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Influence of Societal Perception and Societal Support on the Participation of Female Students in Technical Education in Nigeria

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Abstract

Technical innovation is considered as one viable means for global development, as it affords both male and female relevant skills to make positive changes in their world. Howbeit, participation of female gender in technical Education in Nigeria and largely in Africa compared to other developed continents is relatively low and this largely has to do with the role the society play in influencing dominance of male gender in this area. The purpose of this study was to determine the influence of societal perception and societal support on the participation of females in technical education in Nigeria. Two research objectives and hypothesis guided the study. A correlational research design was adopted for the study. The sample for the study was 150 female students from five secondary schools in Enugu State. Three structured questionnaires titled societal perception questionnaire, society support questionnaire and students' technical education participation questionnaire were developed by the researchers and used for data collection. Three experts from the Department of Industrial Technical Education, University of Nigeria, Nsukka validated the instruments. Data collected were analyzed using correlation analysis for the research questions, while the hypotheses were tested using simple linear regression at 0.05 level of significance. It was discovered that there was a significant relationship between societal support and female students' disposition towards participating in technical education.

Keywords: Technical Education, Societal Perception, Societal Support, Female Students, Nigeria

Introduction

Technical Education basically helps to prepare people for skillful performance on practical tasks as it involves acquisition of skills and competencies that can help individuals to function productively in industrial and commercial occupations (Wapmuk, 2011). Globally, technical education has been seen as a very important tool for empowering people and providing them with skills, knowledge and attitudes for effective employment in specific occupations. According to Okwelle (2013), technical education is a deliberate intervention to bring about learning

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which would make people more productive in designated areas of economic activity. This means it equips people with manipulative ability for production of goods and services, which serve as a catalyst in the process of change in the society. Ayonmike (2014) also posited that technical education has become one of the key policy priorities in education and training in Nigeria due to the recognition of its effects on social and economic empowerment of the society. In Nigeria, technical education has been identified to provide requisite skills and build human capacities especially in key priority areas including science, technology and engineering that support the achievement of its vision of becoming a prosperous and industrial nation by the year 2020 (Ayonmike, 2014). However, despite all these huge opportunities that technical education provides, participation of the female gender in this field is relatively low.

Gender refers to society's division of humanity, based on sex, into two distinctive categories (Ifeanacho, 2009). Gender guides how females and males think and see themselves, how they interact with others, and what position they occupy in society as a whole. Thus, gender basically operates as a dimension of social inequality. In the observation of Simipri (2015), women constitute the majority of the unskillful adults and as a result, women do not have equal opportunities to contribute meaningfully to the development of the society. In both rural and urban areas, many women perform unskilled and menial jobs while some occupy the lowest cadre in the job hierarchy. They earn little wages after putting in much effort (Amaechi, 2014). This is further established by Aminigo (2006) who reported that there is gender difference in all socio-economic attributes of income, wages, skills, health. This has led to widened poverty in developing countries because women cannot have access and control over resources, benefit from economic opportunities, and influence their power in political arena.

Technical education and training of both men and women is very vital for the overall development of the nation because both boys and girls have vital roles to play towards the growth and development of the society. However, this is not the reality in Nigeria where out-of-school children especially girls is still on the increase in addition to child marriage and labor. Erinosho (1997) in Edu and Edu (2012), observed that in the past, neither traditional nor western education in Nigeria encouraged or provided equal opportunities for women to enter the field of technical education in Nigeria. The participation of women in technical education programmes in Nigeria institutions is still very poor when compared to enrollment in general education programmes (Aina, 2006; Hubert, 2006; and Yakubu, 2006). The factors affecting participation of girls in technical education programmes according to Ayonmike (2015); Igbinedion and Ojeaga (2012) among others is poor societal perception and support.

