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Mathematics departmental heads' pedagogical competencies in managing the quality of continuous assessment activities

[1]Peter Sekgwari Lekalakala, [2]Simeone Maile, [3]Asaph Ntu Nkomo & [4]Ernest Khalabai Mashaba

Abstract

This study investigated the pedagogical management challenges influencing the implementation of quality mathematics continuous assessment (CASS) tasks in the General Education and Training (GET) band in Tshwane North District. The purpose was to explore mathematics teachers' perceptions of the difficulties departmental heads (DHs) face in managing CASS effectively. A quantitative approach with a descriptive design was used, and data were collected from 24 mathematics teachers across five secondary schools in the district. The data were analysed descriptively and presented in tables. Findings indicate that the quality of mathematics CASS tasks is strongly linked to the skills, competencies, and managerial capacity of mathematics DHs. Their ability to identify, prevent, and address pedagogical challenges plays a decisive role in ensuring that assessment tasks are valid, reliable, and credible. Effective management requires DHs not only to respond to emerging issues but also to proactively anticipate potential challenges and leverage opportunities to strengthen assessment practices. The study also revealed that reflective practice is critical. DHs must learn from mistakes and previous experiences to avoid repeating errors that could undermine the integrity of CASS tasks. Building this capacity will help sustain assessment quality and align implementation with the goals and objectives of the GET band. Overall, the study highlights the importance of strengthening DHs' managerial competencies to improve CASS practices. The findings provide insights that can inform strategies to enhance pedagogical management, thereby promoting consistency, fairness, and quality in mathematics assessment across secondary schools in Tshwane North District.

Keywords: *departmental heads, pedagogical competencies, continuous assessment activities, GET band*

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About the authors:
[1]Student, Department of Educational Foundation, Tshwane University of Technology, Pretoria, South Africa
[2]Professor, Department of Educational Foundation, Tshwane University of Technology, Pretoria, South Africa
[3]Corresponding author. Lecturer, Department of Educational Foundation, Tshwane University of Technology, Pretoria, South Africa. Email: nkomoan@tut.ac.za
[4]Lecturer, Department of Educational Foundation, Tshwane University of Technology, Pretoria, South Africa

1. Introduction

Mathematics is a critical subject in schools, yet performance indicators reveal a pessimistic outlook in many parts of the world, including South Africa (Baloyi & Khumalo, 2024; Shepherd & van der Berg, 2020; Taylor, 2021). Learners' performance in mathematics remains poor (Jojo, 2019; Theron, 2025), and scholars attribute these outcomes partly to weak pedagogical management by departmental heads (DHs) (Garcia & Serra, 2019; Namkung et al., 2019). Management and leadership research highlights that DHs are strategically positioned to improve mathematics performance (Darling-Hammond et al., 2019). However, their inability to effectively execute their responsibilities has contributed to declining performance levels (Baloyi, 2023; Graham, 2023; Harris et al., 2019; Ngoepe, 2021).

The role of DHs in schools has been defined in multiple ways. The Department of Basic Education (2016) describes a DH as a senior teacher responsible for leading and managing subject divisions, including mathematics. Tapala et al. (2021) view DHs as a crucial link between teachers and school management, while Motala and Pampallis (2020) emphasise their subject-specific management role. DHs thus serve both strategic and instructional functions, particularly in curriculum areas such as mathematics (Tapala et al., 2021). Their responsibilities extend beyond curriculum leadership to include team management, resource allocation, and oversight of curriculum implementation (Baloyi & Khumalo, 2024). Appointment to the role requires subject expertise and at least three years of teaching experience, though a formal qualification in leadership is not a prerequisite (Mampane, 2017; Ogina, 2017). Furthermore, the Curriculum and Assessment Policy Statement (CAPS) places additional demands on DHs to be subject specialists (Tapala et al., 2020).

One of the most critical functions of mathematics DHs is managing Continuous Assessment (CASS), which plays a vital role in improving student learning outcomes. As members of school management teams, DHs are expected to guide teachers in developing quality assessment activities, oversee internal assessments, and ensure alignment with curriculum objectives in preparation for external examinations (Tapala et al., 2020). Yet, research suggests that assessments in many schools remain lenient and unreliable, failing to differentiate learners' abilities and often giving a false sense of preparedness (Sievertsen, 2022). This underscores the importance of DHs' pedagogical competencies in designing, monitoring, and standardising CASS processes to safeguard validity, reliability, and credibility (Baloyi & Khumalo, 2024).

