

Organisational Learning and Teacher Competence in Ugandan Government-Aided Secondary Schools

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Abstract

This study examined the influence of organisational learning on teacher competence. Organisational learning was studied in the context of continuous learning, dialogue and inquiry, and team learning while teacher competence covered ethical competence, pedagogical competence, subject matter competence, and assessment and evaluation. The study population consisted of 3,873 teachers from six districts. The study employed the simple random sampling technique and Krejcie and Morgan's (1970) sampling table to determine the sample of 351 teachers, who participated in the study. The study utilised the advanced partial least squares structural equation modelling (PLS-SEM) with SmartPLS 4, to uncover the relationships between variables. The findings revealed that continuous learning and dialogue and inquiry have a positive and significant influence on teacher competence. However, continuous team learning had an insignificant influence on teacher competence. Based on the findings, it was concluded that continuous learning and dialogue and inquiry are important for the development of teacher competence. However, team learning has less significance in enhancing teacher competence. Therefore, head teachers should implement organisational learning, specifically continuous learning and dialogue and inquiry. The practical contribution of the study is that it shows how organisational learning can be used to promote teacher competence.

Keywords: Competence; continuous learning; dialogue and Inquiry; organisational learning; team Learning.

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Introduction

Teacher competence is the cornerstone of a successful school environment, essential for fostering academic excellence and student success. Teachers who are highly competent create a nurturing and inclusive atmosphere, and their professional expertise is pivotal in achieving these goals (Caena & Redecker, 2019). According to Darling-Hammond (2017), highly competent

teachers are better equipped to design engaging lessons, assess student progress, and create a nurturing classroom environment that promotes student achievement and well-being. Competent teachers effectively teach, facilitate learning, and develop skills in their students (Sulaiman & Ismail, 2020). Teacher competence encompasses a complex array of skills, knowledge and attitudes that enable teachers to plan, teach and evaluate students (Pitten Cate et al., 2018). Competence is a multifaceted

concept that encompasses a range of organized skills and abilities, enabling individuals to effectively navigate specific situations and challenges within a particular content area, while meeting predetermined standards (Poro et al., 2019).

The importance of teacher competence cannot be overstated, as it has a direct impact on students' academic achievement, teacher job satisfaction and retention (Krieg, 2020; Locke, 2020). To maintain effective teacher competence, on-going professional development, self-reflection and adaptability in response to changing educational contexts are essential (Nang-Sein, 2022). Teacher competence is comprised of a distinct cluster of knowledge and technical expertise, including ethical, pedagogical, subject matter, and assessment and evaluation competencies, all of which are critical for effective teaching (Bakar, 2018; Denbel, 2023).

The notion of teacher competence has been steadily gaining momentum since the 1980s. In the United States of America, the federal government introduced a requirement for teacher candidates to demonstrate their proficiency by passing a specific test to enter the teaching profession (García et al., 2019). Similarly, in Europe, the UK government in the 1980s introduced competence-based teacher education to ensure that teachers acquired the skills needed to produce a workforce suitable for the modern economy (Valeeva & Gafurov, 2017). In 2005, the European Union established the Common European Principles, outlining the competences and qualifications required for teachers, including lifelong learning, professional growth and collaboration (Mikulec & Perčič, 2019). More recently, in 2016, the African Union introduced the African Framework of Standards and Competences for the Teaching Profession (AFSCTP), providing a comprehensive framework for teacher competences. Despite these efforts, many African countries continue to grapple with the challenge of low teacher competences.

In line with global trends and the African Union's initiatives, Uganda's Ministry of Education and Sports introduced the Secondary School Teachers' Competency Profile in 2016. This framework outlines the essential competences required for 21st-century teachers, encompassing three key areas: administration, professionalism and personal effectiveness (Ministry of Sports and Education, 2016). However, concerns persist regarding

teachers' competences in aspects including professional, pedagogical and subject matter competences (Byaruhanga, 2018; Nuwatuhaire & Tushabirane, 2019). Reports indicate a worrisome decline in teachers' ethical standards marked by high levels of unprofessionalism. Teachers are involved in excessive alcohol consumption, leading to a decline in job performance and absenteeism (Zikanga et al., 2021). Teachers' punctuality and attendance are also an issue of concern, with many arriving late or failing to show up altogether (Byaruhanga, 2018). A significant number of teachers (35%) are absent from schools (Nuwatuhaire & Tushabirane, 2019; Zikanga et al., 2021).

Further, the pedagogical competence of teachers remains a challenge, with teachers using teaching practices that do not align with the standards set by the National Curriculum Development Centre (NCDC), the Directorate of Education Standards (DES), and the Uganda National Examination Board (UNEB). Specifically, teachers employ teacher-centred approaches rather than the recommended student-centred methods (Zikanga et al., 2021). Besides, some teachers prepare inadequate lessons, and rarely provide supplementary instruction or remedial classes for struggling learners. This has resulted in persistent poor academic performance among learners in national examinations. Furthermore, hands-on science experiments and practical lessons are often omitted, depriving students of comprehensive learning experiences (Byaruhanga, 2018).

Due to teacher competences challenges, the government of Uganda has been forced to introduce a new teacher policy (Ministry of Education and Sports, 2019) by which every teacher is expected to have a bachelor's degree in Education as the minimum academic requirement (Arinaitwe et al., 2019). However, while this policy is still in the infancy stages, approaches such as organisational learning in schools have been implemented to enhance employee learning in different organisations (Kumar & Saini, 2023; Ladyshevsky & Taplin, 2018). Anchored in Argyris and Schon's Organizational Learning Theory (1978), this approach facilitates learning through social interactions, shared experiences and adaptation (Basten & Haamann, 2018). Organizational learning encompasses continuous learning, dialogue, inquiry and team learning (Jyothibabu et al., 2010). This study, grounded in organizational learning theory,

explored the impact of continuous learning, dialogue, inquiry, and team learning on teachers' competencies, aiming to improve teaching practices and student outcomes.

