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Self-Efficacy and Teaching Quality of Academic Staff in Public Universities in Uganda

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Abstract: This study investigated the association between self-efficacy and teaching quality of academic staff in selected public universities in Uganda. Specifically, the study examined how academic staff's personal sense of efficacy, behaviour management, instructional strategies, and motivational strategies efficacy influenced teaching quality in public universities. Employing the positivist research philosophy, the study used a quantitative approach through correlational research design. Randomly selected academic staff members provided data using a self-administered questionnaire. Partial least squares structural equation modelling (PLS-SEM) results indicated that of the four teacher efficacy aspects, only personal sense of efficacy positively and significantly influenced teaching quality. However, the efficacy of behaviour management, instructional strategies, and motivational strategies had a positive but insignificant influence on teaching quality. It was concluded that the personal sense of efficacy of academic staff is essential in enhancing teaching quality. Nonetheless, the efficacy of behaviour management, instructional strategies, and motivational strategies of academic staff has made minimal contributions to teaching quality in universities. Therefore, university leaders should emphasise promoting the personal sense of efficacy of academic staff to enhance teaching quality more than instructional strategies and motivational strategies efficacy.

Keywords: Behaviour management, instructional strategies, motivational strategies, personal sense, self-efficacy, teaching quality.

1. Introduction

The fast-paced and ever-changing nature of the contemporary world necessitates that educational institutions place a high priority on exceptional teaching quality in order to keep up with the times. This is of paramount importance because superior teaching instils inspiration and motivation in students, leading them to fully engage in the learning process and creating a dynamic and effective educational environment (Sogunro, 2017). High-quality teaching sustains interest in learning and augments students' educational outcomes. In fact, teaching quality emerges as an indispensable factor that significantly impacts students' learning outcomes and motivation. Teaching quality encompasses effective instructional methods and practices that enhance students' learning outcomes, including academic achievement and emotional development (Bellens et al., 2019). Achieving the highest standard of teaching empowers students to advance at their own pace, develop a profound and nuanced understanding of the subject matter, and acquire indispensable skills that support the realisation of their unique objectives and aspirations (Nilsen & Gustafsson, 2016). Notably, Jentsch and Schlesinger (2017) posit that teaching quality is a multidimensional construct consisting of three fundamental components: classroom management, which fosters order and productivity; cognitive activation, which stimulates intellectual engagement; and personal learning support, which nurtures students' emotional and social well-being.

Teaching quality serves as the cornerstone of educational institutions (Kurzweil, 2018). It entails instruction that is aligned with standards and caters to the diverse learning needs, styles, interests,

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and expectations of students (Sogunro, 2017). By enhancing students' learning opportunities, teaching quality paves the way for positive learning outcomes (Luoto, 2020). Furthermore, it encompasses teacher-student interactions in the classroom, encompassing behaviours that enhance positive educational outcomes (Ruiz-Alfonso et al., 2020). Teaching quality encompasses the various domains of teachers' instructional practices that have a positive impact on cognitive and affective student outcomes, including critical thinking, problem-solving, and emotional well-being (Nilsen & Gustafsson, 2016). The essentiality of teaching quality lies in its ability to sustain students' interest in the subject matter and positively influence their educational outcomes (Bellens et al., 2019). Skillful teachers who prioritise teaching quality enable students to unlock their full potential (Nilsen & Gustafsson, 2016). In so doing, teaching quality facilitates a profound comprehension of the subject matter and equips students with practical skills that empower them to achieve their individual goals (Deunk et al., 2018). This underscores the pivotal role that teaching quality plays in fostering academic success and personal growth.

Recognising the importance of teaching quality, universities in Uganda have implemented various initiatives to improve it among academic staff. These efforts include providing instructional leadership, enhancing self-efficacy, recognising teaching excellence, conducting learner appraisals, overseeing teaching, and promoting open communication between academic staff and students (Nabaho et al., 2016). In addition, universities offer professional development opportunities such as scholarships, workshops, and seminars to support academic staff in developing their teaching skills (Wakida et al., 2017). These endeavours aim to foster a culture of teaching excellence and continuous improvement, ultimately enhancing the quality of education in Ugandan universities.

