ACADEMIC SELF- EFFICACY AND ACHIEVEMENT IN RESEARCH METHODS COURSES AMONG LIBRARY AND INFORMATION SCIENCE POSTGRADUATE STUDENTS IN UNIVERSITIES IN SOUTH- WESTERN NIGERIA.

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Abstract

This study examined academic self- efficacy as factors influencing academic achievement in research methods courses among Library and Information Science (LIS) postgraduate students in universities in south western Nigeria. Understanding these factors is essential for improving academic outcomes in research role in supporting academic endeavours. The study employed a survey research design of the correlation type. The population consisted of 141 LIS postgraduate students. Data were collected using a validated questionnaire and an achievement test in research methods. Descriptive statistics such as frequency counts, percentages, means, and standard deviations were used to analyse research questions 1 to 3, while Pearson product- moment correlation was employed to test hypotheses. The findings revealed a moderate level of academic achievement and self- efficacy among the students. However, there was no significant relationship between academic self- efficacy and academic achievement (r = 0.017, p > 0.05). The study concluded that self- efficacy contributes to students' engagement with limited direct effect on achievement. Recommendations include enhancing

structured interventions to build academic self-efficacy lead to academic achievement among LIS postgraduate students.

Keywords: Academic self-efficacy, academic achievement, Library and Information Science, research methods, postgraduate students.

Introduction

Academic Self-perception refers to students' beliefs about their overall academic capabilities and their confidence in completing coursework and achieving academic goals (Lohbeck, 2019). For postgraduate students, who often face more rigorous and specialized academic demands than undergraduates, having a positive academic self-perception is critical. This construct influences motivation, persistence, and resilience in the face of academic challenges. For LIS postgraduate students, a strong academic self-perception can drive them to engage more deeply with their studies, take on complex research projects, and seek out additional learning opportunities. This positive perception is fostered by prior academic successes, supportive academic environments, and access to resources that enhance learning and research skills.

Academic Statistics Efficacy, the belief in one's ability to understand and apply statistical methods, is particularly relevant for postgraduate students, especially in research-intensive fields like LIS. Research methods courses often involve complex statistical analyses, which can be daunting for students lacking confidence in their quantitative skills. High academic statistics efficacy allows students to approach statistical tasks with greater confidence and competence, leading to better performance in research activities. For LIS postgraduate students, developing strong statistical skills is essential, as their research often requires data analysis to draw meaningful conclusions and support their findings. Enhancing academic statistics efficacy can be achieved through targeted training, hands-on practice, and supportive instructional environments that demystify statistical concepts (van Zyl, Klibert, Shankland, See-To, and Rothmann, 2022).

As for Examination Efficacy, it is the confidence in one's ability to perform well in exams and it is another critical component of academic self-efficacy (Sharma and Nasa, 2014). This construct is particularly important for postgraduate students who must often demonstrate their knowledge and skills through high-stakes assessments. High examination efficacy can reduce test anxiety, improve focus, and enhance overall performance. For LIS postgraduate students, who may be assessed on their understanding of research methods and their ability to apply these methods in practical contexts, strong examination efficacy is crucial. This confidence can be bolstered by thorough preparation, practice exams, and feedback from instructors, all of which help students feel more prepared and capable of succeeding in their assessments.

Academic self-efficacy plays a pivotal role in the academic journey of postgraduate students. It influences how they approach learning tasks, how persistent they are in the face of difficulties, and how they cope with academic pressures. For postgraduate students in general, high academic self-efficacy is associated with greater motivation, higher levels of academic engagement, and better academic achievement. This is particularly important in research methods courses, where students must develop and apply complex skills to conduct original research. For LIS postgraduate students, academic self-efficacy can significantly impact their ability to engage with the rigorous demands of their program and produce high-quality research. Strong self-efficacy beliefs encourage students to tackle challenging research questions, persist through difficulties, and seek out the resources and support they need to succeed (Wei, Shi, MacLeod and Yang, 2022).

