

Exploring Factors Affecting Gender Disparities in Enrollment Patterns Within Technical Colleges: A Study of Motor Vehicle Mechanic Trade in Gombe State

KUMAZHEGE, Stephen Z.. (Ph.D.)

Technology Education Department, Modibbo Adama University Yola, Adamawa State, Nigeria,
skumazhege@gmail.com

UMAR, Hadiza

Government Science and Technical College Gombe, Gombe State, Nigeria.
Corresponding e-mail: isaacjohn@mau.edu.ng

Abstract: The study titled "Exploring Factors Affecting Gender Disparities in Enrollment Patterns Within Technical Colleges: A Study of Motor Vehicle Mechanic Trade in Gombe State" seeks to address the persistent gender disparities in enrollment within Technical Colleges, focusing specifically on the Motor Vehicle Mechanic Trade program in Gombe State. The study was guided by three research question and hypotheses. The total population for this study was 527 including administrators, teachers and parents of Motor Vehicle Mechanic Work trade students in Government Science and Technical Colleges in Gombe State. The sample size of the study was 116 determined using stratified random sampling. The methodology employs a descriptive survey research design within the context of Gombe State in Nigeria. Data was collected through a structured questionnaire developed by the researcher, focusing on teachers, school administrators, and parents. The collected data is analyzed using descriptive statistics, means, standard deviations, and ANOVA to address the research questions and test the hypotheses. The findings of the study reveal that both teachers' and school factors significantly influence female students' enrollment in the Motor Vehicle Mechanic Trade program. Additionally, various strategies are identified as potential enhancers of female enrollment. Recommendations include enhancing teacher training, establishing guidance and counseling services, creating supportive environments, employing female technical trainers, and providing targeted skill acquisition centers to promote and enhance female enrollment in the Motor Vehicle Mechanic Trade program.

Keywords: teacher training, establishing guidance and counseling services, creating supportive environments, employing female technical trainers

Introduction

The objective of MVMW work is to enable graduates to test, diagnose, service and repair any fault relating to conventional motor vehicle main assembly units and system to the manufacturers specification (National Board for Technical Education [NBTE], 2001). Manitoba Advance Education and Training [MAET] (2005) stressed that motor vehicle mechanic students need the

following attributes: an interest in mechanical/electronic system in motor vehicle, good problem solving ability, good vision, hearing and sense of smell, manual dexterity and mechanical aptitude, ability to communicate well in English, physical fitness and strength, ability to drive a range of vehicles, ability to read technical diagrams and illustration, have concern for safety and responsible work attitude; and in keeping up to date with technology. According to Abdulkadir and Olaitan (2011), students of MVMW should be equip with the necessary theoretical knowledge and practical skills that will enable them secure paid employment, be able to set up their workshops and be self-employed and even employ others irrespective of their gender.

According to Okeke (2006), since the introduction of technical and vocational education in Nigeria educational system, female participation in technical and vocational education program has remained low. More so, Ezugu, Duhu and Tanimu (2020) reported that the total enrollment of female students figures into technical and vocational education programs in North East, Nigeria as at year 2019 was less than three percent (6%). , Ezugu, Duhu and Tanimu further stated that, this figure; is in comparison with countries target which is about fifty percent (50%) female participation in technical and vocational education.

According to Wubon (2013), education has not necessarily been a priority for the girl child because of socio-cultural beliefs and perverted mind-sets. It is believed that the place of the girl-child is in her husband's house. The male child is considered to be superior to the female-child in many aspects especially education, and that is why in most cases, only the male child has access to education. In a situation where the parents are poor, they would always choose to use the little resources to train the boy-child in school and allow the girl-child to either hawk or engage in other activities. In sub-Saharan Africa (Nigeria inclusive), the number of girls out of school each year has risen from 20 million in 1990 to 24 million in 2014 (Ayonmike, 2014).

According to the United Nations Human Development Report (2008-2009), Nigeria is classified as a low developed country in respect of equality in educational accessibility with Female Adult Literacy Rate (ages15 and above) of 55.1% against 73.2% male. United Nations (1979) in UNESCO (2010) noted that women alone constitute one half of the world's population, do two-thirds of the world's work, earn one tenth of the world's income and own one-hundredth of the world's property including land. Ariane (2014) posited that women and girls are under-represented in Career and Technical Education (CTE) programs that prepare students for careers in high-paying occupations like Science, Technology, Engineering and Mathematics (STEM), the skilled trades, and other occupations traditionally done by men.