Despite the significance of DHs in ensuring the quality of mathematics CASS, their pedagogical competencies remain underexplored in scholarly literature. This study therefore sought to investigate the pedagogical competencies required by mathematics DHs to manage continuous assessment effectively. It specifically aimed to explore the competencies necessary for managing CASS activities, assess the effectiveness of DHs in ensuring quality and consistency, and identify challenges they face in this role. The guiding research question was: What are mathematics departmental heads' pedagogical competencies in managing the quality of continuous assessment activities?

This study is significant in expanding knowledge on the pedagogical competencies of DHs in managing CASS. Its findings have the potential to assist mathematics DHs, principals, and departmental officials in strengthening assessment practices. For DHs, the results provide insight into the competencies expected of them, while principals can use the findings to improve supervision and management practices. At the policy level, the study can inform the design of training workshops to enhance DHs' leadership capacity. More broadly, the study offers implications for other subject areas where DHs play a similar role in ensuring the quality of teaching, learning, and assessment.

The remainder of this paper is structured as follows: the next section reviews relevant literature to provide a theoretical foundation, followed by a brief overview of the methodology. The findings are then presented and interpreted, and the paper concludes with a discussion of the results, including recommendations and implications for practice and policy.

2. Literature review

2.1 Continuous Assessment

Continuous Assessment (CASS) is a systematic approach used to evaluate students' progress and growth within a defined academic curriculum (Makuvire et al., 2023; Wondim & Dessie, 2024. Mikisi and Maro (2024) describes CASS as an evaluative methodology aimed at enhancing learners' proficiency throughout the instructional process, while Saliu-Abdullahi (2019) emphasizes that feedback within CASS plays a crucial role in guiding both teachers and students toward improved learning outcomes. By incorporating tools such as portfolios, teacher observations, project reports, and other alternative evaluation methods, CASS facilitates the cultivation of student competencies and fosters collaboration, as educators and

learners engage in sharing performance standards. Feedback is provided not only by instructors but also by peers, making assessment an interactive process.

School-based assessment (SBA) involves educators measuring students' achievements against pre-established objectives (Malik et al., 2021; Tu et al., 2020; Uvie, 2021; Maphosa et al., 2024; Schutte, 2024). Within this framework, CASS includes classroom evaluations, formal tests, and formative assessments, which Umalusi (2010) identifies as central to educational transformation by shaping instructional practices. However, despite its significance, the implementation of CASS is often hindered by challenges such as poor management practices, inconsistent standards, and biased evaluations by educators. The National Protocol for Assessment for Grades R–12 (DBE, 2011) highlights disparities in the weighting of CASS, complicating its consistent application. Informal assessments, assignments, classwork, and other activities, play a formative role in preparing students for formal evaluations and familiarizing them with mathematical concepts, thereby enhancing overall comprehension (DBE, 2011).

CASS is also regarded as a progressive approach aligned with global educational standards. Wallace et al. (2022) describe it as both systematic and exemplary. Research shows that continuous assessment promotes student engagement and learning consistency. Da Silva et al. (2024) argue that CASS motivates learners to remain engaged throughout the teaching process, while also assessing diverse skills and improving performance. Notably, Gidado (2021) found that in courses without continuous assessment, male students underperformed compared to female students; however, this gender gap disappeared in courses where CASS was implemented. Similarly, Dhakal (2020) and Dagnachew and Sewagegn (2020) emphasize that CASS supports student progress by providing feedback, guidance, and opportunities for improvement. Djamalovna (2024) underscores the importance of using varied methods to evaluate student performance, while Walde (2016) confirms that CASS significantly influences final summative grades. CASS emerges as a comprehensive, cumulative, methodical, and formative assessment strategy that not only enhances student learning but also promotes fairness, engagement, and improved academic achievement.

