Scholarly Communication Training and Writing Self-Efficacy of Master's Degree Students of Kyambogo University

STELLA ZAWEDDE[1], WILSON MUGIZI[2*], LETICIA KOMBA RWAKIJUMA[3]

[1,2,3]*Department of Educational Planning and Management, School of Education, Kyambogo University*

P.O. Box 1, Kyambogo, Kampala, Uganda

[*]*Corresponding author: wmugizi@kyu.ac.ug*

Accepted: 25th May 2026; Published: 12th June 2026

*https://doi.org/10.58653/nche.v13i2.11*a

Abstract

This study examined the influence of training in scholarly communication on the writing self-efficacy of master's degree students of Kyambogo University. Guided by the Programme Theory, the study investigated the influence of scholarly communication training content and training strategies on students' writing self-efficacy. Guided by a quantitative approach, a correlational survey research design was adopted. Data was collected from a sample of 250 master's students using a structured self-administered questionnaire. The data was analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM). The findings obtained from the structural model revealed that both training content and training strategies had a significant influence on self-efficacy for writing. Particularly, training strategies proved to be more influential compared to training content. The model demonstrated substantial explanatory power, accounting for 77.5% of the variance in writing self-efficacy. The findings support Programme Theory, which emphasises the alignment between training inputs, delivery processes, and learning outcomes. The study concludes that while the provision of relevant scholarly communication content is important, the effectiveness of training

largely depends on the use of effective delivery strategies. The study suggests that institutions of higher education should enhance their training of scholarly communication through incorporating extensive writing content and engaging effective instructional strategies such as collaborative writing, feedback, and exercises. This is necessary to increase the students' confidence, competence, and self-regulation in writing. The practical significance of the study is that it provides evidence to university administrators, curriculum developers, and graduate educators that appropriate scholarly communication content and effective training strategies are actionable interventions to improving master's degree students' writing self-efficacy, ultimately improving the quality of their academic writing outcomes.

Keywords: *Communication strategies; Competence; Training content; Self-confidence; Self-regulation; Stamina; Writing self-efficacy.*

Introduction

A critical aspect of completing any postgraduate programme is scholarly writing efficacy. At this level, students are required to write in a scholarly manner to produce satisfactory monographs for award and to disseminate findings through publications (Gupta et al., 2022). Students' writing efficacy is commonly measured based on their writing self-efficacy, i.e., the belief in their capability to perform writing tasks in a specific context (Mitchell et al., 2019). It includes self-confidence, stamina, competence, and self-regulation. Self-confidence relates to the ability to execute writing tasks based on past experience; stamina refers to effort and persistence; self-regulation involves directing one's writing process; and competence is the perceived ability to plan, organise, and complete a text (Abo Zaid et al., 2019). Nevertheless, many university students face challenges in completing their research activities because of low writing efficacy (Waweru & Kyakuha, 2020). Academic mentors are often encumbered by the poor quality of students' written work, making supervision and feedback difficult (Gupta et al., 2022). Consequently, some students fail to complete their programmes owing to incomplete dissertations or theses, which are required for graduation (Jilcha, 2025).

Given the importance of writing efficacy, this study assessed master's degree students' efficacy, focusing on self-efficacy and considering scholarly communication training as its determinant variable.

Writing self-efficacy refers to self-appraisal to effectively carry out writing in a specific context (Mitchell et al., 2019). It is an individual's judgement of how well he or she can accomplish a writing task based on own assessment of various composition, grammar, usage, and mechanical skills (Li, 2022). Thus, it is the self-assessed ability to successfully implement writing in a specific context. Writing self-efficacy is used to refer to the level of one's confidence to write in a particular situation (Collado et al., 2023). Writing self-efficacy is a critical variable affecting writing achievement, which impacts writing success. Writing self-efficacy is a strong predictor of writing performance, success, and outcomes (Li, 2022). Abo Zaid et al. (2019) operationalised self-writing efficacy in terms of confidence, stamina, competence and self-regulation. Writing self-confidence is the ability to execute a writing activity by creating an idea to solve a problem depending on past accomplishment; writing stamina is the zeal and resilience besides effort and resoluteness to accomplish a text; self-regulation concerns the capability to determine personal writing direction; and writing competence is the perceived capability to plan, organise, and accomplish writing of a text.

Globally, writing efficacy of students remains a challenge. For instance, in the past 50 years, the overall attrition rate at PhD level is around 50%, especially because of failure to complete the final monograph (Jonas & Hall, 2022). A study involving international PhD students in Canada by Gupta et al. (2022) revealed that their scholarly writing self-efficacy was low. Approximately 90% of students indicated that their academic writing skills were low, while 46% indicated their mentors had indicated to them the need to improve their academic writing skills. Great difficulty was found in the writing process, content or ideas development, grammar use, vocabulary and organisation of sentences, or paragraphing. The exception was in the United Kingdom where, of the students starting a full-time taught master's degree in 2016–2017, 94.6% completed the programmes, and for part-time students the completion rate was 77.5%. These rates largely remained consistent for four subsequent years (The Office for Students Annual Review, 2022). However, a study done in

Turkish universities by Yuvayapan and Bilginer (2020) revealed that master's degree students had limited knowledge of writing academic papers (77%), reviewing and analysing academic manuscripts such as theses and research articles (73%), and academic writing skills and practices (63%). Those who relied on themselves for punctuation were 10%, and another 10% for grammar issues. This means that the majority had challenges with punctuation and grammar issues. In China, a large number of master's degree students experienced challenges when it came to critiquing previous research, and lacked writing strategies (Wen et al., 2025). For instance, a study by Han et al. (2021) involving Chinese students revealed that only 40% synthesised literature cohesively, while 60% exhibited fragmented arguments or redundant citations.

In Africa, failure to complete research remains a major challenge for master's degree students. Across many universities, master's programmes designed to last two years often take an average of three to four years to complete (Waweru & Kyakuha, 2020; Omanga, 2017). Evidence from individual countries reflects this concern. For instance, in South Africa, only 24% of master's students manage to graduate within two years, although the proportion increases to 67% within six years (Segale & Ndalama, 2025). In Kenya, about 70% of students enrolled for postgraduate studies fail to complete their studies within the stipulated timeframe (Kimani, 2025). Mugendi and Githae (2021) reported that in private Kenyan universities, the non-completion rate was 37%. The challenges of delayed completion and low completion rates have been linked to low scholarly writing self-efficacy among students. Ofem and Akpo (2022) reported that in Nigeria, master's degree students exhibit poor writing, literature review, methodological and statistical methods skills. Also, Mkhai (2023) reported that in Tanzania low research skills contribute to low completion rates among master's degree students. Accordingly, the majority of the students have poor writing skills, making supervision a burden, ultimately hindering timely completion (Magali, 2019). Chege and Njengere (2018) indicated that while Kenya universities have sought to address the problem through teaching writing by offering the Communication Skills (CS) course, challenges that make the course ineffective include poor structuring, very broad content, poor quality delivery, and large classes. Therefore, the course inadequately

prepares students with the kind of skills they need to navigate academic discourse.

