Full Length Research Paper

The gender gap in vocational education: Increasing girls access in the 21st century in the Midwestern states of Nigeria

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There is an indication of inequality in educational chances for boys and girls. The girls are less favoured in enrolment ratio especially in the vocational subjects of agriculture, business education and engineering. The situation has been precipitated by social, cultural and economic factors. This paper examined the effects of cultural expectations and roles, sex-stereotyped occupations, classroom lessons, and lack of access to education and suggests education of parents, increment in the number of female teachers in schools, re-examination of cost of education for secondary school as a means of encouraging and retaining girls in schools.

Key words: Cultural practices, female teachers, sex-stereotyped occupation.

INTRODUCTION

Mordi (1993) expressed education as social process in which learners and teachers come together in an effort to share meaning concerning the concepts and skills in the curriculum, he further stated that students, teacher and curriculum bring with it a complex set of causes that directly influence the efforts, actions and conduct of the educative agent. Egun (1993) acknowledged that perception, belief system, existing knowledge, life styles, life goal, needs and drive influence choice and entrance into occupation and professions, thus giving meaning to human experience and the manner in which people think, feel and act within their environment. One of such areas that have been so affected by these factors is the girl-child access to the study of science subjects, thereby creating a gap in male - female ratio in vocational education.

The Nigeria philosophy of education defined in the national policy on education (Federal Republic of Nigeria, 1998; 2004) is the development of the individual into a sound and effective citizen and the provision of equal educational opportunities for boys and girls. Girls and women stand out clearly, as an academic disadvantaged group especially in the vocational and technical field of engineering, agricultural and medical sciences. The low presence of girls / women in the vocational and technical courses has been established by many scholars (Yoloye, 1994; Erinosho, 1998; Fakorede, 1999).

Technical and vocational education in the national policy on Education (FRN, 2004) is that aspect of education which leads to the acquisition of practical and applied skills as basic scientific knowledge. It aims are:

1. To provide trained manpower in applied science, technology and commerce particularly at sub-professional grades.
2. To provide technical knowledge and vocational skills necessary for agricultural, industrial, commercials and economic development.
3. To provide people who can apply scientific knowledge to the improvement of and solution of environment problems for use and convenience of man.

To realize these aims, various universities of technology, colleges and polytechnics were established at various locations. These include 118 technical colleges, 11 colleges of education (Technical), 39 colleges of agriculture, 15 polytechnics and 8 universities of technology (Anikweze, 1998). Although government policy insists on

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equal opportunities for all, women enrolments in science and technology education in secondary and tertiary institutions have not been encouraging. The report of the West African Examination Council (WAEC), in Nigeria by subject, grade and sex reveals the low enrolment of girls for science subjects as well as low achievement in their outputs (August / September, 2004 zonal statistics).

Low enrolment and participation of female in agricultural science, biology, chemistry and physics is indicated in Tables 1 and 2. These are the subjects / requirements for vocational and technical courses. This low female enrolment and performance at secondary level obviously affects to a large extent the number of female candidates for vocational and technical courses in the universities.

CAUSES OF THE IMBALANCE

Gap / Imbalance between male and female education arose from a lot of cultural practices in society resulting from deeply fixed prejudices, attitudes, customs, behavioral decisions and procedure. And these combine to discriminate against women rights and access to educational opportunities. Religious and cultural practices biased against women are long aged problems (Okojie, 1995) and Igbe (2007) stressed that the belief that women being God’s creation is a weaker vessel and has shallow brain buttressed this point.

The effect of religion can be seen more in the upper fringes of the states (Mid-west- Edo, Delta, Ondo and Kogi States) where the girls are usually kept in Pudah and are less enrolled in the formal school system. Culturally, women are expected to marry early to bear children to whom they should devote their time. The traditional domestic role assigned to women, like attending to household chores, farm work, fetching water and collecting / cutting firewood have affected their enrollment in school. Responsibilities to household chores have also influenced families in disallowing girls to attend distant schools. Girls are usually kept at home to attend to farm activities of planting and harvesting of arable crops. Consequently, early marriages of girls are encouraged to serve as source of cheap labour in the farms. Unfortunately, this has served as a depressing factor in the availability of girls for science education (Okebukola, 1994).

Sex-stereotyped occupation of the male over the female is a culture which has reinforced the notion of women into believing that it is taboo to venture into an occupation that is preserve of the males. This no doubt has affected marriages, as women that have ventured into such vocations find it difficult getting married. Gender differential treatment is extending to classroom lessons. While the boys are expected to do better in mathematics and science, the girls are expected to do better in home economics and certain art subject (Nnachi, 2008). Thus intellectual psychology of depression is developed against female potentials. This is in line with the observation of Njuku (2000). These girls are brought up to believe that science is meant for boys and the teachers (most often males) do not encourage girls to work hard in science.

THE ESCAPE ROUTE

Discoveries in science and technology bring about new ways of doing things and are useful if they are adopted and adapted by greater majority of people. The changing world phenomena towards technology - needs to spread to the entire population. Girls and women constitute about 49% of Nigeria total population. Unfortunately 61% of the populations are illiterates, as against 37.7% illiterate male population (NPU, 1992). This state of gender literacy disparity stem from low female enrolment, high female attrition from school and lack of access to education. Poor access and limitation of vocational and technical education to the female population means low empowerment of a group that is needed for national development.