2.2 Quality, Validity and Reliability of Continuous Assessment

The Curriculum and Assessment Policy Statement (CAPS, 2011) emphasizes that comprehensive and appropriate practices must be implemented to ensure the quality assurance

of all subject assessments, which should be conducted at least once per term. The policy makes it clear that assessment implementation must be carefully managed, with strict adherence to prescribed processes. However, research reveals notable gaps in practice. Mbane and Machaba (2021) observe that school management teams (SMTs) often fail to support teachers in developing assessments. In some cases, schools either neglect proper CASS management processes or lack structured procedures altogether. This absence of systematic planning, organization, coordination, and control compromises the effectiveness of assessments. Van Staden and Motsamai (2017) caution that such shortcomings undermine the quality, trustworthiness, validity, and reliability of SBA. Similarly, Chipfiko and Maphosa (2020) and Iddrisu et al. (2025) highlight the lack of established rules or criteria to guide the consistent use of SBA as a reliable measure of learner performance. Ignacio et al. (2022) and Yusoff et al. (2025) further underscore this concern, noting that inconsistencies in educators' execution and evaluation of CASS reflect a broader deficiency in standardizing assessment procedures.

2.3 Pedagogical Challenges of Continuous Assessment

Multiple studies have highlighted persistent inadequacies in mathematics instruction in South Africa (Chirinda et al., 2021; Taylor, 2021). For instance, Luneta (2022) and Tibane et al. (2024) observe that one major challenge is the limited provision of mathematics education within the FET band across many institutions. Tibane et al. (2024) further note that a significant number of schools offering mathematics are under-resourced, lacking the facilities and materials necessary to support effective teaching and learning. These structural shortcomings are compounded by challenges in assessment, particularly in the implementation of CASS.

Concerns have been raised about the psychometric properties of CASS scores, especially the lack of documented validity and reliability of the instruments used (Chiziwa, 2022; Shah et al., 2025). This problem is exacerbated by the absence of formal professional training for many educators, raising doubts about their competence in test design and assessment practices. Insufficient training in CASS implementation, coupled with a general lack of awareness among stakeholders about its role as a quality assurance tool, further undermines its effectiveness. Despite these challenges, research shows that CASS has the potential to improve teaching and learning outcomes, reduce examination malpractice, and enhance the overall educational process (Vahed et al., 2023). However, this potential depends heavily on the integrity and commitment of those administering CASS, particularly in

maintaining accurate records and using the process to guide meaningful learning and instructional improvement.

Record-keeping presents an additional challenge in CASS administration. Learners' records must be meticulously maintained, preserved for extended periods, and made easily retrievable when required. The process of collating scores from multiple sources also requires careful weighting and accurate calculations, often necessitating the use of calculators to minimize errors. Practical tools such as journals or registers can further help prevent the loss of grades and improve the reliability of assessment records.

2.4 Theoretical Framework

This study was grounded in Bourdieu's (1993) Theory of Practice, which served as both the theoretical and conceptual framework. The theory is highly relevant because it emphasizes the interplay between habitus, capital, and field, providing a lens to understand how departmental heads (DHs) navigate the educational system and influence CASS practices.

According to Bourdieu, habitus refers to the dispositions, beliefs, and practices that individuals develop through experiences and socialization. In this study, habitus is reflected in the pedagogical competencies of mathematics DHs, which shape their ability to design, implement, and monitor CASS. Capital in Bourdieu's framework takes various forms, including cultural, social, and symbolic. Cultural capital in this context refers to the DHs' knowledge, skills, and qualifications, which influence their effectiveness in managing CASS. Social capital includes the networks and relationships DHs build with teachers, school leadership, and external educational bodies, which provide support and resources necessary for implementing quality CASS. Symbolic capital relates to the authority and legitimacy DHs possess within the school system, enabling them to enforce standards and monitor quality effectively.

The concept of field refers to the structured social spaces in which individuals compete for resources and power. In this study, the field is the educational system, particularly the school environment, where DHs operate and exercise influence. Finally, Bourdieu's notion of practice highlights how individuals act within the field based on their habitus and capital. For mathematics DHs, practice involves the day-to-day management of CASS, designing, monitoring, and evaluating assessments, actions shaped by their competencies and the resources they can mobilize.

By applying Bourdieu's Theory of Practice, this study provides a sociological lens for examining the factors that shape DHs' competencies in managing CASS activities. The framework helps to uncover the complex dynamics between habitus, capital, and field, offering insights into the enablers and constraints that influence the pedagogical competencies of mathematics DHs in sustaining quality assessment practices.