In Uganda's higher education institutions, much as there is growing enrolment of students on graduate programmes, the completion rate for these programmes is also disappointingly low. While over 70% of students successfully complete their coursework in the first year, the progression significantly slows down during the research phase in the second year (Malunda et al., 2021). Less than 30% of students graduate within the expected two-year timeframe due to difficulties in completing their research. For example, according to Waweru and Kyakuha (2020), at Makerere University Business School (MUBS), for the Master of Business Administration (MBA), around 85% of the students who enrolled between 2001 and 2006 failed to complete their studies within the stipulated two years. The situation remained challenging in subsequent years, with those not graduating between 2015 and 2017 ranging from 94% to 95%. They explain that, on the contrary, most students do well in their coursework, but struggle to complete their research projects, resulting in delayed graduation. This low completion rate is closely linked to inadequate writing skills. Obuku et al. (2017) reported that Makerere University's postgraduate master's students encounter difficulties in scholarly writing, resulting in a limited number of published works. At Kyambogo University, where this study was conducted, while in years 2018 to 2022 1,270 masters' degree students were admitted, those that graduated in those years were 65 (2018), 151 (2019), 187 (2021), and 39 (2022), totalling 442 (34.6%); but these numbers include those from previous years. This suggests low completion rates.

A review of graduate programmes at Kyambogo University showed that there was teaching of scholarly communication explicitly or implicitly in all programmes, as reflected in the National Council for Higher education (NCHE) (2015) benchmarks for conducting postgraduate programmes in Uganda. According to the different programmes for the master's degree level, courses include writing and publishing skills, both theoretical and practical aspects relevant to writing at a high scholarly level, and publishing articles, theses, books, and other academic publications. The course further covers elements that include choosing titles, outlines, writing drafts, peer reviews, and

editing. Other topics included in the course are the different types of writing used in academic work, referencing and citations, argument construction, storytelling, and statistics. However, despite master's degree students being trained in scholarly writing, their writing self-efficacy remains low. The quality of dissertations of master's degree students is poor; there are delays in thesis completion because of the inability of students to write appropriately; and there is diminished academic performance among students (Okongo & Okaka, 2025). Our analysis of viva voce minutes obtained from the Directorate of Research and Graduate Training at Kyambogo University for students who defended their dissertations between 2020 and 2025 across various schools and faculties revealed persistent inadequacies in the quality of students' monographs. Common weaknesses included incorrect use of the APA writing style, poor adherence to Kyambogo University postgraduate formatting guidelines, grammatical and punctuation errors, weak organisation of ideas, poor citation and referencing practices, inadequate data presentation and analysis, and limited application of relevant theories. These recurring deficiencies suggest significant challenges in master's degree students' scholarly writing and highlight the prevalence of writing errors in postgraduate monographs. This contextual evidence shows that universities, particularly Kyambogo University, offer scholarly communication training, yet master's degree students' writing self-efficacy remains low. This motivated the study to examine the relationship between scholarly communication training and writing self-efficacy of master's degree students. The objectives of the study were:

1. To examine the influence of scholarly communication training content on the writing efficacy of master's degree students of Kyambogo University.
2. To assess the influence of scholarly communication training strategies on the writing efficacy of master's degree students of Kyambogo University.

Literature Review

Theoretical review

The Programme Theory developed by Bickman (1987), which explains how a programme is designed, implemented, and expected to function, informed this study. The theory postulates that a programme comprises a set of assumptions that clarify why specific planned activities are likely to lead to the desired goals and outcomes. The theory considers both the direct implementation of programme activities and the responses generated within the programme environment (Nash, 2019). Central to Programme Theory is the principle that there must be a clear and logical connection between what is done in instructional settings and the learning outcomes students are expected to achieve. In the context of this study, the theory underscores the relationship between scholarly communication training and students' writing self-efficacy. The theory explains that good programmes create clear connections between the inputs and learner achievement (Finney et al., 2021). As such, a good programme is one where there is an aligned relationship between its content and methods of instruction, so that what is being taught and how it is being taught always align with the learning goals. Conversely, poor programmes depend on assumptions, intuition, and limited experience (Smith & Finney, 2020). Further, according to Programme Theory, there must be clarity regarding the expected outcomes of a programme and the conditions necessary for achieving these outcomes. In this case, programming includes two critical aspects, namely content and delivery. Content involves what the learners receive in terms of information and resources; on the other hand, delivery involves the methods used to teach these skills to learners (Finney et al., 2021). Guided by this perspective, this study conceptualised that scholarly communication training in terms of content and scholarly communication strategies are key independent variables influencing writing self-efficacy. Thus, the study tested the following hypotheses:

H1: Scholarly communication training content has a significant influence on the writing self-efficacy of master's degree students.

H2: Scholarly communication strategies have a significant influence on the writing self-efficacy of master's degree students.

Review of Related Literature

Scholarly communication training

Scholarly communication refers to the process of creating, assessing for quality, distributing within the scholarly community, and preserving scholarly writing and research. This includes not only formal forms of communication like publication in scholarly journals, but also the informal forms of communication, such as e-mailing lists (Wolfram, 2019). Scholarly communication is a special kind of communication mainly conducted by scholars to make connections between individuals and between international groups who are involved in research in related areas. This involves the production of research papers for publication in academic journals and presentations at conferences. Scholarly communication can take any form of communication, such as verbal, tangible, virtual, formal, and informal communication (Klain-Gabbay & Shoham, 2019). Therefore, scholarly communication plays a vital role in advancing knowledge, fostering collaboration among researchers, and ensuring that research findings are shared and preserved for future academic and societal development. Through both formal and informal channels, it strengthens the global exchange of scholarly ideas and innovations.

The importance of scholarly communication cannot be overstated because it enhances academic progress and propagates scientific innovation through the exchange of knowledge and research attainments. This communication between scholars is critical for the progress of research and the promotion of science and knowledge (Du et al., 2025). With respect to scholarly communication training, it is the formal process of imparting knowledge to people in order to make them acquire the skills necessary to accomplish a job satisfactorily (Mugizi et al., 2020a). Therefore, scholarly communication training is the process of imparting to individuals skills of producing, assessing quality, sharing with the scholarly community, and saving for later use research and other scholarly works. In this study, drawing from Programme Theory, scholarly communication training was operationalised in terms of teaching content including materials and activities, and delivery strategies such as pedagogical approaches (Finney et al., 2021).