Nevertheless, public universities in Uganda still face significant challenges in achieving teaching quality. One major issue is the frequent absence of academic staff, resulting in only half of the required contact hours being taught (Atwebembeire et al., 2018). Furthermore, some academics demonstrate a lack of commitment to quality by engaging in unethical practices, including grade falsification and facilitating student cheating during examinations. Insufficient lecture planning is also observed in some cases, where academics resort to using plagiarised online notes for teaching purposes (Mugizi et al., 2015). Consequently, teaching quality remains a challenge as a limited number of academic staff adopt student-centred approaches, leading to a predominance of traditional lecture-based teaching strategies (Muganga & Ssenkusu, 2019).

Given the behaviours exhibited by academics in Ugandan universities, it is necessary to assess their self-efficacy, which refers to their capacity to successfully fulfil their professional duties and responsibilities and identify strategies to address associated challenges (Barni et al., 2019). According to Nie et al. (2013), self-efficacy encompasses a personal sense of efficacy, behaviour management efficacy, instructional strategies efficacy, and motivational strategies efficacy.

1.1 Theoretical Review

The Social Cognitive Theory (SCT) proposed by Bandura (1986) served as the theoretical framework for this study. According to SCT, two primary factors, namely self-efficacy and outcome expectations, exert influence on human behaviour. Self-efficacy refers to individuals' confidence in their ability to successfully complete specific tasks or achieve particular goals (Lee et al., 2018). It can be viewed as a self-evaluation of one's capabilities (Karbasia & Samanib, 2016) and is considered a crucial component of self-regulation. Its significance lies in its impact on an individual's decision to initiate or avoid a given task (Alfaiz et al., 2021). Individuals with high self-efficacy are more likely to be motivated to engage in goal-directed activities, driving them to strive for achievement and pursue objectives with confidence and determination (Bajaba et al., 2022). Self-efficacy directly affects behaviour by influencing outcomes, goal-setting, and identification of potential barriers and facilitators (Williams & Rhodes, 2016). Additionally, self-efficacy is shaped by past experiences,

observational learning, persuasion, and physical and emotional states at the time of behavioural opportunities (Sheu et al., 2018).

The SCT postulates that individuals with a strong sense of self-efficacy are more likely to believe in their ability to succeed and, therefore, are driven to take action and engage in activities that facilitate goal achievement (Bajaba et al., 2021). This confidence in one's capabilities motivates individuals to take the first step and persist in the face of challenges. In the context of teachers in higher educational institutions, this higher level of self-efficacy translates to a higher quality of teaching. Teaching self-efficacy encompasses various aspects, including personal efficacy, behaviour management, instructional strategies, and motivational strategies (Nie et al., 2012). Building on the principles of the SCT, this study aimed to test the following hypotheses:

- Teachers' personal sense of efficacy has a significant influence on teaching quality in universities.
- Teachers' behaviour management efficacy has a significant influence on teaching quality in universities.
- Teachers' instructional strategies efficacy has a significant influence on teaching quality in universities.
- Teachers' motivational strategies efficacy has a significant influence on teaching quality in universities.

2. Review of Related Literature

2.1 Personal Sense of efficacy and teaching quality

Teachers' personal sense of efficacy refers to their belief in their ability to have a positive impact on student learning outcomes and engagement, even when faced with challenging students or difficult situations. This confidence in their teaching abilities allows them to effectively facilitate student learning and motivation (Yough, 2019). This personal sense of self-efficacy is crucial for empowering teachers to cultivate individuals who can adapt to changing times, acquire essential knowledge and skills, and embrace innovations. Self-efficacious teachers take ownership of their students' learning, actively seeking out new teaching strategies and techniques to enhance their instructional practice (Orakcı et al., 2023). Therefore, a teacher's personal sense of self-efficacy is closely related to teaching quality. Several studies (Alibakhshi et al., 2020; Holzberger & Prestele, 2021; Orakcı et al., 2023; Poulou et al., 2019; Sehgal et al., 2017; and Yildiz & Arici, 2021) have examined the connection between a teacher's personal sense of efficacy and the quality of their teaching. However, these studies were conducted in foreign contexts outside of Uganda, limiting their direct applicability to the Ugandan setting. Additionally, none of the studies specifically focused on university academic staff, leaving a significant gap in the literature. Therefore, it is necessary to conduct a study that specifically explores the experiences and perspectives of university academic staff in Uganda, providing insights that are specific to this context.

