



TEACHER TRAINING AND INSTRUCTIONAL EFFECTIVENESS IN SECONDARY SCHOOLS: EVIDENCE FROM THE HOWL-WADAG DISTRICT OF MOGADISHU, SOMALIA

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Abstract:

This study examined the relationship between teacher training and instructional effectiveness in secondary schools in the Howl-Wadag district of Mogadishu, Somalia. A quantitative descriptive research design was employed. The study involved 80 participants, including 12 principals and 68 classroom teachers, selected from 12 secondary schools through stratified random sampling. Data were collected using a structured questionnaire and analyzed using descriptive statistics and Pearson correlation analysis in SPSS. The findings revealed statistically significant positive relationships between the quality of teacher training and teacher performance ($r = .742$, $p < .001$), as well as between training content and teacher performance ($r = .689$, $p < .001$). In addition, many respondents reported that training programs helped strengthen classroom management skills and teaching confidence. Based on these findings, the study recommends strengthening continuous professional development programs, promoting teacher mentorship, and providing training that is relevant to classroom needs. The findings contribute to the growing body of research on teacher professional development in Somalia and may inform educational policy and practice.

Keywords: teacher professional development, teacher performance, instructional effectiveness, secondary education, classroom management, Somalia

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1. Introduction

Teacher education serves as a foundation for cultivating the professional skills, pedagogical knowledge, and instructional dispositions that educators require to optimize student learning dynamics (Munna & Kalam, 2021). Research has shown that teacher education can improve the way teachers plan lessons, interact with students, and manage classroom learning. These skills help teachers create engaging learning experiences that support students' understanding and academic success (Ullah & Farooq, 2008). In addition to improving teaching skills, modern teacher education programs help teachers create inclusive learning environments that respond to students' diverse backgrounds and learning needs (Munna & Kalam, 2021).

Teaching effectiveness is commonly assessed through student learning outcomes. Whether measured through classroom observations or student performance on assessments, learning outcomes provide an important indicator of instructional quality (Darling-Hammond, 2010; Hattie, 2023). Globally, continuous teacher preparation is classified as a central pillar of modern knowledge societies (Asfahani *et al.*, 2024). Studies in the United States indicate that high-quality pre-service teacher education helps teachers deliver effective lessons, engage students in meaningful learning activities, and build positive teacher–student relationships. Many countries have invested in continuous professional development to strengthen teaching quality and improve educational outcomes (World Bank, 2022). In the United Kingdom, continuous professional development is widely recognized as an important strategy for improving teaching quality and supporting equitable learning opportunities for students from diverse backgrounds (Darling-Hammond *et al.*, 2020).

Across Africa, teacher professional development is shaped by different educational and institutional contexts. Research from Uganda suggests that personal characteristics alone do not determine teaching effectiveness. Rather, effective teachers tend to demonstrate strong lesson planning skills and an ability to engage and motivate their students (Darling-Hammond, 2010; Hattie, 2023). In post-conflict contexts such as Sudan, rebuilding the education system has required alternative teacher training programs to help address shortages of qualified teachers and support the recovery of the education sector (World Bank, 2005). Research from Algeria highlights the importance of adapting teacher training programs to local educational and community needs (Meddour, 2017). In South Africa, professional development initiatives appear to be most effective when they are aligned with the school's instructional goals and priorities (Mestry *et al.*, 2009). Similarly, evidence from Rwanda shows that school-based continuous professional development programs support teacher collaboration, professional learning, and improvements in classroom practice (Sibomana & Ndayambaje, 2024). Studies from Kenya further suggest that university-supported in-service training programs can strengthen teacher–student interactions and encourage the use of a wider range of teaching strategies (Manduku, 2017).

Despite the growing body of international and regional research on teacher development, there is still limited evidence from secondary schools in Mogadishu, Somalia. Most educational studies in the country have focused on primary or non-formal education, leaving the secondary school sector relatively underexplored (Qaisra & Haider, 2023). While Idris *et al.* (2024) recently examined training's relationship to education quality across the wider Mogadishu Benadir region, district-level evidence, particularly for historically under-resourced districts such as Howl-Wadag, remains scarce. This gap is important because secondary school teachers in Mogadishu often face challenges such as heavy workloads, low or inconsistent salaries, and the need to take on additional employment. These conditions can affect lesson preparation and teaching performance (Mohamed & Nkomo, 2023). Continuous professional development programs may help teachers strengthen their classroom management skills and improve the quality of instruction.