Scholarly communication training content and writing self-efficacy

Training content means all sorts of information given to trainees for the purpose of learning knowledge and skills (Nwaobiara & Madighi, 2024). In this regard, the content of scholarly communication training denotes all kinds of information given to the trainees with the intent to teach them writing skills or knowledge. Scholarly communication training content is often included in formal writing courses, domain-specific training provided by academic advisors (Gupta et al., 2022), feed by instructors (Mitchell et al., 2023), and assistance provided by language or editing experts (Gupta et al., 2022). Empirical evidence reveals that, largely, these kinds of training have a positive significant effect on students' writing self-efficacy. For instance, Banwart and Qu (2023) reported that agricultural communications students enrolled at Iowa State University indicated that particular communication classes were major sources of their writing self-efficacy. Relatedly, in their meta-analysis, Graham et al. (2025) established that writing instruction had significant positive effects on students' writing self-efficacy among K–12 learners.

In the context of doctoral education, Gupta et al. (2022) argued that academic writing should be embedded into graduate training from the start of the programme through formal courses, faculty supervision, and language support. However, not all evidence is consistent. For example, in their systematic review, Abbott et al. (2022) reported contradictory results, indicating that participation in writing courses did not significantly result in higher writing self-efficacy among pre-service teachers. This suggests that the effect of proving scholarly communication content does not necessarily influence writing efficacy, meaning that each study should be considered in its context. Also, much of the above evidence was from Western contexts and some included pre-service or school-level learners rather than graduate students in African universities. Therefore, its applicability to graduate education in Uganda remains uncertain. These empirical and contextual gaps led to the unanswered empirical question as to whether scholarly communication training content significantly enhanced the writing self-efficacy of graduate students in Ugandan universities. This attracted this study.

Scholarly communication training strategies and writing self-efficacy

Training strategies are structured sequences and designs for learning activities that serve as essential models for creating effective learning experiences (Müller, 2025). Thus, scholarly communication training strategies are structured sequences and designs for learning activities that serve as essential models for creating effective writing learning experiences. Student-centred strategies are particularly recommended because they are activity-based and promote deeper learning, including authentic, collaborative, problem-based, project-based, and discovery approaches (An & Mindrila, 2020). Empirical evidence indicates that such strategies positively influence writing self-efficacy. For example, Abbott et al. (2022) reported that hands-on and interactive strategies improved writing self-efficacy among teachers. Relatedly, Marchiori and McLean (2022) and Nadya et al. (2023) revealed that collaborative and active learning improved students' writing self-efficacy. Other strategies such as active learning involving summarising, project work, discussions, text-structure application, and feedback have also been associated with improved academic writing, communication skills, and text quality (Khazaal, 2019; Rybchynska, 2023; Wischgoll, 2017).

Furthermore, multimodal instructional approaches combining lectures, videos, and evaluation were found to strengthen communication self-efficacy (Mata et al., 2021). However, it is noteworthy that quite a large amount of evidence comes from studies conducted in non-African settings, including Canada, Germany, Iraq, Indonesia, and Ukraine (Marchiori & McLean, 2022; Wischgoll, 2017; Khazaal, 2019; Nadya et al., 2023; Rybchynska, 2023). Moreover, there is a population gap since some researchers focus their attention on such categories as teachers, health professionals, undergraduates and specialists within certain disciplines, instead of graduates broadly (Abbott et al., 2022; Mata et al., 2021; Marchiori & McLean, 2022; Nadya et al., 2023). These contextual and population limitations make it unclear whether scholarly communication training strategies can significantly enhance the writing self-efficacy of graduate students in Ugandan universities.

Methodology

Research design and sample

A correlational survey research design was used in this study, whereby the association between the variables was investigated by examining the level to which the independent variable correlated with the dependent variable (Putri et al., 2025). The design was appropriate for investigating the influence of the independent variable of scholarly communication training and the dependent variable of writing self-efficacy among master's degree students at Kyambogo University. Kyambogo University was selected as the study case because review of viva voce minutes for master's degree students revealed persistent weaknesses in scholarly writing and dissertation presentation between 2020 and 2025. These recurring inadequacies provided a suitable context for examining how scholarly communication training relates to writing self-efficacy among master's degree students. For the purposes of coming up with objective inferences based on the results of statistical inference, a quantitative research design was applied whereby numerical data was collected and analysed. The study involved 1,277 master's degree students and alumni of Kyambogo University within the period from 2018/2019 to 2022/2023. This period provided an adequate academic timeframe within which postgraduate scholarly communication practices and writing support initiatives at Kyambogo University could be meaningfully assessed. The period also provided accessible and relatively consistent records of viva voce minutes and dissertations, enabling the researcher to examine current trends and challenges in master's degree students' scholarly writing.

The study population comprised master's students from all schools and faculties of the university who were in the process of developing their research proposals or dissertations. The schools and faculties were Faculty of Engineering (302), Faculty of Science (273), Faculty of Agriculture (17), Faculty of Special Needs and Rehabilitation (101), Faculty of Arts and Humanities (108), Faculty of Social Sciences (70), School of Education (160), School of Art and Industrial Design (81), School of Management and Entrepreneurship (135), and School

of Vocational Studies (30), based on enrolment data obtained from the School of Postgraduate Studies Records (2024).

A sample of 295 respondents was determined using the Krejcie and Morgan (1970) table for sample size determination, which is adequate for producing generalisable findings. However, those who provided actual data (response rate) that was analysed were 250 (85%). To obtain a representative sample, the study employed a multi-stage sampling technique. Firstly, stratification was employed on the basis of faculties and colleges within the university. Thereafter, proportional sampling was done where samples were distributed in relation to their share in the whole population. Finally, simple random sampling was done for each group, which used the sampling frame generated by Excel, allowing every student to have an equal chance of selection (Mugwe & Runo, 2026). The multi-stage sampling method, where stratified sampling, proportionate allocation, and simple random sampling were combined, improved the representativeness of the results.

Data collection

The data collection process involved the use of a structured self-administered questionnaire. This tool was deemed fit for the research purposes since it provided an opportunity to collect consistent data from a large number of students selected from several departments of Kyambogo University, minimising interviewer bias and increasing efficiency in data processing. The questionnaire contained three major parts. The first part collected data about the background characteristics of the participants, i.e., gender, age, level of study, and level of academic progress. Writing self-efficacy was operationalised in terms of self-confidence, stamina, competence, and self-regulation, with measures adapted from Abo Zaid et al. (2019). Scholarly communication training was measured using indicators relating to training content and training strategies, with items adapted from NCHE (2015) and Mugizi et al. (2020b). Responses to all questions related to the research variables were scored on the five-point agreement Likert scale with neutral as the mid-point. Using the Likert scale made it possible for the participants to express the strength of their beliefs and experience, resulting in data amenable to quantitative analysis, thereby generating data suitable for quantitative

analysis and clearer interpretation of the relationship between scholarly communication training and writing self-efficacy.