Perception in the opinion of Wonacott (2012) is the process whereby people select, organize and interpret sensory stimulations into significant information about their environment. He also argued that perception is the single most important determinant of

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human behaviour stating further that, 'there can be no behaviour without perception'. Therefore, perception of a person is actually influenced by the attitude of that person. Perception is the manner in which something is seen, understood and regarded. Arnould et al. (2019), sees perception as the way people view and interpret the world around them. Unarguably, Female are under-represented in many of the technical education and skills acquisition programmes as a result of societal perception (Wonacott, 2012). Societal perception could be seen as the way the society sense and interpret female participation in apprenticeship programme (Okwelle, 2013). The participation of the female child in some fields and skills acquisition has become a major concern to stakeholders in education. According to Okorafor (2014), this societal perception of female child takes the form of belief that the male children typically are responsible for supporting parents in their old age and will continue the lineage of the family in terms of name. This, therefore, makes the education of the male child more attractive to parents whereas they believe that female, upon marriage, join their husband family, change their surname and take with them the benefit of all the education and skills acquired. This makes parents have little or no interest in bearing the costs of educating or training female children in vocations (Okorafor, 2014). According to Gupta et al, (2014) presently, multiple and inter-linked social norms dictate young girls' choice of capabilities. These discretionary social norms and practices still compress female children capability and compound their exclusion to participating in certain apprenticeship programme. According to Aina as cited in Ayonmike (2014) opined that since the introduction of technical education in Nigeria, female participation in technical education and training programmes has remained poor because it lacks societal support.

Social support according to Berkman et al. (2000) is a complex concept, with varying definitions. For instance, it has been described in terms of a social network structure, often measured quantitatively (Hirsch, 1980; Hutchinson, 1999), which is comprised of a set of significantly present others through which social support is gained. It is also the perception and actuality that one is cared for and has assistance available from other people, and most popularly, that one is part of a supportive group of people These supportive resources can be emotional (e.g., nurturance), informational (e.g., advice), or companionship (e.g., sense of belonging); tangible (e.g., financial assistance) or intangible (e.g., personal advice). It is against this back drop that the study seeks to identify the influence of societal perception and societal support on the participation of female students in technical education in Nigeria.

Purpose of the study: The main purpose of the study was to identify the influence of societal perception and societal support on the participation of female students in technical education in Nigeria.

Specifically, the study determined the;

1.relationship between societal perception and the participation of

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female students in technical education in Nigeria and

2. relationship between societal support and the participation of female students in technical education in Nigeria will also be examined in the study.

Null Hypotheses

Ho1: There is no significant relationship between societal perception and the participation of female students in technical education.

Ho2: There is no significant relationship between societal support and the participation of female students in technical education.

Methodology

Research Design: The study adopted a correlational design. A correlational design seeks to establish the degree of relationship that exists between two or more variables. A correlational research design indicates the direction and magnitude of the relationship between two or more variables. The rationale for adopting this design is to determine the relationship among societal perception, societal support and participation of female students in technical education.

Population for the study: The area of the study was Osogbo local government area, Osun State, specifically Osogbo which is the capital of Osun State. Osogbo has two local government area they are Osogbo Local Government Area and Olorunda Local Government Area. Osogbo Local Government Area has 33 public secondary schools with a population of 6,382 female students.

Sample selection: The total population of the study comprised of 6,382 female students in Osogbo LGA. The sample for the study consisted of 150 female students and it was conducted in five secondary schools, in Osun State. A two-stage sampling technique was used to sample schools, respondents. Random number table was used in the first phase to randomly select 15% of the secondary schools from the 33 schools in Osogbo LGA. This gave a total of five secondary schools. The last stage involved a simple random sampling was used to sample and select thirty female students from each school.

Instruments for data collection: Three sets of instruments were developed by the researchers and used for data collection in this study, they were the Societal Perception Questionnaire (SPQ), Societal Support Questionnaire (SSQ) and Student Participation Inventory (SPI). The Societal Perception Questionnaire (SPQ) was divided into two sections, Section A and Section B. Section A contains items that sought demographic information from the students. Section B consists of 15 items that sought to assess societal perception of them participating in technical education. Some of the items include "*the society believes that technical education is only for males*" and "*people in my society believe that women in technical education are not reliable."* The items were negatively worded therefore the items were reverse scored. The items were based on a four point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) with values of 1, 2, 3, and 4 respectively.

The Societal Support Questionnaire (SSQ) was also divided into two sections, Section A and Section B. Section A contains items that sought demographic information from the students. Section B consists of 16 items that sought to determine student's societal support of

them participating in technical education, some of the items include "*my society my society will not appreciate me if am studying technical education"* and *"I feel that my society will not support my decision to study technical education."* The items were negatively worded therefore the items were reverse scored. The items were based on a four-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) with values of 1, 2, 3, and 4 respectively.

