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ENHANCING PARTICIPATION OF GIRLS IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET): THE CASE OF TAMALE TECHNICAL UNIVERSITY

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Abstract:-

Most people opined that Technical Education is the preserve for boys only, but that should not be the case. Over the years, most of the engineering programmes such as Automobile, Building and Construction, Carpentry and Joinery, Mechanical, Electrical, Welding and others are termed as male dominated programmes, which should not also be the case. Hardly does one see girls enrolling in these programmes. Most of the time one can find one or two girls in such a class, and in most cases, these girls perform excellently, which shows that when encouraged, more girls would like to offer engineering programmes. The purpose of this paper was to find out what is preventing girls from enrolling in the engineering programmes and what can be done to encourage them to enroll in such programmes. 100 questionnaires were distributed to girls not enrolled in engineering programmes. Also, ten girls in the engineering programmes were interviewed as well as visits to the classrooms to get first-hand information on girls' performance. The study revealed that, cultural and public perception about the programme for girls is preventing most girls in enrolling in the engineering programmes. It is recommended that there should be continuous sensitization for girls, about TVET programmes. There should also be a quota system in place to cater for girls' intake into engineering programme as affirmative action.

Keywords:-*TVET Programmes, Engineering programmes, Girls enrollment, Technical Education.*

INTRODUCTION

Women, and for that matter girls, are termed as the weaker sex. This has led to them being discriminated upon in several ways be it Politics, Religion, Education and especially, in TVET where also, most programmes such as Automobile, Building and Construction, Carpentry and Joinery, Mechanical, Electrical, Welding and ICT are termed as male dominated programmes. This normally, results in low intake of girls in such programmes. These programmes are no go area for girls, except for some few daring girls who defied all odds to enroll on such programmes in the Technical Institutions. Those girls who enroll on such programmes to do perform creditably. The 21st Century has seen women break so many barriers and achieved so much it no longer surprising to see more women excel in what is considered a 'man's world'. *'If you are able to make it in this enlistment, process, you will be among the first female officers to be commissioned into the Ghana Navy. Will you be ready for the challenge?'* (Anokye-Boakye, 2015) these were the words of an officer who interviewed a lady during enlistment into Ghana army. She answered yes! If only I'm selected. She did not show any timidity. Determination to find employment made her to be enlisted.

She felt like a lone ranger because she did not get any preferential treatment. Though she went through some hard times, with determination, she endured to prove that females and for that matter girls, were indeed capable if given the opportunity and she succeeded. From her training, she has had her personal convictions being confirmed: *'There is no job preserved for men. Anyone can do any professional job provided he or she satisfies the criteria and determined to do so'*. These were some of her words, so more girls should be encouraged to enroll on the male dominated programmes. (Anokye-Boakye, 2015) It is felt that girls should be given the opportunity to enroll in their numbers in such male dominated programmes to create some kind of gender equality. It is in this vein that lots of Fora, Conferences and Workshops are being organized to create awareness and empowering girls in one way or the other. Beijing Conference in China, in 1995, had one of its declarations as *"Determined to advance the goals of equality, development and peace for all women everywhere in the interest of all humanity"* (UN, 1996). Article 26, section 1, of the United Nations (U.N) human rights law states 'inter alia' that "everyone has the right to education. Technical and professional education shall be made generally available and higher education shall be equally accessible to all (whether boy or girl) on the basis of merit". From this, one can argue that the inability of the girl child to enter into technical institution is against human right law. The main aim of this study was to establish why very small numbers of girls enroll in the male dominated programmes in the Technical Institutes, develop strategies to control the situation and to improve the enrollment of girls in Technical Institutes. One of the objectives of the Technical and Vocational Education (TVED) of the Ghana Education Service (GES) is *"To promote increased participation of women in education, training and employment in the TVET field"*. (GES, 2005) The objectives are to; examine the challenges facing girls, establish strategies to encourage the enrollment of girls into the male dominated programmes, assess the way forward. The study will help policy makers, especially the Ministry of Education with valuable information for enhancing policy guidelines and procedures that will motivate girls to enroll on Technical Programmes.

Methodology

Purposive sampling was done to obtain information from those involved in the Women in Technology Development, which are the girls inside and outside Technical Programmes. A structured interview was conducted for four teachers from each of the eight male dominated programmes in the Polytechnic. Interviews were conducted for the ten girls offering the male dominated programmes to seek their views on the topic. Also questionnaires were administered to 100 girls not enrolled in the male dominated programmes. 80 questionnaires out of 100 sent out were received. Some statistics on enrollment were collected from the academic office of the Polytechnic. The results are shown in frequency and percentages.

Results and Discussions

The response of girls who are not offering male dominated programmes in Technical Institutions is shown on Table 1.

Table 1: Response of girls who were not offering male dominated programmes in Technical Institutions on what prevented them from choosing any of the engineering programmes?