Data management

Prior to statistical analysis, the collected data was systematically prepared and processed to ensure accuracy, completeness, and suitability for modelling. This process involved coding the completed questionnaires and entering the responses into IBM SPSS Statistics for preliminary data management. The dataset was then organised through frequency distributions and screened meticulously to detect incomplete responses, data entry errors, and potential outliers. As none of the returned questionnaires contained more than 5% missing values, all cases were considered adequate and retained for further analysis, in accordance with the recommendations of Hair Jr. et al. (2022). To ascertain the nature data missingness, Little's MCAR test was performed. The assessment affirmed that the missingness pattern was Missing Completely at Random (MCAR). On the basis of this result, missing values were treated using series mean imputation, whereby each missing observation was replaced with the mean score of the respective variable. This technique is regarded as appropriate where data is MCAR because it preserves the sample size and enables subsequent multivariate analysis without introducing substantial bias (Austin et al., 2021).

Subsequently, the hypothesised linkages were subjected to analysis via students' t-test, Analysis of Variance (ANOVA) and Partial Least Squares Structural Equation Modelling (PLS-SEM) using SmartPLS 4. This technique was adopted owing to the capacity of PLS-SEM to evaluate complex predictive models with numerous constructs, multiple indicators, second-order constructs, as well as non-linear linkages (Magno et al., 2024). The entire analysis was conducted through two stages. First, the measurement model was evaluated to ascertain the psychometric adequacy of the constructs through tests of validity and reliability. Second, the structural model was assessed to examine the hypothesised relationships among the study variables. Path coefficients, together with their significance levels, were estimated to establish the magnitude and direction of the associations between scholarly communication training and writing self-efficacy. The analysis enabled

a rigorous and comprehensive assessment of how the variables under study related to and influenced one another.

Findings

Demographics

A profile analysis was carried out on the demographic and academic profiles of the respondents. This aimed at placing the study participants into context. The profiles analysed were gender, year of entry into the university, and academic progress. Assessing these attributes was important for establishing the diversity and representativeness of the participants, as well as for facilitating meaningful interpretation of the study findings. To establish whether there were differences and variations in writing efficacy according to background characteristics, students' t-test was carried out for the variable of sex, and for the rest ANOVA. The results are presented in Table 1.

Table 1: *Background characteristics of the respondents*

Variable	Category	Frequency	Percent	Students' t-Test & ANOVA tests		
				Means	T/F Static	p
Sex	Male	155	62.0	3.74	t = 635	p = 256
	Female	95	38.0	3.70		
	Total	250	100.0	3.79		
Year joined the university	2018/2019	30	12.0	3.40	9.904	p = 0.000
	2019/2020	35	14.0	3.65		
	2020/2021	40	16.0	3.71		
	2021/2022	75	30.0	3.93		
	2022/2023	70	28.0	3.79		
	Total	250	100.0			

Level of progress	Good progress	170	68.0	3.82	12.200	p=.000
	Struggling	65	26.0	3.62		
	Stalled	15	6.0	3.52		
	Total	250	100.0			

The results in Table 1 indicate that the largest number of the participants was male, with 62.0% (155), while 38.0% (95) were female. Even though there were more male participants than females, the female sample was sufficient to ensure representation of both genders. A students' t-test further shows that there was no statistically significant difference in writing self-efficacy between male and female students (male mean = 3.74; female mean = 3.70; t = 635, p = .256), indicating that gender did not meaningfully influence writing self-efficacy in this study. With respect to admission to the university, the highest number of respondents (30.0%) was admitted in 2021/2022, followed by 28.0% in 2022/2023, while 16.0%, 14.0%, and 12.0% joined in 2020/2021, 2019/2020, and 2018/2019, respectively. An ANOVA test revealed a statistically significant difference in writing self-efficacy across the different admission cohorts (F = 9.904, p = .000). The mean scores further show a clear pattern of variation across cohorts: 2018/2019 (M = 3.40), 2019/2020 (M = 3.65), 2020/2021 (M = 3.71), 2021/2022 (M = 3.93), and 2022/2023 (M = 3.79). Overall, students admitted in 2021/2022 reported the highest writing self-efficacy (M = 3.93), followed by those in 2022/2023 (M = 3.79), suggesting that more recent cohorts demonstrated comparatively stronger self-efficacy than earlier cohorts, particularly those admitted in 2018/2019 (M = 3.40), who recorded the lowest mean score. This pattern implies that exposure to recent postgraduate training and scholarly communication support may have contributed to improved writing self-efficacy among later cohorts at Kyambogo University.

With respect to academic progress, the majority of respondents (68.0%) reported making good progress in their studies, while 26.0% were struggling, and 6.0% had stalled. The ANOVA results also indicate a statistically significant difference in writing self-efficacy across levels of academic progress (F = 12.200, p = .000). The mean scores show that

students making good progress had the highest writing self-efficacy (M = 3.82), followed by those struggling (M = 3.62), and those who had stalled (M = 3.52). This indicates a clear gradient, where better academic progress is associated with higher perceived writing self-efficacy. Overall, the statistical tests suggest that while gender does not significantly affect writing self-efficacy, both year of admission and level of academic progress are important factors influencing variations in students' scholarly writing self-efficacy.

Measurement models

In preparation for the estimation of the structural relationships, the goodness of fit of the measurement model was carefully conducted to verify if the obtained data was appropriate for Structural Equation Modelling. In line with the PLS-SEM approach that was followed in the study, the goodness of fit was concerned with the psychometric quality of the constructs, and this entailed the validity and reliability assessment, as well as the collinearity diagnostics. Convergent validity was checked using the Average Variance Extracted (AVE), which measures the ability of a construct to explain the variances of its indicators. Then discriminant validity was verified using heterotrait-monotrait (HTMT) ratio of correlations. Reliability was established using both Cronbach's alpha (α) and Composite Reliability (CR). The simultaneous use of these indices was necessary because Cronbach's alpha assumes equal indicator loadings and may therefore underestimate internal consistency, whereas CR accounts for the differing contributions of individual indicators and is regarded as a more precise estimate of construct reliability in SEM applications (Hair Jr. et al., 2022). Employing both statistics therefore provided a more comprehensive appraisal of scale consistency. In addition, the Variance Inflation Factor (VIF) was computed to detect potential multicollinearity among predictor constructs and to confirm that collinearity levels were within acceptable thresholds for subsequent model estimation. The results follow in Tables 2 and 3.