Statement of the Problem
There is a consistently low achievement in research methods courses among postgraduate students in Library and Information Science (LIS) programmes

in universities in southwestern Nigeria. This issue persists due to several factors, including inadequate access to up-to-date scholarly resources, limited statistical and research skills, and high levels of examination anxiety. Furthermore, low academic self-efficacy, encompassing poor academic self-perception, limited academic statistics efficacy, and low examination efficacy, exacerbates the situation, leading to diminished performance and a lack of confidence in tackling research-related tasks.

This research is particularly important at this time because the field of Library and Information Science is evolving rapidly, with an increasing emphasis on evidence-based practice and data-driven decision-making. As future information professionals, LIS postgraduate students must be proficient in research methods to contribute effectively to the advancement of the field. By investigating the relationship between academic self-efficacy, and achievement in research methods courses, this study aims to identify strategies to improve academic achievement and support the professional development of LIS students. Therefore, it is the aim of this study to determine the relationship between academic self-efficacy, and achievement in research methods courses by LIS postgraduate students in universities in southwestern Nigeria.

Aim and Objectives of the study

The aim of the study is to determine the relationship between academic self-efficacy, and achievement in research methods courses among LIS postgraduate students in universities in southwestern Nigeria.

The specific objectives are to:

i. determine the level of academic achievement of LIS postgraduate students in research methods courses in universities in southwestern Nigeria;

ii. determine the level of self-efficacy in research methods among library and information science postgraduate students in universities in southwest Nigeria;

iii. determine the relationship between academic self-efficacy and

academic achievement in research methods courses among LIS postgraduate students in universities in southwestern Nigeria;

Research Questions

The following research questions will be answered in this study.

1. What is the level of academic achievement of LIS postgraduate students in research methods courses in universities in southwestern Nigeria?
2. What is the level of self-efficacy in research methods among library and information science postgraduate students in universities in southwest Nigeria?
3. What are the relationship between academic self-efficacy and academic achievement in research methods courses among LIS postgraduate students in universities in southwestern Nigeria?

Literature Review

The relationship between academic self-efficacy and academic achievement is well-documented in educational psychology. Studies have shown that students with high academic self-efficacy are more likely to set challenging goals, employ effective learning strategies, and achieve higher academic outcomes (Bandura, 1997). For LIS postgraduate students, who must navigate the complexities of research methods, high academic self-efficacy can lead to greater success in their coursework and research projects. This is particularly important in a field that requires both theoretical understanding and practical application of information science principles. By fostering strong self-efficacy beliefs, LIS programmes can help students build the confidence and skills necessary to excel in their studies and future careers.

The constructs of academic self-efficacy—academic self-perception, academic statistics efficacy, and examination efficacy—are interrelated and collectively contribute to overall academic success. For postgraduate students, developing strong self-efficacy in these areas can enhance their ability to navigate the demands of their programmes. Academic Self-perception provides the foundational belief in one's ability to succeed academically, which influences motivation and engagement. Academic

Statistics Efficacy ensures that students feel capable of tackling the quantitative aspects of their research, which is critical for producing high-quality scholarly work. Examination efficacy helps students perform well in assessments, demonstrating their knowledge and skills effectively.

In the context of LIS postgraduate students, these constructs are particularly relevant. The interdisciplinary nature of LIS means that students must be adept in a range of skills, from information retrieval to data analysis. Strong academic self-efficacy enables students to integrate these diverse skills and apply them in their research. For example, a student with high academic self-perception is more likely to take on ambitious research projects, confident in their ability to manage the workload and produce valuable insights. Similarly, high academic statistics efficacy allows students to design robust studies and analyse data effectively, while strong examination efficacy ensures that they can successfully demonstrate their knowledge and skills in formal assessments.

Academic self-efficacy in relation to achievement in research methods courses among LIS postgraduate students demonstrates the importance of these self-beliefs in academic success. Research methods are a cornerstone of postgraduate education, requiring students to develop a deep understanding of research design, data collection, and data analysis. For LIS students, this course is particularly challenging due to the complexity of the topics and the need for interdisciplinary knowledge. High academic self-efficacy can significantly enhance students' performance in research methods courses by providing the confidence and motivation to engage deeply with the material, persist through challenges, and seek out additional support and resources when needed.