Scholars (Achdiat et al., 2023; Bibi & Akram, 2022; da Fonseca et al., 2019; Halmaghi & Todăriță, 2023; Purwanto et al., 2023; Sharma & Sharma, 2016) established the importance of continuous learning on employee competences. On their part, Liu and Xiang (2018), Park (2022) and Su et al. (2019) reported the significance of dialogue and inquiry on employee competences. Further, Li et al. (2024), Lundkvist and Gustavsson (2018), Salas (2008), Widmann and Mulder (2020), Wiese and Burke (2019) reported the significance of team learning on employee competences. Notwithstanding the existing body of research, several gaps were identified, including an empirical gap in the context of Uganda, where a literature search revealed a lack of studies investigating the relationship between continuous learning and teacher competencies. In addition, the concepts of dialogue and inquiry were only implied by terms such as feedback and communication, suggesting a need for direct study. Furthermore, a significant gap exists in the literature on team learning, with limited studies explicitly examining its relationship with employee competence, and a lack of studies in the Ugandan context, highlighting the need for this study to address these gaps. The study therefore tested the following hypotheses:

1. Continuous learning has a significant influence on teacher competence in government-aided secondary schools.
2. Dialogue and inquiry have a significant influence on teacher competence in government-aided secondary schools.
3. Team learning has a significant influence on teacher competence in government-aided secondary schools.

Literature Review

The discourse in this chapter encompasses the theoretical and synthesis of related literature on organisational learning and teacher competence in Ugandan Government-Aided Secondary Schools. The theoretical review is Organisational Learning Theory (OLT). The literature discourse is on Organisational learning and teacher competence and literature presentation follows the chronology of the study objectives. The review of literature involved conceptual and theoretical review involving

defining concepts and showing the relationships between the variables. While reviewing literature, gaps that were addressed by this study were identified. The literature review establishes a formidable foundation for elucidating the crucial role of institutional support in enhancing teacher competence, and the transformative influence of organisational learning on this synergistic relationship.

Organisational learning is a strategic approach that empowers organisations to foster a culture of continuous learning and transformation to develop the capacities needed to stay ahead in a rapidly changing business landscape (Tan & Olaore, 2021). This process involves creating an environment that supports employee growth, enhances their competencies, and encourages the development of new skills (Cik et al., 2021). A successful learning organisation impacts employees' competences by implementing various learning strategies, including training, open-learning centres, e-learning systems, job rotation, multi-disciplinary teams, and career-planning tools, which can interact synergistically to drive learning and growth (Tamayo-Torres et al., 2016). The OLT suggests that OL encompasses various aspects, including continuous learning, dialogue and inquiry and team learning (Jyothibabu et al., 2010). With respect to continuous learning, this is a dynamic and on-going process that encompasses both formal and informal learning experiences (Chanani & Wibowo, 2019). Continuous learning prioritises the development of knowledge, skills and talents of individuals (Halmaghi & Todăriță, 2023). The organisation supports the culture of OL by providing resources and opportunities for employees to develop new skills while also encouraging individuals to take ownership of their learning journey and seek out new experiences (Halmaghi & Todăriță, 2023).

Continuous learning enhances employee competencies through knowledge expansion, skills refinement and acquisition of new skills (Halmaghi & Todăriță, 2023). Therefore, teachers involved in continuous learning have expanded and refined pedagogical knowledge. Scholars (Achdiat et al., 2023; Bibi & Akram, 2022; da Fonseca et al., 2019; Halmaghi & Todăriță, 2023; Purwanto et al., 2023; Sharma & Sharma, 2016) have established the importance of continuous learning on employee competences. The studies above revealed the continuous learning led to employees' competences. Notwithstanding the existing body of

research, an empirical gap exists in the context of Uganda, where literature search revealed lack of studies that had investigated the relationship between continuous learning and teacher competencies. This gap necessitated this study that explored the relationship among secondary school teachers. By investigating this unstudied context, it enabled assessing what was happening in the context of Ugandan schools. This endeavour informed this study to make recommendations to enhance teacher competencies and improve educational outcomes in the country.

Regarding dialogue and inquiry, they refer to the process of exploring and understanding a subject or issue through open and collaborative discussion, questioning, and investigation (Littlejohn, 2019; Ritchhart & Perkins, 2018). Dialogue and inquiry are essential components of a learning organisation, fostering a culture of curiosity, feedback and experimentation (Jyothibabu et al., 2010). By encouraging inquiry and open communication, organisations create a safe and supportive environment where employees feel comfortable asking questions, sharing concerns and providing feedback without fear of retribution. This culture of open communication helps to reduce employees' resistance, ambiguity and concerns about change, as employees feel heard and valued (Malik & Garg, 2017). Through inquiry and dialogue, organisations can harness the collective wisdom enhancing their competences (Tan et al., 2021). Scholars (Liu & Xiang, 2018; Park, 2022; Su et al., 2019) have reported the significance of dialogue and inquiry on employee competences. While the studies above reveal that dialogue and inquiry influence employee competence development, the concepts of dialogue and inquiry were obliquely implied by terms such as feedback and communication. This suggested the need for this study to directly study the concepts. In addition, the study provided an empirical gap because the study revealed lack of studies in the context of Uganda. The situation called for this study to provide primary evidence in the context of Uganda.