Table 2: *Validities of the variables*

Measures	AVE	WSE	WC	WSC	WSR	WSC
WSE						
WC	0.567	0.561				
WSC	0.753	0.708	0.862			
WSR	0.594	0.550	0.430	0.440		
WSC	0.567	0.869	0.799	0.852	0.816	
Measures	AVE	SCT	TC	TS		
SCT						
TC	0.522	0.697				
TS	0.548	0.600	0.334			

SCT = Scholarly communication training, TC = Training Content, TS = Training Strategies, WC = Writing Competence; WS = Writing Stamina; WSC = Writing Self-Confidence; WSR = Self-Regulation

The validity diagnostics in Table 2 indicate the measurement model met the acceptable levels of convergent and discriminant validity. For convergent validity, all the variables recorded AVE values greater than the minimum threshold of 0.50 recommended by Shrestha (2021). This implies that each latent construct explained more than half of the variance in its respective indicators, thereby demonstrating adequate shared variance among items intended to measure the same concept. Convergent validity is particularly important because it establishes the extent to which indicators theoretically assigned to a construct are empirically associated and collectively represent the underlying phenomenon. In relation to discriminant validity, the heterotrait-monotrait ratio of correlations (HTMT) showed that all inter-construct coefficients were below the recommended cut-off value of 0.90 (Hair Jr. et al., 2022). The results indicate that there was no empirical overlap between the constructs since all the sets of indicators pointed to different conceptual domains. All in all, the information provided in

Table 2 illustrates that the measures employed in the research had good construct validity and could be used for further analysis.

Table 3: *Reliabilities and value inflation factor results*

Measures	α	CR	VIF
Competence	0.888	0.909	1.682
Confidence	0.844	0.886	1.836
Self-Regulation	0.672	0.859	1.968
Stamina	0.752	0.849	1.284
Training Content	0.906	0.922	1.099
Training Strategies	0.833	0.878	1.099

Table 3: Shows Cronbach's alpha and CR results, showing that all constructs had reliability indices above the minimum level of 0.70.

Therefore, the measurement scales showed a satisfactory degree of internal consistency and reliability. In this study, both tests for reliability were done in order to get a complete picture of the test's reliability. Although Cronbach's alpha is commonly used, it tends to be affected by the strength of inter-item correlations reducing reliability levels when the relationship between them is not very high. In contrast, CR offers a more adaptable and robust estimate because it is flexible and tolerates external characteristics among the indicators. Therefore, the combined use of these two techniques strengthened the assessment of construct reliability. Also, the VIF values were examined to assess the level of multicollinearity. All VIF values were below the maximum acceptable threshold of 5.0, confirming the absence of collinearity concerns among the predictor variables (Hair Jr et al., 2021). The results above imply that the independent constructs were sufficiently distinct and suitable for predicting the dependent variable, thereby supporting the robustness and validity of the analysis.

Structural Equation Model for scholarly communication training and students' writing efficacy. To examine the influence of scholarly communication training on students' writing efficacy, a structural equation model was developed. The structural equation model (Figure 4) displays the influence of scholarly communication training on students' writing efficacy.

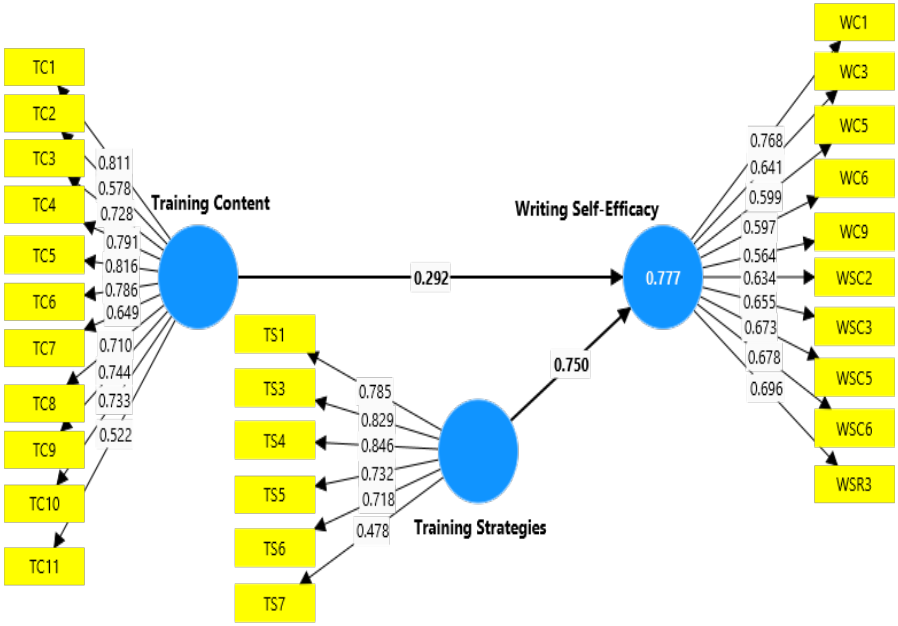

Figure 1: *Structural Equation Model for scholarly communication training and students' writing efficacy*

Figure 1 presents the Structural Equation Model (SEM) illustrating the relationship between scholarly communication training and students' writing self-efficacy and the indicators retained. The indicators retained were those which loaded above 0.40, as recommended by Hair et al. (2022).), because such indicators demonstrate an acceptable contribution to their respective latent constructs. In this model, scholarly communication training was operationalised in terms of Training Content (TC) and Training Strategies (TS). All the indicators for Training Content (TC) retained. These included training on writing and publication (TC1),

training on title selection (TC2), training on document outlining (TC3), training on drafting scholarly documents (TC4), training on academic writing (TC5), training on citation and referencing (TC6), training on literature review (TC7), training on review and editing (TC8), training on logical statements and arguments (TC9), training on results presentation (TC10), and training on PowerPoint presentation (TC11). For the training strategies (TS), the retained indicators were: practical academic writing exercises (TS1), availability of scholarly materials (TS3), coursework involving scholarly documents (TS4), teaching knowledge relevant to articles, proposals, and dissertations (TS5), feedback on writing assignments (TS6), and group writing practice (TS7). The dropped indicators were appropriate group size for participation (TS8) and use of facilities to enable scholarly writing (TS9).

Writing self-efficacy, which is the dependent variable, was studied as a multi-dimensional construct encompassing Writing Self-Confidence (WSC), Writing Competence (WC), Self-Regulation (WSR), and Writing Stamina (WS). However, WS was excluded from the final structural model owing to poor measurement performance. Therefore, the final model considers Writing Self-Confidence, Writing Competence, and Self-Regulation. In the case of WSC, the retained variables are as follows: achieving one's best in academic writing (WSC2), being comfortable in language usage in writing (WSC3), having an expectation of minimum language correction from the supervisor (WSC5), and having confidence in fulfilling the writing expectations of the supervisor (WSC6). The dropped variables include: deriving pleasure from writing because of trusting in one's own writing ability (WSC1) and having knowledge of writing flow because of language proficiency (WSC4). For WC, the retained variables include: making minimal spelling mistakes (WC1), paragraphing appropriately (WC3), making minimal grammatical mistakes (WC5), using the appropriate language (WC6), and organising ideas well (WC9). The dropped variables include: making minimal punctuation mistakes (WC2), making explicit the meaning of the written text (WC4), making minimal mistakes (WC7), adhering to university writing rules (WC8), and improving one's writing style with time (WC10).

