ANALYSIS OF RELATIONSHIP BETWEEN MENTORING PRACTICES AND TEACHER EFFICACY IN PUBLIC SECONDARY SCHOOLS IN BAUCHI STATE

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Abstract

The study conducts an analysis of the relationship between mentoring practices and teacher efficacy in public secondary schools within the Bauchi State. The population of the study includes all teachers and principals in these institutions, from which a sample of 225 respondents was selected using a stratified random sampling technique to ensure a representative distribution. Data were collected through a structured questionnaire designed to measure the extent of mentoring practices, relationship of mentoring to teacher efficacy, and challenges facing mentoring practices in public secondary schools. The data analysis employed descriptive statistics, including mean, frequency, and percentage, alongside inferential statistics such as Pearson correlation and t-tests. Findings of the study revealed that a significant positive relationship exists between mentoring practices and teacher efficacy. Additionally, results indicate that mentoring practices were not effectively implemented in public secondary schools of the Bauchi state. Furthermore, the study established that there were some challenges hindering effective mentoring in public secondary schools of Bauchi state. Therefore, the study highlights the necessity for enhancing mentoring programmes in public secondary schools to improve teacher efficacy and, consequently student performance. The implications for policymakers and school administrators were expressed, suggesting the need for strategic interventions aimed at developing robust mentoring frameworks to support teachers in both public and private contexts.

Keywords: Mentoring, Teacher efficacy, Public secondary schools, Sample, Bauchi state.

Introduction

Mentoring is a critical component of teacher development, offering both novice and experienced teachers the opportunity to enhance their professional competencies and classroom practices. Its significance is increasingly recognized in educational systems worldwide due to its impact on teacher effectiveness, retention, and overall job satisfaction. Mentoring not only provides teachers with the necessary support to navigate challenges in their early years but also fosters continuous professional growth throughout their careers (Ingersoll and Strong, 2011). This process is particularly vital in enhancing teacher efficacy, which refers to a teacher's belief in their ability to influence student outcomes and effectively manage classroom dynamics.

Mentoring has been widely acknowledged as a key strategy in teacher development,

especially for early-career teachers. According to Ingersoll and Strong (2011), mentoring programs provide a systematic approach to professional development, whereby experienced teachers (mentors) offer guidance, advice, and feedback to less experienced teachers (mentees). These programs aim to ease the transition of new teachers into the profession by fostering professional relationships, sharing practical classroom strategies, and offering emotional support. Effective mentoring addresses both instructional techniques and the complexities of classroom management, providing mentees with the tools to develop their teaching competencies.

Empirical studies continue to highlight the positive influence of mentoring on teacher development. A study by Rockoff et al. (2019) found that beginning teachers who participated in mentoring programs reported higher levels of instructional confidence and classroom effectiveness compared to those who did not receive such support. Similarly, a study conducted by Ritter et al. (2016) revealed that mentored teachers showed greater resilience, improved classroom performance, and a more positive attitude toward teaching. These findings underscore the role of mentoring in helping teachers refine their pedagogical practices, particularly in managing student behaviour, lesson planning, and assessment strategies.

Teacher efficacy refers to a teacher's belief in their ability to successfully manage and influence student learning and behaviour. High teacher efficacy is linked to better instructional practices, higher student achievement, and greater teacher satisfaction (Zee & Koomen, 2016). Mentoring plays a critical role in boosting teacher efficacy by providing targeted support that helps teachers build confidence in their teaching abilities. Through mentorship, teachers engage in reflective practice, receive constructive feedback, and learn to adapt their instructional strategies to meet the diverse needs of their students.

Empirical research has shown a strong correlation between mentoring and increased teacher efficacy. For instance, a study by O'Connell and McKenzie (2017) revealed that teachers who received mentoring exhibited significantly higher levels of self-efficacy compared to those who did not. The study found that mentoring helped teachers feel more confident in their ability to influence student learning outcomes, especially in difficult teaching contexts. Another study by McLean et al. (2019) demonstrated that mentoring positively impacted teachers' sense of efficacy in managing classroom challenges, fostering a belief in their capacity to promote student engagement and achievement.