Concerning team learning, this is a collaborative and dynamic process where team members interact, share knowledge and develop a collective understanding to achieve their desired outcomes (Rupčić, 2022). Team learning occurs at both individual and collective levels, as team members may work alone or together to achieve shared, complementary or individual goals (Kérivel et al.,

2022). The significance of team learning lies in its potential to drive organisational learning and effectiveness, as the knowledge and achievements of teams can be transferred to other units and ultimately benefit the entire organisation (Dixon, 2017). Team learning is a crucial building block for developing a learning organisation, where knowledge sharing, collaboration, and continuous improvement are deeply ingrained (Rupčić, 2022). Effective team learning fosters multiple skills in individual members (Wanyeki et al., 2019). Therefore, by prioritising team learning, organisations can enhance employee competences. Scholar (Li et al., 2024; Lundkvist & Gustavsson, 2018; Salas, 2008; Widmann & Mulder, 2020; Wiese & Burke, 2019) have reported the significance of team learning on employee competences. Despite the existence of evidence highlighting the pivotal role of team learning in fostering employee competence, a significant gap exists in the literature, with limited studies explicitly examining the relationship between these variables. This knowledge gap necessitates further investigation, underscoring the significance of this study in exploring the complex interplay between team learning and employee competence.

Theoretical Review

This study was grounded on the Organisational Learning Theory (OLT) by Argyris and Schon (1978). OLT suggests that learning occurs through social interactions within groups and organisations by learning from each other and from their experiences, and this learning is shared throughout the organisation. Through organisational learning, organisations adapt and improve their performance by modifying their mental models, rules, processes or knowledge (Basten & Haamann, 2018). This adaptation enables organisations to respond to changing environments and stay competitive. Organisational learning involves generating, retaining and sharing knowledge within the organisation (Park & Kim, 2018). This knowledge can come from various sources, such as employee experiences or training among others (Bratianu, 2015). OLT indicates that the OL learning process consists of four key components: acquiring information, distributing it, interpreting its meaning and managing knowledge (Martínez-Costa et al., 2019). Organisational learning encompasses various aspects, including continuous learning, dialogue and inquiry and team learning (Jyothibabu et al., 2010).

These aspects enable organisations to foster a culture of learning, collaboration and improvement. Organisational learning enhances the performance competences of workers, leading to increased innovativeness (Wilkins et al., 2004). Although the organizational learning theory has been predominantly applied in non-educational contexts, its principles can be fruitfully adapted to educational settings. By harnessing the principles of organizational learning, such as continuous learning, dialogue and inquiry, and team learning, schools can effectively enhance the competencies of teachers. Grounded in the organizational learning theory, this study sought to explore the impact of organizational learning on teachers' competencies, with the ultimate goal of improving teaching practices and student outcomes.

Methodology

Design

This study employed a quantitative research approach, which involves testing theoretical concepts by analyzing numerical data and applying statistical methods to validate or refute hypotheses. This approach is ideal for assessing relationships between variables in a structured and objective manner. By using quantitative methods, the researchers gathered empirical evidence to support or challenge existing theories. Specifically, this study utilized a correlational research design, which explores the relationships between two or more variables, determining their degree of association (Devi et al., 2022). This design enabled the researchers to examine patterns of relationships, providing insights into how variables interacted. The results yielded valuable information on the strength, direction and nature of associations, uncovering underlying trends and connections. Ultimately, the correlational design facilitated a comprehensive analysis of variable interactions, offering a deeper understanding of their dynamics.

Population and Sampling

The study population consisted of 3,873 teachers from six districts that were Bushenyi (570), Ibanda (424), Mbarara (624), Kabale (811), Kisoro (494) and Rukungiri (950) (Uganda Education Statistical Abstract, 2022). To select a representative sample, the study employed simple random sampling, ensuring every teacher had an equal chance of being included. Based on Krejcie and Morgan's (1970) sampling table, a sample of 351 teachers was selected, and proportionate sampling allocated

participants from each district in direct proportion to the number of teachers. This method ensured an accurate and unbiased representation of the teacher population, enhancing the diversity and generalisability of the study's findings. By employing both random and proportionate sampling techniques, the study aimed to capture a comprehensive and reliable cross-section of teachers, reflecting the broader educational context in Uganda.

Instruments

The study employed a self-administered questionnaire as the primary data collection tool, leveraging their efficiency in quantifying and analysing large-scale data (Creswell, 2014). Given the study's focus on exploring teachers' opinions, attitudes, feelings and perceptions, the questionnaire was deemed the most appropriate instrument for capturing subjective data (Kumar, 2019). The self-administered format allowed teachers to respond at their convenience, minimizing potential biases and encouraging honest responses. The study examined teacher competence, encompassing pedagogical, subject matter, ethical competence, and assessment and evaluation aspects (Calaguas, 2012), and organizational learning, comprising continuous learning (Jyothibabu et al., 2010; Yavas & Celik, 2020), dialogue and inquiry, and team learning (Jyothibabu et al., 2010). Responses were collected using a Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with intermediate options for Disagree, Undecided, and Agree.

Validity and Reliability

To ensure accuracy and consistency of the results, validity and reliability were tested. Validity was established through the content validity approach, which was assessed using SmartPLS4. Specifically, convergent validity was evaluated by calculating the Average Variance Extracted (AVE) while discriminant validity was examined using the Heterotrait-Monotrait (HTMT) ratio of correlations. This comprehensive approach ensured that the data accurately measured the intended constructs and maintained consistency across measurements. The validity results are presented in Table 1, p. 51.