2.2 Behaviour management efficacy and teaching quality

Behaviour management refers to the capacity of educators to establish a supportive learning environment through the establishment of clear expectations, promotion of positive behaviour, and implementation of various techniques for motivating students to actively participate in productive learning (Shah, 2023). It entails the creation of a structured and respectful classroom atmosphere, fostering student collaboration, and employing strategies such as praise, feedback, proactive measures, and directives to guide student behaviour and facilitate their academic achievements (Mitchell, 2019). Several studies (Adibsereshki et al., 2014; Gooch, 2017; Hasnah, 2017; Khalid et al., 2021; and Mustafa, 2022) have investigated the connection between personal efficacy and teaching quality. However, certain gaps have been identified. Firstly, all previous studies were conducted outside of Uganda, resulting in a contextual void. Methodologically, some studies were based on

reviews rather than original research (Hasnah, 2017). Moreover, a literature search revealed a paucity of empirical studies on this subject. To address these identified gaps, the current empirical study sought to examine the relationship between personal efficacy and teaching quality within the Ugandan context. By doing so, it aimed to offer valuable insights into how teachers' beliefs in their own abilities influenced their teaching effectiveness, ultimately informing strategies for enhancing teaching quality and improving student learning outcomes in Ugandan universities.

2.3 Instructional strategies efficacy and teaching quality

Instructional strategies refer to the techniques and methods employed by teachers to enable students to become independent and strategic learners (Crebillo, 2021). These strategies are consciously selected and utilised by teachers to facilitate student learning and achieve specific instructional goals (Baafi, 2020; Suman, 2021). They encompass a range of plans and approaches, including lesson structures, teaching tactics, and methodologies, all aimed at promoting effective learning (Hill & Jordan, 2021). Essentially, the efficacy of instructional strategies reflects the teachers' confidence in their ability to choose and apply the most effective approaches to support student learning and achieve their teaching objectives. Previous studies (Adediran et al., 2015; Cheng et al., 2019; Le Donné et al., 2016; Francisco & Celon, 2020; Munna & Kalam, 2021) have examined the relationship between teachers' personal sense of efficacy in instructional strategies and teaching quality. However, these studies have identified methodological and knowledge gaps. Some studies were literature reviews (Cheng et al., 2019; Munna & Kalam, 2021), while others reported inconsistent findings, such as Le Donné et al. (2016) finding a weaker association between instructional strategies and teaching quality in socio-economically disadvantaged schools. These inconsistencies suggest that the impact of instructional strategies on teaching quality is context-dependent and influenced by various factors. This study aims to address these gaps by investigating the impact of teachers' sense of efficacy in instructional strategies on teaching quality specifically in Ugandan universities. The findings will shed light on the critical role that teachers' beliefs play in shaping their instructional practices and student outcomes in that particular context.

2.4 Motivational strategies efficacy and teaching quality

Motivation is a fundamental driving force that compels individuals to achieve their goals and exhibit specific behaviours in given situations (Davidovitch & Dorot, 2023). It exerts a significant influence on the path individuals choose as well as the goals they set for themselves. Motivation is intricately connected to overall behaviour as it guides the selection of goals and the mechanisms employed to attain them (Davidovitch & Dorot, 2023). It encompasses three crucial aspects: direction, intensity, and quality. Serving as a primary requirement for the successful completion of a learning task, motivation acts as the impetus behind the educational process (Al-Said, 2023). Scholars (Al-Said, 2023; Filgona et al., 2020; Rafiola et al., 2020; Tokan & Imakulata, 2019) have investigated the relationship between the efficacy of motivational strategies and teaching quality. However, these studies have certain limitations. A significant gap is that all the studies were conducted in foreign contexts, thereby limiting the direct applicability of their findings to the Ugandan context. Furthermore, some of these studies, such as the work by Filgona et al. (2020), were reviewed, highlighting the need for primary research in the Ugandan context to address the existing knowledge gap.