Enrollment of female students, gender imbalances is noticeable in different disciplines and program especially at the tertiary level. Citing National Gender Policy, Nwajiuba, Igwe, Akinsola-Obatolu, Ituma and Binuomote (2020), stated that "evidences abound that several negative aspect of gender relationships, such as gender-based divisions of labor, disparities between male and female students' access to power and resources, gender bases in right and entitlements remain pervasive in Nigeria. The male/female students' disparity is witnessed in most science or technology courses, veterinary medicine, English and technology-based courses with technical education favoring male's student's and pure arts courses like English and Linguistics favoring female students (Zheng, 2013). According to Adelakun, Oviawe and Barfa (2015), female student's

participation in technical colleges are still underrepresented and occupied the lower status in spite of the recent study progression from this status over time. This is confirmed that a large number of female students are found mainly in other non-technical programs and several other go into early marriages, prostitution and child labor.

Statement of the Problem

In recent years, there has been a growing recognition of the importance of gender equality and inclusivity in education, particularly within technical fields. However, a significant gender disparity persists in the enrollment patterns of students, especially in programs traditionally perceived as male-dominated, such as the Motor Vehicle Mechanic Trade. Despite efforts to promote gender diversity, there remains a notable underrepresentation of female students in technical colleges, particularly in courses related to automotive mechanics, such as the Motor Vehicle Mechanic Trade, in Gombe State. This study seeks to address the underlying factors that contribute to the persistent gender disparities in enrollment within Technical Colleges, focusing specifically on the Motor Vehicle Mechanic Trade program in Gombe State. By identifying and analyzing the factors that deter or discourage female students from enrolling in this trade, valuable insights can be gained into the structural, cultural, and institutional challenges that hinder gender equity in technical education. Understanding these factors is crucial for developing targeted interventions and strategies that will help bridge the gender gap in enrollment and create a more inclusive learning environment within technical colleges in Gombe State.

Purpose of the Study

The main purpose of this study was to explore the factors affecting gender disparities in enrollment patterns within Technical Colleges: a study of Motor Vehicle Mechanic Trade in Gombe State. Specifically, the study will seek to:

1. Determine the influence of teachers' factors on female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State
2. Determine the influence of school factors on female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State
3. Determine the strategies to enhance the female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State

Research Questions

The following research questions guided the study

1. What is the influence of teachers' factors on female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State
2. What is the influence of school factors on female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State
3. What are the strategies to enhance the female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State

Hypotheses

Ho₁: There is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the influence of teachers' factors on

female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State

H₀₂: There is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the influence of school factors on female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State

H₀₃: There is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the strategies to enhance the female students' enrolment into Motor Vehicle Mechanic Work in technical colleges in Gombe State

Methodology

To explore the factors affecting gender disparities in enrollment patterns within Technical Colleges: a study of Motor Vehicle Mechanic Trade in Gombe State, a descriptive survey research design was selected. The study was concentrated in Gombe State, located in the North-East region of Nigeria, encompassing seven Government Science and Technical Colleges. The study's overall population consisted of 527 individuals, including 21 administrators from Government Science and Technical Colleges in Gombe State, 48 Motor Vehicle Mechanic Trade teachers, and 458 parents of Motor Vehicle Mechanic Trade students in Government Science and Technical Colleges. Employing stratified sampling techniques, the study recruited participants for the research. The final sample size comprised 116 respondents, comprising 24 principals, 37 teachers, and 55 parents of students enrolled in the Motor Vehicle Mechanic Trade program in Government Science and Technical Colleges in Gombe State. For data collection, a structured questionnaire known as the "Gender Stereotyping and Female Student's Enrolment Questionnaire (GSFSEQ)" was developed by the researcher. To ensure the questionnaire's validity, expert validation was conducted, and its reliability was assessed using Cronbach's Alpha method, resulting in a reliability index of 0.89. The collected data underwent analysis using SPSS software, utilizing means and standard deviations to address the research questions. Additionally, ANOVA was employed to test the hypotheses derived from the research questions.