Investing in formal and non-formal education and training of females have proved to be one of the best means of achieving development and economic growth that are both sustained and sustainable. This is in line with the World Bank (1996) cost-benefit analysis which indicated that investment in the education of females has the highest rate of return than any possible type of investment in developing nations.

Such benefits include greater and higher economic production, improved family and child nutrition, better resources utilization and longer life expectancy for both men and women. The education of the female sex will harness their potential thus bringing about positive attitude to life, and improvement in their economic status (variably in family income), health of the individual, family and the country at large. This agrees with Indabawa (1994). Equality of access to attainment of educational qualification is necessary if more females are to become agents of change. To bring about a meaningful change in the ratio of male / female enrolment and sustainace in school especially in the vocational and technical subjects, gradual but consistent strategies need to be evolved.

The key factor to low enrolment as observed above is both cultural and religious. Azikwe (1993) had earlier observed that it is therefore necessary to bring about change in the purviews of the custodians of these institutions. The following measures could assist.

Educating parent on the importance of female education. There is the need for parents to be enlightened by government on the benefit of women education. This could be achieved through mass mobilization campaigns using the various media (in local languages) and the use of women occupying respectable positions in the society
Table 1. The West African Examinations Council SSCE (August/September, 2004) zonal statistics of results in Nigeria by subject, grade and sex.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Sex</th>
<th>Entry</th>
<th>% Of all candidates that obtained a given grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Agric. science</td>
<td>M</td>
<td>134951</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>86418</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>221369</td>
<td>0.0</td>
</tr>
<tr>
<td>Biology</td>
<td>M</td>
<td>156673</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>128314</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>71709</td>
<td>0.4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>F</td>
<td>44542</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>116251</td>
<td>0.3</td>
</tr>
<tr>
<td>Health science</td>
<td>M</td>
<td>3029</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>2767</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>5796</td>
<td>1.1</td>
</tr>
<tr>
<td>Physics</td>
<td>M</td>
<td>64567</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>31969</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>96536</td>
<td>1.2</td>
</tr>
</tbody>
</table>


Table 2. Number of candidates by sex application/admission into vocational and technical courses in Nigeria Universities/Colleges of Education for the 2003/2004 session in Mid-west zone (Edo, Delta and Ondo State).

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Course</th>
<th>Application Male</th>
<th>Female</th>
<th>Admission Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agric. Science</td>
<td>11,582</td>
<td>3,139</td>
<td>3,154</td>
<td>738</td>
</tr>
<tr>
<td>2</td>
<td>Engineering/Tech.</td>
<td>22,780</td>
<td>2,409</td>
<td>6,801</td>
<td>770</td>
</tr>
<tr>
<td>3</td>
<td>Med. Science</td>
<td>44,277</td>
<td>13,493</td>
<td>3,593</td>
<td>930</td>
</tr>
<tr>
<td>4</td>
<td>Science</td>
<td>21,501</td>
<td>6,606</td>
<td>9,090</td>
<td>1,350</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>105,142</td>
<td>25,647</td>
<td>22,638</td>
<td>3,788</td>
</tr>
</tbody>
</table>

Source: Field work (Egun, 2007).

as resource persons. This agrees with Bagshaw (2006). He acclaims that women are better leaders, out passing on such skills as creating and articulating vision, setting clear directions, taking charge, being an inspirational model, setting high standard performance and assuming responsibilities. The adult should also be involved in adult literacy programmes, as their participation in the education process will encourage their daughters to be in school. Besides, adult education will contribute to the achievement of a more rational and more equitable distribution of educational resources between young people and different social groups and ensuring better understanding of economic equality and the sexes (UNESCO, 1976). Educating the adult will contribute to the systematic acquisition, renewal and upgrading of knowledge, skills and attitudes - necessary in responding to the constantly changing condition of modern life and promoting self-fulfillment of each individual (Knapper and Cropley, 1991).

Increasing the number of female teachers in schools. This will fade away the impression of certain jobs being meant for a particular sex. The presence of more female teachers in schools of vocational and technical colleges will not only encourage but will also motivate girls into taking vocational/technical courses in school and striving for higher positions. The colonial schools were for single boys and mixed secondary schools. Government and non-governmental organizations should take more steps
to establish female schools where they can compete among themselves. The effect of this will be most appreciated in communities where there exist restriction on the free association of females and males.

Re-examination of the cost of education for secondary school is necessary. School fees for females should be reduced to the barest minimum if free education for them cannot be implemented. However, if implemented will no doubt prompt parents to allow their children to attend school irrespective of the distance from home and number of male siblings in the family.

Females are held back home due to their needed assistance in farm activities. The restructuring of school calendar to reflect holidays at peak period of farm work will be an added advantage to female school attendance.

Conclusion

The gap between the male - female ratio in vocational education in Midwestern states of Nigeria need to be addressed if good technological bases, and usage is to be realized. There is the need to discourage the discriminatory exercise in socialization process of stereotype jobs and occupations of parents, and science perceived as human activities which understandably is not sex linked. Women are not intellectually inferior to their male counterparts (Adeife, 1997), therefore parents should help girls acquire favourable disposition towards changes, through provision of needed school materials and retention in school.

REFERENCES
