Enhancing Learning Environments through Teacher Capacity Building in Public Secondary Schools: Evidence from Kenya

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ABSTRACT

This study investigated the influence of capacity building on the effectiveness of teachers in promoting a conducive learning environment in public secondary schools in Kenya. The study was carried out among secondary school teachers in Embu and Tharaka-Nithi Counties, Kenya. Utilizing a descriptive survey methodology, data were collected from a representative sample of 400 teachers through questionnaires capturing demographic information, participation in capacity building programs, and self-assessment of their effectiveness in maintaining a positive learning environment. The findings indicate that teachers who participated in four or more capacity building courses rated themselves higher in effectiveness compared to those with fewer or no courses attended. Key areas of effectiveness included fostering respectful student interactions and dignified discipline, while lower ratings were observed in displaying student work and engaging parents in behaviour discussions. Analysis of Variance results confirmed a significant positive effect of capacity building on teacher effectiveness, suggesting that continuous professional development is crucial for enhancing the learning environment. The study recommends expanding capacity building programs and focusing on diverse training areas for all teachers.

Keywords: capacity building, teacher effectiveness, learning environment, professional development, classroom management

INTRODUCTION

Capacity building is widely recognized as a critical factor in enhancing the effectiveness of educators and the overall quality of education. According to the Organisation for Economic Co-operation and Development (OECD, 2006), capacity building involves the development and strengthening of skills and instinctual abilities. At the organizational level, it encompasses the processes and resources utilized by organizations to adapt and thrive in dynamic environments. Levin and Fullan (2008) describe capacity building as the strategies employed by groups to improve their effectiveness in achieving results. Harris (2001) adds that capacity building provides an environment conducive to collaboration and mutual learning.

In the context of education, capacity building aims to enhance the effectiveness of classroom teachers by improving their teaching strategies, techniques, and handling of new instructional materials, as well as equipping them with relevant information and skills necessary for effective lesson delivery. This encompasses all In-Service Training (INSET) activities designed to improve teachers' competencies.

Darling-Hammond (2010) conceptualizes the role of an effective teacher as one who engages in challenging intellectual pursuits, motivates students, and raises educational standards to foster self-drive and motivation among learners. Anderson (2004) views effective teachers as those who achieve goals set by external entities, such as the Ministry of Education. Stronge, Ward, and Grant (2011) propose a model for teacher

effectiveness that includes elements such as instructional delivery, student assessment, the learning environment, and teachers' personal qualities. Specifically, the learning environment dimension involves classroom management, organization, and behavioural expectations.

Research indicates that fostering a positive learning environment is crucial for developing students' cognitive, emotional, and behavioural outcomes (Lüdtke, Robitzsch, Trautwein, & Kunter, 2009). An engaging, stimulating, and enriching learning environment is essential for students' successful development. Teachers play a pivotal role in creating such environments by clearly communicating behavioural expectations, closely monitoring student performance, and infusing humour and respect into the classroom atmosphere.

This paper seeks to establish whether capacity building influences teachers' effectiveness in promoting a positive learning environment in public secondary schools in Kenya. Regular capacity building is essential for equipping teachers with the skills necessary for their roles. Capacity building through seminars, INSET, conferences, or workshops offers promising avenues for improving teacher effectiveness and, consequently, student performance (Adebayo & Sagaya, 2016). Effective capacity building can transform schools into centres of academic excellence, where teachers continuously improve their ability to achieve better results, develop improved thought patterns, and nurture a sense of collective responsibility and unity of purpose (Senge, 1990).

Statement of the Problem

Despite the recognized importance of capacity building in enhancing teacher effectiveness and fostering conducive learning environments, there remains a significant gap in understanding its specific impact on teachers in public secondary schools in Kenya. While numerous studies have highlighted the potential benefits of professional development and capacity building for educators, there is limited empirical evidence on how these initiatives translate into improved classroom management, student engagement, and overall learning conditions in Kenyan secondary schools. This gap is particularly critical given the ongoing educational reforms in Kenya, which emphasize the need for quality education and effective teaching practices.

Teachers in Kenya often face challenges such as inadequate instructional materials, large class sizes, and diverse student needs, which can hinder the creation of a positive learning environment. Capacity building programs, if properly designed and implemented, have the potential to address these challenges by equipping teachers with the necessary skills, knowledge, and resources. However, the extent to which these programs have been successful in enhancing teacher effectiveness and creating supportive learning environments remains unclear. This study aimed at bridging this gap by investigating the influence of capacity building on the effectiveness of teachers in promoting a conducive learning environment in public secondary schools in Kenya. By examining the specific aspects of capacity building that contribute to improved classroom dynamics and student outcomes, this research sought to provide insights for policymakers, educational administrators, and educators on how to better design and implement professional development programs that meet the needs of teachers and students alike.