The validity and reliability of the data were verified through rigorous testing of convergent and discriminant validities. Convergent validity, which examines the consistency between multiple indicators of a concept, was confirmed as the

Average Variance Extracted (AVE) values surpassed the minimum requirement of 0.5 (Rasooli & Bagheri, 2020; Hair Jr et al., 2021). This indicated that the various measures of each construct aligned with each other, demonstrating their suitability as valid measures. In addition, discriminant validity, which assesses the independence of each construct from

others was established as the Heterotrait-Monotrait (HTMT) ratio of correlations remained below the maximum limit of 0.90 (Rasooli et al., 2020). This suggested that each construct was distinct, meeting the criteria for discriminant validity and further supporting the data's validity.

Table 1: Heterotrait-Monotrait (HTMT) Ratio Correlations for Discriminant Validity

Measures	AVE	TC	AE	EC	PC	SMC
TC						
AE	0.573	0.215				
EC	0.781	0.526	0.310			
PC	0.702	0.157	0.083	0.052		
SMC	0.544	0.713	0.567	0.755	0.408	
Measures	AVE	OL	CL	DI	TL	
OL						
CL	0.666	0.307				
DI	0.615	0.722	0.868			
TL	0.578	0.265	0.623	0.822		

Key: AE= Assessment and evaluation enhancement, CL =Continuous learning, DI = Dialogue and inquiry, EC= Ethical competence, PC = Pedagogical competence enhancement, SMC = Subject matter competence, TL = Team Learning

Table 2: Reliability Test

Measures	α	CR
AE	0.884	0.912
EC	0.933	0.953
PC	0.914	0.934
SMC	0.832	0.877
CL	0.891	0.921
DI	0.841	0.888
TL	0.810	0.870

An assessment of the measurement tool's reliability was conducted using two metrics: Cronbach's Alpha (α) and Composite Reliability (CR). Cronbach's Alpha is a statistical measure that evaluates the correlations between items, estimating the systematic variance in survey responses (Taber, 2018). However, it has limitations, as it assumes equal weights for all indicators, potentially leading to underestimated reliability values and the exclusion of valuable indicators. In contrast, Composite Reliability (CR) is a more comprehensive and robust measure of internal consistency as it takes into account the external characteristics of the indicator variables (Hair Jr et al., 2021). Due to its liberal and accurate nature, CR was preferred over Cronbach's Alpha for testing reliability, providing a more complete picture of the measurement tool's consistency. The reliability results are presented in Table 2.

The reliability analysis presented in Table 2 shows that the measures exhibited satisfactory internal

consistency, with Cronbach's Alpha and composite reliability values meeting or exceeding the recommended threshold of 0.70 for all constructs ($\alpha = 0.698$) (Purwanto & Sudargini, 2023). This indicates that the indicators for each construct were strongly correlated and reliably captured the intended concepts. Notably, the Cronbach's alpha values ranged from 0.810 to 0.933, indicating a high degree of consistency among the indicators. Moreover, the composite reliability values ranged from 0.870 to 0.953, providing further evidence of the measures' reliability. These results suggest that the constructs were robustly measured, supporting the validity of the findings.

Data Analysis

The study utilised advanced partial least squares structural equation modelling (PLS-SEM) with SmartPLS 4, to uncover the relationships between variables. This method was chosen for its ability to handle complex models, higher-order constructs and interaction terms, providing a comprehensive

understanding of the data. SmartPLS 4 enabled the identification of predictive relationships between variables, supported by strong theoretical foundations, implying causal connections. By applying PLS-SEM through SmartPLS, the study successfully examined the relationships between constructs and measurement models, illuminating the connections between latent variables and their indicator variables (Hair Jr et al., 2021). The use of SmartPLS was particularly suitable for this study as it allowed for the testing of causal-effect relationships, ultimately revealing the significant link between organisational learning and teacher competence.

Ethical Considerations

To ensure the ethical integrity of this study, several measures were taken. Approval was obtained from a Research Ethics Committee prior to data collection, and participants provided informed consent, confirming their understanding of the study's objectives, procedures, risks, and requirements. They were assured of anonymity and confidentiality, and all responses were treated as such. Participants had the opportunity to ask

questions before, during and after the research, and member checking was conducted to ensure the accuracy of the data. Safety measures, including social distancing, mask use, and sanitizing, were implemented to prevent exposure to contagious diseases. Plagiarism testing was also conducted to ensure the originality of the work.

Findings and Discussion

Demographic Profiles of Teachers

The study analysed the demographic profiles of the respondents, including gender, age range (in years), highest level of education, teaching experience and role in the school as seen in Table 3.

The gender breakdown of the respondents showed a majority of females (59.0%) and a significant proportion of males (41.0%), ensuring a representative sample of both genders. The age distribution revealed that most respondents (58.1%) were between 31-40 years old, with smaller groups consisting of younger (21.0%), older (18.8%), and oldest (2.1%) age ranges.