In research methods courses, students are often required to design and conduct their own research projects. This process involves selecting appropriate methodologies, collecting and analysing data, and interpreting results. For LIS postgraduate students, who may be conducting research on topics such as information behavior, digital libraries, or information policy, the

ability to effectively apply research methods is crucial. High academic self-efficacy enables students to approach these tasks with confidence, ensuring that they can produce high-quality research. For example, a student with high academic statistics efficacy will be more comfortable using advanced statistical techniques, leading to more robust and reliable findings. Similarly, a student with high examination efficacy will be better prepared to demonstrate their knowledge and skills in assessments, contributing to overall academic success.

Moreover, academic self-efficacy can mitigate some of the challenges faced by LIS postgraduate students in Nigeria, particularly in the Southwest region. Studies have shown that factors such as inadequate research infrastructure and limited access to up-to-date research materials can negatively impact students' performance in research methods courses (Ani et al., 2014). High academic self-efficacy can help students overcome these barriers by providing the confidence and motivation to seek out alternative resources and support. For example, students with strong self-efficacy beliefs are more likely to take advantage of open access resources, collaborate with peers, and seek feedback from instructors. This proactive approach can enhance their learning experience and improve their performance in research methods courses.

In addition to improving academic outcomes, high academic self-efficacy can also support the professional development of LIS postgraduate students. As future information professionals, these students will need to apply their research skills in various professional contexts, from academic libraries to information management roles. Strong self-efficacy beliefs ensure that they feel confident and capable in these roles, enabling them to contribute effectively to their organizations and the broader field of information science. By fostering academic self-efficacy, LIS programmes can help students build the skills and confidence necessary to succeed both academically and professionally.

The constructs of academic self-efficacy—academic self-perception, academic statistics efficacy, and examination efficacy—play a crucial role in shaping the academic success of postgraduate students. For LIS postgraduate students, developing strong self-efficacy in these areas is essential for navigating the demands of their programmes and achieving their academic goals. High academic self-efficacy enhances motivation, persistence, and performance, enabling students to engage deeply with their studies, overcome challenges, and produce high-quality research. By understanding and fostering these self-efficacy beliefs, educational institutions can support the academic and professional development of their students, ultimately contributing to a more dynamic and successful academic community.

Academic self-efficacy is a vital factor in the academic success of postgraduate students, particularly in challenging courses such as research methods. The constructs of academic self-efficacy—academic self-perception, academic statistics efficacy, and examination efficacy—collectively influence students' motivation, engagement, and performance. For LIS postgraduate students, developing strong self-efficacy in these areas is essential for achieving their academic and professional goals. High academic self-efficacy enables students to approach their studies with confidence, engage deeply with the material, and produce high-quality research. By fostering these self-efficacy beliefs, educational institutions can support the academic success and professional development of their students, ultimately contributing to a more dynamic and successful academic community.

Hypothesis
The null hypothesis was measured at 0.05 significance level in this study.
1. There is no significant relationship between academic self-efficacy and academic achievement in research methods courses among LIS postgraduate students in universities in southwestern Nigeria.

Scope of the study

The study examines the variables of academic self-efficacy and their impact on academic achievement in research methods courses among LIS postgraduate students. The independent variables include the use of academic self-efficacy (academic self-perception, academic statistics efficacy, and examination efficacy). Thus, the dependent variable includes the academic achievement of the students in terms of their grades in research methods courses. The study is carried out among LIS postgraduate students in three universities in southwestern Nigeria.

Methodology

The study adopted the descriptive survey research design. The population for this study is one hundred and forty-one (141) students comprising seventy-five (75) students from the Department of Library, Archival and information Studies, University of Ibadan, twenty-six (26) from the Department of Library and Information Science, Tai Solarin University of Education, Ijagun, Ogun State, and 40 from the Department of Library and Information Science, Lead City University, Ibadan, Oyo State. A structured questionnaire was developed as instrument for data collection. The questionnaire was divided into two sections A and B. Section 'A' contain the names of three universities with questionnaire response rate while section 'B' focuses on the research questions aimed at extracting facts from the study. Frequency count and simple percentage were used to analyse the data in order to answer the research questions. Therefore, out of the 141 copies of questionnaire administered, a total of 123 were retrieved and the response rate was 123(87.22%) and the analysis data based on this response rate.

