



Factors Militating Against Female Participation in Technical Vocational Education and Training (TVET) in Government Girls Science and Technical Colleges

Abubakar Adamu Njibulwa
Science and Technology Education Department
Faculty of Education
Bayero University, Kano
PMB 3011, Kano State, Nigeria.

ABSTRACT

Technical Vocational Education and Training is that aspect of education that prepares individuals (male or female) to apply relevant practical skills to make changes within their society and afford self-dependent or self-employment. The objective of the study was to investigate the factors that militate against female participation in Technical Vocational Education and Training in Kano state. One null hypothesis was tested using the Mann-Whitney test on mean rank significant on urban and rural students' responses on the factors that militate against female participation in Technical Vocational Education and Training in Kano state. The survey research design was adopted for the study. The area of the study is Kano State located in the North-West geopolitical zone in Nigeria. Two colleges were selected using a stratified random sampling technique; one college from each stratum of the rural and urban area. Reference to Krejcie and Morgan, the study involved 60 SSII female students randomly selected out of the population of 129. A Questionnaire having a reliability coefficient of 0.79, titled 'Factors militating against Female Students Participation in Technical Vocational Education and Training Questionnaire (FMAFPTVETQ)' was used for data collection. The data were analysed using mean, SD, frequency count and Mann-Whitney test on mean rank. Some of the findings include; Female students considered technical and vocational subjects as difficult, poor image and status of technical and vocational education discourage female students in studying the technical and vocational course. Only a few Female students want to further their study in technical and vocational education. Some of the recommendations include; Female students should be encouraged to choose and further their studies in technical and vocational subjects. Technical and vocational teachers should always highlight the prospects of technical and vocational subjects toward the empowerment of girls.

ARTICLE INFO

Article History

Received: March, 2021

Received in revised form: May, 2021

Accepted: June, 2021

Published online: September, 2021

KEYWORDS

Technical and Vocational Education, Female participation.

INTRODUCTION

Technical, vocational education and training (TVET) is that aspect of education which prepare individual (male or female) to apply relevant practical skills to make changes within their society and afford self-dependent or self-employment. Gender participation in technical and vocational education cannot be

overemphasized. It is important to stress that before the advent of western education in Nigeria, women traditionally derived considerable independence in the home through some simple native technological processes such as weaving, dyeing, carving, pottery, spinning, knitting, and oil processing and gardening among others (Hyellaiya, 2008). Moreover, in the recent change



in a female breakthrough in the advocacy in hands-on skills and domestic technology such as car driving, use of modern electrical appliances in our homes (electric cooker, blenders, electrical boilers, freezers), and computer applications. Females also attach high value to metal jewellery gold, diamond, stainless steel, silverware among others, all these are products of Technical Vocational Education. One of the aims of Technical Vocational Education and Training in schools is to prepare students to understand and participate in technological society through experience with technological methods, resources and knowledge. Yet more than a decade, females are not getting the knowledge and skills needed to compete in the global economy (Jennifer, 2008)

Furthermore, Mafa and Mohammed (2013), stated that the African developmental process is in crisis which is manifested in Nigeria's education. It is associated with gender insensitivity in development plans and procedures, and that 90% of African countries including Nigeria, female enrolment are lower than those for males at all levels of education. They added that the low enrolment could be attributed to many factors which include; cultural bias, religion, domestic reasons. Egun and Tibi (2010) examined the effect of cultural expectations and roles, sex-stereotyped occupations, and lack of access to education and suggest education of parents, increment in the number of female teachers in schools, a re-examination of cost of education for secondary school as a means of encouraging and retaining girls in schools. They also reported that females constituted 49% of Nigeria's population as illiterates, the disparity in terms of gender literacy has stemmed from lack of access to education.

Moreover, a study conducted by Udeani (2012), assesses eight factors involved with science career choices: Interest, Enrolment, Masculine image of science, Social barriers, Role Model, School factor, Teacher factor and Parental factor. The instrument was administered to a sample of 375 females enrolled in a general studies programme in the 2010/2011 academic session at the University of Lagos, Nigeria. Results indicated that the group means were significant for enrolment, social barriers and role

models. The group means for interest, masculine image of science, school, teacher and parental factors were found not to be significant. The paper concludes that because females and males appear to possess the equal potential to develop the skills required for the pursuit of science it is both a waste of talent and deprivation to individuals that the two sexes do not participate equally in science.

Another study conducted by Nwakego (2014), examined the problems of the girl child education in Jos North Local Government Area in socio-economic aspects. One of the factors which have militated against women's equality in education is the traditional belief that "a woman's place is in the kitchen" and that "a woman should be seen and not heard". The study investigated girls' enrollment in schools and at the workplace and address the need for gender disparities and inequalities to be reduced to the barest minimum. Girl-child education in Jos North and Nigeria at large will continue to trail the boy-child education if the necessary policy actions are not put in place. The inability to address the issue will further widen the gender gap in education.