Mentoring extends beyond short-term teacher support; it is also a tool for continuous professional growth. Teachers who participate in mentoring relationships are more likely to engage in lifelong learning, continuously updating their knowledge and skills to keep pace with educational changes. This dynamic mentoring process allows for the exchange of best practices, reflective discussions on teaching experiences, and collaborative problem-solving, all of which contribute to long-term professional development (Hudson, 2019).

Moreover, mentoring has been shown to reduce teacher turnover by increasing job satisfaction and reducing feelings of isolation. Teachers who feel supported by their mentors are more likely to remain in the profession, as evidenced by empirical

studies. In their research, Ingersoll and Strong (2017) concluded that mentoring reduces teacher attrition rates, particularly in schools with high staff turnover. Teachers who experience quality mentoring are more likely to stay committed to their profession, improve their instructional practices, and remain motivated to foster positive student outcomes.

In many educational contexts, teachers face significant challenges such as inadequate resources, overcrowded classrooms, and student behavioural issues. Mentoring provides teachers with a support network to navigate these challenges effectively. Through mentorship, teachers learn coping strategies, receive emotional encouragement, and gain insights into how to manage stress and maintain a positive work-life balance. A study by Sumsion and Alston (2018) found that mentoring relationships helped teachers develop a sense of resilience, enabling them to overcome professional difficulties more effectively.

Additionally, mentoring plays a vital role in helping teachers develop innovative teaching practices. By engaging with experienced mentors, teachers are exposed to new instructional strategies, classroom management techniques, and technologies that can enhance student engagement. This exposure to innovative methods helps teachers improve their teaching efficacy, as they gain confidence in their ability to implement diverse teaching approaches (Bauer & Chao, 2019).

Despite these challenges, efforts have been made to improve the quality of education in Bauchi State. Recent initiatives, such as teacher training programs and partnerships with international organizations, have been implemented to address some of these challenges. For example, the Bauchi State government, in collaboration with non-governmental organizations, has initiated projects aimed at improving teacher competencies, reducing dropout rates, and enhancing school infrastructure (World Bank, 2021). Additionally, mentoring programs are being encouraged to help novice teachers, especially in rural schools, integrate more effectively into the teaching profession and enhance their efficacy.

The Social Learning Theory proposed by Albert Bandura (1977) provides a strong theoretical foundation for understanding the relationship between mentoring and teacher efficacy. Bandura's theory posits that individuals learn by observing others and modelling their behaviour, particularly in social settings. In the context of education, teachers—especially novices—can develop and improve their teaching practices by observing experienced mentors, receiving feedback, and replicating effective strategies in their own classrooms. According to Bandura, observational learning is a key mechanism by which people acquire new skills and behaviours. In educational mentoring relationships, less experienced teachers (mentees) learn by observing the practices of more experienced teachers (mentors). This process involves four main components, (Tschannen-Moran & Hoy, 2001).

Another relevant theory is Vygotsky's Social Constructivism, which stresses the importance of social interaction in learning and cognitive development. In mentoring relationships, experienced teachers serve as more knowledgeable others, guiding their mentees through the Zone of Proximal Development (ZPD), where learning is most effective when support is provided

(Vygotsky, 1978). These theoretical foundations underline the significance of mentoring as a collaborative, developmental process that is essential for building teacher efficacy and improving educational practices in schools