With respect to WSR, the retained variables include: evaluating written work (WSR3), thinking about the aim of writing (WSR6), and

remaining fully focused when writing (WSR9). The dropped variables include: considering how the research is different (WSR1), internalising and applying previous knowledge (WSR2), self-assessing one's progress in writing (WSR4), managing time effectively when under pressure (WSR5), planning through outlines and brainstorming (WSR7), motivating oneself to write for personal gain without extrinsic incentives (WSR8), and assessing progress by adapting writing strategies (WSR10). The variables retained had factor loadings that were equal to or exceeded the minimum value of 0.5. Indicators with factor loadings lower than this value were dropped from the analysis. The findings on the influence of scholarly communication training on writing self-efficacy are provided in Table 4.

Table 4: *Path estimates showing the influence of scholarly communication training on writing self-efficacy*

	β	T	p
Training Content -> Writing Self-Efficacy	0.292	5.098	0.000
Training Strategies -> Writing Self-Efficacy	0.750	16.050	0.000
$R^2 = 0.777$			
R^2 Adjusted = 0.775			

The results of structural modelling presented in Table 4 indicate that both elements of scholarly communication training had a notable effect on writing self-efficacy among students. The influence of training content was positive and significant ($\beta = 0.292$, $t = 5.098$, $p = 0.000$), as well as the influence of training strategy ($\beta = 0.750$, $t = 5.098$, $p = 0.000$). The explanatory power of the model was fairly high, with an adjusted R^2 value of 0.775, meaning that 77.5% of variance in writing self-efficacy was explained by the training content and strategies. The comparison of coefficients shows that training strategies explained more variance in writing self-efficacy compared to training content. Given that the two predictors are positively significant, the research hypothesis of this study held true.

Discussion

The findings of this study revealed that scholarly communication training had a positive and significant influence on students' writing self-efficacy. Both training content and training strategies were found to be significant predictors of writing self-efficacy, although training strategies emerged as the stronger predictor. These findings are consistent with the Programme Theory (Bickman, 1987), which guided the study. The Programme Theory maintains that intended outcomes are achieved when programme inputs, activities, and delivery processes are logically aligned with desired goals. In the context of this study, the significant effects of training content and training strategies suggest that when universities provide relevant writing knowledge and apply effective methods of delivery, students develop stronger confidence and competence in academic writing. The findings also agreed with those in earlier empirical studies. For instance, Banwart and Qu (2023) found that communication courses strengthened students' writing self-efficacy. In the same vein, Graham et al. (2025) established that writing instruction was a prerequisite to propagating learners' writing self-beliefs. Similarly, Gupta et al. (2022) found that academic writing support should be integrated throughout graduate education through coursework, supervision, and language support services. Therefore, the present findings reinforce the view that well-designed training content contributes to students' writing confidence, competence, and self-regulation.

Nevertheless, it is worth noting that the more significant impact of the training approach compared to the training content suggests that training delivery holds more importance than just providing content to learners. The findings of this study were validated empirically by the findings of previous studies which highlight the significance of active and collaborative training strategies. In their study, Abbott et al. (2022) reported that interactive training methods were necessary for the development of students writing self-efficacy. Similarly, Marchiori and McLean (2022) and Nadya et al. (2023) reported that collaborative teaching methods had a pronounced influence on self-efficacy of students. Khazaal (2019), Rybchynska (2023), and Wischgoll (2017) also found that there were improvements in writing through discussion

and feedback exercises. Furthermore, Mata et al. (2021) reported that using a variety of approaches influenced writing efficacy. Thus, the stronger effect of training strategies in this study confirms that students' writing self-efficacy is enhanced most when training moves beyond theory and engages learners in active writing practice. The findings further demonstrated that scholarly communication training explained a substantial proportion of the variation in writing self-efficacy. This means that the combination of relevant content and effective strategies is highly important in shaping students' confidence, competence, and self-regulation in writing. Also, the results denote that self-efficacy in writing among master's degree students is not just an individual characteristic but one that is significantly influenced by institutional learning experiences and the quality of academic support provided.

Conclusions

Based on the results obtained from the study, it is evident that scholarly communication training plays a critical role in influencing students' self-efficacy in academic writing. The content of the training together with the use of specific training strategies positively impacts the confidence, competence, and self-regulation of students in terms of writing. However, the training strategies have more influence than the content. This means that the students can derive more benefits from engaging in an interactive and practical process that involves feedback rather than just exposure to the content. In addition, it is possible to boost the writing self-efficacy of master's degree students through institution-based training interventions.

Recommendations

Based on the findings and discussion of the study, the study recommends that universities should strengthen scholarly communication training content by ensuring that master's degree students are systematically exposed to key academic writing areas such as academic writing skills, literature review, citation and referencing, drafting, outlining,

and argument development. Since training content was found to significantly influence writing self-efficacy, such content should be consistently integrated into graduate training programmes to support students in developing confidence and competence in academic writing. Also, it is recommended that universities should give greater emphasis to improving scholarly communication training delivery strategies. The universities should adopt practical methods of teaching through writing exercises, writing in groups, discussions with peers, and continuous feedback, among others. Given that training strategies had a stronger influence on writing self-efficacy, enhancing the way training is delivered will more effectively build students' confidence, competence, and self-regulation in academic writing.

Limitations

Despite the value of insights gained from this study regarding the importance of communication skills training in improving master's degree students' writing self-efficacy, some limitations emerged. First, the use of self-reporting questionnaire data may have been subject to bias due to social desirability and response distortions, hence the participants might have inflated estimates of their writing self-efficacy and the level of scholarly communication offered by the university. This limitation needs to be addressed by future research through the use of objective measurements, such as writing sample evaluations and supervisors' assessments. Furthermore, the lack of consideration of qualitative aspects of student experience in relation to writing self-efficacy limited the depth of analysis. Therefore, future researchers should incorporate qualitative methods to obtain richer data. Third, the study's being limited to one institutional setting might have reduced external validity. Comparative studies involving several different institutions or even countries would help to overcome this problem. Lastly, while factor analysis helped to improve the statistical quality of constructs in question, the exclusion of several important indicators narrowed the definition of constructs such as self-regulation and writing stamina. Hence, it is necessary to work further on refining the measurement scale.