Objective of the study

The objective of this study was to establish the influence of capacity building on the effectiveness of teachers in promoting a conducive learning environment in public secondary schools in Kenya.

LITERATURE REVIEW

The role of capacity building in enhancing teacher effectiveness and promoting a positive learning

environment has been widely recognized in educational research. Effective capacity building encompasses various forms of professional development, including in-service training, workshops, seminars, and mentorship programs, all aimed at equipping teachers with the skills and knowledge necessary for improving classroom practices and student outcomes (Reimers, 2020).

Capacity building is crucial for teachers to develop and strengthen the skills required to manage classrooms effectively, implement innovative teaching strategies, and foster a positive learning environment (Richardson, Kelly, Whiting & Peddie, 2023). The Academy of Educational and Planning Management (AEPAM, 2014) emphasized that professional training enhances teachers' capabilities in classroom management, behavioural management, team management, and motivational techniques, which are essential for creating a conducive learning environment.

Teacher-student relationships, which is an important component of the learning environment, play a critical role in student engagement and academic success. Mallik (2023) found that positive teacher-student relationships are instrumental in maintaining student engagement in academic activities, leading to better academic performance. Conversely, poor relationships can predict sustained academic problems and future school difficulties (Thompson, 2018). This highlights the importance of capacity building programs that focus on enhancing teachers' interpersonal skills and their ability to build supportive relationships with students.

Gaudreau *et al.* (2013) examined the impact of a classroom management training program on elementary teachers' efficacy beliefs. Their quasi-experimental study with a control group revealed that the training program significantly improved teachers' self-efficacy in managing classroom behaviours and engaging with school principals. This finding underscores the broader impact of capacity building on teachers' confidence and effectiveness in various aspects of their professional roles.

In-service training is particularly effective in boosting teacher morale and student academic achievements. Forbis (2021) noted that in-service training, combined with mentoring and observation, can significantly enhance teacher morale, leading to improved student performance. This is supported by Lopez (2023), who found that in-service training equips teachers with essential skills for setting academic expectations, managing classrooms, and applying effective teaching methods. These skills are critical for maintaining a positive and productive learning environment.

The maintenance of a positive learning environment involves setting academic targets, adhering to school routines, effective classroom management and organization, and setting behavioural expectations for all learners. Pearce, Cross, Epstein, Johnston and Legge (2019) emphasized that regular capacity building through seminars, conferences, and workshops is essential for equipping teachers with the skills necessary to achieve these goals. Such programs help teachers to adapt to changing educational demands and to implement best practices that promote student engagement and academic success. Capacity building is therefore an important component in enhancing teacher effectiveness and promoting a positive learning environment. Through professional development programs, teachers can acquire the skills and knowledge needed to manage classrooms effectively, build supportive relationships with students, and implement innovative teaching strategies. This, in turn, leads to improved student outcomes and a more conducive learning environment.

MATERIALS AND METHODS

Research design

This study utilized a descriptive survey methodology, following the framework provided by Gall, Gall, and Borg (2007). This approach was chosen because it enabled the researcher to gather and analyze perceptions

regarding capacity building and its impact on teacher effectiveness in fostering a positive learning environment, which is essential for enhancing student performance. The study incorporated both qualitative and quantitative data analyses to explore the relationships among the variables.

Study population and sample size

This study targeted a population of 3,884 teachers from secondary schools in two of the 47 Counties in Kenya – that is Embu County and Tharaka-Nithi County. Using stratified random sampling, a representative sample comprising of 400 teachers from 40 secondary schools was arrived at.

Research Instruments and Data Analysis Process

The study utilized a survey questionnaire for data collection. This questionnaire gathered demographic information about the teachers, including gender, age, and academic qualifications. It also collected data on the capacity building programs and activities that the teachers had participated in, along with the frequency of their participation. Additionally, the questionnaire included a self-rating scale to assess teacher effectiveness in maintaining a positive learning environment and the students' academic performance. Descriptive statistics such as frequencies, percentages, averages, and standard deviations were used to analyze the data. To determine statistically significant differences between the variables, an Analysis of Variance (ANOVA) test was conducted at the 0.05 level of significance.