Conceptual Framework

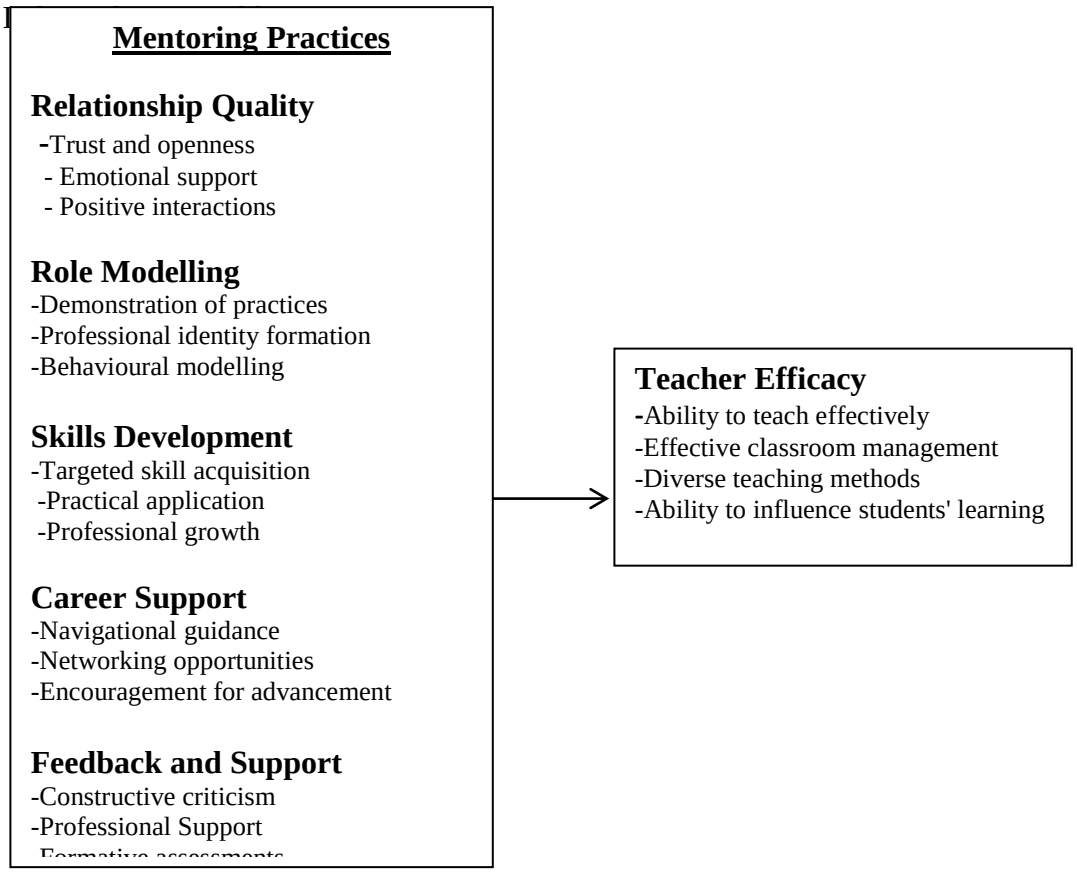

Figure 1.1 Conceptual (Bandura, 1977 and Vygotsky, 1978)

The conceptual framework portrays five variables that many researchers associate with mentoring practices, including relationship quality, role modelling, skills development, career support, and effective feedback. These variables are expected to positively impact teacher efficacy (Lofthouse et al., 2016; Hudson, 2019; Rockoff, 2018; McLean & McKenzie, 2017). The arrow indicates the hypothesized relationships where independent variables (Mentor Practices) are believed to influence the dependent variable (Teacher Efficacy). For instance, higher relationship quality, role modelling, skills development, career support, and effective feedback are expected to positively impact teacher efficacy. Therefore, the conceptual framework presents a summary of the features concerning mentoring activities and its influence on teachers' efficacy in secondary schools. The study was conceptualized on the premise that efficient and sufficient mentoring influences the improvement of teachers' efficacy and consequently, the high academic achievement of students. The

conceptual framework design was guided by mentoring roles as independent variables (*IV*) and teachers' efficacy as dependent variables (*DV*).

