that the radio was an important source of intellectual stimulation and readily available to most of the students in Zanzibar. Two, is that the students preferred educational programmes that are directly relevant to their studies. This makes the radio a potentially very important tool for improving education for all in Zanzibar. But the study found that the girls' accessibility to radio programmes was constrained because of the household responsibilities which demanded their attention at the time

when the programmes were being aired.

Newspapers are very important to secondary school students because they provide general and current information and help them to improve their reading skills. A look at Table 7 shows that a significant proportion of the students was found to have access to a range of the newspapers published in Tanzania. But the problem is the time to read the newspapers, especially for the girls. As was the case for the radio, girls were found to be constrained by time because of their heavy involvement in household chores.

Table 7 Newspapers Available to Students

		∪rba	ın	Rural					
	Gir	rls	Boys		Girls		Boys		
	N = 20	%	N = 20	%	N = 20	%	N = 20	%	
Uhuru	10	50	16	80	16	80	14	70	
Mzalendo	12	60	10	50	10	50	12	60	
Mfanyakazi	8	40	8	40	4	20	8	40	
Daily News	8	40	8	40	8	40	8	40	
Jipatie Maar	ifa 10	50	12	60	12	60	14	70	
Nuru	8	40	10	50	8	40	8	40	
Mwanachi	4	20	6	30	6	30	6	30	

Source: Computed from Students' Questionnaire

The issue of textbooks at home was also explored. The information on Table 8 shows a clear urban bias in the access to extra books. The girls and boys from the rural areas had no access to the books in the libraries. The girls and boys from the urban areas had access to the libraries; but more boys (60%) than the girls (25%) enjoyed the library facilities. Most girls went straight back home to accomplish the household chores. On the whole, students got extra textbooks by borrowing from the main library (50%), from the Curriculum Unit Library (30%), Home Library (25%), and those bought by parents (45%).

ensured that television sets were affordable to many people by making them custom duty free. It also distributed television sets to each Party Branch: this was the time of the one party system. In places where there was no electricity, batteries were used to operate the sets. The study found that seven television programmes were available to be watched by students at home. These included. Children's Programme, Adult Programme, News bulletin, Follow Me, Variety Programme, Film and Weekly The level of the Scope. programmes varied from those for children in pre-schools, primary

Table 8
Extra Textbooks Available for the Students

	Urban				Rural					
	Girls Boys				Girls	Boys				
	N=20	%	N=20	%	N=20	%	N=20	%		
Main Library	3	15	8	40	-	-	-	-		
Curriculum Unit	2	10	4	20	-	-	-	-		
Home Library	4	20	2	10	2	10	1	5		
Bought by Paren	ts 2	10	2	10	2	10	3	15		

# Television Programmes

The government of Zanzibar introduced television in 1972 mainly for education purposes and not for leisure. To achieve that objective, the government

schools and students in secondary schools. The secondary school students were found to be more interested in the programmes related to their academic work. These included the "Follow Me" programme which was the

television version of the radio programme; the "Weekly Scope", a one-hour programme which summarized the world weekly events; and some children's programmes which had topics on science and technology, sports, drama, cartoons and films.

The findings revealed that some of the facilities that could contribute to intellectual stimulation of students at home such as the radio, textbooks and television are available. But girls' access to these were limited by their heavy involvement in household chores.

Table 9
Parents' Expectation on the Level of Their Children's Education

	τ	Jrban			Rural					
	Girls	Bo	ys		Girls	Boys				
	N = 20	%	N = 3	20 %	N = 20	%	N	= 20		
%				,						
Primary	-	-	-	-	-	1=	-			
Secondary	-	-	-	-	6	30	4	20		
Diploma/										
A Level	6	30	2	10	8	40	6	30		
Degree	14	70	18	90	6	30	10	50		
Total	20	100	20	100	20	100	20	100		

Source: Computed From Parents' Interview Responses

Television programmes in Zanzibar are usually shown between 7.00 p.m. through 11.00 p.m. The timing is not suitable for girls. Those who did not have television sets in their homes would not be allowed to go somewhere else to watch because of the extra family protection of girls in an Islamic society, such as Zanzibar. Those in the urban areas who had the sets at home were constrained, because of their heavy involvement in household chores. The boys had both free time and freedom to watch.

The fact that the boys did not have their own fair share of the household chores afforded them more time to read their books, newspapers, watch television programmes and listen to radio programmes to the disadvantage of the girls who were saddled with household responsibilities.

How Parental Expectations and Attitudes have affected Girls' and Boys' Academic Performance

The home is usually the place where

children secure the motivation to learn and to aspire to an education and lifestyle that will serve them well in the future. Here the researchers looked at the level of education to which parents intended to educate their daughters as compared to their sons. That is whether there were variations in parental expectations and attitudes towards girls' and boys' educational levels and the basis for the difference.