Finally, the Student Participation Inventory (SPI) was also divided into two sections, Section A and Section B. Section A contains items that sought demographic information from the students. Section B consists of 11 items that sought to assess student's willingness to participate in technical education, some of the items are *"I am able to get a good grade in my technical education classes if I participate fully."* and *"I am ready to participate in technical education because of my future career."* The items were based on a four-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) with values of 4, 3, 2, and 1 respectively,

Validation and reliability test of the instruments

The instruments were face validated by three experts. The three experts were from the Department of Industrial Technical Education, University of Nigeria, Nsukka. The expert made some inputs that were integrated to improve the final copy of the instrument. Reliability of the study was determined using Cronbach Alpha method, the instruments were trial tested on female secondary students in Ondo State and it was observed that Societal Perception Questionnaire (SPQ) had a reliability value of 0.76, Societal Support Questionnaire (SSQ) had a reliability of 0.83 and the Student Participation Inventory (SPI) had a reliability of 0.72. This implies that the reliability value is relatively high since 76%, 83% and 72% of the test score is reliable respectively. The data was collected by administering the questionnaire directly on the respondents by the researchers and two research assistants.

Data and Statistical Analysis: Data analyses were carried out using SPSS 22.0 as statistical package. The maximum obtainable score for SPQ is 60 while the minimum obtainable score is 15, the lower the score the poorer the societal perception. The maximum obtainable score for SSQ is 64 while the minimum obtainable score is 16, the lower the score poorer the societal support. While the maximum obtainable score for SPI is 44 and the minimum obtainable score is 11, scores from 22-44 show high female participation the higher the score the higher the participation. The statistical tools employed were, correlation analysis and simple linear regression. For the test of significance, the probability (p) value was used in comparison with the alpha value of .05, and at other relevant levels. If any item has a probability value greater than .05 ($P>0.05$) it will be concluded that there is no significant difference in the mean responses of the respondents. While Pearson correlation will be used to answer research questions 1 and 2.

Results

The results presented in Table 1 depict the relationships among societal perception, societal support and female participation. The table shows that there is a moderate correlation between

societal perception and female participation (.467). The positive relationship between societal perception and female participation indicates that when the value of societal perception increases the value of female participation also increases. The table also shows that there is a moderate correlation between societal support and female participation (.361), the positive relationship between societal support and female participation indicates that when the value of societal support increases the value of female participation also increases.

Table 1: Pearson correlations between the variables

Variable	Societal Perception	Societal Support	Female Participation
Societal Perception	1		
Societal Support	.339	1	
Female Participation	.467**	.361**	1

**; values are significant at p < 0.001

Null Hypothesis 1: There is no significant relationship between societal perception and the participation of female students in technical education.

Table 2 highlights the model summary of Regression analysis between societal perception and female student participation. It shows the value of correlation coefficient that is R and coefficient of determination that is R^2. The value of R represents the simple Pearson's correlation. The value of coefficient of determination (R^2) indicates how much of the variation in the independent variable (societal perception) can explain the dependent variable (female student participation). The table shows that the value of R is .467 which is moderately close to 1.00. The value of R^2 is .106 which means that 10.6% variation in female student participation is explained by societal perception.

The Table also provides details of models parameters (Beta values) and significance of these values. The unstandardized Beta coefficient gives measures of the contribution of each variable to the model. It is clear from table 3 that the value of unstandardized Beta is 1.133 which represents the gradient of regression line. Therefore, if the value of predictor variable (societal perception) is increased by one unit, there is 1.133 unit increased in the outcome variable (female participation). The value of unstandardized Beta also indicates that there is a moderate and positive influence of societal perception on Female student participation. This impact is statistically significant because sig. value p < 000 which is less than .05 (95% confidence interval). Therefore, the null hypothesis is rejected. It may be concluded that there was a positive and significant relationship between societal perception and Female student participation in technical education.