Statement of the Problem

Mentoring is widely recognized as a critical factor in the professional development of teachers, significantly impacting their classroom performance and overall efficacy. In Bauchi State, public secondary schools often face challenges such as overcrowded classrooms, insufficient funding, and bureaucratic constraints, which limit the effectiveness and frequency of mentoring programs (O'Connell & McKenzie, 2017). As a result, teachers may not receive adequate mentoring support, potentially leading to lower teacher efficacy, which affects their ability to manage classrooms, engage students, and enhance learning outcomes. Despite the critical role of mentoring in improving teacher performance, there is limited research examining how mentoring practices impact teacher efficacy in Bauchi State public schools. Understanding this impact is crucial, as teacher efficacy is a key predictor of instructional quality, student engagement, and academic success (Zee & Koomen, 2016). This study seeks to address the gap in research by examining the extent to which mentoring practices influence teacher efficacy in public secondary schools in Bauchi State, and to determine whether these practices face challenges in public secondary schools.

Objectives of the Study

i. To examine the extent to which teacher mentoring is implemented in public secondary schools in Bauchi state

ii. To determine if a significant relationship exists between mentoring and teacher efficacy in public secondary schools in Bauchi state

iii. To identify main challenges facing teacher mentoring in public secondary schools in Bauchi state

Research Question

i. To what extent is teacher mentoring implemented in public secondary schools in Bauchi state?

ii. Does a significant relationship exist between mentoring and teacher efficacy in public secondary schools in Bauchi state?

iii. What are the main challenges facing teacher mentoring in public secondary schools in Bauchi state?

Methodology

The study aimed to examine the extent of mentoring implementation, analyse the relationship between mentoring and teachers' efficacy and identify the challenges faced by mentoring among public secondary schools in Bauchi state. Target population of this study comprised all public secondary school teachers in Bauchi. A representative sample of 225 teachers was selected across different public secondary schools using stratified random sampling technic. Data were collected through a structured questionnaire with items on mentoring practices, teacher efficacy and challenges of mentoring practices. The questionnaires were structured on a 5-point scale response pattern of 'Strongly Agree (SA = 5), Agree (A = 4), Neutral (N=3) Disagree (D = 2) and Strongly Disagree (SD = 1). The reliability of the instrument was tested by Cronbach alpha and found to be 0.87 reliability coefficient. The data analysis employed descriptive statistics (Mean, Frequency and Percentage) to calculate the extent of mentoring practices and challenges

facing mentoring practices. Inferential statistics, Pearson Correlation (r) was employed to analyse the degree of association between mentoring and teacher efficacy.

Results

Objective 1: This objective aimed to examine the degree to which mentoring practices are implemented in public secondary schools in Bauchi state. Each statement measured represents a different aspect of mentoring.

Table 1: **Respondents' report on implementation of mentoring practices in public secondary schools in Bauchi state**.

Statement	Mean	SD	Remarks
1. My school head regularly mentors teachers outside of formal classes.	2.77	1.15	Limited support
2. There is a structured mentoring program for teachers in my school.	2.75	1.13	Limited support
3. Teachers actively seek to mentor their colleagues in my school.	2.08	1.05	Limited support
4. Mentoring is considered a priority in my school's professional development.	2.09	1.06	Limited support
5. I feel supported by my school through mentoring programs.	2.06	1.06	Limited support

My school head regularly mentors teachers outside of formal classes: The mean score of 2.77 suggests that the practice of school heads mentoring teachers outside formal class time is not widely implemented in Bauchi state. This indicates a relatively low level of engagement in informal mentoring. Previous studies show that effective mentoring often requires regular and informal interactions between mentors (such as school leaders) and mentees (teachers) but this does not always occur in every educational context. Leadership support has been shown to be a critical factor in fostering a mentoring culture, with active and consistent engagement from school leaders enhancing the effectiveness of mentoring programmes (Draper & McMichael, 2019).

There is a structured mentoring program for teachers in my school: With a mean score of 2.75, teachers perceive the structured mentoring programme to be weak or underdeveloped. This finding aligns with research on teacher professional development, which indicates that a clear, systematic, and formalized structure for mentoring is key to its success. For example, Kersaint et al. (2017) found that a formal mentoring program that includes clear goals, responsibilities, and timelines contributes positively to teacher development and retention.