The study found varied parental expectations on the educational attainment of girls and boys. Table 9 shows that none of the parents expected their children to end with primary school education. This indicates that parents were aware of the value of education. But the problem sets in when parents expect higher-level education attainment for the boys. About 90% of the parents in the urban areas indicated that they would like to educate their sons to degree level, as against 70% for the girls. With respect to the rural areas, it was 50% for boys against 30% for girls. What seemed clear and interesting was that parental expectations on their children's educational level did not differ between the urban and rural areas; the difference is in degree not orientation. The variation

is between girls and boys.

The varied expectations between girls and boys impacted on parental attitudes in a kind of Pygmalion effect in the household. A long series of studies have shown that teachers' expectations of a pupil's academic performance have a strong influence on the actual performance of that pupil. (Rosenthal and Jacobson, 1968: Wilson, 1963; Rist, 2000). This is a kind of educational self-fulfilling prophecy in which teachers, as human beings, tend to act to validate their expectations. The same logic applies to parents with respect to and boys' academic performance. In order to validate their expectations, parents engage in certain behaviours that tended to be discriminatory. For example they were more willing to pay for the boys than for the girls to participate in extra classes organized in the evenings. This seemed, primarily, to be an issue of perceived returns to education. The usual argument of girls' protection from pregnancy seemed secondary. If girls' returns to education were perceived to be higher than boys', girls would have been supported to access extra classes with protective measures against pregnancy in place.

#### Conclusion

Why the Household is not facilitative to Girls' Education

We have seen that widening access to education has been a major policy goal in Zanzibar for the past three and half decades. This reflects a recognition that education is essential to economic and social development. But gender disparities in education, especially at the secondary level, still persist. In a sentence, the main reason is that the household in Zanzibar is not girl-child friendly. That is to say it is not facilitative towards girls' development. The study has shown clear evidence some inequitable allocation of resources and values at the household level which favour the boys in terms of homework habits, intellectual stimulation. parental and expectations and attitudes, to a great extent, have contributed to boys' better academic performance than the girls'. The analysis of the dynamics at the household level is important because it is the place where key educational decisions are made. For a family, the costs and benefits of educating girls may be quite different from those associated with educating boys. The key issue is that in many societies like Zanzibar, the benefits of educating women are mainly public, whereas many of the costs are private. This leads to underinvestment in women's schooling and thus to the persistent gender gap.

The benefits of educating women have been succinctly summarized by Elizabeth King (1993). A bettereducated mother has fewer and better-educated children. She is more productive at home and in the workplace. She raises a healthier family, since she can better apply improved hygienic and nutritional practices. Education can even substitute for community health programmes by informing women about health care and personal hygiene. Raising the level of women's education contributes in important ways to development. The question is, with societal knowledge of the tremendous benefits of educating women, why has the society not invested much to reduce the persisting gender gap?

What has come out clear from this analysis is that gender differentials in education in Zanzibar has persisted irrespective of the enabling policies by the Zanzibar government, because of the internal household choice and decision making. Specifically speaking, the persons in the household who bear the private costs of investing in

schooling for girls do not perceive the full benefits of their investment coming directly to them. This is because much of the payoff in educating women is public/social. Education, to a very great extent, is primarily a family affair influenced by perceptions about current costs and future benefits.

Depending on the society, parents tend to have different perceptions regarding the sons' and daughters' education. In certain societies, like we have seen in Zanzibar, they tend to favour sons. Such behaviour on the part of parents may not be discriminatory in itself but may be a rational response to constraints imposed by poverty and the expectation of returns determined by labour market conditions and tradition. When the expected returns to sending daughters to school do not exceed the costs of doing so, female education as an investment becomes unattractive to parents. Daughters will then be educated only to the extent that parents are willing to accept low economic returns

Furthermore, parents may not be able to afford the opportunity costs of educating their children. These costs vary by sex and from one society to another. In some societies, such as Botswana and

Lesotho, boys perform a larger share of the labour, herding livestock. In most places, girls work more in the home. They cook, clean the house, fetch water, and help their mothers to care for the younger children as found in Zanzibar. Logically, girls who work more than their brothers will be less likely to participate fully in schooling, causing them to perform less well. This was the case in Zanzibar by the time of the study.

In conclusion what we have learnt is that the crux of the matter in gender disparity in education lies in the differences in what a household is prepared to invest in a son's and a daughter's education. The lesson This has been is not new. documented by many scholars (Schultz, 1993; Psacharopoulos, 1973; Mincer, 1974 and others). What are still missing are solutions. Which policy interventions can change household decision making preference pose a challenge for researchers and policy makers.

It is proposed that public subsidy of girls' education be increased. This is logical because the non-market productive returns to women's education are associated with important social externalities; that many societies will not have problems subsidizing.

The outcome of this increased public investment in girls' education will be increased participation of women in the labour market and consequently the perception of parents to girls' education as a result of enhanced private returns to women education. The above suggestion may not come very easily. There may be a need to research and document the returns to women's education, both in market wage increase and in nonmarket productivity gains at the community levels for advocacy purposes and negotiate for increased public subsidy on girls' education at the policy levels.

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