Table 3: Demographic Characteristics of Teachers

Variables	Categories	Frequency	Per cent
Gender	Male	135	41.0
	Female	194	59.0
	Total	329	100.0
Age Groups	Up to 30 years	69	21.0
	31- 40 years	191	58.1
	41-50 years	62	18.8
	51 and above years	7	2.1
	Total	329	100.0
Education Level	Diploma	82	24.9
	Bachelors	170	51.7
	Postgraduate	77	23.4
	Total	329	100.0
Working Experience	less than 5 years	91	27.7
	5 - 10 years	153	46.5
	10 years and above	85	25.8
	Total	329	100.0
Responsibility	Subject teacher	84	25.5
	Class teacher	108	32.8
	Head of department	114	34.7
	Senior administrator	23	7.0
	Total	329	100.0

An examination of educational attainment showed that most held a bachelor's degree (51.7%), followed by postgraduate qualifications (23.4%) and diplomas (24.9%). Teaching experience varied, with the largest group (46.5%) having 5-10 years of experience, followed by those with less than five years (27.7%) and over 10 years (25.8%). This

diversity of experience is reflected in the range of responsibilities held by respondents, including heads of departments (34.7%), class teachers (32.8%), subject teachers (25.5%), and senior administrators (7.0%). This distribution ensures a broad range of perspectives on teacher competence.

Structural Model for Organisational Learning and Teacher Competence

To establish the impact of organisational learning on teacher competence in government-aided secondary schools, a Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis was conducted. Hypothesis testing considered three hypotheses: (H1) continuous learning has a significant influence on teacher competence, (H2) dialogue and inquiry have a significant influence on teacher competence, and (H3) team learning has a

significant influence on teacher competence. The structural equation model (Figure 1) provides a visual representation of the complex relationships between organizational learning and teacher competence, illustrating the causal connections between these variables. This model enables a deeper understanding of how organizational learning influences teacher competence, shedding light on the interdependencies between these factors.

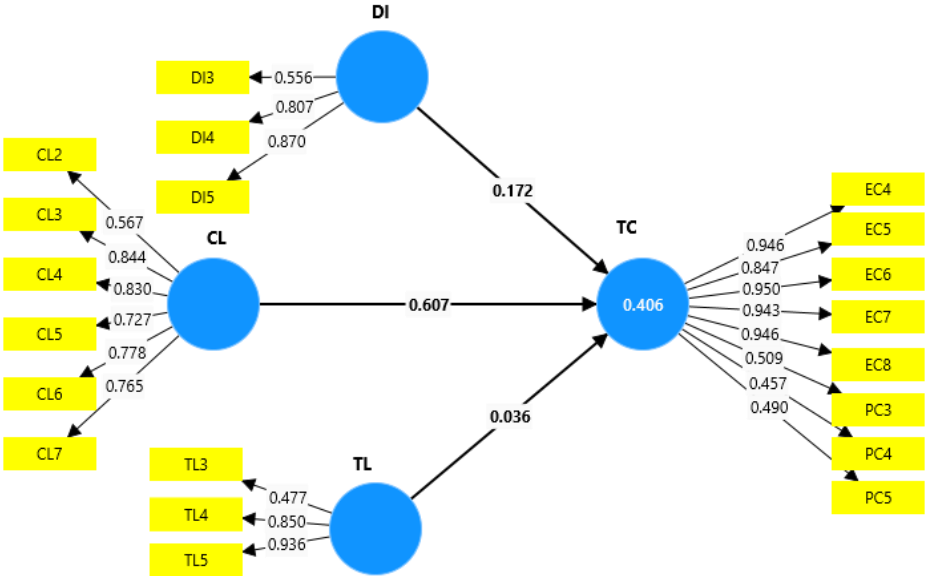


Figure 1: Organisational Learning and Teacher Competence

Table 4: Organisational learning and Teachers Competence					
	B	Mean	STD	T	P
Continuous learning → Teacher Competence	0.607	0.606	0.046	13.191	0.000
Dialogue and inquiry → Teacher Competence	0.172	0.178	0.052	3.283	0.001
Team learning → Teacher Competence	0.036	0.047	0.055	0.666	0.506

R² = 0.406
R² Adjusted = 0.401

The structural equation model (Figure 1) examined the relationship between organisational learning and teacher competence, revealing that teacher competence consisted of two components, namely ethical and professional competence. Organisational learning, on the other hand, encompassed three dimensions that were continuous learning, dialogue and inquiry, and team learning. The model's path estimates results (Table 4) provide detailed statistics, including beta coefficients (βs), coefficients of determination (R2 and adjusted R2), t-statistics and p-values. The coefficients of determination (R2 and adjusted R2) indicate the

extent to which organisational learning predicts teacher competence. The analysis tests three sub-hypotheses, examining the impact of continuous learning, dialogue and inquiry, and team learning on teacher competence. Table 4 presents the estimates of the structural equation model, providing insights into the relationships between these variables.

The structural equation estimates in Table 4 reveal that two aspects of organisational learning, namely continuous learning (β = 0.509, p < 0.05) and dialogue and inquiry (β = 0.256, p < 0.05), had a significant and positive impact on teacher

competence. However, team learning ($\beta = 0.036$, $p > 0.05$) had a positive but non-significant influence on teacher competence. $R^2 = 0.406$ suggests that the three organisational learning factors combined explained approximately 40.6% but R^2 adjusted showed that the significant factors explained 40.1% of the variation in teacher competence. The beta coefficients (β) showed that continuous learning has the most significant influence on teacher competence, followed by dialogue and inquiry, highlighting the importance of these two aspects of organisational learning in predicting teacher competence.

Discussion

The results highlight the importance of continuous learning and dialogue and inquiry in developing teacher competence, with continuous learning emerging as the most influential factor. However, surprisingly the findings downplayed the role of team learning in developing teachers' competence by indicating that it was not significant. This finding is consistent with previous research by scholars, such as Achdiat et al. (2023), Bibi and Akram (2022), da Fonseca et al. (2019), Halmaghi and Todăriță (2023), Purwanto et al. (2023) and Sharma and Sharma (2016), which emphasised the crucial role of continuous learning in developing teachers' competencies. The consistency of this finding with previous research underscores the significance of continuous learning in enhancing skills and informs evidence-based strategies for teacher training and support, highlighting the need for on-going professional development opportunities to enhance teacher competence.