Teachers actively seek to mentor their colleagues in my school: A mean score of 2.08 reflects a neutral response, indicating that while some teachers engage in mentoring behaviours, it is not a pervasive or dominant practice. This is consistent with findings by Lee and Mager (2018), who found that while many teachers may be willing to participate in mentoring, structural or institutional barriers (e.g., time constraints, lack of support) often limit the extent of collaboration.

Mentoring is considered a priority in my school's professional development: A mean of 2.09 suggests a slightly positive perception of mentoring as part of professional development, but the overall score reflects that mentoring may not be the central focus in professional development initiatives. This finding is supported by studies that have shown that mentoring is often just one component of broader professional development programmes, rather than a primary focus (Wan & Keung, 2021).

I feel supported by my school through mentoring programs: The mean of 2.06 suggests that teachers feel moderately supported by their schools through mentoring programmes, though the level of support may not be universally high. According to a study by Adamson and Forgie (2018), moderate support suggests that while some teachers may feel adequately supported, others may not perceive mentoring as an integral or prioritized aspect of their professional life.

Objective 1 Results Finding: Given the results of data analysis (Mean indicating Limited support for mentoring) in this objective, the findings suggest that teacher mentoring practices were not effectively implemented in public secondary schools in Bauchi State.

Objective 2: Objective two of this study sought to determine if a significant relationship exists between teacher mentoring and teacher efficacy in public secondary schools in Bauchi state. A significance test was performed at alpha=.05 level of significance to determine whether the relationship between mentoring (independent variable) and teacher efficacy (dependent variable) was statistically significant. Table 2 presents the summary of the results.

Table 2: Summary of Significance Test - Correlation Coefficient (r) , α=.05 to Determine Relationship between Mentoring and Teacher Efficacy

Variables	Sample Size (N)	Mean (Mentoring)	Mean (Efficacy)	Correlation (r)	t-statistic	p-value	Conclusion
i. Mentoring (IV) ii. Efficacy (DV)	114	3.285	3.332	**0.67**	**9.55**	< **0.0001**	significant

Correlation Coefficient (r): The correlation coefficient between mentoring and teacher efficacy is **0.67**, which indicates a moderate to strong positive relationship between the two **List all citations and references Source:** variables. This suggests that higher levels of mentoring are associated with higher levels of teacher efficacy.

t-statistic and p-value: The t-statistic is **9.55**, and the p-value is less than 0.0001. A p-value below the alpha level of 0.05 indicates that the relationship between mentoring and teacher efficacy is statistically significant. Given the very small p-value ($p < 0.0001$), the result means that there is strong statistical evidence to support the claim that mentoring significantly influences teacher efficacy.

Objective 2 Results Findings: A correlation of 0.67 was found, which indicates strong positive relationships between the amounts of mentoring teachers receive and their perceived efficacy. This suggests that the more mentoring a teacher

receives, the higher their self-efficacy in impacting student outcomes and managing their classrooms. This finding is consistent with research by Ingersoll & Strong (2011) and Ritter et al. (2016), both of which emphasize how mentoring contributes to improved teacher practices and outcomes.

Objective 3: To identify major challenges facing teacher mentoring in public secondary schools in Bauchi state.

The results presented in Table 3 highlight the various challenges faced in teacher mentoring practices. These challenges have been quantified in terms of their mean scores and standard deviations, reflecting the level of impact they have on the mentoring process.

Table 3: Summary of results on the challenges facing the teacher mentoring practices in public secondary schools in Bauchi state

Challenge	Mean	Standard Deviation	Remarks
1. Lack of time allocated for mentoring activities	4.48	0.66	Significant challenge
2. Resistance from colleagues regarding mentoring	3.73	0.99	Moderate challenge
3. Insufficient resources for the mentoring program	4.07	0.91	Significant challenge
4. Undefined goals of the mentoring program	3.80	0.97	Moderate challenge
5. Lack of support from Educational Authorities	4.13	0.86	Significant challenge

Discussion

Lack of time allocated for mentoring activities: With a mean score of 4.48 and a standard deviation of 0.66, this is identified as a significant challenge. The high mean indicates that most respondents perceive time constraints as a major barrier to effective mentoring. Time is a critical resource for both mentor and mentee to engage meaningfully, and its scarcity likely limits the depth of mentoring interactions. Research supports this finding, showing that the lack of dedicated time for mentoring leads to less consistent engagement and hinders the potential for professional growth (Tanner & Allen, 2006).