3. Methodology

This study employed a correlational research design, which is a quantitative approach used to investigate the relationships and associations between variables. The aim was to identify patterns and correlations between these variables. By examining the connections between variables, this design allowed the study to explore the strength and direction of the relationships between instructional sense of efficacy and teaching quality. This provides valuable insights into their

interdependence (Mohajan, 2020). The analysis focused on the association between the self-efficacy of academic staff and teaching quality. The study included a sample of 327 academic staff members, selected from a population of 2225 using Krejcie and Morgan's table for calculating small samples (1970). The sample represented four universities: Makerere (219), Busitema (36), Gulu (22), and Mbarara (50). Although data was collected from 256 participants (78.3% of the projected sample), the response rate exceeded 50% and was therefore considered representative and sufficient for analysis, as suggested by Mellahi and Harris (2016). The results from such a sample can be generalised.

3.1 Measurement of the variables and data collection instrument

The study focused on two main variables: Teaching quality and academic staff self-efficacy. Teaching quality was assessed using three aspects: classroom management, personal learning support, and cognitive activation (Jentsch & Schlesinger, 2017). On the other hand, academic staff self-efficacy was measured using the following indicators: personal sense of efficacy, behaviour management, motivational strategies, and instructional strategies (Nie et al., 2012). The data was collected through a self-administered questionnaire that was completed by the academic staff members. The questionnaire utilised a 5-point Likert scale, providing a range of response options from 1 (strongly disagree) to 5 (strongly agree), with a neutral midpoint option of 3 (not sure). This scaling approach allowed for the gathering of quantitative data, enabling precise measurement and analysis of the respondents' attitudes, beliefs, and opinions. Additionally, it facilitated the application of statistical methods to identify patterns and trends.

3.2 Data analysis methods

The data analysis was conducted utilising the Partial Least Square Structural Equation Modelling (PLS-SEM) technique, supported by Smart PLS 4 software. Initially, a descriptive analysis was performed to determine the mean values, thereby offering valuable insights into the perceptions and rankings of academic staff self-efficacy and teaching quality as perceived by the respondents. Subsequently, inferential analysis was carried out using Structural Equation Modelling (SEM) to investigate the influence of academic staff self-efficacy on teaching quality. The resulting models were utilised to assess the goodness of fit and reveal the relationships between self-efficacy and teaching quality in public universities, thereby providing a comprehensive understanding of the intricate interplay between these variables.

4. Presentation of Results

4.1 Demographic profiles of the respondents

The study considered a range of demographic factors, including gender, marital status, academic rank, highest qualification, university responsibility, and teaching experience at the current institution. These demographic characteristics provided an understanding of the study participants. The details of the study participants are presented in Table 1.

Table 1: *Demographic profiles of the academic staff*

Variable	Categories	Frequency	Per cent
Gender	Male	149	58.9
	Female	104	41.1
	Total	253	100.0
Highest academic qualification	Bachelor's Degree	9	3.6
	Master's Degree	88	34.8
	PhD	156	61.7
	Total	253	100.0
Academic Rank	Graduate Fellow	14	5.5

	Assistant Lecturer	72	28.5
	Lecturer	102	40.3
	Senior Lecturer	47	18.6
	Associate Lecturer	12	4.7
	Professor	6	2.4
	Total	253	100.0
Responsibility in the University	Administrator	34	13.4
	Non-Administrator	219	86.6
	Total	253	100.0
Working experience	1-2 Years	12	4.7
	3-4 Years	39	15.4
	5 Years and above	202	79.8
	Total	253	100.0

The results in Table 1 show a slightly higher representation of male participants (58.9%) compared to females (41.1%). However, both genders were represented in the study. Most participants (86.6%) held administrative positions, while 13.4% were non-administrative staff. The study included academic staff with varying degrees: PhD holders (61.7%), master's degree holders (34.8%), and bachelor's degree holders (3.6%). Additionally, most participants (79.8%) had served for five years or longer, while 15.4% had served for three to four years and 4.7% for one to two years. This indicates that the study's findings can be applied to a broad range of academic staff members with varying levels of experience and qualifications.