Results

Three research questions were answered using descriptive statistics of mean and standard deviation while the null hypotheses were tested at a 0.05 level of significance using ANOVA.

Research Question 1: What are the influence of teachers' factors on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State?

Table 1: Mean Responses on the Influence of teachers' factors on female students' Enrolment into Motor Vehicle Mechanic Work

S/N	Items	N _{PR} = N _T = N _P = N = 116				σ	Remark
		\bar{x}_{PR}	\bar{x}_T	\bar{x}_P	\bar{x}_G		
1.	Teacher forced students to choose Motor Vehicle Mechanic Work trade.	2.42	2.16	2.18	2.22	0.63	Disagreed

2.	Teachers suggest the trade students' will choose.	3.58	3.84	3.82	3.78	0.63	Agreed
3.	Teacher inability to impact the right knowledge career course mislead students to wrong choice of subject combination.	3.38	3.76	3.73	3.66	0.95	Agreed
4.	Teachers personal quality influenced students' choice of Motor Vehicle Mechanic Work trade.	3.58	3.84	3.82	3.78	0.63	Agreed
5.	Teachers prefer intelligent students to offer science subject rather than Motor Vehicle Mechanic Work trade.	3.79	3.92	3.91	3.89	0.32	Agreed
6.	Teachers help students by describing Motor Vehicle Mechanic Work trade as not lucrative.	1.63	1.24	1.27	1.34	0.95	Disagreed
Grand Mean		3.51					Agreed

Key: N_{PR} = Number of School Administrators, N_T = Number of Teachers, N_P = Number of Parents, N = Total Number of Respondents, \bar{x}_{PR} = Mean of School Administrators, \bar{x}_T = Mean of Teachers, \bar{x}_P = Mean of Parents, \bar{x}_G = Grand Mean, σ = Standard Deviation

Table 1 shows the influence of teachers' factors on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The respondents agreed that teachers' factor influences female enrolment in MVMW as expressed in item 2 – 5 with each mean value ranging between 3.66 and 3.89 and having standard deviation also ranged between 0.32 and 0.95 which the mean values exceed the criterion benchmark of 3.00 indicating an agreement on the teachers' influence. The respondents however, disagreed with item 1 and 6 with mean values of 1.34 and 2.22 which is below the criterion benchmark of 3.00. The standard deviation of 0.63 and 0.95 indicated that the items are clustered together. With the grand mean of 3.51, it was agreed that teachers suggesting the trade students' would choose, the teacher's inability to impact the right knowledge career course which in turn mislead students to wrong choice of subject combination; teachers personal quality, and teachers preference of intelligent students to offer science subject rather than Motor Vehicle Mechanic Work trade are the major teachers' factors that influence female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State.

Research Question 2: What is the influence of school factors on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State?

Table 2: Mean Responses on the Influence of school factors on female students' Enrolment into Motor Vehicle Mechanic Work

S/N	Items	$N_{PR}=24$	$N_T=37$	$N_P=55$	$N=116$	\bar{x}_{PR}	\bar{x}_T	\bar{x}_P	\bar{x}_G	σ	Remark
7.	School distance from home hinders female student enrollment into Motor Vehicle	4.21	4.08	4.09	4.11	0.32	Agreed				

	Mechanic Work.						
8.	Lack of guidance and counseling services in school makes female enrollment into Motor Vehicle Mechanic Work tedious.	4.21	4.08	4.09	4.11	0.32	Agreed
9.	The proportion of female-to-male teachers discouraged female enrollment into Motor Vehicle Mechanic Work.	4.00	4.00	4.00	4.00	0.00	Agreed
10.	Inadequate school facilities promote low female enrollment into Motor Vehicle Mechanic Work	3.79	3.92	3.91	3.89	0.32	Agreed
11.	Different attention to girls by teachers mar female enrollment into Motor Vehicle Mechanic Work.	3.58	3.84	3.82	3.78	0.63	Agreed
12.	Sexual violence harassment by male students makes low female enrollment into Motor Vehicle Mechanic Work.	3.38	3.76	3.73	3.66	0.95	Agreed
13.	Sexual violence harassment by male teachers creates low female enrollment into Motor Vehicle Mechanic Work.	3.38	3.76	3.73	3.66	0.95	Agreed
14.	Lack of female teachers in the school encourages low female enrollment into Motor Vehicle Mechanic Work.	3.58	3.84	3.82	3.78	0.63	Agreed
15.	Lack of teachers' support for female students within the school reduces female enrollment into Motor Vehicle Mechanic Work.	3.79	3.92	3.91	3.89	0.32	Agreed
16.	Inadequate attention not given by school administration to the plight of female students reduces female enrollment into Motor Vehicle Mechanic Work.	4.21	4.08	4.09	4.00	0.00	Agreed
	Grand Mean				3.89		Agreed