However, within the Howl-Wadag district of Mogadishu, a historical lack of centralized institutional oversight, severe resource constraints, and fragmented policy implementation mean that a significant proportion of secondary educators remain entirely isolated from structured training networks (UNICEF Somalia, 2020). Limited access to professional development has contributed to the continued use of traditional teaching approaches that may not fully address the needs of diverse learners, which can affect student achievement (UNICEF Somalia, 2020). There is therefore a need to examine how teacher training programs can better support secondary school teachers in Mogadishu's educational context (World Bank, 2022). To address this gap, the present study examines the relationship between teacher training programs and instructional effectiveness in secondary schools in the Howl-Wadag district of Mogadishu, Somalia. Specifically, the study aims to: (a) examine the relationship between training programs and classroom teaching practices; (b) assess the relationship between professional development and classroom management and student engagement; and (c) explore the relationship between training content and teacher performance. The findings are expected to provide evidence that can support policymakers, school leaders, educational organizations, and the Ministry of Education in strengthening teacher development initiatives and improving educational outcomes.

2. Literature Review

Teacher professional development remains an important focus of educational research. Effective teaching is increasingly understood as a professional skill that can be developed through training and experience rather than as an innate ability. Teacher training programs support educators in strengthening their instructional practices, classroom management skills, and subject knowledge (Phillips & Chetty, 2018). The World Bank (2022) identifies teacher quality as one of the most important school based factors influencing student achievement. However, many developing countries continue to face challenges in ensuring that teacher training leads to meaningful improvements in

classroom practice. This issue is particularly important at the secondary school level, where students have diverse learning needs and require effective instructional support. Research suggests that teachers who receive high-quality professional development are better able to use student centered teaching approaches and adapt their instruction to support different learners (Hattie, 2023).

2.1 Quality and Content of Teacher Training Programs

Educational quality depends on the ability of schools to provide effective learning experiences that support students' academic and personal development. Achieving this goal requires competent and motivated teachers who play a key role in student success (Dange & Siddaraju, 2020). Effective teacher training programs should combine theoretical knowledge with practical classroom experience. Activities such as mentoring, peer teaching, and school-based practice help teachers apply what they learn in real educational settings (Harris & Sass, 2011). In addition, teacher preparation programs should include training in pedagogy, child development, classroom management, and educational psychology (Darling-Hammond *et al.*, 2020).

In many SubSaharan African countries, teacher professional development is often challenged by limited educational resources. In Uganda, for example, large student-teacher ratios can make it difficult for teachers to apply new teaching approaches, even after participating in professional development programs (World Bank, 2022). Professional development tends to be most effective when it is continuous, collaborative, and relevant to teachers' daily classroom experiences. Such approaches provide opportunities for teachers to reflect on their practice, learn from one another, and refine their teaching strategies in ways that respond to the diverse needs of their students (Darling-Hammond *et al.*, 2020).

2.2 Instructional Practices and Technological Integration

Classroom instructional practices include lesson planning, teaching activities, and reflection on classroom experiences to support student learning (Windschitl *et al.*, 2012). Research has shown that approaches such as inquiry-based learning and project-based learning can improve student engagement, motivation, and understanding of subject content (Francisco & Celon, 2020). However, the use of these approaches in many developing countries is often limited by large class sizes, traditional teaching methods, and shortages of educational resources (World Bank, 2022).

Technology has become an important component of contemporary teaching practice. The Apple Classroom of Tomorrow (ACOT) project showed that regular access to technology can support more interactive and student-centered learning environments, where students engage actively in learning through digital tools (Windschitl *et al.*, 2012). More recent research has reached similar conclusions. Pellegrini *et al.* (2021) found that providing schools with technology alone does not necessarily improve student achievement. Instead, positive learning outcomes are more likely when technology is accompanied by appropriate teacher training and effective instructional practices. These

findings highlight the importance of preparing teachers to use digital tools in ways that support teaching and learning.

2.3 Classroom Management and Teacher Self-Efficacy

Effective classroom management is essential for creating a safe and supportive learning environment where students can concentrate on their learning activities (Gutierrez *et al.*, 2017). Research also highlights the importance of teacher self-efficacy, which refers to teachers' confidence in their ability to carry out instructional tasks successfully. Teachers with high levels of self-efficacy are generally more enthusiastic, patient, and committed to supporting student learning. They are also more likely to persist when working with students who face learning difficulties and to adapt their teaching strategies to meet diverse learning needs (Shaukat & Iqbal, 2012).