The finding that dialogue and inquiry have a positive and significant influence on teacher competence concurs with existing studies by Liu and Xiang (2018), Park (2022), and Su et al. (2019). This consensus among previous studies and the current research emphasises the essential role of dialogue and inquiry in enhancing teachers' competencies. This highlights the importance of collaborative decision-making and learning through dialogue and inquiry in developing and competencies. However, the finding that team learning had an insignificant influence on teachers' competence contradicts previous research by scholars, such as Li et al. (2024), Lundkvist and Gustavsson (2018), Salas et al. (2008), Widmann and Mulder (2020) and Wiese and Burke (2019), who reported a positive and significant relationship between team learning and employee competencies. This discrepancy suggests

that, in the context of teachers in Uganda, the influence of team learning on teacher competence may not be as clear and not as straightforward as previously thought, thus a need for further study

Conclusions and Recommendations

Conclusions

The study concluded that continuous learning and dialogue and inquiry are important for the development of teacher competence. However, team learning was found to have less significance in enhancing teacher competence. Continuous learning occurs when teachers collaborate, share knowledge, and are given time and resources to develop their skills. This includes archiving successful programs, sharing professional development opportunities and involving teachers in decision-making processes. For, dialogue and inquiry, they involve leaders encouraging subordinates to ask questions, valuing teacher feedback and fostering a trusting environment. However, team learning involving teams focusing both on the tasks of groups and on how well the groups are working, group discussions and planning and implementing tasks together did greatly enhance the competences of teachers, possibly because of challenges of coordinating and facilitating effective team learning experiences.

Recommendations

The study recommends that head teachers should implement organisational learning, specifically continuous learning and dialogue and inquiry to promote teacher competence. This can be achieved by establishing a culture of continuous learning, where teachers collaborate, share knowledge and are provided with dedicated time and resources to develop their skills. Continuous learning should also involve archiving successful programs and sharing professional development opportunities to encourage knowledge sharing and best practices as well as involving teachers in decision-making processes to foster a sense of ownership and empowerment. Dialogue and inquiry should be encouraged by leaders who promote a culture of open communication where teachers feel comfortable to ask questions and leaders value feedback from teachers and create a trusting environment.

Limitations of the Study

This study sheds light on the crucial link between organisational learning and teacher effectiveness, making a significant contribution to the field.

However, the finding that team learning had no notable impact on teacher competence raises questions and warrants further exploration in diverse settings. In addition, the study used only the quantitative approach. Therefore, to gain a deeper understanding of the relationship between the variables, future research should consider adopting a mixed-methods or qualitative approach to obtain richer insights and help uncover underlying dynamics. Besides, this study was limited to secondary schools; therefore, expanding the scope of investigations to include teachers from various institutions, such as universities and primary schools might offer a more comprehensive evaluation of the relationship between organisational learning and teachers' competences.

References

- Achdiat, I., Mulyani, S., Azis, Y. and Sukmadilaga, C. (2023). Roles of organisational learning culture in promoting innovation. *The Learning Organisation*, 30(1), 76-92. <http://dx.doi.org/10.1108/TLO-01-2021-0013>.
- Arinaitwe, J. M., Tylor, N., Broadbent, E., & Oloya, C. (2019, March). Secondary education in sub-Saharan Africa: Teacher preparation and support: Case Study Uganda. Jet Education Services. <https://mastercardfdn.org/uploads/2019/07/S...PDF>.
- Argyris, C. and Schön, D. (1978) *Organisational learning: A theory of action perspective*. Reading: Mass Addison Wesley.
- Bakar, R. (2018). The influence of professional teachers on Padang vocational school students' achievement. *Kasetsart Journal of Social Sciences*, 39(1), 67-72. <https://doi.org/10.1016/j.kjss.2017.12.017>.
- Basten, D. and Haamann, T. (2018). Approaches for organisational learning: A literature review. *Sage Open*, 8(3). <https://doi.org/10.1177/2158244018794224>.
- Bibi, A. and Akram, M. (2022). Effect of organisational learning culture on school effectiveness. *Global Educational Studies Review*, 7(5), 27-39. [https://doi.org/10.31703/gesr.2022\(VII-IV\).03](https://doi.org/10.31703/gesr.2022(VII-IV).03).
- Bratianu, C. (2015). *Organisational knowledge dynamics: Managing knowledge creation, acquisition, sharing, and transformation*. Hershey: IGI Global. doi: 10.4018/978-1-4666-8318-1.ch012.
- Byaruhanga, E. K. (2018). *Effectiveness of teachers' motivation on job performance in public primary schools in Kitagwenda County, Kamwenge District, Uganda* (PhD Dissertation, The Catholic University of Eastern Africa). Nairobi, Kenya.
- Caena, F. and Redecker, C. (2019). Aligning teacher competence frameworks to 21st century challenges: The case for the European Digital Competence Framework for Educators (Digcompedu). *European Journal of Education*, 54(3), 356-369.
- Calaguas, G. M. (2012). Teacher effectiveness scale in higher education: Development and psychometric properties. *International Journal of Research Studies in Education*, 1(1), 1-18. doi: 10.5861/ijrse.2012.108.
- Chanani, U. L. and Wibowo, U. B. (2019). A Learning Culture and Continuous Learning for a Learning Organisation. In *International Conference on Meaningful Education, KnE Social Sciences*, 591–598. doi 10.18502/kss.v3i17.4686.
- Cik, A., Asdar, M., Anwar, A. I. and Efendi, S. (2021). Impact of training and learning organization on employee competence and its implication on job satisfaction and employee performance of bank in Indonesia. *Psychology and Education*, 58(1), 140-156.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. London: Sage Publications.
- da Fonseca, L. R., Silva, M. R., Silva, S. W. and Pereira, G. M. (2019). Continuous-learning work environment: A study with developers in software development organizations. *Knowledge Management & E-Learning*, 11(3), 281-303. <https://doi.org/10.34105/j.kmel.2019.11.015>.
- Darling-Hammond, L. (2017). Teacher education and the development of teacher expertise. *Journal of Teacher Education*, 68(4), 339-353.
- Denbel, D. G. (2023). Competency Level of Teachers' Subject Matter Knowledge as a Compulsory for Teaching Secondary School Mathematics: A Case Study on Postgraduate Diploma Trainee. *Education Research International*, 1-8. 8287791. <https://doi.org/10.1155/2023/8287791>.
- Devi, R., Pradhan, S., Lepcha, N. and Basnet, S. (2022). Application of correlational research design in nursing and medical research. *Journal of Xi'an Shiyu University, Natural Sciences Edition*, 65(11), 60-69. <http://dx.doi.org/10.17605/OSF.IO/YRZ68>.