3. Methodology

3.1 Research Design

The study was situated within the positivist paradigm and adopted a descriptive case study design, focusing on schools in the Tshwane North Education District, particularly Hammanskraal schools. Positivism assumes that credible and valid research outcomes must be objective and grounded in observable phenomena (Du Plooy-Cilliers et al., 2014). In line with this paradigm, quantitative data, which can be analyzed using statistical methods, were collected. Babbie (2014) explains that the quantitative approach involves systematic data collection, synthesis of observations, and examination of relationships between variables. This approach is widely used for its capacity to produce data characterized by objectivity and reliability.

3.2 Selection of Participants

The population for the study comprised 72 mathematics educators in Hammanskraal secondary schools. Simple random sampling was employed to select the sample, allowing each member of the population an equal chance of being included and enabling the generalization of findings (Creswell & Creswell, 2018). The final sample consisted of 24 GET Band mathematics teachers, selected to provide a representative subset of the population. Random sampling ensured equitable and autonomous selection of participants.

The demographic attributes of the participants, encompassing their age distribution, gender composition, duration of professional experience, and highest degree of educational achievement. The research participants were (n = 24, 100%) GET band mathematics teachers who took part in the study, as depicted in Table 1.

Regarding the distribution of participants by age, the majority of them were 30 years or older. Five participants (21%) were below 30 years, while six respondents (25%) fell within the 31–40 years age bracket. Seven participants (29%) were aged between 51 and 60 years.

Overall, a substantial majority (71%) of participants were between 30 and 50 years, while a smaller proportion (29%) were in the 51–60 age bracket.

Table 1
Demographic cross-tabulation of the respondents (n=24)

Variables		Frequency	Total Percentage
Gender	Male	15	62%
	Female	9	38%
Age	Below 30	5	21%
	31-40	6	25%
	41-50	6	25%
	51-60	7	29%
Education	Diploma	2	8%
	Bachelor's degree	22	92%
Work experience	Less than a year	3	12%
	1-3	2	8%
	4-6	4	17%
	7-9	5	21%
	10+	10	42%
TOTAL		**24**	**100%**

In terms of gender, most participants were male (15 participants, 62%), while nine participants (38%) were female. Considering professional experience in teaching mathematics within the GET band, 42% of respondents reported having ten or more years of experience. Additionally, 21% had 7–9 years, 17% had 4–6 years, 12% had less than one year, and 21% had five years of experience. These figures indicate that the majority of participants possessed substantial knowledge and expertise in CASS evaluations, providing valuable insights for the study.

With regard to educational qualifications, only two participants (8%) held a diploma in education, while the majority (92%) had a bachelor's degree. This high level of educational attainment ensured that participants were capable of independently completing the questionnaire without assistance.

3.3 Data Collection and Ethical Considerations

Data were collected using a survey strategy, which allowed for efficient and cost-effective gathering of information from the 24 sampled educators. Quantitative data were obtained through structured questionnaires. To ensure validity and reliability, the questionnaires were reviewed by the supervisor, lecturers, and colleagues, who provided

feedback on design, content, and format. A pilot study was conducted in two schools within the same district (not included in the main study) to test the instruments, identify discrepancies, and make necessary adjustments based on expert feedback.

Ethical considerations included protecting participants, ensuring voluntary participation, maintaining privacy, and upholding honesty in professional interactions. Participants were informed of their right to withdraw at any time, and anonymity was guaranteed where requested. Approval to conduct the study was obtained from the Gauteng Department of Education. Appointments were scheduled with participants, who were invited to take part in the study. Data collection included individual interviews followed by the distribution of surveys.

3.4 Data Analysis

Survey data were analyzed using descriptive statistics, focusing on percentages and frequencies. Descriptive analysis allows researchers to summarize and present quantitative data in an accessible format, facilitating interpretation and illustration of findings (James & Simister, 2020). This method was selected because it enables the establishment of rational conclusions based on quantifiable data.

4. Findings

Participants were asked to indicate if the mathematics DH have adequate competency in managing the CASS activities in mathematics at the GET band level. The responses are displayed and summarized in Table 2.