Positive teacher-student relationships play an important role in effective classroom management. In secondary schools, students often interact with several teachers throughout the day, which can reduce their sense of connection to the school environment. As a result, building supportive relationships with students becomes important for maintaining engagement and motivation (Franklin & Harrington, 2019). Research suggests that when teachers treat students with respect, show understanding, and maintain high expectations, students are more likely to participate positively in classroom activities and less likely to engage in disruptive behavior (Gutierrez *et al.*, 2017).

2.4 Teacher Performance and Evaluation Systems

Teacher performance is reflected in how effectively teachers deliver lessons, engage students in learning, and assess student progress throughout the teaching process (Kanya *et al.*, 2021). Research suggests that factors such as years of experience or advanced qualifications do not always accurately reflect the quality of classroom teaching. Instead, evaluation systems based on classroom observation and constructive feedback can provide a better understanding of teaching effectiveness. In the United States, studies have shown that teachers who receive detailed and personalized feedback often improve their performance over time, with the greatest improvements observed among those who initially demonstrated weaker instructional practices (Taylor & Tyler, 2012).

In many post conflict contexts, maintaining access to education is often the immediate priority, which can limit attention to teacher performance evaluation. However, evidence from similar settings suggests that regular feedback can help teachers improve their teaching practices and professional development. Darling-Hammond (2010) argues that strengthening teacher preparation, certification, and continuous professional learning is an effective way to improve teaching quality and enhance student learning outcomes.

2.5 Research Gap

Although teacher professional development has been widely studied in many countries, there is still limited research on this topic in secondary schools in Mogadishu, Somalia. Existing studies in Somalia have focused mainly on primary education or broader educational challenges, including damage to school infrastructure and shortages of qualified teachers (Mohamed & Nkomo, 2023; Qaisra & Haider, 2023). A closely related study by Idris *et al.* (2024) examined the effects of pre service and in service teacher training on the delivery of quality education across private and public schools in the Mogadishu Benadir region, drawing on a non-probability sample of 145 principals and teachers analyzed through factor analysis. That study provides useful region wide evidence that training investment is associated with quality education ($r = 0.648$ for pre service training; $r = 0.660$ for in service training). However, three gaps remain. First, its region wide, non-probability sampling approach does not isolate how training operates within a single, resource constrained district such as Howl-Wadag, where institutional oversight and access to structured training networks are especially limited (UNICEF Somalia, 2020). Second, its outcome variable, quality education, is a broad, system level construct, whereas the present study examines the more proximal, classroom level outcome of instructional effectiveness and teacher performance. Third, whereas Idris *et al.* (2024) organized training along a timing dimension (pre service versus in service), the present study examines training along substantive dimensions, namely the quality and content of training programs, offering a complementary lens on what makes training effective rather than when it is delivered. This study addresses these gaps by using a probability based stratified random sample (Slovin's formula, $n = 80$) drawn specifically from the Howl-Wadag district, and by examining how program quality, training content, and classroom management skills relate to instructional effectiveness. By narrowing the geographic and analytical focus in this way, the study provides district level evidence that complements the broader regional picture offered by Idris *et al.* (2024), and offers findings that are directly actionable for school leaders and training providers operating within Howl-Wadag's specific institutional constraints.

2.6. Conceptual Framework

This study is guided by a conceptual framework that specifies the hypothesized relationships among the study variables (Figure 1). The framework identifies two independent variables, the quality of teacher training programs and the content of teacher training programs, as key predictors of the dependent variable, teacher performance.