Similarly, the Gross Gender Gap in Kano State is about 21.1% in primary education, 13.6% in junior secondary and 13.1% in senior secondary education which indicate a progressive reduction of gender disparities in enrolment (Kano Ministry of Education, 2006). Gender equity plays a major role not only in the educational setting but also in the students' future career choices. If the goal of education is to expose students to possible educational career paths, the notion of gender equality for all education and fields must be included, limiting students' gender-specific roles in their careers can lead to insecurity and confusion among students and an economically depressed society (Jennifer, 2008). However, in 2012, the 'Girl child education initiative' was put in place by the Kano state government to tackle the challenges of girl child education which include; free transportation, free school pupil feeding and provision of two free sets of uniforms. These have engendered an increase in school enrolment figures of females' pupils (Suleiman, 2012). Despite the general enrolment increase, still, there is a significantly low participation of females in technical and



vocational education as stated by Ali (2013) that there are low levels of females' enrolment in the area of Technical Vocational Education and Training in Kano state. Hence, females and males appear to possess equal potential to develop the skills required for the pursuit of Technical Vocational Education and Training. It is against this background that the study intends to find out the factors that militate against females' participation in technical and vocational education in Kano state.

Objective of the Study

1. Investigate the factors that militate against female participation in Technical Vocational Education and Training in Government Girls Science and Technical Colleges in Kano state.

Research Question

1. What are the factors that militate against female participation in Technical Vocational Education and Training in Government Girls Science and Technical Colleges in Kano State?

Research Hypothesis

HO₁: There is no significant difference between the Rural and Urban female students' responses on the factors that militate against female participation in TVET in Kano State.

METHODOLOGY

The attitude survey research design was used for the study. The attitude survey design concern with the attitude of children to schooling and the learning of specific subjects. Information obtained from a survey of such attitudes might help in curriculum changes (Sambo, 2005). The area of the study comprises

6 senior female science and technical colleges. Purposive sampling was used to select two female science and technical colleges, one in Urban (X1) and the Other in Rural (X2) areas of Kano state. Purposive sampling is a sampling technique in which the researcher relies on his or her judgment when choosing members of the population to participate in the study (Sambo, 2005). The target population of the study was 129 SS II Technical and Vocational classes. Simple random sampling was used to select 60 SS II females' students. The instrument used for data collection was a structured questionnaire developed by the researcher from the review of related literature. The instrument was titled; Factors militating against Female Students Participation in Technical Vocational Education and Training Questionnaire. The instrument contains 14 items. Four (4) point response format ranging from strongly agree to strongly disagree was used to determine the opinion of the respondents. The responses were scored as: Strongly Agree (SA) =4, Agree (A) =3, Disagree (D) = 2, Strongly Disagree (SD) = 1. The instrument has a reliability of 0.79. Copies of the questionnaire were distributed to respondents with the help of a research assistant. The data were analysed using mean and frequency count.

RESULTS

The result of the data collected is presented based on the research questions and hypothesis using tables as shown below.

RQ1: What are the factors that militate against female participation in Technical Vocational Education and Training in Government Girls Science and Technical Colleges in Kano State?

Table 1: Mean response of SS II Female students in Technical and Vocational Classes of Government Girl Science and Technical College, Kano State

S/N	ITEMS	Rural School (X1)	Urban School (X2)	Grand Mean	Remarks
1	Females students consider technical and vocational subjects as difficult	3.7	2.3	3.0	Agree
2	I attend technical and vocational classes regularly	1.9	3.0	2.5	Agree
3	I always feel that technical and vocational courses are meant for male	3.2	2.4	2.8	Agree

Corresponding author: Adamu, A. N. ✉ a.adamu69@yahoo.com ✉ Science and Technology Education Department, Faculty of Education, Bayero University, Kano. © 2021. Faculty of Tech. Education, ATBU Bauchi. All rights reserved



S/N	ITEMS	Rural School (X1)	Urban School (X2)	Grand Mean	Remarks
4	students Our principal does encourage us to concentrate on technical and vocational subjects	2.0	2.5	2.3	Disagree
5	I was not encouraged to choose technical and vocational subjects	2.8	3.6	3.2	Agree
6	Technical and vocational teachers always highlight the prospects of technical and vocational subjects toward the empowerment of girls	2.6	3.6	3.1	Agree
7	Technical and vocational teachers always encouraged female students in studying technical and vocational subjects	2.7	3.7	3.2	Agree
8	Poor image and status of technical and vocational education discourage female students in studying a technical and vocational course	2.8	2.7	2.8	Agree
9	I want to further my study in technical and vocational education	2.2	2.4	2.3	Disagree
10	Parents/guardians always encourage us in studying a technical and vocational course	2.1	2.2	2.2	Disagree
11	Our school had a guidance and counselling unit for students	2.0	2.8	2.4	Disagree
12	We were given Free reading/writing material was given by the school management in our technical and vocational classes	1.0	2.5	1.7	Disagree
13	Prizes were given to the best female students in technical and vocational subjects	2.2	2.2	2.2	Disagree
14	I receive courage from my peer group	2.1	2.2	2.2	Disagree

Source: Field work, 2021

Research Hypothesis

HO₁: There is no significant difference between the Rural and Urban female students' responses

on the factors that militate against female participation in TVET in Kano State.