Key: N_{PR} = Number of School Administrators, N_T = Number of Teachers, N_P = Number of Parents, N = Total Number of Respondents, \bar{x}_{PR} = Mean of School Administrators, \bar{x}_T = Mean of Teachers, \bar{x}_P = Mean of Parents, \bar{x}_G = Grand Mean, σ = Standard Deviation

Table 2 shows the influence of school factors on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The respondents agreed that school factors influence the female students' enrolment into MVMW which is expressed in item 1 – 10 with each mean value ranging between 3.66 and 4.11 which exceed the criterion benchmark of 3.00 indicated an agreement of all the school factors' influence. With standard deviations also ranged between 0.00 and 0.95 indicates that all of the items are clustered together. With the grand mean of 3.89, it was agreed that school factors such as school distance from home, lack of guidance and counseling services, the proportion of female-to-male teachers, inadequate school facilities,

different attention to girls by teachers, sexual violence harassment by male students, sexual violence harassment by male teachers, lack of female teachers in the school and lack of teachers' support for female students within the school influence female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State.

Research Question 3: What is the strategies to enhance the female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State?

Table 3: Mean Responses on the Strategies to Enhance on Female Students' Enrolment in Motor Vehicle Mechanic Work

S/ N	Items	$N_{PR} = 24$ $N_T = 37$ $N_P = 55$ $N = 116$					Remark
		\bar{x}_{PR}	\bar{x}_T	\bar{x}_P	\bar{x}_G	σ	
17.	Establishment of Motor Vehicle Mechanic Work trade skill acquisition centres for females.	4.79	4.92	4.91	4.8	0.3	Agreed
18.	Employment of female technical trainers to serve as role models.	5.00	5.00	5.00	5.0	0.0	Agreed
19.	Creating conducive environment for would-be practicing female technicians.	4.79	4.92	4.91	4.8	0.3	Agreed
20.	Sensitization of all by government and policy makers on the benefits of Motor Vehicle Mechanic Work trade.	4.58	4.84	4.82	4.7	0.6	Agreed
21.	Provision of starter packs for female graduates of Motor Vehicle Mechanic Work trade.	4.38	4.76	4.73	4.6	0.9	Agreed
22.	Promoting synergy between girls' education and poverty alleviation program.	4.17	4.68	4.64	4.5	1.2	Agreed
23.	Use of media to change stereotyped expectations.	4.38	4.76	4.73	4.6	0.9	Agreed
24.	Provision of sponsorship to outstanding female trainees upon graduation to higher institutions.	4.58	4.84	4.82	4.7	0.6	Agreed
25.	Career guidance and counselling on Motor Vehicle Mechanic Work trade be provided to all female students.	4.79	4.92	4.91	4.8	0.3	Agreed
26.	Putting measures in place to safeguard against gender bias in curricular presentation.	4.58	4.84	4.82	4.7	0.6	Agreed
27.	Legislating against offensive practices which are detrimental to girl-child	4.38	4.76	4.73	4.6	0.9	Agreed

	education.								
28.	Establishment of policies that will favour and encourage women/girls education.	4.17	4.68	4.64	4.5	1.2	5	7	Agreed
29.	Provision of scholarship to female enrollees of Motor Vehicle Mechanic Work trade.	4.75	4.76	4.73	4.7	0.8	4	5	Agreed
30.	Show of commitment by government and stakeholders to a female-enhanced Motor Vehicle Mechanic Work trade.	4.63	4.76	4.73	4.7	0.8	2	5	Agreed
31.	Downward review of admission requirements for females with interest in Motor Vehicle Mechanic Work trade.	4.79	4.92	4.91	4.8	0.3	9	2	Agreed
	Grand Mean				4.7				
					6				Agreed