Results

The result of the study is presented in this section.

Table 1: Shows the distribution of the questionnaire to each institutions and the response rate of the respondents. Out of the 141 copies of the questionnaire distributed to the respondents, 123 (87.22%) copies were returned and found usable for this study.

Table 1: Questionnaire administration and response rate

S/N	Name of institution	Year	Questionnaire Distributed	Questionnaire retrieve	Percentage %
1	University of Ibadan	Master 1 Master 2	24 51	22 49	15.60 34.75
2	Tai Solarin University of Education	Master 1 Master 2	13 13	10 12	7.09 8.51
3	Lead City University	Master 1 Master 2	26 14	20 10	14.18 7.09
	Total		141	123	87.22

Table 2: Demographic information of the respondents

Demographic	Frequency	Percentage
Gender		
Male	53	43
Female	70	57
Age		
23- 27years	34	28
28- 32years	11	9
33- 37years	16	13
38years and above	62	50

Level of study		
Master 1	25	20
Master 2	98	80
Total	123	100.0

Table2: presents the demographic characteristics of the respondents in the study. It reveals that a majority of the respondents were female (70, 57%), while males accounted for (53, 43%). Regarding age, the largest group of respondents fell within the 38 years and above (62, 50%). This is followed by those aged 23-27 years (34, 28%) and 33-37 years (16, 13%). Notably, respondents aged 28-32 years represented a smaller proportion (11, 9%). In terms of the level of study, the majority of respondents were in Master II (98, 80%), while a smaller group (25, 20%) were in Master I. This distribution highlights that the respondents are predominantly advanced-level graduate students.

Research question one: What is the level of academic achievement of LIS postgraduate students in research methods courses in universities in southwestern Nigeria?

Table 3: presents the level of academic achievement of LIS postgraduate students in research methods courses in universities in southwestern Nigeria.

Table 3: Academic achievement in research methods course

Academic achievement in research methods course		
	Frequency	Percent
Fair	20	16.3
Average	53	43.1
Good	33	26.8
Excellent	17	13.8

Total		123	100.0

The first research question examines the level of academic achievement of LIS postgraduate students in research methods courses in universities in southwestern Nigeria.

Table 3: presents the findings on academic achievement, categorized into four levels. The data indicate that the majority of respondents achieved an average performance level (53, 43.1%), followed by those with good academic achievement (33, 26.8%). A smaller proportion of students had a fair performance (20, 16.3%), while the least represented category was excellent academic achievement (17, 13.8%). This distribution suggests that most postgraduate students in LIS programmes are performing at an average level in research methods courses, with a notable proportion demonstrating good academic performance. However, fewer students attain excellence, highlighting potential areas for improving academic support and learning strategies to enhance outcomes in this critical area of study.

Research question two: What is the level of self-efficacy in research methods among library and information science postgraduate students in universities in southwest Nigeria?
Table 4: presents the results for the level of self-efficacy in research methods among library and information science postgraduate students in universities in southwest Nigeria.

Table 4: level of self-efficacy in research methods among library and information science postgraduate students in universities in southwest Nigeria

S/N	Academic Self-perception	EC (F)	EC (%)	VC (F)	VC (%)	MC (F)	MC (%)	SC (F)	SC (%)	NAC (F)	NAC (%)	$\overline{x}$	S.D
1	I can follow the content of my Research Methods *lectures*	16	13.0	21	17.1	43	35.0	31	25.2	12	9.8	2.98	1.15

