

An Assessment of Factors Influencing Gender Perception On Vocational Education In The Bolgatanga Technical University In The Upper East Region

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Abstract: *This study sought to examine factors influencing gender perception on Vocational Education in the Bolgatanga Technical University. Specifically, the study was set out to identify the perception of males towards vocational education in the University. A qualitative survey design approach was employed to select 200 respondents. Data were analysed through frequencies, percentages and means. For the analysis through the measure of dispersions, a 5-point Likert scale was employed for the closed-ended responses where 5-strongly agree, 4-agree, 3-uncertain, 2-disagree and 1-strongly disagree. Statistical Package for Social Sciences (SPSS) version 20.0 was used to analyse the data. It was found out that respondents perceived that females perform better in vocational education programmes than males with the mean of 4.57 and 4.63 respectively. It was concluded that males generally pursue other technical programmes than enrolling in vocational education.*

Key words: Gender perceptions, Vocational education, Vocational skills, Higher Education, Technical University, Bolgatanga

INTRODUCTION

Vocational education can be traced as far back as when Ghana gained independence [1]. This system of education has various effects on economic, social, and political factors that desire to prepare Ghana's youth for jobs resulting from the new industrial revolution [2]. Vocational education in Ghana flourished through most of the twentieth century. Nevertheless, as early as 1990, it was recounted that there was a state crisis in decreasing enrollment for vocational education plans in secondary and tertiary schools [3]. This deteriorating national drift in the admission of students in vocational educational programs has been persistent through the last decade [4] and now stands at 4.4% agreeing to [5]. This development, coupled with an increasing national dropout rate and a declining general graduation rate, has severe inferences for the nation's education administrators and the students that have not earned any qualification [6]. [7] noted that, the dropout rate alone could have remarkable economic significances for our economy.

Numerous researchers established that approaches towards vocational education differ clearly between males and females, with males demonstrating greater interest and knowledge towards it [8]; [9]. Other researchers also revealed that, female students perceived vocational education as more challenging and less remarkable than male students [10]; [11]. Agreeing to [12], the dissimilarities in gender attitudes can be drawn back to the assignment and use of devices in education, where devices were mainly used in research and administrative offices by white males. [13], study supports this gender approach difference. In their study, females' attitudes toward technology went from satisfaction of technology education and sureness in technological capacities at the commencement of the study, to undesirable attitudes by the end of the study that began from expropriation of equipment by males and the males making fun of the females. [14], also found that female attitudes towards vocational education became more encouraging when they spent more time on practical equipment at the workshop.

[15], piloted a focus group with male members in which the males contended that they enjoyed vocational educational programs. This view was replicated in another study conducted by [16], who established that males had more optimistic attitudes regarding vocational educational programs than females. According to [16], males considered vocational educational programs as a way to escalate productivity. From their study, males who were involved in vocational educational programs often had a friend or a relative who encouraged them to follow their interest. The study was set out to identify the perception of males towards vocational education in the Bolgatanga Technical University.

MATERIALS AND METHODS

The study area for this study was Bolgatanga. Bolgatanga is a town and the capital of the Bolgatanga Municipal District and Upper East Region of north Ghana. Bolgatanga has a 2012 settlement population of 66,685 people. Bolgatanga is 161 km (about 100 miles) to the north of Tamale. Bolgatanga lies in the Red Volta River Valley which serves as a major migration route of elephants, with the White Volta River and the cliffs of the Gambaga Escarpment to the south of the town forming the southern boundary of the Upper East region.

The design for this study was a qualitative survey. As explained by [17], a qualitative survey is a data collection tool used to gather information about individuals. A survey according to the author may focus on factual information about individuals, or it

may aim to collect the opinions of the survey takers. The researcher chose the survey research design because, it is cost-effective, prevents geographical dependence, and it is capable of collecting data from a large number of respondents.

The entire students of the Bolgatanga Technical University totaling 1664 formed the study's target population. Out of this number, only 200 respondents (one hundred and sixty (160) male students and forty (40) female students) were randomly selected to partake in the exercise. Simple random sampling is the basic sampling technique where a group of subjects (a sample) are selected for study from a larger group (a population). Each individual was chosen entirely by chance and each member of the population had an equal chance of being included in the sample. Questionnaire was employed as the study's main data collection instrument. According to [18], data collection instruments refer to the devices used to collect data. In other words, data collection instruments refer to the methodologies used to identify information sources and collect information during an evaluation [19].

The questionnaire was administered personally to the respondents. Each respondent was given two (2) days each to complete the questionnaire after which they were retrieved. In all, 200 questionnaires were administered to the respondents and were all retrieved on the expiration of their due dates. Data gathered through the questionnaires formed the primary source of data for the study. Secondary data was obtained from books, articles and journals related to the topic under study. The issue of ethics in conducting the research was highly adhered to ensuring protection and promotion of the rights of all individuals. The aspect of confidentiality was also given optimum attention. In this case, the identities of the participants were not disclosed alongside guaranteeing them security for any complications which may erupt thereafter.