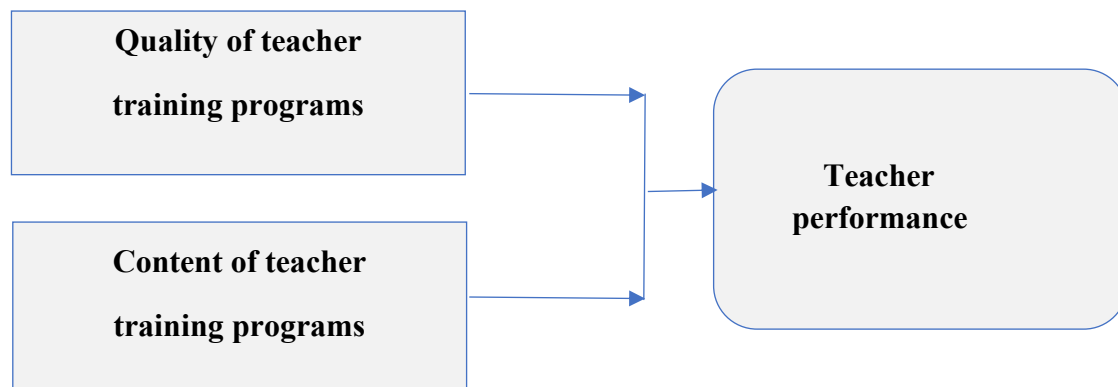


Figure 1: Conceptual framework showing the hypothesized relationships between teacher training quality, training content, and teacher performance

3. Methods

This study employed a quantitative descriptive research design. The design was selected because it allows researchers to collect and analyze numerical data in order to examine relationships between teacher training and instructional effectiveness. The study was guided by three research questions:

- 1) What is the relationship between teacher training programs and the instructional practices of secondary school teachers in the Howl-Wadag district?
- 2) What is the relationship between teacher training programs and classroom management and student engagement in these schools? and
- 3) What is the relationship between the content of teacher training programs and teacher performance?

3.1 Target Population and Sampling

The target population for this study consisted of teachers and school administrators from 12 secondary schools in the Howl-Wadag district of Mogadishu, Somalia. The selected schools were Moallim Noor, 21-November, Elmi-Bile, Al-Firdows, Tusmo, Sheikh Yusuf Al-Kownein, Howl-Wadag, Xasan Qariidi, Tayo, Masdar, Golden, and Hayan secondary schools. The total study population included 100 participants, comprising 15 head teachers and 85 classroom teachers. The sample size was determined using Slovin's formula to ensure adequate representation of the study population.

$$n = N / (1 + Ne^2)$$

Where n represents the required sample size, N represents the total target population (100), and e represents the margin of error, set at 0.05. Substituting the values into the formula yields $n = 100 / [1 + 100(0.05^2)] = 80$ respondents. To ensure proportional representation and control for institutional role variance, a stratified random sampling technique was applied (Kothari, 2004). The population was divided into two distinct

strata based on professional role: School Administrators (Head teachers/Principals) and Classroom Teachers. Random sampling within each stratum resulted in a final sample of 12 head teachers and 68 classroom teachers, perfectly matching the required sample size of 80.

3.2 Instrumentation, Validity, and Reliability

Data were collected using a structured self-administered questionnaire (SAQ) developed to address the study objectives. The questionnaire consisted of items measured on a five point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). To assess content validity, the questionnaire was piloted with 10 educators who were not included in the final sample. Feedback from the pilot study was used to improve the clarity of the questionnaire items. Reliability was assessed using Cronbach's Alpha coefficients in SPSS. The results showed reliability coefficients of 0.84 for the Quality of Training scale, 0.79 for the Content of Training scale, and 0.81 for the Teacher Performance scale. All values exceeded the recommended threshold of 0.70, indicating acceptable internal consistency of the measurement scales (Mohajan, 2017). In this study, teacher performance, assessed through classroom management, lesson delivery confidence, student engagement, and evaluation outcomes, serves as the operational measure of instructional effectiveness.

3.3 Data Analysis

After data collection, the questionnaires were checked for completeness, coded, and entered into SPSS for analysis. Descriptive statistics, including frequencies and percentages, were used to summarize respondents' demographic characteristics and questionnaire responses. In addition, Pearson Product-Moment Correlation analysis was conducted to examine the relationships between training quality, training content, and teacher performance. This analysis helped determine the strength and direction of the relationships among the study variables.

3.4 Ethics Statement and Ethical Considerations

Ethical approval for this study was obtained from the Institutional Review Board (IRB) of Gahey Teacher Training College (Reference No. GTTC/00071/2026FEB) prior to data collection. All participants were informed about the purpose of the study, and written informed consent was obtained before participation.

Participation was voluntary, and respondents were free to withdraw from the study at any time without penalty. No personally identifiable information was collected, and all responses were treated confidentially. Research data were securely stored and used solely for academic and research purposes.

4. Results

This section presents the findings of the study. It begins with a description of the demographic characteristics of the 80 participants, followed by the results for the main study variables. The section concludes with the Pearson correlation analysis, which was used to examine the relationships between teacher training and instructional effectiveness in secondary schools in the Howl-Wadag district.