												Mean	SD
2	I can follow the content of my Research Methods *seminars*	10	8.1	21	17.1	49	39.8	37	30.1	6	4.9	2.93	.99
3	I can understand the vocabulary used within statistics and research methods modules	15	12.2	26	21.1	50	40.7	32	26.0			3.19	.96
4	I can read the scenario of an exercise and understand *which* research method/statistic was used.	10	8.1	31	25.2	33	26.8	38	30.9	11	8.9	2.92	1.11
5	I can read the scenario of an exercise and understand *why* that research method/statistic was used.	10	8.1	32	26.0	33	26.8	38	30.9	10	8.1	2.95	.1.10
	Weighted mean											2.98	
	Academic Statistics Efficacy												
6	I can *understand* the statistical problems set for me.	10	8.1	21	17.1	49	39.8	32	26.0	11	8.9	2.89	1.05
7	I can *solve* the statistical problems set for me.	5	4.1	37	30.1	22	17.9	43	35.0	16	13.0	2.77	1.13
8	I can find the appropriate information in the SPSS output.	5	4.1	25	20.3	39	31.7	38	30.9	16	13.0	2.71	1.05
9	I can accurately report the results of a statistical analysis.	5	4.1	20	16.3	45	36.6	42	34.1	11	8.9	2.72	.97
10	If I was given a new exercise I would be able to apply my knowledge from previous exercises to this new exercise.	10	8.1	26	21.1	45	36.6	36	29.3	6	4.9	2.98	1.01
	Weighted mean											2.81	
	Examination Efficacy												
11	If I was asked to do a similar exercise in an *exam* I would be	5	4.1	31	25.2	49	39.8	32	26.0	6	4.9	2.97	.93

											Mean	SD
	able to apply my knowledge from previous exercises to this new exercise.											
12	I can improve my statistics and research methods knowledge.	5	4.1	38	30.9	37	30.1	32	26.0	11	8.9	2.95	1.04
13	If I come across something I do not understand I will be able to solve the problem by *reading* more about the topic (e.g. lecture materials, textbooks, or online).	10	8.1	32	26.0	32	26.0	38	30.9	11	8.9	2.93	1.12
14	If I come across something I do not understand I will be able to ask the *lecturer* for help.	16	13.0	38	30.9	36	29.3	22	17.9	11	8.9	3.21	1.15
15	If I come across something I do not understand I will be able to ask my *seminar leader* for help.	5	4.1	38	30.9	47	38.2	27	22.0	6	4.9	3.07	.94
	Weighted mean										3.02	
	Overall mean										2.93	

Table 4: examines the level of self-efficacy in research methods among library and information science postgraduate students in universities in southwestern Nigeria. The findings are presented across three dimensions: Academic Self-Perception, Academic Statistics Efficacy, and Examination Efficacy. The overall mean score of 2.93 indicates a moderate level of self-efficacy, with variations across specific dimensions and items.

The academic self-perception received a weighted mean of 2.98, reflecting moderate confidence among students regarding their academic self-perception in research methods. Respondents generally agreed they could follow the content of their Research Methods lectures (Mean = 2.98, SD = 1.15), with 30.1% strongly agreeing or agreeing. Similarly, students showed

moderate confidence in understanding the vocabulary used within statistics and research methods modules (Mean = 3.19, SD = 0.96), with 33.3% expressing strong agreement or agreement. However, lower levels of confidence were observed in reading scenarios to identify and understand research methods or statistics used, scoring means of 2.92 (SD = 1.11) and 2.95 (SD = 1.10), respectively. These findings highlight areas where students perceive themselves as moderately competent but also suggest room for improvement, particularly in applying theoretical knowledge to practical scenarios.

The weighted mean for academic statistics efficacy was 2.81, suggesting slightly lower confidence levels compared to academic self-perception. Understanding statistical problems (Mean = 2.89, SD = 1.05) and solving them (Mean = 2.77, SD = 1.13) were reported as moderate challenges, with 26.0% agreeing and 13.0% disagreeing that they could solve statistical problems effectively. Similarly, finding appropriate information in SPSS outputs and accurately reporting statistical analyses scored means of 2.71 (SD = 1.05) and 2.72 (SD = 0.97), respectively, indicating limited confidence in applying statistical tools. While students expressed moderate confidence in applying prior knowledge to new exercises (Mean = 2.98, SD = 1.01), the responses underscore the need for targeted support in statistics and tool usage.