- Dixon, N. (2017). Learning together and working apart: Routines for organisational learning in virtual teams. *The Learning Organisation*, 24(3), 138-149. <https://doi.org/10.1108/TLO-12-2016-0101>.
- García, P. A., Moser, K. M. and Davis-Wiley, P. (2019). Facing reality: A survey of methods instructors' perspectives on world language teacher development. *Foreign Language Annals*, 52(1), 165-183. <https://doi.org/10.1111/flan.12373>.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P. and Ray, S. (2021). Partial least squares structural equation modeling (PLS-SEM) using R: A workbook (p. 197). Springer Nature.
- Halmaghi, E. and Todăriță, E. (2023). Creating a learning culture in the organisation. *Scientific Bulletin*, 2(56), 210-214. doi: 10.2478/bsaft-2023-0021.
- Jyothibabu, C., Farooq, A. and Bhusan Pradhan, B. (2010). An integrated scale for measuring an organisational learning system. *The Learning Organisation*, 17(4), 303-327. <https://doi.org/10.1108/09696471011043081>.
- Kérivel, T., Bossard, C., & Kermarrec, G. (2022). Team learning process: A longitudinal study in dynamic situation. *The Learning Organisation*, 29(1), 52-68. <https://doi.org/10.1108/TLO-09-2020-0177>.
- Krejcie, R. V. and Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>.
- Krieg, R. (2020). Teacher competence and student achievement: A systematic review. *Teaching and Teacher Education*, 96, 103144.
- Kumar, A. and Saini, D. (2023). Organisational learning: A study of the industrial sector. *International Journal of Services and Operations Management*, 45(3), 355-372. <https://doi.org/10.1504/IJSOM.2023.132464>.
- Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners*. Cham: Springer.
- Ladyshevsky, R. K. and Taplin, R. (2018). The interplay between organisational learning culture, the manager as coach, self-efficacy and workload on employee work engagement. *International journal of evidence-based coaching and mentoring*, 16(2), 3-19.
- Li, J., Guo, S., Ma, R., He, J., Zhang, X., Rui, D., ... and Guo, H. (2024). Comparison of the effects of imputation methods for missing data in predictive modelling of cohort study datasets. *BMC Medical Research Methodology*, 24(1), 41. <https://doi.org/10.1186/s12874-024-02173-x>.
- Littlejohn, S. W. (2019). *Communication, dialogue, and transformation*. Los Angeles: University of California.
- Liu, W., & Xiang, S. (2018). The positive impact of guilt: How and when feedback affect employee learning in the workplace. *Leadership & Organisation Development Journal*, 39(7), 883-898. <https://doi.org/10.1108/LODJ-10-2017-0296>.
- Locke, T. (2020). Teacher job satisfaction and retention: A review of the literature. *Teachers and Teaching*, 16(3), 257-274.
- Lundkvist, A. H. and Gustavsson, M. (2018). Conditions for employee learning and innovation—interweaving competence development activities provided by a workplace development programme with everyday work activities in SMEs. *Vocations and Learning*, 11(1), 45-63. <https://doi.org/10.1007/s12186-017-9179-6>.
- Malik, P. and Garg, P. (2017). The relationship between learning culture, inquiry and dialogue, knowledge sharing structure and affective commitment to change. *Journal of Organisational Change Management*, 30(4), 610-631. <https://doi.org/10.1108/JOCM-09-2016-0176>.
- Martínez-Costa, M., Jiménez-Jiménez, D., & Dine Rabeh, H. A. (2019). The effect of organisational learning on interorganisational collaborations in innovation: An empirical study in SMEs. *Knowledge Management Research & Practice*, 17(2), 137-150. <https://doi.org/10.1080/14778238.2018.1538601>.
- Mikulec, B. and Perčič, A. S. (2019). Professional development of adult educators and the role of the EU programme. Centre of the Republic of Slovenia for Mobility and European Educational and Training Programmes. <http://www.cmepius.si/knjiznica/>.
- Ministry of Education and Sports. (2019). *Uganda National Teacher Policy*.
- Ministry of Sports and Education. (2016, September). *Competency profile of a secondary school teacher in Uganda*. <https://www.education.go.ug › uploads › 2022/04 PDF>.