4.1 Demographic Profile of the Sample

The demographic characteristics of the respondents were examined using five categories: gender, age, professional position, educational level, and years of teaching experience. Table 1 presents the demographic characteristics of the respondents.

Table 1: Demographic Characteristics of the Respondents (N = 80)

Category	Classification	Frequency (f)	Percentage (%)
Gender	Male	61	76.3%
	Female	19	23.7%
Age Distribution	22 – 30 years	51	63.8%
	31 – 35 years	19	23.7%
	36 – 40 years	5	6.3%
	Above 40 years	5	6.3%
Professional Position	Headmaster / Principal	12	15.0%
	Classroom Teacher	68	85.0%
Educational Level	Secondary Level	2	2.5%
	Higher Diploma	1	1.3%
	Bachelor's Degree	58	72.5%
	Master's Degree	19	23.8%
	PhD	0	0.0%
Work Experience	1 – 5 years	26	32.5%
	5 – 10 years	21	26.3%
	10 – 20 years	30	37.5%
	Above 20 years	3	3.8%

As shown in Table 1, male respondents represented 76.3% of the sample, while female respondents accounted for 23.7%. The findings also indicate that the teaching workforce was relatively young, with 63.8% of respondents aged between 22 and 30 years. In terms of teaching experience, 58.8% of the respondents had ten years of experience or less. These findings suggest that a large proportion of teachers in the study were in the early stages of their professional careers. In terms of educational qualifications, most respondents held a Bachelor's degree (72.5%), while 23.8% held a Master's degree. These findings indicate that the majority of teachers in the study had completed higher education qualifications. Given that many respondents were also relatively early in their teaching careers, professional development may play an important role in supporting the application of their academic knowledge in classroom practice.

4.2 Perceptions of the Quality of Teacher Training Programs

Descriptive analysis of the first core variable measured educators' perceptions regarding the structural standards, delivery quality, and practical orientation of the professional development programs they attended. Table 2 presents respondents' perceptions of the quality of teacher training programs.

Table 2: Respondents' Perceptions of the Quality of Teacher Training Programs

Survey Item / Quality Indicator	SA	A	N	D	SD
1. Training courses represent international teaching standards.	45.0%	48.8%	2.5%	3.8%	0.0%
2. Quality of training programs greatly improved teaching skills.	46.3%	47.5%	3.8%	2.5%	0.0%
3. High-quality programs integrate theory with practical application.	32.5%	45.0%	13.8%	8.8%	0.0%
4. Programs promote the use of contemporary methods and resources.	47.5%	35.0%	15.0%	2.5%	0.0%
5. Programs produce qualified teachers who uphold high benchmarks.	51.3%	42.5%	3.8%	2.5%	0.0%

The results presented in Table 2 indicate generally positive perceptions of the quality of teacher training programs. Most respondents (93.8%) agreed or strongly agreed that the training programs reflected recognized teaching standards, with 45.0% strongly agreeing and 48.8% agreeing. Similarly, 93.8% of respondents reported that the training programs helped improve their teaching skills. In addition, 77.5% agreed or strongly agreed that the programs combined theoretical knowledge with practical classroom applications, while 13.8% were neutral and 8.8% disagreed. The findings also showed that 82.5% of respondents agreed or strongly agreed that the training encouraged the use of modern teaching methods, instructional tools, and digital resources. Among the highest levels of agreement was Item 5, where 93.8% of respondents agreed or strongly agreed that training programs produce qualified teachers who uphold high professional benchmarks.

4.3 Perceptions of the Content of Teacher Training Programs

The second variable examined in the study was the content of the teacher training programs. This section focused on participants' views regarding the relevance of the training content, including teaching methods, classroom management, curriculum related topics, and opportunities for collaboration. Table 3 presents respondents' perceptions of the content of teacher training programs.