The examination efficacy is dimension recorded a weighted mean of 3.02, showing slightly higher confidence in examination-related tasks. Students generally agreed they could apply prior knowledge to similar exercises in an exam setting (Mean = 2.97, SD = 0.93). They expressed moderate confidence in improving their knowledge of statistics and research methods (Mean = 2.95, SD = 1.04) and seeking solutions through self-study or consulting materials when encountering difficulties (Mean = 2.93, SD = 1.12). Notably, confidence in seeking assistance from lecturers (Mean = 3.21, SD = 1.15) and seminar leaders (Mean = 3.07, SD = 0.94) was higher, indicating that students are more comfortable seeking help from educators when needed.

The findings reveal a moderate level of self-efficacy among postgraduate students in research methods, with an overall mean of 2.93. While students feel moderately confident in their ability to follow lectures and understand basic concepts, they face challenges in applying statistical knowledge and tools, particularly in independent or practical contexts. The relatively higher confidence in seeking help from educators underscores the importance of accessible academic support systems to enhance self-efficacy. These results suggest a need for interventions such as hands-on workshops, enhanced tutorial sessions, and targeted support in statistical tool application to strengthen self-efficacy in research methods.

Research question 3: What are the relationship between academic self-efficacy and academic achievement in research methods courses among LIS postgraduate students in universities in southwestern Nigeria?

Table 5: shows the relationship between academic self-efficacy and academic achievement in research methods courses among LIS postgraduate students in universities in southwestern Nigeria

Table 5: Relationship between academic self-efficacy and academic achievement in research methods courses among LIS postgraduate students in universities in southwestern Nigeria

Variables	Mean	Std. Dev.	N	r	p-value	Remark
Academic self-efficacy	44.2276	13.18022	123	0.017	0.851	Not

Academic achievement in research methods courses	3.3821	0.91902				Sig.

Table 4.10 presents the relationship between academic self-efficacy and academic achievement in research methods courses among LIS postgraduate students in universities in southwestern Nigeria. The results indicate no significant relationship between the two variables (n = 123; r = 0.017, p = 0.851). The low correlation coefficient (r = 0.017) suggests a negligible association between academic self-efficacy and academic achievement. Furthermore, the p-value (0.851) is greater than the significance threshold of 0.05, leading to the failure to reject the null hypothesis, which stated that there is no significant relationship between these variables. These findings suggest that academic self-efficacy does not have a statistically significant influence on academic achievement in research methods courses among LIS postgraduate students. This indicates that other factors may play a more substantial role in determining academic achievement in research methods courses.

Summary of the findings

The findings revealed that:

1. The level of academic achievement of LIS postgraduate students in research methods courses in universities in southwestern Nigeria was moderate.
2. The level of self-efficacy in research methods among LIS postgraduate students was moderate, indicating that while students had some confidence in their abilities, there were gaps in skills such as statistical analysis and research design.
3. There was no significant relationship between academic self-efficacy and academic achievement in research methods courses, suggesting that other factors, such as access to resources and instructional methods, play

a more prominent role.

Conclusion

Based on the findings of the study, it can be concluded that LIS postgraduate students in universities in southwestern Nigeria exhibit moderate academic achievement in research methods courses.

The study further concludes that academic self-efficacy plays a significant role in shaping students' engagement with limited direct impact on academic achievement in research methods courses. Therefore, the study concludes that academic self-efficacy are essential for improving academic outcomes in research methods courses for LIS postgraduate students in southwestern Nigeria.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Given the moderate level of academic achievement observed among LIS postgraduate students, universities should provide additional academic support for research methods courses. This could include workshops on research design and statistical analysis, mentorship programmes, and the integration of practical, hands-on training into the curriculum.

2. With moderate levels of self-efficacy reported, universities should design programmes aimed at boosting students' confidence in their research abilities. This can include one-on-one mentorship, peer-led study groups, and scaffolded learning opportunities that progressively build research skills.

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