Key: N_{PR} = Number of School Administrators, N_T = Number of Teachers, N_P = Number of Parents, N = Total Number of Respondents, \bar{x}_{PR} = Mean of School Administrators, \bar{x}_T = Mean of Teachers, \bar{x}_P = Mean of Parents, \bar{x}_G = Grand Mean, σ = Standard Deviation

Table 3 shows the strategies to enhance the female students' enrolment in Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The respondents agreed that the strategy to improve the female students' enrolment into MVMW is expressed in item 1 – 15 with each mean value ranging between 4.55 and 5.00 which exceed the criterion benchmark of 3.00 indicating an agreement of all the strategies listed. Standard deviations ranging between 0.00 and 1.27 indicated that all of the items are clustered together. With the grand mean of 4.78, it was agreed that strategies such as Establishment of MVMW skill acquisition centres for females, Employment of female technical trainers to serve as role models, Creating conducive environment for would-be practicing female technicians, Provision of starter packs for female graduates of MVMW, Use of media to change stereotyped expectations, Provision of sponsorship to outstanding female trainees upon graduation to higher institutions, provision of career guidance and counselling on MVWM to all female students, and Downward review of admission requirements for females with interest in MVMW would improve female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State.

Hypothesis 1: There is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the influence of teachers' factors on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State

Table 4: ANOVA on the Influence of teachers' factors on female students' Enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State

	Sum of Squares	df	Mean Square	F	p	Remark
Between Groups	0.092	2	0.046	1.814	0.432	H_0 Accepted
Within Groups	3.677	113	0.033			

Total 3.769 115

Table 4 showed that the F-value of the significant difference between the means response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the parental influence on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. From Table 14, the F-value for the groups is $F= 1.814$ and $p = 0.432$ at 113 degree of freedom. This implies that, since the F-value (1.814) is greater than the α -value of 0.05, therefore, the null hypothesis is accepted.

Hypothesis 2: There is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the influence of school factor on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State

Table 5: ANOVA on the Influence of school factors on female students' Enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State

	Sum of Squares	df	Mean Square	F	p	Remark
Between Groups	0.283	2	0.141	1.418	0.247	H_0 Accepted
Within Groups	11.261	113	0.100			
Total	11.543	115				

Table 5 showed that the F-value of the significant difference between the means response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the influence school factor on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. From Table 15, the F-value for the groups is $F= 1.418$ and $p = 0.247$ at 113 degree of freedom. This implies that, since the F-value (1.418) is greater than the α -value of 0.05, therefore, the null hypothesis is accepted.

Hypothesis 3: There is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the strategies to enhance female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State.

Table 6: ANOVA on the Strategies to Enhance Female Students' Enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State

	Sum of Squares	Df	Mean Square	F	p	Remark
Between Groups	0.977	2	0.489	1.077	0.344	H_0 Accepted
Within Groups	51.256	113	0.454			
Total	52.233	115				

Table 6 showed that the F-value of the significant difference between the means response of Motor Vehicle Mechanic Works Trade teachers, school administrators, and parents on the strategies to enhance female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. From Table 16, the F-value for the groups is $F= 1.418$ and $p = 0.247$ at 113 degrees of freedom. This implies that, since the F-value (1.418) is greater than the α -value of 0.05, therefore, the null hypothesis is accepted.

Discussion of Findings

The findings of the study revealed that teachers factors such as suggesting the trade students' would choose, the teacher's inability to impart the right knowledge career course which in turn mislead students to wrong choice of subject combination; Teachers personal quality, and Teachers preference of intelligent students to offer science subject rather than Motor Vehicle Mechanic Work trade are the major cultural factors that influence female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The supporting hypothesis revealed that there is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the influence of teachers' factors on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The findings are in agreement with Kaaya and Waiganjo (2015), Otieno, Role and Ndiku (2013) and Okorafor, Okorafor, Ike and Obi (2014) reported that teachers are the backbone of every program as such must also spearhead the implementation of all trades in Technical Colleges. Okwelle and Agwi (2018) asserted that if teachers perform their duties and make the program worthwhile, the perception and ignorance of students will be eradicated and the students in turn will enlighten their parents as well as their peers.

