

EMPIRICAL VERIFICATION OF GENDER DISPARITY IN THE ACADEMIC PERFORMANCE OF UNDERRADUATES IN A NIGERIAN UNIVERSITY: A LONGITUDINAL STUDY

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Abstract

Cursory observation of the academic performance of undergraduate students in tertiary institutions in Nigeria seems that female students are normally collecting prizes and awards and outperform their male counterparts. If this gender disparity in the academic performance of undergraduates should be allowed to continue, it could portend danger to human capital development of the country. This study therefore examined gender and trends of undergraduates' academic performance in Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria. The study adopted ex-post facto research design. The study adopted census population. All the graduates from nine faculties and institutes of the University for 2023, 2024 and 2025 sessions constituted the sample. A proforma was used to record the class of degrees of all the graduates in the three years from the convocation brochure (order of proceedings). Data collected were analyzed using both descriptive and inferential statistics. Findings from the study revealed that male and female AAUA undergraduates' academic performances for the past three years were average and fluctuating. Majority of the male and female undergraduates fell into second class lower division. There was a significant difference in the academic performance of male and female undergraduates in favour of females. The study concluded that the performance of male and female undergraduates is average and fluctuating. Female students outperform their male counterparts academically. It was recommended among others that counsellors and other stakeholders in education need to examine and find solutions to some of the things that distract male students attention from their studies.

Keywords: Gender disparity, academic performance, undergraduates, longitudinal study.

Introduction

Tertiary education is very important for the development of a country. Tertiary education produces knowledgeable workforce needed for the social and economic transformation of a country. Tertiary education is the third level of education after the primary and secondary levels of education. In Nigeria, section 8 of the National Policy on Education (FRN, 2004) describes tertiary education as the type of education given after the secondary education in Universities, Colleges of Education, Polytechnics, Monotechnics and so on. The goals of tertiary education in Nigeria according to page 36b of the National Policy on Education are:

1. Contributing to national development
2. Developing and inculcating proper values for the survival of the individual and society,

3. Developing the intellectual capacity of individuals to understand and appreciate their local and external environments,
4. Acquiring both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society,
5. Promoting and encouraging scholarship and community service,
6. Forging and cementing national unity; and
7. Promoting national and international understanding and interaction.

These objectives of tertiary education connote that no nation can progress without viable tertiary education. Among the various forms of tertiary education in Nigeria, University education is the important and most subscribed by students. University is often regarded as the nation's ivory tower of knowledge. It is the nation's top academic training institution offering wide range of academic programmes for both undergraduates and postgraduates (Ogunode, 2020; Ibobor, 2023).

Goal 4 of the United Nations Sustainable Development Goal (SDGs) prescribed inclusive and equitable quality education for the citizens while Goal 5 of SDGs prescribed gender equality for the citizens. (UNESCO, 2021).

Among the three levels of educational system in Nigeria, tertiary education (most especially the University education) is the level of education where gender disparity in terms of enrollment and academic performance are very eminent (World bank, 20220). This development would pose a very great challenge to human capital development and attainment of SDGs 5 (FME, 2022).

Teachers' evaluations of students' performance on tests and examinations are the key indicators of students' overall academic performance (Opstad & Pettersen, 2022). Society places much emphasis on academic performance of students. Academic performance has been one of the most important goals of the educational process. It is also a major goal which every individual is expected to perform in all cultures. In educational institutions, success is measured by academic performance (Bell in Kadai, Abani, & Hamman-Tukur, 2023), which generally refers to how well a student is accomplishing his or her tasks and studies (Sharm in Kadai, Abani, & Hamman-Tukur, 2023) or how well a student meets standards set out by the institution itself (Bell in Kadai, Abani, & Hamman-Tukur, 2023). Academic performance is the best indicator in potential for success in life, it reflects one's abilities and the qualities it takes to have an excellent academic performance. They are those things required to be successful in life which includes consistency, determination and focus (Abiola, 2012).