Resistance from colleagues regarding mentoring: This challenge has a mean score of 3.73 and a standard deviation of 0.99, marking it as a moderate challenge. Resistance from colleagues can stem from various factors such as a lack of understanding of the mentoring process, jealousy, or the perception of mentoring as an additional workload. The variability in the responses (high standard deviation) suggests that while some schools may experience significant resistance, others may have relatively smooth mentoring interactions. Previous studies have also highlighted that interpersonal and organizational resistance is common in mentoring programs (Kwan & Lee, 2010).

Insufficient resources for the mentoring programme: The mean score of 4.07 and a standard deviation of 0.91 indicate that insufficient resources represent a significant challenge. Inadequate resources, whether in terms of financial support, materials, or personnel, can severely undermine the effectiveness of mentoring programmes. This is consistent with the findings of other studies that have highlighted the importance of sufficient resources for sustaining high-quality teacher mentoring programmes (Barton et al., 2015).

Undefined goals of the mentoring programme: With a mean score of 3.80 and a standard deviation of 0.97, undefined goals are regarded as a moderate challenge. This suggests that the lack of clear objectives for mentoring programmes creates ambiguity, which can lead to inconsistent mentoring practices. Clear goals are essential for guiding the mentoring relationship and measuring its success. The variability in responses indicates that some programmes may have clearer goals than others, which is in line with existing research that stresses the need for clear, structured mentoring objectives (Veenman, 2017).

Lack of support from educational authorities: This challenge has a mean score of 4.13 and a standard deviation of 0.86, categorizing it as a significant challenge. The lack of support from educational authorities likely affects the availability of resources, training, and overall organizational backing for mentoring programmes. A lack of institutional support can lead to the underdevelopment or complete failure of mentoring initiatives. Several studies have highlighted that strong institutional backing is a critical element for the success of teacher mentoring programs (Kozulin et al., 2003).

Objective 3 Results Findings: The findings in objective three of this study reveal that the most significant challenges hampering teacher mentoring practices in public secondary schools in Bauchi state are related to time constraints, insufficient resources, and lack of support from educational authorities.

Conclusion

Given the results of data analysis, the study concludes that mentoring practices were indeed not significantly implemented in public secondary schools of Bauchi State. On the other hand, the analysis of mentoring practices in relation to teacher efficacy suggests that significant positive correlations exist between mentoring and teacher efficacy. This finding supports the notion that effective mentoring practices are crucial for enhancing teachers' confidence and effectiveness in their roles. Regarding mentoring challenges, the study established that teacher mentoring practice was facing significant challenges in public secondary schools of Bauchi state.

Recommendations

The Ministry of Education, Bauchi should encourage school heads to implement mentoring programmes in their schools by sponsoring capacity building training on mentorship skills. The training of mentors should include components that offer career guidance and support for professional development, effective communication and relationship-building techniques.

Given the fact that significant positive relationship exists between mentoring and teacher efficacy, it is recommended that the Ministry of Education, Bauchi should develop a structured mentoring programmes that focus on building high-quality mentoring practices. This could involve

mandatory attachment of mentee (novice) to a mentor (veteran) teacher, providing resources that target specific skill areas essential for effective teaching, such as classroom management, instructional strategies, and assessment methods for effective mentoring activities.

The study recommends that the Ministry of Education, Bauchi state should develop targeted interventions to address the issues related to time constraints, insufficient resources, and lack of support from educational authorities which have been identified as most significant challenges facing teacher mentoring practices in public secondary schools of Bauchi state.

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