Table 2

Competency in managing quality of CASS activities

Aspect	Yes		No	
	F	%	F	%
Pre-moderation of tasks	15	62.5%	9	37.5%
Process moderation of tasks	9	37.5%	15	62.5%
Post-moderation of tasks	10	41.66%	14	58.33%
Quality assurance check of the tasks	8	33.33%	16	66.66%

***Source*:** Research data (2023)

Regarding the pre-moderation of tasks, the majority of participants (62.5%) indicated that DHs possess pre-moderation skills, while 37.5% reported otherwise. In contrast, only 37.5% of participants agreed that DHs demonstrate process moderation abilities, with a majority of 62.5% indicating the absence of such skills. Concerning post-moderation, 58.3% of respondents reported that DHs are deficient in effectively moderating assignments after completion, whereas 41.7% believed that DHs have the necessary competencies in this area. Regarding task quality assurance, a significant majority (66.7%) of participants expressed that DHs lack the required skills to ensure proper quality assurance of assessments.

The participants were asked: "What are the management strategies used by mathematics DHs to ensure effective implementation of CASS by GET band mathematics teachers?" Two key variables emerged from the responses: assessment standardization management strategies and monitoring and moderation of the assessment process. Participants were further asked to evaluate the assessment standardization management strategies employed by mathematics DHs. The responses are summarized in Table 3, which illustrates the approaches used to standardize assessments and maintain consistency across the department.

Table 3

Assessment standardization management strategies (N=24)

Statements	Responses (%)						Mean	Std Dev.
	VP	P	Neutral	G	VG	Ex		
They conduct workshops about setting question papers.	20.83	45.83	12.5	4.16	8.33	8.33	**16.66**	**15.37**
They conduct workshops about moderation.	20.83	50	8.33	12.5	8.33	0	**16.67**	**17.68**
They conduct workshops about marking procedure.	29.16	37.5	8.33	12.5	4.16	8.33	**16.66**	**13.44**
The departmental Head spend more time analyzing learner's results.	37.5	29.16	4.16	16.66	8.33	4.16	**16.66**	**13.95**
Jointly develop assessment plans with their teachers.	50	25	12.5	8.33	4.16	0	**16.67**	**18.45**

***Source*:** Research Data (2023). Legend: VP=Very Poor; P=Poor; G=Good; VG=Very Good; Ex=Excellent

The data presented in Table 3 reveal the quality of workshops and activities facilitated by DHs. Regarding workshops on question paper development, 20.83% of respondents expressed dissatisfaction, while a larger proportion (45.83%) rated them as low quality. Only 8.33% of participants considered the workshops highly commendable, and another 8.33% rated them as outstanding.

For workshops on moderation, 20.83% and 50% of respondents described the DHs' facilitation as very poor and poor, respectively. In contrast, only 12.5% and 8.33% regarded the workshops as good and very good. A similar trend was observed in workshops on marking methods, where 29.16% and 37.5% of participants rated the conduct as very poor and poor, respectively. Conversely, only 12.5%, 4.16%, and 8.33% of respondents rated the workshops as good, very good, and excellent.

Regarding the analysis of learners' results, 37.5% and 29.16% of respondents considered the DHs' work to be very poor and poor, respectively. Only 16.66% expressed confidence in the DHs' analysis, while 8.33% deemed it good, and 4.16% considered it great. These findings suggest that a majority of respondents perceive DHs' management of workshops and result analysis as inadequate, indicating areas for improvement in standardization practices.

The responses regarding DHs' strategies for monitoring and moderation of assessments are summarized in Table 4, highlighting participants' perceptions of the effectiveness of these practices in ensuring quality and consistency across the department.

Data indicate perceptions of departmental heads' (DHs) effectiveness in monitoring and moderating assessment tasks. Regarding pre-moderation, 4.16%, 16.66%, and 37.5% of respondents rated the DHs' performance as good, very good, and exceptional, respectively. In contrast, 8.33% and 20.83% of respondents perceived the pre-moderation practices as low quality.

With respect to feedback provided on each assessment task, most participants, 25% and 54.16%, rated the mechanisms as extremely poor and poor, respectively. Only 4.16% considered the feedback good, and 8.33% rated it very good. Similarly, in ensuring adherence to the curriculum policy statement (CPS) regarding allocation of weightage, 4.16%, 20.83%, and 29.16% of respondents rated DH practices as good, very good, and excellent. Conversely, 25% and 12.5% rated the practices as very poor and poor.