4.2 Measurement models

To evaluate the suitability of the data for structural modeling, two sets of measurement measures were used. Firstly, convergent and discriminant validity were assessed using the average variance extracted (AVE) and heterotrait-monotrait ratio (HTMT) correlations. Additionally, reliability was examined using Cronbach's alpha (α) and Composite Reliability (CR) measures. In the first model, AVE was employed to evaluate the convergence of the measures (constructs) on the variable, determining whether they were related and converging on the same underlying concept. AVE helped assess whether the different measures (constructs) were actually measuring the same thing and if they were related to each other as expected (Cheung et al., 2023). This is an important step in establishing the validity of the measures and ensuring that they accurately capture the variable of interest. The Heterotrait-Monotrait (HTMT) ratio was calculated to assess the discriminant validity of the reflectively measured constructs, examining whether each construct was distinct and uncorrelated with other constructs. This analysis helped determine whether the constructs were measuring separate and unique concepts rather than being redundant or highly correlated with each other (Rönkkö & Cho, 2022). HTMT ratio correlations helped evaluate the extent to which each construct was empirically distinct from others, providing evidence for discriminant validity.

Table 2: *AVE and heterotrait monotrait (HTMT) discriminant validity assessment*

Measures	AVE	TQ	CM	CA	PLS	
TQ						
CM	0.639	0.725				
CA	0.575	0.100	0.109			
PLS	0.532	0.847	0.854	0.516		
Measures	AVE	TSE	BME	ISE	MSE	PSE
TSE						
BME	0.536	0.471				
ISE	0.670	0.301	0.523			

MSE	0.599	0.765	0.322	0.226	
PSE	0.529	0.851	0.751	0.622	0.811

Abbreviations: BME= Behaviour Management Efficacy, CA = Cognitive Activation, CM = Classroom Management, ISE = Instructional Strategies Efficacy, MSE = Motivational Strategies Efficacy, PLS = Personal Learning Support, PSE = Personal Sense of Efficacy, TQ = Teaching Quality, TSE = Teacher Self-Efficacy.

The convergent validity results, as assessed by the average variance extracted (AVE), indicate that all values exceeded the minimum threshold of 0.5. Furthermore, the heterotrait-monotrait (HTMT) ratio of correlations was found to be below the maximum threshold of 0.90 (Purwanto & Sudargini, 2021). These findings suggest that the instrument is valid. Specifically, the AVE values above the minimum threshold confirm that the constructs effectively converge on the variables they aim to measure, making them appropriate measures. Meanwhile, the HTMT ratio below the minimum threshold indicates that the constructs are independent and distinct measures, thus demonstrating discriminant validity.

The second measurement model assessed the reliability of the constructs using two measures of internal consistency, namely Cronbach's alpha (CA [α]) and Composite Reliability (CR). These metrics evaluate the extent to which the indicators for each construct are correlated, providing insight into the consistency of the measurements. Additionally, the model examined the collinearity results to determine the independence of the variables and their lack of high correlation with each other. The results of these analyses are presented in Table 3, providing a comprehensive understanding of the reliability and independence of the variables.

Table 3: *Cronbach's alpha and composite reliability results*

Measures	α	CR
Classroom Management	0.905	0.925
Cognitive Activation	0.876	0.904
Personal Learning Support	0.837	0.882
Behaviour Management	0.827	0.874
Instructional Strategies	0.898	0.923
Motivational Strategies	0.885	0.912
Personal Sense	0.878	0.905

As shown in Table 3, the Cronbach's alpha coefficients and composite reliability values for individual constructs exceeded 0.70, indicating a satisfactory level of reliability for exploratory research. However, due to the limitations of Cronbach's alpha, which assumes equal indicator traits in the population and may underestimate reliability, composite reliability was preferred. Composite reliability is a more liberal measure that accounts for the unique outer traits of indicator variables (Hair Jr et al., 2021). Therefore, the indicators of the measures were reliable.

4.3 Structural equation models for the variables

A structural equation model was constructed in order to examine the correlation between academic staff self-efficacy and teaching quality. The model posits that academic staff self-efficacy encompasses four distinct dimensions: personal sense of efficacy, behaviour management, motivational strategies, and instructional strategies. Illustrated in Figure 1, the model visually depicts the interrelationships among these variables, offering a comprehensive framework for comprehending the impact of academic staff self-efficacy on teaching quality.