Factors	Frequency	Percentage
Perception	40	50%
Parents	5	6.25%
Culture	35	43.75%
Total	80	100%

The study revealed that, what actually prevented the girls from offering the engineering or the so called male dominated programmes in the Technical Institutions are culture and public perception. From Table one, 50% of the respondents indicated that the factors which prevented them from offering engineering programmes was perception, while 45 respondents which represents 43.75% also indicated that, it was culture practices which prevented them from offering the engineering programmes. These were the two highest responses, so it can be said that, public perception and cultural practices prevented the girls from enrolling on the male dominated programmes. In an interview, a respondent said, she wanted to offer Mechanical Engineering, but she was told by her mother that the work place for the girl is the kitchen, so she went in for Catering. It is in this vein Homawoo, (2015), stated that, the Ghanaian culture has a perception of women being inferior. As a result, it has affected choices and growing up. Women therefore, need psychological challenges and

rise up to the occasion. This emphasizes the fact that, this public perception and outdated cultural practices needs to be defused to allow our girls to enroll on engineering programmes of their choice.

Table 2: Response of girls who were not offering male dominated programmes in Technical Institutions on what motivated them to go in for their chosen female programmes?

Factors	Frequency	Percentage
Interest	40	50%
Culture	15	18.75%
Parents	25	31.25%
Total	80	100%

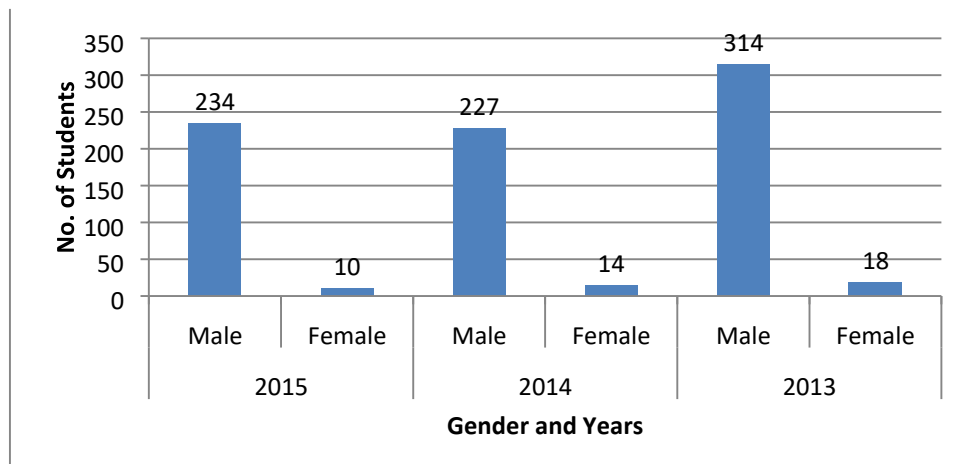
This session of the study revealed that, the main factor which influenced the choice of programme the girls offered was a matter of interest. From Table one above 50% of the respondents indicated that it was all about interest, which made them to choose the programme they are offering presently which is female dominated programmes in the Technical Institutions. Perhaps because the programmes are female dominated ones like, catering and fashion that is why they chose them. The lowest frequency is 15 which also represented 18.75% of the respondents, said it is culture. This is an indication that, culture as a factor did not feature significantly in influencing their choice of programme, as in the case of what prevented them from going in for engineering programmes.

Table 3: Response of girls who were not offering male dominated programmes in Technical Institutions on what can motivate them to go in for the engineering programmes: Relaxed entry requirement.

Factors	Frequency	Percentage
Yes	55	68.75%
No	25	31.25%
Total	80	100%

From table three above, it can be seen that, if the entry requirement was relaxed for girls, to enroll on engineering programmes as a form of affirmative action, 55 out of 80 representing almost 70 per cent respondents would have enrolled, because they answered yes to the question if the entry requirement was relaxed would you have enrolled? This is an indication that, affirmative action is away to increase, the enrollment of girl into engineering programmes in the technical institutions. Figure 1, below shows the enrollment statistics of male and females offering male dominated (Engineering) programmes in Technical and Vocational Division of Tamale Technical University from the year 2013 to 2015. The results from figure 1, below is an indication that the enrollment of female students on the engineering programmes was below 10 percent over the past three years. It can also be seen that, the number of female students' enrollment has also been reducing from 2013 to 2015. This calls for something to be done to curtail the trend. It is in this direction that the affirmative action mentioned earlier on is necessary to help the situation. Darkey, (2015) arguing for affirmative action called on the National Democratic Congress (NDC) a political party to fulfill its promise of 40 per cent representation of women in political leadership. She said this could be done by reserving 110 seats, representing 40 per cent of the 275 constituencies, for only women to contest to be in parliament. She further called on all political parties to work with the Electoral Commission (EC) to allocate 30 per cent of parliamentary constituencies to only women, from all political parties to contest. She reminded the parties of their statements (both oral and written) made on various platforms and their manifestos in 2012 general elections to increase the representation of women in their parties. The filing fees for female contestant should be reduced by 50 per cent. She also concluded that parties make provision for financial assistance to female candidates contesting on their tickets in 2016 elections. She proposed some measures that could be adopted to increase the participation and representation of women in the political process. Though they applaud the Affirmative Action Policies adopted by the parties which brought about a marginal increase in the number of women who entered parliament. When this increase is analysed within the context of the total number of seats that is 30 women out of a total of 275 seats, is still very low. Furthermore, Ahenkora, (2015) also emphasized that the affirmative action policy by the New Patriotic Party (NPP) was a good one that can encourage more women into the field of politics, it ought to be re-packaged and managed properly. So it can be seen that even in politics participation of women is a challenge and the way to go is the affirmative action.