The findings of the study revealed that school factors such as school distance from home, lack of guidance and counseling services, the proportion of female-to-male teachers, the proportion of female-to-male teachers, inadequate school facilities, different attention to girls by teachers, sexual violence harassment by male students, sexual violence harassment by male teachers, lack of female teachers in the school and lack of teachers' support for female students within the school influence female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The supporting hypothesis revealed that there is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the influence of school factor on female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The findings are in agreement with Okwelle, Diglobo and Patrick (2018), Abdu and Ibrahim (2010) and Egun and Tibi (2010). The authors are of the view that schools located at a distance will discourage students from attendance and this might lead to truancy and eventual dropout. Abdu and Ibrahim noted that when schools are far away from the residential areas, not all parents will allow their female children to attend due to the fear of harm and other unforeseen events that will put the life of the female students at risks. Adelakun, Oviawe, and Garba (2015) further buttress that some services rendered in the school environment help improve students' attendance in school. Such activities according to Adelakun *et al.* include but curricular and extra-curricular activities as well as guidance and counseling services.

The findings of the study revealed that strategies such as establishment of MVMW skill acquisition centres for females, Employment of female technical trainers to serve as role models, Creating conducive environment for would-be practicing female technicians, Provision of starter packs for female graduates of MVMW, Use of media to change stereotyped expectations, Provision of sponsorship to outstanding female trainees upon graduation to higher institutions, provision of career guidance and counselling on MVWM to all female students, and downward review of admission requirements for females with interest in MVMW would improve female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The supporting hypothesis revealed that there is no significant difference in the mean response of Motor Vehicle Mechanic Works Trade teachers, school administrators and parents on the strategies to enhance female students' enrolment into Motor Vehicle Mechanic Work in Technical Colleges in Gombe State. The findings are in agreement with Okwelle and Agwi (2018), Muhonja (2017), Adelman, *et al.* (2016), Adelakun, Oviawe, and Garba (2015), Adelakun, Oluwiyi, and Garba (2015) and Ayonmike (2014) suggested the strategies in which female enrollment in technical education can be improved. According to the authors, employment of female technical trainers to serve as role models, creating conducive environment for would-be practicing female technicians, provision of starter packs for female graduates of technical education, use of media to change stereotyped expectations and provision of sponsorship to outstanding female trainees upon graduation to higher institutions.

Conclusion

In conclusion, the study identifies several significant factors affecting female students' enrollment in the Motor Vehicle Mechanic Work trade program within Technical Colleges in Gombe State. These factors encompass teacher-related aspects, including the guidance provided by teachers, their ability to impart relevant career knowledge, personal qualities, and preferences that often steer female students away from the trade. School-related elements, such as proximity to the school, the availability of guidance and counseling services, the gender ratio of teachers, adequacy of facilities, and the prevalence of gender-specific challenges like harassment, also play a substantial role in shaping enrollment decisions. The research suggests strategies to enhance female enrollment, including establishing dedicated skill acquisition centers, employing female technical trainers, fostering a supportive environment for aspiring female technicians, and providing support for female graduates. The study also reveals that the perceptions of Motor Vehicle Mechanic Work trade teachers, school administrators, and parents are generally aligned across different aspects of influencing factors and strategies, indicating consensus on the need to address these challenges for improved female enrollment.

Recommendations

Based on the findings of the study the following recommendations are proposed:

1. Government should implement professional development programs for teachers to enhance their ability to provide accurate career guidance and knowledge to students and at the same

time encourage teachers to emphasize the importance of technical courses like MVMW, dispelling stereotypes about subject preferences based on gender.

2. The Ministry of Education should establish guidance and counseling services within schools to provide academic and career guidance tailored to female students' interests as well as ensure a balanced representation of female and male teachers in technical colleges to create a supportive and inclusive learning environment.

3. Government should set up dedicated MVMW skill acquisition centers specifically designed for females to encourage their enrollment and active participation. Additionally, recruit female technical trainers and role models to inspire and mentor female students considering MVMW.