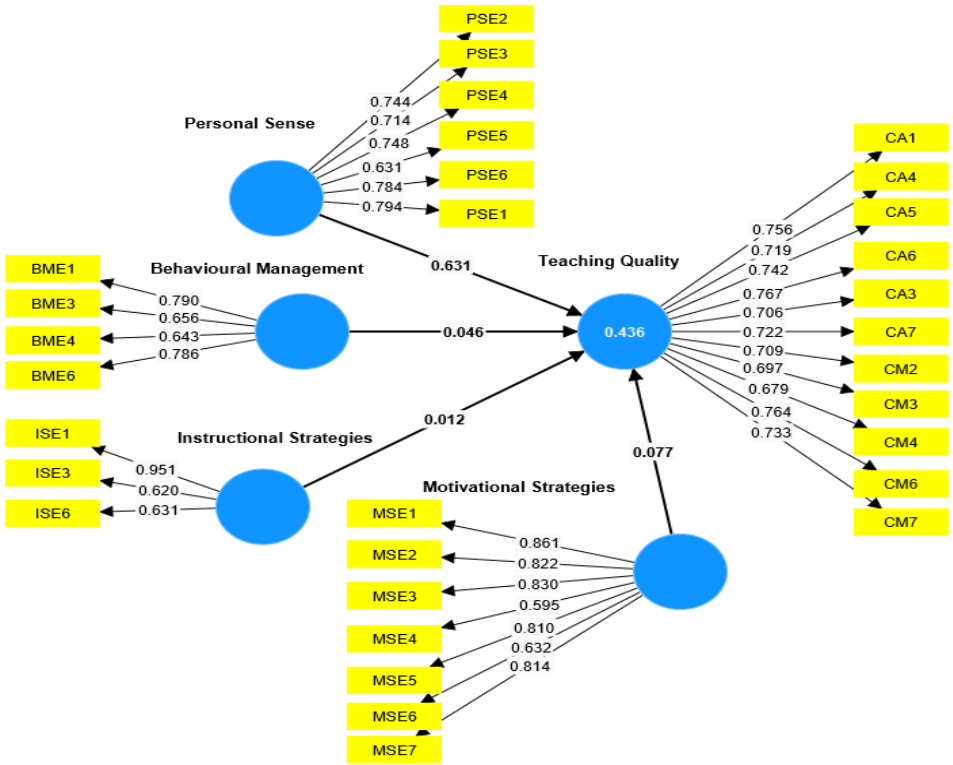

Figure 1: *Teacher self-efficacy and teaching quality structural model*

The structural equation model (Figure 1) depicts the relationships between constructs, displaying factor loadings, path coefficients, and determination (R2). The factor loadings indicate that teaching quality is influenced by classroom management and cognitive activation, while personal learning support is not a significant factor. As for self-efficacy, it encompasses various measures such as personal sense of efficacy, behaviour management, motivational strategies, and instructional strategies. The model was used to test four hypotheses, suggesting that personal sense of efficacy (H1), behaviour management (H2), motivational strategies (H3), and instructional strategies (H4) all have a significant impact on teaching quality. These hypotheses were examined to determine how self-efficacy measures affect teaching quality. Detailed results of the analysis can be found in Table 4, which includes beta coefficients (βs), t-statistics, p-values, and coefficients of determination (R2 and adjusted R2). The coefficients of determination (R2 and adjusted R2) indicate the extent to which self-efficacy measures can predict teaching quality, revealing the proportion of variance in teaching quality that can be explained by these measures.

Table 4: *Teacher self-efficacy and teaching quality path estimates*

	B	Mean	STD	T	P
Behavioural Management → Teaching Quality	0.046	0.062	0.055	0.825	0.409
Instructional Strategies → Teaching Quality	0.012	0.031	0.044	0.282	0.778
Motivational Strategies → Teaching Quality	0.077	0.091	0.071	1.071	0.284
Personal Sense → Teaching Quality	0.631	0.623	0.096	6.548	0.000
R^2 = 0.436					
R^2 Adjusted = 0.427					

The structural equation estimates presented in Table 4.40 reveal that among the four teacher efficacy aspects, only the personal sense of efficacy ($\beta = 0.613$, $t = 6.548$, $p = 0.000 < 0.05$) had a positive and significant influence on teaching quality. The other aspects, including behaviour management ($\beta = 0.046$, $t = 0.825$, $p = 0.409 > 0.05$), instructional strategies ($\beta = 0.012$, $t = 0.282$, $p = 0.778 > 0.05$), and motivational strategies efficacy ($\beta = 0.077$, $t = 1.071$, $p = 0.284 < 0.05$), had a positive but insignificant influence on teaching quality. The results indicate that the four teaching self-efficacy aspects collectively explained 43.6% ($R^2 = 0.436$) of the variation in teaching self-efficacy among academic staff. However, when adjusting for the non-significant variables, the results show that only personal sense of efficacy explained 42.7% (adjusted $R^2 = 0.427$) of the variation in teaching self-efficacy. Therefore, it can be concluded that only a personal sense of efficacy significantly influences teacher self-efficacy.