Figure 1: Enrollment statistics of females and males offering male dominated programmes in Technical Vocational Division of Tamale Technical University from the year 2013 to 2015. (Source: Academic office, Tamale Technical University)



(Source: Academic affairs office, Tamale Technical University) Figure 1, above shows the enrollment of male against female over three years at the TVET division of Tamale Technical University. It can be seen from the figure one, that the enrollment of girls at the Polytechnic’s Technical and Vocational Division, in the Science and Technology programmes has consistently reduced since 2013 till date. This is an indication that, the situation is getting worse and something must be done to avert the situation.

Table 4: Response of girls who are not offering male dominated programmes in Technical Institutions on what can motivate them to go in the engineering programmes: Scholarship.

Factors	Frequency	Percentage
Yes	70	87.5%
No	10	12.5%
Total	80	100%

It was revealed from the study that, there can be a significant increase in the enrollment of girls into science and technology programmes in technical institutions in Ghana. From table 4, seventy respondents, representing 88 percent, answered yes to that they will enroll on engineering programmes if scholarships were given to them. Mensah, (2015) indicated that, Vodafon Ghana must be lauded for giving scholarship to some girls to encourage them to take up courses related to Science, Technology and Mathematics. He also stated that, there is male dominance with respect to the study of Science, Mathematics Engineering and Technology related programmes and Vodafon Ghana want to bridge that gap by providing the scholarship for the female students to pursue such programmes. Kyeremeh, (2015) also indicated that, this initiative by Vodafon has come at an opportune time because with the present world dispensation, the interest of the girlchild in the study of math, science and technology has to be whipped-up. This will eventually help them overcome and demystify the fears associated with those courses he added that it has been established that, it was easier to retain females in their fields of study as compared to their male counterparts. If this statement is anything to go by, then, there is an urgent need to find means and ways to increase the enrollment of female students into Science and Technology programmes in Ghana and the way to go is scholarship as Koforidua Technical University has started giving scholarship to female to pursue science and technology programmes in the University. (Dzisi, S. 2017). This was revealed by the vice chancellor Prof. Smile Dzisi who is for now the only woman vice chancellor in the eight Technical Universities and two Polytechnics in Ghana during an interview with ‘Citi news’ a local FM radio station. She indicated that the purpose of the gesture was to bridge the gap between male and female and to increase enrollment of female in Science and Technology programmes in the country. She added that this year 2017, they gave scholarship to ten females.

Table 5: Response of girls who offering male dominated programmes in Technical Institutions on what Challenges they face.

Factors	Frequency	Percentage
Intimidation	8	80%
discrimination	1	10 %
Lack of strength	1	10 %
Total	10	100%

The major challenge facing the few daring females who defied all odds and ventured into the science and technology based programmes is intimidation, as can be seen from Table 5. This shows that the boys in the male dominated programmes, do intimidate the few girls who are daring and enroll on these male dominated programmes. Though there were other challenges like discrimination and lack of strength but, one respondent each representing 10% responded that these are a challenge to them. Lithur, (2015) stated that, as a result of UN resolution to member states to establish an appropriate government machinery to accelerate the integration of women in development and also initiate measures to deal with the discrimination against women. Though this was in contrast with the revelation of this study that the major challenge facing the young girls pursuing technological based programme was intimidation.

Government Interventions

This session gives a number of governments' interventions. Some of the interventions includes: the establishment of COTVET. Deh and Addo (2015) indicated that the Council for Technical and Vocational Education and Training (COTVET) is rolling out the Role Model Programme under the 'Development of Skills for Industry Project' (DSIP). They further explained that under this project, role models were engaged by COTVET to interact with the youth and encourage them to engage in Technical and Vocational professions. They concluded that the DSIP has a focus of increasing women participation and enrollment in TVET through concepts such as the role model programme. The project is funded with financial support of US\$ 125 million from the African

Development Bank (AfDB) and a government of Ghana (GoG) contribution of US\$ 11.5 million.

Conclusion

From the study, it can be concluded that, the enrollment of girls into engineering programmes in the Technical Institutions are low. It can also be concluded that, the factors preventing girls from enrolling are public perception and cultural practices and the girls need encouragement. Scholarships will play a key role in increasing enrollment.

Recommendations

The following recommendations are made for stakeholders to consider:

1. Continue to sensitize girls about the male dominated programmes to girls.
2. There should be quota system in place to encourage girls participation in TVET
3. There should be an affirmative action to increase girl's participation in TVET.
4. Scholarship should be provided for the girl child to enroll on engineering programmes.

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