Research studies are mixed on gender disparity of the academic performance of undergraduates. Some studies revealed that male undergraduates outperform their female counterparts (Adam, 2006; Mar. et al. 2015; Ayodele & Adebayo, 2013). Some studies also reported that female undergraduates outperform their male counterparts (Thiele et al, 2016; Ubabudu, 2024). While some studies indicated no significant gender difference in the academic performance of undergraduates (Gonni et al, 2015; Jakayinta et al, 2023).

Statement of the Problem

Goal 4 of the United Nations Sustainable Development Goal (SDGs) prescribed inclusive and equitable quality education for the citizens; Goal 5 of the SDGs prescribed gender equality. In the 2025 convocation ceremony of Adekunle Ajasin University, Akungba Akoko, Ondo State where the researcher lectured, the researcher observed that female graduates collected virtually all the prizes, awards and even came out with first class. This wider gender disparity in the academic performance of undergraduates could portend danger to human capital development and achievement of SDGs 5 if allowed to continue in a country.

It is against this background information that the researcher was poised to examine gender and trends of undergraduates' academic performance in Adekunle Ajasin University, Akungba Akoko, (AAUA) Ondo State, Nigeria. Specifically, the study aimed at examining:

1. Trends of male undergraduates' academic performance in AAUA from 2023 to 2025
2. Trends of female undergraduates' academic performance in AAUA from 2023 to 2025
3. Gender difference in the academic performance of AAUA undergraduates from 2023 to 2025

Research Questions

Sequel to the problem statement of this study, the following research questions are raised to find solution to the problem:

1. What is the trend in the academic performance of AAUA male undergraduates from 2023 to 2025?
2. What is the trend in the academic performance of AAUA female undergraduates from 2023 to 2025?

Hypothesis

The only hypothesis formulated to guide this study is:

1. There is no significant difference in the academic performance of male and female undergraduates of AAUA from 2023 to 2025

Methodology

This study was anchored on ex-post facto research design. The justification for the use of this design is that the researcher made an empirical enquiry into existing variables and lacks direct control on their manipulations. The variables of investigation were already on ground before the commencement of the research. The target population was the entire male and female undergraduate graduates of AAUA, Ondo State, Nigeria from 2023 to 2025 academic sessions. The study therefore, adopted census population since all the graduates from all the faculties of the university for the three sessions were made use of to also constitute a sample. A proforma was used as an instrument for data collection. The class of degrees of all the graduates of AAUA in all the Faculties of the University from 2023 to 2025 were extracted from the convocation brochure (order of proceedings). Data collected were analyzed using both descriptive and inferential statistics. Specifically, frequency counts and simple percentage were used to answer the two research questions, while t-test statistics were used to test the only hypothesis. The hypothesis was tested at 0.05 level of significance.

Results

Research Question 1: What is the trend in the academic performance of AAUA male undergraduates from 2023 to 2025?

To answer this research question, the mean academic performance and standard deviation of male undergraduates from 2023 to 2025 in all the nine faculties and institutes were computed.

To achieve this, 5 points were given to first class, 4 points to second class upper, 3 points to second class lower, 2 points to third class and 1 point to pass. Details are shown in tables 1, 2 and 3

Table 1:
Trends of undergraduates' performance in 2023

FACULTY	GENDER	FIRST CLASS	SECOND CLASS UPPER	SECOND CLASS LOWER	THIRD CLASS	PASS	TOTAL	X	SD
ART	MALE	5	69	198	67	1	340	3.03	0.69
	FEMALE	5	97	308	87	5	502	3.02	0.67
SCIENCE	MALE	7	108	231	71	0	417	3.12	0.70
	FEMALE	7	134	263	96	4	504	3.09	0.73
AGRIC	MALE	3	23	43	4	0	73	3.34	0.72
	FEMALE	1	50	59	4	0	114	3.42	0.70
LAW	MALE	2	12	17	1	0	32	3.47	0.79
	FEMALE	4	15	11	2	0	32	3.66	1.00
SOC. SCIENCE	MALE	3	88	203	36	1	331	3.17	0.64
	FEMALE	1	105	231	45	1	383	3.16	0.64
MANAGEMENT	MALE	5	56	107	23	1	192	3.21	0.72
	FEMALE	1	83	125	37	1	247	3.19	0.71
IPTP	MALE	0	40	89	24	0	153	3.10	0.64
	FEMALE	1	37	109	14	0	161	3.16	0.58
IOE	MALE	1	119	233	74	4	431	3.09	0.70
	FEMALE	1	198	490	123	1	813	3.09	0.63
EDUCATION	MALE	0	89	234	17	0	340	3.21	0.55
	FEMALE	0	87	180	13	0	280	3.26	0.59
Total		47	1410	3131	738	19	5345		