5. Discussion of Findings

The findings of the study indicate that personal sense of efficacy has a significant and positive influence on teaching quality, which is consistent with previous studies conducted by Alibakhshi et al. (2020), Holzberger and Prestele (2021), Orakcı et al. (2023), Poulou et al. (2019), Sehgal et al. (2017), and Yildiz and Arici (2021). This consistency across studies strengthens the idea that teacher efficacy plays a crucial role in shaping teaching quality. On the other hand, the study found that behaviour management has a positive but insignificant impact on teaching quality, suggesting a minimal contribution to teaching quality. This finding differs from the results of previous studies conducted by Adibsereshki et al. (2014), Gooch (2017), Hasnah (2017), Khalid et al. (2021), and Mustafa (2022). Despite this inconsistency, it can be inferred that in the context of the universities studied, behavior management was not the primary component of teachers' self-efficacy in enhancing teaching quality.

The results of the study revealed that the efficacy of instructional strategies had a positive but insignificant effect on the quality of education. This finding contradicts the results of earlier researchers, including Adediran et al. (2015), Cheng et al. (2019), Le Donné et al. (2016), Celon (2020), and Munna and Kalam (2021). Given this inconsistency, it can be inferred that the efficacy of instructional strategies was not a crucial factor in predicting teaching quality in Ugandan universities. Similarly, the results showed that the efficacy of motivational strategies had a positive but insignificant impact on teaching quality. However, this finding disagrees with the results of earlier researchers, including Al-Said (2023), Filgona et al. (2020), Rafiola et al. (2020), and Tokan and Imakulata (2019). Therefore, it can be deduced that motivational strategies were also not the primary factor necessary for teaching quality in Ugandan universities.

6. Conclusions and Recommendations

The research findings suggest that personal sense of efficacy among academic staff is essential in enhancing teaching quality. However, behaviour management, instructional strategies, and motivational strategies have a minimal contribution to teaching quality in universities. Specifically, personal sense of efficacy enhances teaching quality when academics are able to make students comply with instructions in class, deliver content competently, adjust the teaching to suit the students' level of understanding, and allow students to freely express their thoughts and feelings in class. Additionally, academics should strive to be innovative in the way they deliver lectures and be flexible in their teaching approach.

University leaders should place more emphasis on promoting the personal sense of efficacy of academic staff to enhance teaching quality, rather than focusing solely on instructional strategies and motivational strategies efficacy. The personal sense of efficacy should involve equipping academic staff with the ability to make students comply with instructions in class, deliver content competently, adjust the teaching to suit the students' level of understanding, and create an environment where

students can freely express their thoughts and feelings. Academic staff should also be encouraged to be innovative in their lecture delivery and maintain flexibility in their teaching methods.

7. Limitations

The results of the study highlight the importance of teaching self-efficacy in improving instructional quality, offering valuable insights for educators and policymakers. However, certain limitations were identified, which serve as a basis for identifying areas for future research. Firstly, the results for hypotheses two to four were unexpected, warranting further investigation with a larger sample size that includes private universities in order to confirm or challenge the findings. Additionally, the study's reliance on quantitative methods limited the scope of inquiry, and future research should incorporate qualitative approaches to gain a deeper and more nuanced understanding of the complex dynamics involved. By utilising a combination of methods and incorporating both quantitative and qualitative data, future studies can overcome the limitations of the current research and provide a more comprehensive and multifaceted understanding of the relationship between teaching self-efficacy and instructional quality.