RESULTS AND DISCUSSION

The primary objective of this study was to determine the impact of capacity building on the effectiveness of teachers in fostering a conducive learning environment in public secondary schools in Kenya. The findings revealed that 36 teachers (9.0%) had attended seven or more capacity development courses, 197 teachers (44.3%) had attended four to six courses, 145 teachers (36.3%) had attended one to three courses, and 22 teachers (5.5%) had not attended any capacity building courses. Table 1 provides a detailed overview of the capacity building programs attended by teachers. According to the table, out of the 400 teachers surveyed, 63.5% had participated in subject-specific training programs such as the Strengthening of Mathematics and Science Education (SMASE) program, 62.0% had engaged in team building programs, 58.0% had been involved in motivation and staff development activities, and 53.5% had taken courses in games and sports management. Additionally, less than half of the teachers had taken courses in areas such as drug abuse education, school financial management, physical planning and development, supervision and evaluation, decision-making, problem-solving, leadership in education, guidance and counselling, curriculum implementation, education management and practice, and evaluation.

Table 1: Capacity building courses attended by teachers

Courses attended	No. of teachers	Percent
Subject-based training e.g. SMASE	254	63.5
Team building	248	62.0
Motivation and staff development	232	58.0
Games and sports management	214	53.5
National examination – KCSE	182	45.5
ICT-related course	128	32.0
Decision-making and problem solving	69	17.3
Management of student discipline	62	15.5
Leadership in education	44	11.0

Guidance and counselling course	33	8.3
Curriculum implementation	32	8.0
Education management and practice	22	5.5
Physical planning and development	22	5.5
Supervision and evaluation	22	5.5
Drug abuse	18	4.5
Financial management and control	14	3.5

Teachers' scores on maintenance of positive learning environment

To assess the effectiveness of maintaining a positive learning environment, teachers were asked to respond to 17 statements measuring their levels of agreement or disagreement. These statements were rated on a 5-point Likert scale, where 5 represented strong agreement and 1 represented strong disagreement. A score of 3 was the midpoint, with scores above 3 indicating agreement with the statement, scores close to 3 indicating a neutral stance, and scores below 3 indicating disagreement. Table 2 presents the means and standard deviations of scores that the teachers received on this scale.

The results in Table 2 show that the items with the highest mean scores on maintenance of a positive learning environment were: "I emphasize on students addressing one another in a positive and respectful manner" ($M = 4.48$), "I discipline students with dignity and respect" ($M = 4.48$), "I actively support the school leadership in ensuring the school compound is clean and orderly" ($M = 4.46$), and "I maintain acceptable personal work space" ($M = 4.44$). These high scores suggest that teachers strongly prioritize respectful interactions, dignified discipline, and maintaining an orderly and clean environment, both personally and collectively within the school. This alignment with positive behavioural expectations and environmental standards highlights a foundational commitment to creating conducive learning atmospheres. These practices are consistent with the research of Hamre and Pianta (2006), which underscores the importance of positive teacher-student relationships and structured environments in promoting academic engagement and success.

Table 2: Teachers' ratings on maintenance of a positive learning environment

Learning environment statements	Mean	S. Dev.
I emphasize on students addressing one another in a positive and respectful manner	4.48	.500
I discipline students with dignity and respect	4.48	.500
I actively support the school leadership in ensuring the school compound is clean and orderly	4.46	.499
I maintain acceptable personal work space	4.44	.496
I always ensure that the climate in the classroom is conducive for teaching and learning	4.41	.492
I exhibit consistency in my management style	4.39	.488
I provide positive reinforcement and feedback	4.37	.484
I offer support to the guidance and counselling teachers in order to improve students' wellness	4.35	.479
I encourage interactions and allow low hum of conversations about activities or tasks	4.24	.425
I manage emergency situations as they occur	4.21	.704
I manage student behaviour through clear expectations and firm and consistent responses to student actions	4.16	.369
I participate in school activities to identify ways of improving discipline of the students	4.15	.791

I maintain a physical environment where instructional materials and equipment are in good repair	4.09	.495
I maximize the physical aspect of the environment	4.04	.380
I establish routines for the running of the classroom and the handling of routine student needs (e.g., bathroom visits, throwing away trash)	3.96	.805
I regularly discuss students' behaviour with parents in a bid to improve discipline in the school	3.60	.614
I cover classroom walls with student made signs, work, memos, and calendars of student events	2.93	.873