References

Abbott, J., Hodges, T., Dismuke, S., Landau Wright, K., & Schweiker, C. (2022). Interventions to improve teacher self-efficacy beliefs about writing and writing instruction: Lessons learned and areas for exploration. *Teaching/Writing: The Journal of Writing Teacher Education, 11*(3), 7. https://scholarworks.wmich.edu/wte/vol11/iss3/7

Abo Zaid, H. M. A. A., Elsami, A., Farouk, M., & Hanna, R. A. (2019). Building up a university students' writing self-efficacy scale. *Fayoum University Journal of Educational and Psychological Sciences, 11*(1), 343–387. https://doi.org/10.21608/jfust.2019.82755

An, Y. & Mindrila, D. (2020). Strategies and tools used for learner-centered instruction. *International Journal of Technology in Education and Science (IJTES), 4*(2), 133–143. http://dx.doi.org/10.46328/ijtes.v4i2.74

Austin, P. C., White, I. R., Lee, D. S., & van Buuren, S. (2021). Missing data in clinical research: A tutorial on multiple imputation. *The Canadian Journal of Cardiology, 37*(9), 1322–1331. https://doi.org/10.1016/j.cjca.2020.11.010

Banwart, H. M., & Qu, S. (2023). Developing writing self-efficacy: Perspectives from Agricultural Communications students. *Journal of Applied Communications, 107*(1). https://doi.org/ 10.4148/1051-0834.2427

Bickman, L. (1987). The functions of program theory. New directions for program evaluation, 5–18. https://doi.org/10.1002/ev.1443

Cai, L. J. (2017). Students' perceptions of academic writing: A needs analysis of EAP in China. In K. Kimura & J. Middlecamp (Eds.), *Asian-focused ELT research and practice: Voices from the far edge* (pp. 127–151). Cambodia: Phnom Penh.

Collado, S., Fidalgo, C., Rodríguez-Rey, R., & Sorrel, M. A. (2023). Development and validation of the self-efficacy for writing and defending academic texts scale. *Psicología Educativa. Psicología Educativa, 29*(1), 91–99. https://doi.org/10.5093/psed2022a15

Chege, A. M., & Njengere, D. (2018). The state of academic writing in Kenyan universities: Making a case for Kenyan universities to re-conceptualize their approach to teaching academic writing. *The Journal for Research and Practice in College Teaching, 3*(1), 10–46. http://journals.uc.edu/

Du, D., Ding, J., Chen, Y., & Liu, C. (2025). The evolution and development landscape of scholarly communication based on the analysis of published articles. *Journal of Librarianship and Information Science, 57*(1), 40–56. https://doi.org/10.1177/09610006231196336

Finney, S. J., Wells, J. B., & Henning, G. W. (2021, March). *The need for program theory and implementation fidelity in assessment practice and standards* (Occasional Paper No. 52). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).

Graham, S., Ng, C., Hebert, M., Santangelo, T., Aitken, A. A., Camping, A., & Nusrat, A. (2025). Can teaching writing enhance students' writing self-efficacy: A meta-analysis. *Journal of Educational Psychology, 117*(4), 559–581. https://doi.org/10.1037/edu0000923

Gupta, S., Jaiswal, A., Paramasivam, A., & Kotecha, J. (2022). Academic Writing Challenges and Supports: Perspectives of International Doctoral Students and Their Supervisors. *Frontiers in Education, 7,* 891534. https://doi.org/10.3389/feduc.2022.891534

Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics, 1*(3), 100027. https://doi.org/10.1016/j.rmal. 2022.100027

Han, Y., Zhao, S., & Ng, L. L. (2021). How technology tools impact writing performance, lexical complexity, and perceived self-regulated learning strategies in EFL academic writing: A comparative study. *Frontiers in Psychology, 12*, 752793. https://doi.org/10.3389/fpsyg .2021.752793

Jilcha, K. (2025). Identifying existing research challenges and enhancing outcomes through the development of standardized methodologies. *Humanities and Social Sciences Communications, 12*(1), 187. https://doi.org/10.1057/s41599-024-04269-7

Jonas, E. A., & Hall, N. C. (2022). Writing and reading self-efficacy in graduate students: Implications for psychological well-being. *Interdisciplinary Education and Psychology, 3*(1), 1–14. http://dx.doi.org/10.31532/InterdiscipEducPsychol.3.1.003

Khazaal, E. N. (2019). Improving postgraduates' academic writing skills with summarizing strategy. *Arab World English Journal (AWEJ), 10*(3). http://dx.doi.org/10.2139/ssrn. 3466042

Kimani, D. (2025, April 21). How Kenya can fix its worrying PhD and master's completion crisis. *TNX*. https://www.tnx.africa/opinion/article/2001516988

Klain-Gabbay, L., & Shoham, S. (2018). Scholarly communication and the academic library: Perceptions and recent developments. In A. Berea. (Ed.) (2019), *A complex systems perspective of communication from cells to societies.* IntechOpen. https://doi.org/10.5772/intechopen.82075

Krejcie, R. V., & Morgan, D. W. (1970). Sample size determination table. *Educational and Psychological Measurement, 30*(3), 607–610. https://doi.org/10.1177/001316447003000 308

Li, D. (2022). A review of EFL students' English writing self-efficacy. *IRA-International Journal of Education & Multidisciplinary Studies, 18*(3), 94–109. https://dx.doi.org/10.21013/jems. v18.n3.p4

Magno, F., Cassia, F., & Ringle, C. M. (2024). A brief review of Partial Least Squares Structural Equation Modelling (PLS-SEM) use in quality management studies. *The TQM Journal, 36*(5), 1242–1251. https://doi.org/10.1108/TQM-06-2022-0197

Malunda, P. N., Atwebembeire, J., & Ssentamu, P. N. (2021). Research supervision as an antecedent to graduate student progression in the public higher institutions of learning in Uganda. *International Journal of Learning, Teaching and Educational Research, 20*(5), 73–95. https://doi.org/10.26803/ijlter.20.5.5

Marchiori, K. S., & McLean, S. (2022). Active learning spaces foster development of communication skills in senior undergraduate science students. *Journal of Learning Spaces, 11*(1). https://libjournal.uncg.edu/jls/article/view/2030

Mata, Á. N. S., de Azevedo, K. P. M., Braga, L. P., de Medeiros, G. C. B. S., de Oliveira Segundo, V. H., Bezerra, I. N. M., Pimenta, I. D. S. F., Nicolás, I. M., & Piuvezam, G. (2021). Training in communication skills for self-efficacy of health professionals: A systematic review. *Human Resources for Health, 19*(1), 30. https://doi.org/10.1186/s12960-021-00574-3

Mitchell, K. M., McMillan, D. E., & Rabbani, R. (2019). An exploration of writing self-self-efficacy and writing self-regulatory behaviours in undergraduate writing. *The Canadian Journal for the Scholarship of Teaching and Learning, 10*(2). https://doi.org/10.5206/cjsotl-rcacea.2019.2.8175