8. Declarations

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Appendix A: Study Instrument

Section A: Demographics		
Demographic Profiles (DP)	BC1	Sex (1 = Male, 2= Female)
	BC2	Education level (1 = Bachelor Degrees; 2 = Masters, 3 = PhD)
	BC3	Appointment level (1 = Graduate Fellow, 2 = Assistant lecturer, 3 = Lecturer, 4 = Senior lecturer, 5 = Associate Professor, 6 Professor)
	BC4	Responsibility in the university hierarchy (1 = Administrator, 2 = non-administrator)
	BC5	Working experience (1 = Less than 1 year, 2= 1-2 years, 3= 3-4 years, 4 = 5 years and above)
Section B: Teaching Quality		
Cognitive activation	CA1	I give my students challenging tasks and questions that help them to think critically.
	CA2	I sometimes ask students to ask their own questions and suggest possible answers to the questions.
	CA3	I encourage students to make reflective journals or personal records their learning experiences for mind activation
	CA4	In each lecture I teach, I engage students in reflecting on previous knowledge individually and in groups.
	CA5	I use participatory teaching methods to ensure effective learning
	CA6	I encourage my students to build their knowledge using different sources like reading books, searching the internet, asking friends and attending seminars.

	CA7	I encourage my students to present to their fellows the knowledge they have obtained from different sources.
Classroom management	CM1	I use lecture time effectively by focusing on what I have planned.
	CM2	With students, I set clear rules and routines for classes
	CM3	I bring to order students who deviate from the set rules and routines
	CM4	I try as much as possible to prevent disruptions during lectures
	CM5	I plan my lectures and organise instructional resources ahead of time
	CM6	I endeavour to make the students' learning atmosphere conducive
	CM7	I regularly ask my students to suggest ways on how to make learning atmosphere more conducive.
Personal learning support	PLS1	I offer students individual support when it is necessary
	PLS2	In my lectures, I take into consideration the needs of individual students
	PLS3	I encourage and plan for students to engage in self-regulated learning
	PLS4	I give students feedback on their individual and group assignments as well as on activities during lectures
	PLS5	I involve students in innovative projects and encourage them to present them to their fellows during lectures.
	PLS6	I encourage students to give me feedback on the quality of my lectures and I take the feedback positively.
	PLS7	I encourage students to work cooperatively by giving them group assignments and projects.
Teacher Self-Efficacy		
Personal Sense of Efficacy	PSF1	Students comply with instructions in class
	PSF2	I am able to deliver content very competently
	PSF3	I know how to adjust my teaching to suit the students' level of understanding.
	PSF4	I freely let students express their thoughts and feelings in class
	PSF5	I try to be innovative in the way I deliver lectures
	PSF6	I am always flexible in the way I conduct lectures
	PSF7	I make effort to be adaptive to new ways of delivering lectures
	PSF8	I know how to identify my students' problems before they get worse.
	PSF9	I freely let my students express their feelings and ideas as I teach
Behaviour Management Efficacy	BME	If a student interrupts a lesson, I am able to redirect him or her quickly. I let students know that expect appropriate behaviour from them
	BME1	I am able to handle any kind of student with ease
	BME2	I am able to keep defiant students involved in my lesson
	BME3	I ensure that students adhere to my expectations
	BME4	I am always able to prevent problem students from ruining class activities
	BME5	If students stop working, I can put them back on track
	BME6	I am able capture students' attention through voice modulation, facial expression and proximity control even in large classes
Instructional Strategies Efficacy	ISE1	I help students make links and build on their previous knowledge to encourage successful learning
	ISE2	While in class, I use different questions to test students' understanding at different levels.

	ISE3	I adapt the curriculum to every student's needs to ensure that all students learn successfully
	ISE4	Prior to teaching a skill, I analyse the task and establish the necessary procedure for achieving my objective.
	ISE5	I allow students to present their course work in various ways to enhance their creativity
	ISE6	All the time provide students with clear guidelines on how to arrange their work which promotes their understanding
Instructional Strategies Efficacy	MSE 1	I am establishing rapport with my students and listen to them to show that I care
	MSE2	Honestly, I spare time to give chance to my students to share their personal experiences with me to guide them
	MSE3	I have been able to encourage my students to formulate goals and develop action plans for their learning
	MSE4	I always counsel students to work hard and achieve their goals with in their stated timelines
	MSE5	I make sure that the assignments I give to students are manageable to build their confidence
	MSE6	I engage students in collaborative learning to facilitate engagement in and enjoyment of learning experiences
	MSE7	I ensure that I give targeted positive reinforcement and feedback to students to motivate them