On the other hand, the items that had the lowest mean scores were: "I cover classroom walls with student work, student made signs, memos, and calendars of student events" ($M = 2.93$), "I regularly discuss students' behaviour with parents in a bid to improve discipline in the school" ($M = 3.60$), and "I establish routines for the running of the classroom and the handling of routine student needs (e.g., bathroom visits, pencil sharpening, and throwing away trash)" ($M = 3.96$). These lower scores indicate that less emphasis is placed on displaying student work and maintaining regular communication with parents regarding behaviour, as well as on establishing routines for managing classroom logistics. This could suggest areas where additional support or training might be beneficial. The relatively lower engagement with these activities might be due to various constraints such as time, resources, or training, aligning with findings from Mendez (2011) which indicate that effective classroom management and parent-teacher communication are critical components of maintaining a positive learning environment.

The disparity between high and low scores highlights potential areas for targeted capacity building. Programs focusing on enhancing parent-teacher communication and classroom management routines could support teachers in further improving the learning environment. This aligns with the observations of Gaudreau et al. (2013), who found that training in classroom management positively influences teachers' self-efficacy and effectiveness. These findings suggest that while teachers are strong in areas of respect, discipline, and maintaining cleanliness and order, there is room for growth in areas that require more dynamic interaction and routine management within the classroom. Enhanced capacity-building initiatives in these areas could contribute to a more holistic and effective learning environment.

To assess how capacity building influences teachers' effectiveness in maintaining a positive learning environment, an Analysis of Variance (ANOVA) was conducted. The number of capacity building programs attended served as the grouping variable, while the overall scores on maintaining a positive learning environment were the dependent variable. Table 3 presents the means and standard deviations for teachers based on the number of capacity building courses they attended, along with the ANOVA statistics.

Table 3: Capacity building and maintenance of positive learning environment

No. of courses attended	No. of teachers	Learning environment mean score	Std. Dev.		
Not attended any	22	68.73	4.537		
1 – 3 courses	145	70.24	4.468		
4 – 6 courses	197	71.30	4.838		
7 – 9 courses	36	71.11	6.765		
Total	**400**	**70.76**	**4.927**		
Sum of Squares		**df**	**Mean Square**	**F**	**Sig.**
Between	191.67	3	63.892	2.664	.048*
Within	9495.80	396	23.979		

Total	9687.47	399			

*Significant at $p>0.05$

Table 3 indicates that teachers who attended 4-6 different courses achieved the highest mean score for maintaining a positive learning environment (M = 71.3). This was followed by teachers who attended 7-9 courses (M = 71.1), and those who attended 1-3 courses (M = 70.2). Teachers who did not attend any courses had the lowest mean score (M = 68.7). The ANOVA results showed a significant effect of capacity building on teacher effectiveness in maintaining a positive learning environment, $F_{(3, 396)} = 2.664$, p = .048. Specifically, teachers who attended four or more courses had higher mean scores compared to those who attended fewer than three courses. This indicates that participation in capacity building courses enhances teacher effectiveness in maintaining a positive learning environment.

These findings align with Gaudreau et al. (2013), which demonstrated that teachers participating in classroom management training programs reported improved self-efficacy in creating a conducive learning climate. Additionally, the results are consistent with Adebayo and Sagaya (2016), who found a significant relationship between teacher capacity building and effectiveness in classroom management among public junior secondary school teachers in Kwara State, Nigeria.

CONCLUSION AND RECOMMENDATIONS

The study concluded that the majority of teachers considered themselves effective in maintaining a positive learning environment, particularly in promoting respectful interactions among students and in disciplining students with dignity. However, areas such as displaying student work and regularly discussing student behaviour with parents were identified as needing improvement. The Analysis of Variance test results showed a significant positive impact of capacity building on teacher effectiveness in maintaining a conducive learning environment. Teachers who participated in four or more capacity building courses scored higher in effectiveness compared to those who attended fewer courses. These findings suggest that capacity building is crucial in enhancing teacher effectiveness and, by extension, improving the overall learning environment in schools.

Based on the findings, it is recommended that educational authorities and school administrations invest more in capacity building programs. Emphasis should be placed on ensuring that all teachers have access to training courses to enhance their effectiveness in maintaining a positive learning environment. Capacity building programs should cover a broad range of topics, including classroom management, student engagement, and innovative teaching methods. This diversity will help address the areas where teachers rated themselves lower, such as displaying student work and engaging parents.

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