Gender	N	X	SD
male	2309	3.19	0.68
female	3036	3.23	0.7

Table 2:
Trends of undergraduates' performance in 2024

FACULTY	GENDER	FIRST CLASS	SECOND CLASS UPPER	SECOND CLASS LOWER	THIRD CLASS	PASS	TOTAL	X	SD
ART	MALE	1	38	125	27	2	193	3.05	0.63
	FEMALE	4	112	289	46	4	455	3.15	0.64
SCIENCE	MALE	9	144	284	115	1	553	3.08	0.73
	FEMALE	2	170	360	119	5	656	3.07	0.69
AGRIC	MALE	4	54	32	3	0	93	3.63	0.87
	FEMALE	4	75	66	6	0	151	3.51	0.78
LAW	MALE	2	48	46	3	0	99	3.49	0.75
	FEMALE	4	73	42	3	0	122	3.64	0.85
SOC. SCIENCE	MALE	0	90	197	49	0	336	3.12	0.64
	FEMALE	2	132	312	44	1	491	3.18	0.61
MANAGEMENT	MALE	11	102	213	46	0	372	3.21	0.71
	FEMALE	8	222	397	53	2	682	3.27	0.67
IPTP	MALE	0	24	53	16	0	93	3.09	0.65
	FEMALE	0	28	84	8	0	120	3.17	0.54
IOE	MALE	1	159	83	15	0	258	3.57	0.81
	FEMALE	1	314	423	14	0	752	3.40	0.65
EDUCATION	MALE	1	107	275	90	2	475	3.03	0.66
	FEMALE	2	189	467	111	0	769	3.11	0.63
Total		56	2081	3748	768	17	6670		
Gender		N	X	SD					
male		2472	3.25	0.72					
female		4198	3.28	0.67					

Table 3: Trends of undergraduates' performance in 2025									
FACULTY	GENDER	FIRST CLASS	SECOND CLASS UPPER	SECOND CLASS LOWER	CLASS	PASS	TOTAL	X	SD
ART	MALE	1	28	75	25	2	131	3.01	0.71
	FEMALE		81	262	70	8	421	2.99	0.66
SCIENCE	MALE	7	52	150	47	5	261	3.03	0.75
	FEMALE	8	146	310	85	14	563	3.09	0.75
AGRIC	MALE	2	15	25	6	0	48	3.27	0.78
	FEMALE	0	15	36	6	0	57	3.16	0.60
LAW	MALE	0	28	31	4	0	63	3.38	0.70
	FEMALE	4	40	24	1	0	69	3.68	0.89
SOC. SCIENCE	MALE	0	92	178	51	0	321	3.13	0.66
	FEMALE	1	84	232	54	0	371	3.09	0.62
MANAGEMENT	MALE	2	33	80	24	2	141	3.06	0.72
	FEMALE	6	75	150	40	3	274	3.15	0.74
IPTP	MALE	0	44	112	18	2	176	3.13	0.63
	FEMALE	0	51	150	10	7	218	3.12	0.63
IOE	MALE	0	187	355	8	0	550	3.33	0.58
	FEMALE	0	310	550	6	0	866	3.35	0.59
EDUCATION	MALE	2	86	257	45	1	391	3.11	0.60
	FEMALE	0	197	278	57	0	532	3.26	0.68
Total		33	1564	3255	557	44	5453		
Gender		N		X		SD			
male		2082	3.16	0.7					
female		3401	3.21	0.69					

From Tables 1, 2, and 3, the mean academic performance of male undergraduates in 2023 is 3.19; 2024 is 3.25 and 2025 is 3.16. The mean academic performance of male undergraduates in the three years is average and fluctuating.