Table 3: Respondents' Perceptions of the Content of Teacher Training Programs

Survey Item / Quality Indicator	SA	A	N	D	SD
1. Core content must include pedagogy, management, and psychology.	52.5%	40.0%	7.5%	0.0%	0.0%
2. Classroom management is a central focus of training programs.	60.0%	32.5%	6.3%	1.3%	0.0%
3. Training program content must align with the national curriculum.	52.5%	32.5%	11.3%	3.8%	0.0%
4. Feedback mechanisms during sessions help improve learning.	20.0%	53.8%	18.8%	7.5%	0.0%
5. Programs provide opportunities for teacher-to-teacher collaboration.	43.8%	43.8%	10.0%	2.5%	0.0%

The findings presented in Table 3 indicate positive perceptions of the content of teacher training programs. Most respondents (92.5%) agreed or strongly agreed that training programs should include topics such as pedagogy, child development, classroom management, and educational psychology. Similarly, 92.5% agreed or strongly agreed that classroom management should be an important component of professional development programs. In addition, 85.0% of respondents agreed or strongly agreed that training content should be aligned with the Somali national curriculum to ensure relevance to the local educational context. The results further showed that 73.8% of participants agreed or strongly agreed that feedback received during training supported improvements in their teaching practices. Finally, 87.6% of respondents agreed or strongly agreed that training programs provided opportunities for collaboration and the exchange of professional experiences among teachers.

4.4 Perceptions of Teacher Performance and Evaluation Outcomes

The final section examined teacher performance following participation in professional development programs. The indicators included classroom management confidence, lesson delivery, student engagement, and responses to performance feedback. Table 4 presents respondents' perceptions of teacher performance following participation in professional development programs.

Table 4: Respondents' Perceptions of Teacher Performance Following Professional Development

Survey Item / Quality Indicator	SA	A	N	D	SD
1. Training programs improve ability to manage classrooms effectively.	56.3%	36.3%	6.3%	1.3%	0.0%
2. Teachers feel more confident in delivering lessons after training.	45.0%	42.5%	7.5%	5.0%	0.0%
3. Training programs improve ability to engage students actively.	36.3%	53.8%	8.8%	1.3%	0.0%
4. Programs help develop better communication with students/parents.	36.3%	37.5%	20.0%	6.3%	0.0%
5. Teachers are more productive during and after formal evaluation.	40.0%	43.8%	11.3%	5.0%	0.0%

The results shown in Table 4 indicate positive perceptions of the impact of professional development on teacher performance. Most respondents (92.6%) agreed or strongly agreed that training programs helped improve their classroom management skills, while 90.1% agreed or strongly agreed that training enhanced their ability to engage students in learning activities. In addition, 87.5% of participants agreed or strongly agreed that they felt more confident when delivering lessons after participating in training programs. The results also showed that 73.8% of respondents agreed or strongly agreed that training contributed to improved communication with students and parents. Furthermore, 83.8% agreed or strongly agreed that performance evaluation and feedback were associated with improvements in their professional practice.

4.5 Inferential Statistics: Pearson Correlation Analysis

To examine the relationships among the study variables, Pearson Product–Moment Correlation analysis was conducted using SPSS. The analysis was used to assess the relationship between training quality, training content, and teacher performance.

Table 5: Summary of Pearson Correlation Analysis of Teacher Training Variables and Teacher Performance

Independent Variable Dimension	Pearson Correlation (r)	Statistical Significance (p)	Sample Size (n)
Training Program Quality	0.742**	$p < .001$	80
Training Program Content	0.689**	$p < .001$	80

** Correlation is highly significant at the 0.01 level (2-tailed).

The results presented in Table 5 indicate a strong positive relationship between Training Program Quality and Teacher Performance. The Pearson correlation coefficient was $r = .742$, with a statistically significant p -value ($p < .001$). This finding suggests that higher perceptions of training quality were associated with higher levels of teacher performance among the respondents.

The results also showed a positive and statistically significant relationship between Training Program Content and Teacher Performance ($r = .689$, $p < .001$). This finding suggests that respondents who reported more relevant and comprehensive training content also tended to report higher levels of teacher performance. The result highlights the potential importance of including topics such as pedagogy, classroom management, child development, and curriculum related content in teacher training programs.

5. Discussion

The findings of this study indicate a positive relationship between teacher training and teacher performance in secondary schools in Mogadishu, Somalia. The strong correlation between training quality and teacher performance ($r = .742$, $p < .001$) is consistent with previous research emphasizing the importance of teacher development for improving

educational quality (World Bank, 2022). While studies from many developing countries have reported challenges in translating professional development into changes in classroom practice (World Bank, 2022), the findings from the Howl-Wadag district indicate that teachers generally viewed well designed training programs as beneficial for their classroom practice and professional growth.