Data were analysed through frequencies, percentages and means. For the analysis through the measure of dispersions, a 5-point Likert scale was employed for the closed-ended responses where 5-strongly agree, 4-agree, 3-uncertain, 2-disagree and 1-strongly disagree. The open-ended responses on the other hand were grouped and analysed based on their similarities. Statistical Package for Social Sciences (SPSS) version 20.0 was used to analyse the data.

RESULTS AND DISCUSSION

Table 1 Demographic Characteristics of the students

Variables	Male Percentage (N=160)	Female Percentage (40)
<i>Gender</i>		
Male	160	0
Female	0	40
Total	100	100
<i>Age</i>		
10-19	10	20
20-29	80	60
30-39	5	10
40-49	5	5
50-59	0	5
60yrs-above	0	0
Total	100	100
<i>Educational Background</i>		
Diploma	30	30
First Degree	0	0
Second Degree	0	0
Others	70	70
Total	100	100
<i>Duration in the Institution</i>		
1-5yrs	100	100
6-10yrs	0	0
11-15yrs	0	0
16yrs-above	0	0
Total	100	100
<i>Marital Status</i>		
Married	30	10
Single	65	90
Divorced	5	0
Widowed	0	0
Total	100	100

(Source: Field Survey, 2019)

From table 1, out of one hundred and sixty (160) male students and forty (40) female students, 10% and 20% fell within the age group of 10-19 years, 80% and 60% fell within the age group of 20-29 years, 5% and 10% fell within the age group of 30-39 years, 5% of both males and females were within the age group of 40-49 years. None of the males was 50 years or more and 5% of the females were more than 50 years but less than 60 years. The results show that, majority of the respondents fell within the age group of 20-29 years. Additionally, 30% had diploma as their qualification and 70% had other qualifications. None of the respondents had first degree or second degree as their qualifications. Respondents who had other qualifications dominated the sample.

Further, all the respondents had not been more than 5 years in the institution. Finally, 30% and 10% were married. 65% and 90% were single, 10% of the males had divorced and none of the female respondents divorced. None of the respondents was a widow. The results signify that majority of the respondents were single.

From the demographic data of respondents, 80% and 60% being within the age group of 20-29 years support that of [20] whose study in India indicate that, female intake for vocational courses in universities expand rapidly to 49.5 percent in 1994 from 37.2 percent in 1990. The finding is also in line with the report of the [21] which indicate that, advancements of women has been the equal access of women to vocational educational opportunities. According to the report, female enrolment at the secondary levels was about half of total enrolment, while at the upper secondary level, female students accounted for about 52.3 percent of total enrolment. The finding is further married to that of [22] who opined that, 81 percent women engineers are as good as male counterparts in terms of vocational skills, interpersonal skills and confidence. The finding also support that of [23] who opined that female students make up the majority of matured students who enroll for vocational education and the gender gap between men and female was the greatest above the age of 21.

Table 2 Perception of students on Vocational Education

	Mean of Males (N=160)	Mean of Females (N=40)	Difference
More females enroll for vocational education than males.	4.80	4.80	0.00
Vocational education is for men.	3.09	3.72	0.63
Females perform better in vocational educational programmes than males.	4.57	4.63	0.06
Females are more likely to participate in professional jobs than males.	4.75	4.68	0.07
Higher vocational education is accepted as conferring more benefits to Females than males.	4.70	4.73	0.03
Female students are capable of completing their vocational tertiary education successfully than males.	4.58	4.45	0.13
Female participants gain from a wide range of vocational skills that offer long-term employment and higher wages than males.	4.64	4.65	0.01
Male students perceive vocational education as more difficult and less interesting than female students.	4.71	4.55	0.16
Male students' attitude toward vocational education becomes increasingly positive when they spend more time on practical tools and equipment.	4.86	4.83	0.03
Females have a greater interest and knowledge in vocational education than males.	4.61	4.53	0.08

(Source: Field Survey, 2019)

As shown in Table 2, the respondents agreed to the fact that, more Females enroll for vocational education than males (Mean=4.80, 4.80); Females perform better in vocational educational programmes than males (Mean=4.57, 4.63); Females are more likely to participate in professional jobs than males (Mean=4.75, 4.68); higher vocational education is accepted as conferring more benefits to females than males (Mean=4.70, 4.73); female students were capable of completing their vocational tertiary education successfully than males (Mean=4.58, 4.45); female participants gained from a wide range of vocational skills that offered long-term employment and higher wages than males (Mean=4.64, 4.65); male students perceived vocational education as more difficult and less interesting than female students (Mean=4.71, 4.55); male students' attitude towards vocational education becomes increasingly positive when they spend more time on practical tools and equipment (Mean=4.86, 4.83); and females had a

greater interest and knowledge in vocational education than males (Mean=4.61, 4.53). The respondents agreed to the fact that vocational education was for women (Mean=3.09, 3.72), refuting that vocational education is for men.