Mitchell, K. M., Zumbrunn, S., Berry, D. N., & Demczuk, L. (2023). Writing self-efficacy in postsecondary students: *A scoping review. Educational Psychology Review, 35*(3), 82. https://doi.org/10.1007/s10648-023-09798-2

Mkhai, E. (2023). Factors contributing to slow completion rate among master's degree students of the Information Studies Programme at the University of Dar es Salaam, Tanzania. I*FLA Journal*, 03400352231174468. https://doi.org/10.1177/03400352231174468

Mugendi, S. M., & Githae, E. N. (2021). Prevalence of non-completion among postgraduate students in selected public universities in Kenya. *European Journal of Education Studies, 8*(12), 143–160. http://dx.doi.org/10.46827/ejes.v8i12.4017

Mugizi, W., Dafiewhare, A. O., Manyange, M., & Zikanga, D. K. (2020a). Talent development practices and work engagement of in-service teachers at a private university in Western Uganda. *Journal of Educational Research and Reviews, 8*(5), 57–66. https://doi.org/10.33495/jerr_v8i4.20.125

Mugizi, W., Rwothumio, J., & Kanyesigye, J. (2020b). Teacher-centred pedagogical approach and student engagement at a private university in Western Uganda. *Journal of Educational Research and Reviews, 8*(8), 128–137. https://doi.org/10.33495/jerr_v8i8.20.154

Mugwe, J. N, & Runo, S. [Eds.] (2026). *Research methodology in agricultural sciences.* Singapore: Springer. https://doi.org/10.1007/978-981-95-1892-0_16

Müller, C. (2025). *Digital learning design designing effective online and blended learning.* Springer. https://doi.org/10.1007/978-3-031-89045-1

Nadya, N. L., Ismail, G., Guntur, M., & Fransori, A. (2023). The use of collaborative strategies to improve students' writing ability and self-efficacy: A mixed method study. *European Journal of Educational Research, 12*(1), 265–280. https://doi.org/10.12973/eu-jer.12.1.265

Nash, J. B. (2009). Improving evaluations in computer-supported learning projects. In Rogers, P. L., Berg, G. A., Boettcher, J. V., Howard, C., Justice, L., & Schenk, K. D. (Eds.), (2009). *Encyclopedia of distance learning* (2nd ed.). IGI Global Scientific Publishing.

National Council for Higher Education [NCHE] (2015). *Benchmarks for postgraduate studies.* NCHE.

Nnanta, H. N., & Madighi, J. (2024). Training content and organisational capacity: A literature perspective. *BW Academic Journal, 1*(3), 104–112. https://www.bwjournal.org/index.php/ bsjournal/article/view/2129

Nwaobiara, N. H., & Madighi, J. (2024). Training content and organisational capacity: A literature perspective. *BW Academic Journal, 1*(3), 104–112. https://www.bwjournal.org/index.php/ bsjournal/article/view/2129

Obuku, E. A., Lavis, J. N., Kinengyere, A., Mafigiri, D. K., Sengooba, F., Karamagi, C., & Sewankambo, N. K. (2017). Academic research productivity of post-graduate students at Makerere University College of Health Sciences, Uganda, from 1996 to 2010: A retrospective review. *Health Research Policy and Systems, 15*, 1–10. https://doi.org/10.118 6/s12961-017-0194-8

Ofem, U., & Akpo, D. C. (2022). Predictive analysis of research competence on thesis completion rate among master's degree students in universities in South-South Geopolitical Region, Nigeria. *Nigeria.* http://dx.doi.org/10.2139/ssrn.4190465

Okongo, K. & Okaka, W. (2025). Professionalizing academic research supervisory competencies of lecturers at Kyambogo University for students' performance quality outputs in Uganda. *East African Journal of Arts and Social Sciences, 8*(1), 518–531. https://doi.org/10.37284/eajass.8.1.2916

Omanga, D. (2017, February 22). Postgraduate students also to blame for poor completion rates. *Nation*. https://nation.africa/kenya

Prihandoko, L. A. (2021). Students' writing self-efficacy, writers' block, and academic writing performance: An empirical study in Eastern Indonesian students. A*l-Ishlah: Jurnal Pendidikan, 13*(3), 2029–2037. https://doi.org/10.35445/alishlah.v13i3.1156

Putri, L., Rezani, M. R., & Hermina, D. (2025). Correlational research design. *Jurnal Riset Multidisiplin Edukasi, 2*(6), 306–317. https://doi.org/10.71282/jurmie.v2i6.456

Rybchynska, A. (2023). Development of communication skills through the introduction of interactive teaching methods in English lessons. *Scientific Bulletin of Mukachevo State University. Series "Pedagogy and Psychology", 9*(2), 9–17. https://doi.org/10.52534/msu-pp2.2023.09

Segale J. N., & Ndalama L. P. (2025). Assessing the impact of supervision quality on graduate completion rates in institutions of higher learning in South Africa and Zambia. I*nternational Journal of Research and Innovation in Social Science (IJRISS), 9*(8), 1111–1128. https://dx.doi.org/10.47772/IJRISS.2025.908000095

Smith, K. L., & Finney, S. J. (2020). Elevating program theory and implementation fidelity in higher education: Modelling the process via an ethical reasoning curriculum. *Research & Practice in Assessment, 15*(2), 1–13.

Smith, K. L., & Finney, S. J. (2020). Elevating program theory and implementation fidelity in higher education: Modelling the process via an ethical reasoning curriculum. *Research & Practice in Assessment, 15*(2), 1–13.

The Office for Students Annual Review. (2022). *Annual review*. https://www.officeforstudents. org.uk/publications/annual-review-2022/

Waweru, I. K., & Kyakuha, M. (2020). Attitude towards research among masters' students in Makerere University Business School (MUBS), Uganda. I*nternational Journal of Modern Education Studies, 4*(2), 42–56. http://dx.doi.org/10.51383/ijonmes.2020.50

Wen, C., Chen, M., & Yan, F. (2025). The challenges and strategies of Chinese postgraduate students in academic writing. *Cogent Education, 12*(1). https://doi.org/10.1080/2331186 X.2025.2488544

Wischgoll, A. (2017). Improving undergraduates' and postgraduates' academic writing skills with strategy training and feedback. *Frontiers of Education, 2* (33). https://doi.org/10.3389/feduc.2017.00033

Wolfram, D. (2019). Understanding and navigating the scholarly communication landscape in the twenty-first century. *Frontiers in Research Metrics and Analytics, 4*(4). https://doi.org/10.3389/frma.2019.00004

Yuvayapan, F., & Bilginer, H. (2020). Identifying the needs of master's degree students: The first step of academic writing courses. *Journal of Language and Linguistic Studies, 16*(2), 595–611. https://doi.org/10.17263/jlls.759260