Table 4

Assessment monitoring and moderation strategies (n = 24)

Statements	Responses (%)						Mean	Std Dev.
	V.P	P.	Neutral	G.	V.G.	Ex.		
All tasks are pre-moderated before they are written.	8.33	20.83	12.5	4.16	16.66	37.5	**16.66**	**11.79**
Feedback is given on each assessment task moderated.	25	54.16	4.16	8.33	4.16	0	**15.97**	**20.65**
Check compliance with the curriculum policy statement regarding the weighting of the content coverage.	25	12.5	8.33	4.16	20.83	29.16	**16.66**	**9.86**
Conduct item analysis after post-moderation of each task.	33.33	16.66	4.16	8.33	25	12.5	**16.66**	**10.87**
The SBA tasks are checked for compliance with Bloom's taxonomy of cognitive levels/	37.5	16.66	4.16	8.33	20.83	12.5	**16.66**	**11.79**
Head of Department conduct class visits to ensure curriculum coverage	20.83	58.33	12.5	8.33	0	0	**16.67**	**21.89**

***Source*:** Research Data (2023). Legend: VP=Very Poor; P=Poor; G=Good; VG=Very Good; Ex=Excellent

Regarding post-moderation item analysis, 33.33% and 16.66% of respondents perceived DH performance as extremely poor and poor, respectively, whereas 8.33%, 25%, and 12.5% rated it satisfactory, commendable, or exceptional. In evaluating the alignment of CASS tasks with Bloom's taxonomy, 37.5% and 16.66% of respondents categorized DH performance as very poor and poor, while 41.66% considered the DHs' practices good to excellent. Overall, a significant proportion (79.16%) of participants expressed dissatisfaction with the DHs' implementation of monitoring and moderation strategies, with 20.83% and 58.33% rating them as poor and extremely poor. Only 8.33% affirmed that DHs demonstrated proficiency in conducting classroom visits to ensure comprehensive curriculum coverage.

Respondents were asked to identify the pedagogical challenges faced by mathematics DHs in promoting the quality of CASS. Participants indicated challenges by selecting "yes" or

"no." The responses are summarized in Table 5, highlighting the key areas where DHs encounter difficulties in ensuring effective assessment practices.

Table 5

Pedagogical challenges faced by mathematics departmental heads (n = 24)

Challenges	Yes		No	
	F	%	F	%
Interpreting and implementing Bloom's revised taxonomy of cognitive levels	17	70.83	7	29.16
Substantial knowledge in terms of subject matter knowledge (pedagogical content knowledge)	13	54.16	11	45.83
Substantial knowledge in terms of assessment	16	66.66	8	33.33
Effective administration of the CASS due to class size	15	62.5	9	37.5
Delivery of the content according to the Annual Teaching Plan (ATP) pacesetter	6	25	18	75
Limited support from the school management team	15	62.5	9	37.5
Inadequate teaching and learning materials (LTSM)	16	66.66	8	33.33

***Source*:** Research Data (2023)

The data indicate that a significant proportion of DHs face challenges in effectively overseeing CASS activities. Seventeen participants reported difficulties in accurately interpreting and applying Bloom's updated taxonomy of cognitive levels, whereas seven participants indicated that DHs do not encounter such difficulties.

In terms of pedagogical content knowledge, thirteen respondents perceived a deficiency among DHs as a challenge, while eleven participants disagreed, suggesting that not all DHs struggle in this area. Similarly, regarding assessment knowledge, sixteen respondents indicated that a lack of expertise in assessment represents a significant difficulty for DHs, whereas eight participants reported that this was not a challenge.

Large class sizes were also identified as a major challenge, with fifteen participants noting their negative impact on managing CASS, while nine participants considered class size to have minimal effect. When considering the delivery of content in alignment with the ATP pacesetter, only six participants viewed it as challenging, whereas eighteen participants reported no difficulty in this regard.

The participants further highlighted insufficient support from the school administration as a significant obstacle, with the majority perceiving it as impeding the overall quality of CASS evaluation. Nine participants, however, reported that lack of administrative support did not hinder successful implementation. Additionally, sixteen participants indicated that the inadequacy of teaching and learning materials and resources (LTSM) posed a substantial challenge to administering CASS effectively, while six participants did not perceive this as a barrier.