The finding that more females enroll for vocational education than males does supports that of [24] who indicated that women entrance in this field is limited. The finding does not also supports that of [25] who opined that women make up almost half of the global population. However, their contribution in many vocational and technical professions is limited. The finding further is in contrary to that of [26] who stipulated that, the field of vocational and technical education, which is among the largest professions in the world has limited enrollment of women. The finding is however in support to that of [27] who indicated that, at the economy-wide level, there is much evidence to suggest that labour demand in advanced industrialized economies has for a long time been shifting towards occupations that require higher levels of cognitive skill. As science and technology have been the major drivers of development nowadays, a window of opportunity is produced for women in participating in the advancement and application of vocational knowledge. The finding is also in line with the report of the [21] which indicated that, advancements of women has been the equal access of women to vocational educational opportunities. According to the report, female enrolment at the secondary levels was about half of total enrolment, while at the upper secondary level, female students accounted for about 52.3 percent of total enrolment. The finding further support that of [20] whose study in India indicated that, female intake for vocational courses in universities expanded rapidly to 49.5 percent in 1994 from 37.2 percent in 1990. The finding is further married to that of [22] who opined that, 81 percent women engineers are as good as male counterparts in terms of vocational skills, interpersonal skills and confidence. The finding also support that of [23] who opined that female students make up the majority of matured students who enroll for vocational education and the gender gap between men and female was the greatest above the age of 21.

The finding that females were more likely to participate in professional jobs than males is consistent with that of [28] who found that females in the United States were more likely to participate in a professional job than males at all time-points between the ages of 14 and 26. The finding is also consistent with [23] who indicated that more women are seen moving into higher-paying occupations with qualified higher education in technical and vocational degree than males. The discovery that higher vocational education is accepted as conferring more benefits to females than males is divergent to that of [27] who stipulated that higher education is accepted as conferring benefits on the recipient beyond those associated directly with degree-level learning, although this confers significant advantages itself.

The finding that male students' attitude towards vocational education becomes increasingly positive when they spend more time on practical tools and equipment is contrary to that of [29] and [30] who indicated that females view vocational educational tools as important items for their education, while males view those items as more of a toy for fun. In this light, males generally spent more than half of their time playing games and females spent the majority of their time using the tools and equipment to advance their educational levels [31] and [32]. The finding is also in support of several other studies that examined differences in gender perspectives with respect to vocational education. For instance, [33] conducted a focus group with male participants which the males insisted that they liked vocational educational equipment-they use them differently than females. This view was reflected contrary in another study conducted by [16], who found that females had more positive attitudes regarding the use of tools and equipment in vocational educational settings than males.

The finding that female students are capable of completing their vocational tertiary education successfully than males is not divergent to that of [34] who stipulated that women have never ceased devising clever and smart combination to enable them to master things. According to the author, female students are capable of completing their vocational tertiary education successfully. Moreover, they are now more successfully achieving their tertiary education to obtain a 'good degree'. The finding that male students perceive vocational education as more difficult and less interesting than female students is conflicting to that of [9] and [10] who concurred that female students perceive vocational education as more difficult and less interesting than male students. The finding is also contrary to that of [33] who found those students' perceptions on vocational education as being difficult did not change significantly after they had vocational instruction. From the study, male students perceived vocational education as less interesting and more difficult than female students [33]. The finding that females have a greater interest and knowledge in vocational education than males is not consistent with that of [31] and [32] who stated that males indicate a greater interest and knowledge of vocational education than females, which resulted in more time spent on their studies.

Conclusion

Based on the findings, it was concluded that respondents had some gender perception on vocational education in the Bolgatanga Technical University. It was realized that female participants have a wide range of vocational skills that offers long-term employment and higher wages after completing their programme of study. The male students were of the view that more females enrolled in vocational education than them because females are the managers in the home and that when it comes to household chores they are the best. It was noted that females view vocational educational tools as important items for their education, while males view those items as more of a toy for fun. In this light, males generally pursue other technical programmes than enrolling in vocational education.