The finding that 92.6% of respondents reported improvements in their classroom management skills is consistent with the work of Gutierrez *et al.* (2017), who emphasize the importance of effective classroom management in creating a positive learning environment. The demographic profile of the sample provides additional context for this finding. Most respondents were relatively young (63.8% aged 22–30 years), and more than half had ten years of teaching experience or less (58.8%). As a result, professional development programs may be particularly valuable in supporting teachers who are still developing their classroom management skills and instructional confidence. This interpretation is consistent with Shaukat and Iqbal (2012), who found that teacher self-efficacy is associated with greater confidence, persistence, and engagement in classroom practice.

The positive relationship between training content and teacher performance ($r = .689$, $p < .001$) is consistent with previous studies that emphasize the importance of relevant and practical professional development for teachers (Manduku, 2017). The findings of this study suggest that teachers value training content that is closely aligned with their classroom responsibilities and the Somali national curriculum. This interpretation is supported by the high proportion of respondents (85.0%) who agreed that curriculum alignment is an important component of teacher training. The findings are also consistent with Meddour (2017), who highlighted the importance of designing professional development programs that respond to local educational contexts. In addition, 83.8% of respondents reported positive views regarding evaluation and feedback processes, suggesting that these practices may support professional learning and improvement. Taken together, the findings highlight the potential contribution of continuous professional development to teacher growth beyond initial academic qualifications.

6. Recommendations

Based on the findings of this study, the following recommendations are proposed for educators, school leaders, and education policymakers:

- 1) **For the Federal Ministry of Education:** Strengthen continuous professional development (CPD) programs by establishing clear standards for teacher training and professional learning. Efforts should be made to ensure that training opportunities are consistent, accessible, and aligned with national educational priorities. Consideration may also be given to recognizing participation in professional development as part of teachers' career advancement and professional growth.

- 2) **For Secondary School Principals:** Encourage collaboration among teachers through mentorship programs, peer learning activities, and joint lesson planning opportunities. The findings showed that many teachers valued collaborative learning experiences, suggesting that such initiatives may support professional growth and the sharing of effective classroom practices.
- 3) **For Teacher Training Providers:** Teacher training programs should include topics that respondents identified as important, particularly classroom management, child development, student behavior, and effective teaching strategies. Training content should also be aligned with the Somali national curriculum to ensure relevance to classroom practice.
- 4) **For Future Research:** Future research should examine teacher professional development in other districts and regions of Somalia to provide a broader understanding of the national context. Researchers could also use mixed method approaches that combine surveys, interviews, and classroom observations to gain deeper insights into teachers' professional experiences, classroom practices, and development needs.

7. Conclusions

The findings of this study suggest that teacher training is positively associated with teacher performance in secondary schools in Mogadishu, Somalia. The results indicate that teachers who reported higher levels of training quality and more relevant training content also reported higher levels of professional performance. The study further suggests that continuous professional development may play an important role in supporting teachers' instructional practices, particularly in areas such as pedagogy, classroom management, and child development. In addition, the findings highlight the importance of aligning training content with the Somali national curriculum so that professional development remains relevant to teachers' classroom responsibilities and educational context.

The findings of this study have important implications for school leaders, educational organizations, and the Ministry of Education, Culture, and Higher Education. Respondents reported positive perceptions of professional development in areas such as teaching confidence, classroom practice, and communication with students and parents. These findings suggest that continued investment in teacher professional development may support improvements in teaching quality and professional growth. The results also highlight the importance of providing teachers with practical instructional strategies and classroom management skills that can be applied in their daily teaching practice.

Several limitations should be considered when interpreting the findings of this study. The research was limited to secondary schools in one district of Mogadishu and relied primarily on self-reported survey data. Future studies may benefit from including participants from multiple regions and employing mixed method approaches, such as

interviews and classroom observations, to gain a deeper understanding of teacher professional development and classroom practice. Despite these limitations, the study adds to the growing evidence on teacher development in Somalia and offers insights that may support future research, policy, and educational practice.

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Data availability statement

Data supporting this study are available from the corresponding author upon reasonable request.

Authors' contribution

Abdisamad Mohamed Ibrahim: conceptualized and structured the study. Hussein Ahmed Ali: wrote the literature review, developed methods, organized sections, and conducted analysis. Hussein Ahmed Abdulle: reviewed and revised the manuscript to ensure quality. All authors reviewed and approved the final manuscript.

Conflict of Interest Statement

The authors declare no potential conflicts of interest.

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