These findings underscore that mathematics DHs face multiple pedagogical challenges, including cognitive alignment, assessment knowledge, class size, administrative support, and resource limitations, that influence the quality and effectiveness of CASS within the GET band.

5. Discussions

This study examined the pedagogical management challenges affecting the implementation of mathematics CASS in the GET band in the Tshwane North region. The research facilitated the development of a theoretical framework for CASS management, aimed at enhancing the quality administration of CASS by DHs and ensuring high standards of validity, reliability, and credibility at the GET band.

The findings indicate that DHs face several pedagogical challenges that hinder the execution of high-quality mathematics assessment tasks. A primary challenge is the difficulty in interpreting and applying Bloom's updated taxonomy of cognitive levels. Additionally, DHs were observed to have deficiencies in their pedagogical subject knowledge and expertise in mathematics instruction and evaluation. The lack of professional training among many DHs responsible for administering CASS raises concerns regarding their competency and capacity to implement high-quality assessments effectively. Prior studies similarly note that CASS implementation has encountered challenges due to insufficient training and limited awareness of its significance as a tool for quality assurance (Chipfiko & Maphosa, 2020; Iddrisu et al., 2025).

Subject matter knowledge and comprehension of educational content were identified as critical assets for effective CASS management. Concerns were raised regarding the proficiency of DHs in mathematics, particularly as many DHs have backgrounds in physical sciences or the FET phase rather than the GET band (Mbane & Machaba, 2021). The results underscore the importance of DHs possessing managerial acumen, adaptability, attentiveness,

and a thorough understanding of mathematics content to oversee CASS effectively. Furthermore, DHs demonstrated deficiencies in their understanding and application of assessment principles. Effective CASS requires assessments that are valid, reliable, and comparable across institutions. However, overcrowded classrooms and limited support from DHs were highlighted as barriers to quality implementation. In addition, insufficient teaching and learning materials and facilities (LTSM) further hindered the administration of high-quality mathematics CASS at the GET band.

These findings align with previous research highlighting insufficient supervision and support at the institutional level (Van Staden & Motsamai, 2017). The involvement of DHs in the moderation process was found to be limited, often focusing on endorsing assignments rather than providing guidance for improvement. As Seobi and Wood (2016) argue, moderation in GET band mathematics frequently fulfills regulatory requirements without substantially enhancing instructional quality. The findings reinforce the need for DHs to develop competencies that extend beyond their primary subject expertise to ensure effective moderation and support for mathematics teaching and learning (Van Staden & Motsamai, 2017).

6. Conclusion

This study investigated the pedagogical management challenges that hinder the effective implementation of high-quality mathematics Continuous Assessment (CASS) in the General Education and Training (GET) band in the Tshwane North District. The research aimed to examine the perspectives of mathematics educators regarding the competencies of departmental heads (DHs) in selected secondary schools. A primary focus was placed on the proficiency of DHs and the development of a theoretical framework for effectively overseeing CASS. The study employed a mixed-methods approach, combining survey research with phenomenological analysis to provide a comprehensive understanding of the issues.

The findings identified two key categories influencing the execution of quality mathematics CASS tasks: facilitators and barriers, which were examined within the broader context of a framework designed to enhance CASS management. Despite being limited to five secondary schools, the results carry practical implications for the participating educational institutions.

One key recommendation is the implementation of accountability sessions within the GET band. Such measures are likely to reduce reluctance among DHs and teachers to adhere to prescribed evaluation processes, thereby improving the overall quality of CASS assignments. Strengthening the monitoring functions of DHs is also essential. The Department of Education should conduct periodic classroom visits to assess curriculum coverage and verify that assessment programs are implemented according to plan.

Furthermore, the study emphasizes the value of Professional Learning Communities (PLCs) as a strategy to support educators who may have deficiencies in mathematics pedagogy or CASS management. Integrating PLCs into the CASS process was highlighted by all deputy principals in the study as an effective mechanism to enhance the efficiency and effectiveness of CASS management, ultimately leading to higher-quality outcomes for learners. Improving DH competency, increasing accountability, and fostering collaborative professional development through PLCs are pivotal strategies for ensuring the successful management of mathematics CASS within the GET band.

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