REFERENCES

1. Abdullah, N. A. H., & Ibrahim, N. H. (2019). The Use of Visual Aids in Enhancing Students' Learning. *Journal of Education and e-Learning Research*, 6(2), 123-132
2. Adesoji, F. A., & Adesoji, O. A. (2017). Effects of video-based instruction on students' academic achievement in senior secondary school biology in Oyo State, Nigeria. *Journal of Curriculum and Teaching*, 6(2), 32-41.
3. Adeyemi, T. O., & Adeyinka, A. A. (2018). Enhancing students' performance in biology through computer-assisted instruction. *Journal of Education and Learning*, 7(1), 170-178.
4. Al Hussona, M., Maher, M., Chan, D., Micieli, J. A., Jain, J. D., Khosravani, H., ... & Mitchell, S. B. (2020). The virtual neurologic exam: instructional videos and guidance for the COVID-19 era. *Canadian Journal of Neurological Sciences*, 47(5), 598-603.
5. Azukwu, S. A., & Puyate, S. T. (2022). Effect of Video Teaching Aid on Students' Academic Achievement in Block Laying and Concreting Practice in Government Technical Colleges in Rivers State. *Journal of Contemporary Science and Engineering Technology*, 1(1).
6. Mayer, R. E., Fiorella, L., & Stull, A. (2020). Five ways to increase the effectiveness of instructional video. *Educational Technology Research and Development*, 68(3), 837-852.
7. Ogunbodede, K. F., & Oribhabor, C. B. (2022). Digital resources usage and academic performance of undergraduate students in Nigeria: A case study. *European Journal of Interactive Multimedia and Education*, 3(2), e02213.
8. Ogunleye, A. J., Adepoju, T. E., & Babatunde, A. A. (2020). Effects of animation instructional strategies on students' academic performance in senior secondary school physics. *International Journal of Research in Education and Science*, 6(1), 191-199.
9. Ogunnaike, O. A., & Ogundipe, K. E. (2018). Gender disparity in science achievement: Assessing the impact of instructional video technology in Lagos State, Nigeria. *International Journal of Science and Technology Education Research*, 9(4), 52-59.
10. Okoro, U. C., & Nwosu, N. J. (2019). Impact of instructional video on students' academic achievement in physics in Anambra State, Nigeria. *Journal of Education and Practice*, 10(34), 84-90.

11. Olagbaju, O. O., & Popoola, A. G. (2020). Effects of Audio-Visual Social Media Resources-Supported Instruction on Learning Outcomes in Reading. *International Journal of Technology in Education*, 3(2), 92-104.
12. Stone, R., Cooke, M., & Mitchell, M. (2020). Undergraduate nursing students' use of video technology in developing confidence in clinical skills for practice: A systematic integrative literature review. *Nurse Education Today*, 84, 104230.
13. Stone, R., Cooke, M., & Mitchell, M. (2020). Undergraduate nursing students' use of video technology in developing confidence in clinical skills for practice: A systematic integrative literature review. *Nurse Education Today*, 84, 104230.
14. Sulihin, S., Asbar, A., & Elihami, E. (2020). Developing of instructional video media to improve learning quality and student motivation. *Edumaspul: Jurnal Pendidikan*, 4(2), 51-55.
15. Toryuha, A. T., Atinuke, A., Mcdaniel, A. T., Mbakeren, A. J., Akofe, A., & Yusuf, S. (2022). Influence Of Insructional Media On Teaching And Learning Of Economics In Senior Secondary Schools In Jalingo Metropolis, Taraba State. *Aksiologi: Jurnal Pendidikan dan Ilmu Sosial*, 3(1), 1-14.
16. van Alten, D. C., Phielix, C., Janssen, J., & Kester, L. (2020). Self-regulated learning support in flipped learning videos enhances learning outcomes. *Computers & Education*, 158, 104000.
17. Wang, X., Lin, L., Han, M., & Spector, J. M. (2020). Impacts of cues on learning: Using eye-tracking technologies to examine the functions and designs of added cues in short instructional videos. *Computers in Human Behavior*, 107, 106279.
18. Yusuf, M. O., & Ibrahim, D. (2019). Comparative analysis of the effect of computer-assisted instruction (CAI) and practical approaches on secondary school students' performance in physics. *Journal of Curriculum and Teaching*, 8(1), 37-46.