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Table 2: Model Summary of Regression Analysis between societal perception and female student participation

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	R	R Square
	B	Std. Error	Beta				
(Constant)	308.319	9.495		32.471	.000	.467	.106
Societal perception	1.133	.080	.910	14.076	.000		

Null Hypothesis 2: There is no significant relationship between societal support and the participation of female students in technical education.

The above Table 3 highlights the model summary of Regression analysis between societal support and female student participation. It shows the value of correlation coefficient that is R and coefficient of determination that is R^2. The value of R represents the simple Pearson's correlation. The value of coefficient of determination (R^2) indicates how much of the variation in the independent variable (societal support) can explain the dependent variable (female student participation). The table shows that the value of R is .361 which is moderately close to 1.00. The value of R^2 is .016 which means that 1.6% variation in female student participation is explained by societal support.

The Table also provides details of models parameters (Beta values) and significance of these values. The unstandardized Beta coefficient gives measures of the contribution of each variable to the model. It is clear from table 5 that the value of unstandardized Beta is .731 which represents the gradient of regression line. Therefore, if the value of predictor variable (societal support) is increased by one unit, there is .731 unit increased in the dependent variable (Female student participation). The value of unstandardized Beta also indicates that there is a moderate and positive influence of societal support on Female student participation. This impact is statistically significant because sig. value (p) is .000 which is less than .05 (95% confidence interval). Therefore, the null hypothesis is rejected. It may be concluded that there was a significant relationship between societal support and Female student participation in technical education.

Table 3: Model Summary of Regression Analysis between societal support and female student participation

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	R	R Square
	B	Std. Error	Beta				
(Constant)	244.879	9.631		33.761	.467	.361	.016
Societal support	.731	.052	.910	9.323	.000		

a. Dependent Variable: Female student participation

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Discussion of Findings

This paper was embarked on to determine if a relationship exists between the two independent variables (societal perception and societal support) and the dependent variable (female students' participation). Results show that there was a positive significant relationship between societal perception, societal support and female students' participation. This is in line with what is observed generally in our society, it is believed that some particular tasks or jobs are for males while some are seen as jobs for female. In the same vein technical education and engineering related courses have been stereotyped to be for males, they feel that males can perform better because they are more inclined to fixing and repairing. Some also believe that males are better in calculations and since technical education involves detailed calculations for production it is erroneously believed that female students will not be able to thrive in the program, therefore female students may not receive as much support as their male counterparts if they show an interest in pursuing a career in technical education. The findings were consistent with those of Wonacott (2012) and Ayonmike (2014) who observed that the way the society perceives the female gender affects their participation and selection of some choices. This is because the society believes that some courses or careers are meant for only male students. Similarly, Igbinedion and Ojeaga (2012) pointed out that factors which may affect participation of females in technical education programmes can be caused by the society. He further stated that if the society does not change its perception about the role of females in the workforce, there will be a shortage of female participants in some career areas.

This study equally found that an improved societal support is essential to enhance the participation of female students in technical education. This is also in line with the findings of Edewor (2011) who opined that since the introduction of technical education in Nigeria, female participation in technical education and training programmes has remained poor because it lacks societal support. If the society makes a determined effort to implement more gender inclusion policies and shun the erroneous belief that technical education is only for males this will go a long way in increasing female participation, because some societies deny female students from participating in technical education simply because of their gender. Also increased societal support will improve the confidence and self-belief of females to pursue a career in technical education and this might increase the participation of female students. This result is expected because of the role societal support plays in various life activities most especially in educational settings. It is an established fact that the decision to engage in an activity is determined by the level or degree of support an individual receives from significant people around him or her.

Conclusion

From the result of the study, societal perception and support has the possibility to dictate the level of female student's participation and interest in their chosen field of study. If the gender stereotype attached to technical

education is removed, more girls might be encouraged to pursue a career in the technical disciplines. Furthermore, female participation in technical education could also increase if families and the wider society provide encouragement and incentives as well as moral and financial support for young girls even at secondary school level.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Since societal perception influences female participation, thorough efforts should be made by Government, Media companies and school administrators to ensure that the societal perception on female participation is improved.
2. Parents and the society at large should try to support female students to participate in technical education.
3. Workshops and seminars should be arranged for stakeholders in technical education to inform them of the importance of societal support in improving female participation in technical education.

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