REFERENCES

- [1] Amoah, T., & Elliot, Y. (2013). Men's and women's attitudes toward computer technology: A comparison. *Office Systems Research Journal*, 17(1), 1-8.
- [2] Swanson, I. (2015). Exploring the intellectual foundation of technology education: from Condorcet to Dewey. *Journal of Technology Education*, 9(1), 6-19.
- [3] Gray, X. (2010). A question of balance: CTE, academic courses, high school persistence, and student achievement. *Journal of Vocational Education Research*, 26(3), 23-27.
- [4] Foster, E. (2016). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.
- [5] Rauf, E., & Patience, J. (2017). *The school and society*. Chicago: University of Chicago Press.
- [6] Pamford, G., Ali, Y., & Nobert, R. (2015). Vocationalism and the American high school: Past, present, and future? *Journal of Industrial Teacher Education*, 33(2), 86-92.
- [7] Cardon, Q., & Christensen, K. (2008). *Under the microscope: a decade of gender equity projects in the sciences*. Washington, DC: American Association of University Women Educational foundation.
- [8] Bame, T., & Dugger, Y. (2015). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- [9] Boser, T., Palmer, H., & Daugherty, I. (2008). Thai students' attitudes and concepts of technology. *Journal of Technology Education*, 13(2), 1-11
- [10] Krendl, R., & Broihier, Y. (2010). Career decisions patterns of high school seniors in Louisiana. *Journal of Vocational Education Research*, 14(2), 47-65.
- [11] Teasdale, W., & Lupart, P. (2011). *An imperiled generation: Saving urban schools*. Lawrenceville, NJ: Princeton University Press
- [12] Linn, T. (2009). T & I education students' perceptions of courses. *Journal of Industrial Teacher Education*, 34(2), 82-101.
- [13] Silverman, T., & Pritchard, H. (2016). *Sketch for a historical picture of the progress of the human mind*. London: William Clowes and Sons Ltd.
- [14] Sacks, W., & Bellisimo, K. (2003). *The effectiveness of New York City's career magnet schools*. Washington. DC: Office of Vocational and Adult Education
- [15] Green, C., Mullins, F., & Brescell, Q. (2011). *Measurement, design and analysis: An integrated approach*. Hillsdale, NJ: Erlbaum.
- [16] Ray, E., Sormunen, Y., & Harris, L. (2015). Who will teach the teachers? *Vocational Education Journal*, 68(6), 23-27.
- [17] Peters, M. (2012). Lessons from history: Industrial arts/technology education as a case. *Journal of Vocational and Technology Education*, 1 (2), 45-56.
- [18] Unas, L. (2010). Technology education research: Potential directions. *Journal of Technology Education* 12(1), 34-45.
- [19] Al-Hilal, E., & Oman, Y. (2015). Gender differences in computer attitudes, skills, and perceived ability. Paper presented at the Canadian Society for Studies in Education, Quebec, Canada.
- [20] Purnip, R., & Vidyut, T. (2017). The founders of industrial arts in the US. *Journal of Vocational and Technology Education*, 4(1), 88-91.
- [21] Asian Development Bank (ADB). 2001. Women in Bangladesh: Country Briefing Paper. Manila.
- [22] Parikh, Q., & Sukhatme, E. (2014). *Survey research methods*. London: Sage Publications.
- [23] Nuile, W., & Xavier, J. (2015). Choosing qualitative research: A primer for technology education researchers. *Journal of Vocational and Technical Education*, 2(1), 13-21.
- [24] Fullerton, T., & Gray, E. (2015). The vocational education paradigm: Adjustment, replacement, or extinction? *Journal of Industrial Teacher Education*, 22(2), 6-11.
- [25] Durchholz, C. (2017). *Survey research*. San Francisco: Jessey-Bass.
- [26] Bamba, H., Mills, K., & Alola, I. (2015). Student responses to computers: A longitudinal study. Paper presented at the Annual Meeting of the International Communication Association, Chicago, IL.
- [27] Vincent-Lancrin, T. (2016). *Changes in school characteristics coincident with changes in student achievement*. East Lansing, MI: The Institute for Research on Teaching.
- [28] Mello, R. (2008). *Training the workforce of the future*. Technology Review, 34(3), 66-72.
- [29] Becker, G., & Kottkamp, W. (2009). Pupils' attitudes to technology: A review of studies which have a bearing on the attitudes freshmen bring with them to engineering. Paper presented at the meeting of the International Conference on Engineering Education, Rio de Janeiro.
- [30] Mann, Y., & Skakshaft, Q. (2012). *Strategies and tactics of behavioral research*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- [31] Schofield, E. (2015). Influence of gender and program of enrollment on adolescents' and teens' occupational and educational aspirations. *Journal of Vocational and Technical Education*, 14 (2), 34-45.
- [32] Teasdale, W., & Lupart, P. (2011). *An imperiled generation: Saving urban schools*. Lawrenceville, NJ: Princeton University Press.
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[33] Amisano, Q., & Bufferly, Y. (2013). Attitudes toward computers and computer use: The issue of gender. *Journal of Research on Computing in Education*, 26(2), 256-269.

[34] Adeyinka, R. (2001). Technical and Vocational Education in Greece and the Attitudes of Greek Youngsters toward It. *Journal of the hellenic diaspora*, 2(3), 81-93.