- Nang-Sein, U. (2022). Teacher professional development and competence: A case study. *Journal of Teacher Education and Development*, 2(1), 1-15.
- Nuwatuhaire, B. and Tushabirane, A. (2019). Finding out the relationship between employee income security schemes and performance of teachers in primary schools in Uganda-South Western Uganda. *International Journal of Research and Innovation in Social Science*, 3(8), 395-402.
- Park, J. Y. (2022). Impact of informal communication on corporate creative performance. *The Journal of Applied Business Research*, 3(1), 19-28.
- Park, S. and Kim, E. J. (2018). Fostering organisational learning through leadership and knowledge sharing. *Journal of knowledge management*, 22(6), 1408-1423.
- Pit-ten Cate, I. M., Markova, M., Krischler, M. and Krolak-Schwerdt, S. (2018). Promoting Inclusive Education: The Role of Teachers' Competence and Attitudes. *Insights into Learning Disabilities*, 15(1), 49-63.
- Porro, S. G., Yiga, A. P., Enon, J. C., Mwosi, F., & Eton, M. (2019). Teacher competence and performance in primary schools in Nwoya District, Northern Uganda. *International Journal of Advanced Educational Research*, 4(1), 03-08.
- Purwanto, A., Fahmi, K. and Sulaiman, A. (2023). Linking of transformational leadership, learning culture, organisational structure and school innovation capacity: CB SEM AMOS analysis. *Journal of Information Systems and Management (JISMA)*, 2(3), 1-8. <https://doi.org/10.4444/jisma.v2i3.306>.
- Rasooli, R. and Bagheri, A. (2020). Assessing convergent and discriminant validity in PLS-SEM: A guide for researchers. *International Journal of Management and Organisation*, 20(1), 1-12.
- Ritchhart, R., & Perkins, D. N. (2018). *Making thinking visible: How to promote engagement, understanding, and independence for all learners*. New York: Wiley.
- Rupčić, N. (2022). Team learning in the context of learning organisations. *The Learning Organisation*, 29(2), 191-201. <https://doi.org/10.1108/TLO-02-2022-278>.
- Salas, E., DiazGranados, D., Klein, C., Burke, C. S., Stagl, K. C., Goodwin, G. F. and Halpin, S. M. (2008). Does team training improve team performance? A meta-analysis. *Human Factors*, 50(6):903-33. <https://doi.org/10.1518/001872008x375009>.
- Sharma, P. and Sharma, R. (2016). Impact of continuous learning culture and employee self-efficacy on training effectiveness: Empirical evidence from insurance sector in India. *Global Journal of Management and Business Research: G Interdisciplinary*, 16(1), 43-49.
- Su, W., Lin, X. and Ding, H. (2019). The influence of supervisor developmental feedback on employee innovative behaviour: a moderated mediation model. *Frontiers in Psychology*, 10, 1581. <https://doi.org/10.3389/fpsyg.2019.01581>.
- Sulaiman, J. and Ismail, S. N. (2020). Teacher competence and 21st century skills in transformation schools 2025 (TS25). *Universal Journal of Educational Research*, 8(8), 3536-3544. doi: 10.13189/ujer.2020.080829.
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and deploying a multi-item scale. *Theory & Science*, 19(1), 1-15.
- Tamayo-Torres, I., Gutiérrez-Gutiérrez, L. J., Llorens-Montes, F. J. and Martínez-López, F. J. (2016). Organisational learning and innovation as sources of strategic fit. *Industrial Management & Data Systems*, 116(8), 1445-1467. <https://doi.org/10.1108/IMDS-12-2015-0518>.
- Tan, F. Z. and Olaore, G. O. (2021). Effect of organisational learning and effectiveness on the operations, employee's productivity and management performance. *Vilakshan-XIMB Journal of Management*, 19(2), 110-127. <https://doi.org/10.1108/XJM-09-2020-0122>.
- Valeeva, R. A. and Gafurov, I. R. (2017). Initial teacher education in Russia: connecting theory, practice and research. *European Journal of Teacher Education*, 40(3), 342-360. <https://doi.org/10.1080/02619768.2017.1326480>.
- Wanyeki, M. N., Maina, C. W., Sanyanda, J. N. and Kiiru, D. (2019). Impact of teamwork on employee performance: study of faculty members in Kenyatta University. *Journal of Human Resource and Leadership*, 4(1), 1-8.
- Widmann, A. and Mulder, R. H. (2020). The effect of team learning behaviours and team mental models on teacher team performance. *Instructional Science*, 48(1), 1-21. <https://doi.org/10.1007/s11251-019-09500-6>.

- Wiese, C. W. and Burke, C. S. (2019). Understanding team learning dynamics over time. *Frontiers in Psychology*, 10, 442035. <https://doi.org/10.3389/fpsyg.2019.01417>.
- Wilkins, U., Menzel, D. and Pawlowsky, P. (2004). Inside the black-box: Analysing the generation of core competencies and dynamic capabilities by exploring collective minds. *An organisational learning perspective. management revue*, 8-26.
- Yavas, T. and Celik, V. (2020). Organisational learning: A scale development study. *Cypriot Journal of Educational Sciences*, 15(4), 820-833. <http://dx.doi.org/10.18844/cjes.v15i4.5062>
- Zikanga, S. K., Anumaka, B. I., Tamale, M. B. and Mugizi, W. (2021). Remuneration and job performance of teachers in government aided secondary schools in western Uganda. *Interdisciplinary Journal of Education Research*, 3(2), 10-22. <https://doi.org/10.51986/ijer-2021.vol3.02.02>.