Table 2: Mann-Whitney test on mean rank significant Urban and Rural students responses

Test Statistics

	Scores
Mann-Whitney U	206.000
Wilcoxon W	671.000
Z	-3.622
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Groups



A results from Table 2 found a statistically significant mean rank difference between the urban and rural students' responses on the factors that militate against female participation in TVET in Kano State. It indicates that the P-value (.000) is less than the α (.05). Therefore, the null hypothesis is rejected in favour of the alternate hypothesis. Meaning, there is a significant mean rank difference in the Urban and Rural students' responses on the factors that militate against female participation in TVET in Kano State

FINDINGS AND DISCUSSION

From the result in table 1, items 1, 2, and 3, female students considers technical and vocational subjects as difficult, attending classes regularly, and feeling about offering Technical courses respectively. This finding is similar to that of Silverman and Pritchard (2008), who stated that there is a loss of interest among females in technology classes. In item 4, the female students were not highly encouraged by their principals. This may be due to the fact that the schools were not purely Technical Colleges. This finding is also similar to Egun and Tibi (2010) who stated that sex-stereotyped occupation is a factor that hinders female participation in technical and vocational education. The study also found lack of encouragement on the part of school administrators, and parents/guardians. This finding is also supported by the finding of Jennifer (2008), who stated that the barriers of female involvement in technology education as; lack of knowledge of career options, lack of female role models and mentors in technology education, lack of funding and other administrative support, as well as parental expectation. Also the findings of Itohan and Garba (2015), supported this one by revealing that some problems that hinder female participation in Technical and vocational education are: peer group influence, poor image and status of TVET. The finding also revealed that lack of incentives to encourage female students, parental perception, and lack of appropriate vocational guidance and career counselling contributed to factors that have been militating female participation in TVET.

CONCLUSION

The study identified several factors that militate female participations in TVET in Kano state. In view of that, females' students are to be given equal access to education by building pure Senior Female Science and Technical Colleges across wide and length of Kano state. Hence, school administrators, parents/guardians, and peer group should provide proper guidance and counselling in a normal school setting. By doing so, female students will become confident enough to take part in building up experience in putting TVET into practice and consequently further their education in TVET thereby minimising the gap between them and their male student's counterpart.

REFERENCE

- Adelakun, O. A, Oviawe, J. H. & Barfa, G. I. (2015). Strategies for Enhancing Females Participation in Technical, Vocation and Training (TVET) in Nigeria. *Journal of Advances in Social Science*. 12 (4)
- Ali I. (2013). Females Enrolment in Technical and Vocational Education in Kano State Faculty of liberal arts, Prince of Songkia University. *E-Journal*
- Egun, A. C. & Tibi E. U (2010). The Gender Gap in Vocational Education: Increasing Girl Access in the 21st century in the Midwestern States of Nigeria. *International Journal of Vocational and Technical 2* (2). Retrieved from <http://www.academicjournals.org/ijvtve>
- Hyellaiya A. M. (2008). *The Challenges of Girl Education towards Achieving the Millennium Development Goals in Nigeria*. Paper presented at the (COEASU) North East Zone National conference on the Challenges of Teacher Education towards Achieving the Millennium Development Goals in Nigeria. Held at Federal College Education (Technical) Potiskum, Yobe State.
- Jennifer A. L (2008). *Gender Equity Issue in Technology Education: A qualitative Approach to Uncovering the Barriers*. PhD Dissertation, Technology



- Education. Raleigh, North Carolina.
Kano State Ministry of Education (2006). Kano Education Development Plan <http://www.facebook.com/kanogovt/posts/57708795714663>. Retrieved on 21/05/2016.
- Nwakego E. O. (2014). Social-Economic Development and the Girl-Child Education: a look at Jos North Local Government, Plateau State. *International Multidisciplinary Journal, Ethiopia* 8(1),
- afa F. U and Mohammed A.U (2013). Crisis in Women Education in Nigeria. *Potiskum Multidisciplinary Journal of Education*. Federal College of Education (Technical) Potiskum, Yobe State. 1(1) 74-78.
- Oluniyi A. Itohan J.O & Garba B. (2015). Strategies for Enhancing Females Participation in Technical Vocational Education and Training (TVET) in Nigeria. *Journal of Advances in Social Science Research*.2 (4)
- Silverman, S., Pritchard, A. M. (2008). Building their future: girls and technology education in Connecticut. *Journal of Technology Education*, 7 (2). Retrieved on 25/05/2016. From <http://scholar.lib.vt.edu/ejournals/JTE/v7n2/pdf/silverman.pdf>
- Sambo A.A (2005). *Research Method in Education* Lagos. Stirling Horden Publishers (Nig) Ltd
- Suleiman R. B (2012). Tackling Girl Child Education in Kano State. <http://www.nationalmirrowonlin.net>. Retrieved on 10/09/2016
- Udeani, U. (2012). Increasing Female Participation in Science and Technology Careers: Problems and suggested Interventions from Nigeria. *Journal of Society for Science and Education*. Retrieved from www.iiste.org.