Research Question 2: What is the trend in the academic performance of AAUA female undergraduates from 2023 to 2025?

From Tables 1, 2, and 3, the mean academic performance of female undergraduates in 2023 is 3.23; 2024 is 3.28 and 2025 is 3.21. The mean academic performance of female undergraduates in the three years is also average and fluctuating.

Hypothesis 1: There is no significant difference in the academic performance of male and female undergraduates of AAUA from 2023 to 2025

To test this hypothesis, the mean academic performances of male and female undergraduates in the three years were computed and compared using independent sample t-test statistics. The result is shown in Table 4

Table 4:

year	Gender	N	X	SD	df	t-cal	t-cri	Decision
2023	Male	2309	3.19	0.68	5343	2.1	1.645	Significant
	Female	3036	3.23	0.70				
2024	Male	2472	3.25	0.72	6668	1.690	1.645	Significant
	Female	4198	3.28	0.67				
2025	Male	2082	3.16	0.70	5452	0.57	1.645	Not Significant
	Female	3401	3.21	0.69				

From Table 4, in 2023, the t-calculated value is 2.10 and t-critical value is 1.645. Since the t-calculated value is bigger than the t-critical value, the hypothesis is rejected. It shows that there is significant difference in the academic performance of male and female undergraduates. Female undergraduates outperform their male counterparts. In 2024, the t-calculated value is 1.60 and t-critical value is 1.645. Since the t-calculated value is bigger than the t-critical value, the hypothesis is rejected. It shows that there is a significant difference in the academic performance of male and female undergraduates. Female undergraduates outperform their male counterparts. In 2025, the t-calculated value is 0.57 and t-critical value is 1.645. Since the t-calculated value is less than the t-critical value, the hypothesis is upheld. It shows that there is no significant difference in the academic performance of male and female undergraduates. In summary, for the period of three years, female undergraduates outperform male undergraduates in two years. It can be concluded therefore that female undergraduates outperform their male counterparts. From the three tables, it can also be inferred that there is more female enrollment in the university for the period of three years under study.

Discussion of Findings

Findings from research questions 1 and 2 clearly indicated that male and female AAUA undergraduates' academic performances for the past three years were average and fluctuating. Majority of the male and female undergraduates fall into second class lower division. This finding corroborates the earlier finding of Jekayinfa et al (2023) who reported that the academic achievement of male and female undergraduates from history studies, University of Ilorin were fluctuating and the majority of the students felt into second class lower division. This study is not coming as a surprise because similarity in the studies could be attributed to similar trend of performance that cross across virtually all tertiary institutions in Nigeria.

Finding from the only hypothesis also indicated that there was a significant difference in the academic performance of male and female undergraduates. Female undergraduates outperform their male counterparts in two out of the three years. This finding is at variance with the finding of Jekayinfa et al (2023) who reported no statistically significant difference in

the male and female undergraduates academic performance of University of Ilorin. Difference in the findings of these two studies is not coming as a surprise. This present study focused on male and female undergraduates performances in all Faculties for the past three years, but Jekayinfa et al study only focused on a programme which is History studies for three years.

Conclusion

Based on the findings of this study, the study concluded that trends of male and female undergraduates' performance of AAUA Ondo State, Nigeria for the past three years is average and fluctuating. Greater proportions of the male and female undergraduates felt on second class lower division. The enrolment of female undergraduates for the past three years was more than that of male. Female undergraduates outperform their male counterparts academically for the past three years.

Recommendations

Based on the findings and conclusion of this study, the following recommendations are made;

1. Since majority of the male and female undergraduates graduated with second class lower, government and school management should put educational intervention programmes in place to improve students' academic performance.
2. Since female students outperform their male counterparts academically in this study, counsellors and other stakeholders in education need to find solution to some of the things that distract male students' attention from their studies.
3. Enrolment of female students in this study is far more than that of male. Meaning there is gender disparity in university enrolment. There is need to motivate male students to attend tertiary institutions.

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