

Collaborative Mentoring Styles and Teacher's Effectiveness In public Secondary Schools in Abia State, Nigeria

Iheanyi, Amarachi and Evans-Obinna, Rosemary N.

Department of Educational Management

Michael Okpara University of Agriculture Umudike, Abia State Nigeria

Corresponding author: abturker2002@gmail.com

ABSTRACT:

Education is a lifelong journey that involves a series of events including mentoring for development and growth. This study investigates the impact of collaborative mentoring styles on teacher effectiveness in public secondary schools in Abia State, Nigeria. Drawing on a correlation research design, data was collected from 251 Biology teachers using validated questionnaires. The research employed a multi-staged sampling technique to select a representative sample from three educational zones in Abia State. Analytically, the study employed the Pearson Product Moment Correlation Coefficient and simple linear regression to ascertain the nature of the relationships between collaborative mentoring styles and teacher effectiveness. Results reveal a significant positive correlation between open communication and teacher effectiveness, indicating that effective communication channels enhance instructional delivery and student engagement. In addition, coaching mentoring shows a significant positive correlation with teacher effectiveness, emphasizing the importance of guidance, support, and professional development opportunities in enhancing teaching quality. This Finding highlights the critical role of collaborative mentoring in nurturing effective teachers and driving positive educational outcomes. Embracing collaborative mentoring approaches holds promise for elevating teaching standards and enriching the educational experience in Nigerian schools.

KEYWORDS: *Collaborative, mentoring, Teacher, effectiveness, Public secondary schools*

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INTRODUCTION

Education is one of the critical components of human development, hence it occupies a strategic place in the Sustainable Development Goals (SDGs). It increases the individual capabilities through the acquisition of knowledge, skills, attitudes, and values, benefiting both individuals and society (Ekechukwu, 2018), and fosters lasting changes in behavior, attitudes, and skills. In Nigeria, education is designed to instill the right

values, understanding of the world, and practical skills to contribute to societal development (Federal Republic of Nigeria, 2013).

The philosophy of Nigerian education is deeply rooted in nurturing citizens into effective contributors to national goals, emphasizing unity, democracy, and justice (Federal Republic of Nigeria, 2013). This perhaps makes teaching, learning, and training and development (Ngerem & Eucharia in Modebelu *et al.*, 2016). Training involving planned learning processes to enhance teachers' performance and prepare them for future challenges (Kari, 2021), by guiding, influencing, and supporting teachers to deliver better outcome. Despite the desirability of support and influence from teachers-teacher or teachers-to-students, evidence shows that majority of teachers and students lack guidance hence they failed at instructional practice (Martin *et al.*, 2016). Poor guidance, and support severely affect relationship between teachers and students (Hamre *et al.*, 2005; Jang *et al.*, 2010), leading to poor academic performance and depressions (Jiang *et al.*, 2022), exam anxiety and other social effects (Arora *et al.*, 2021). Enhancing relationship and providing support to teachers and student are critical to learners' education, because it improves teaching and learning (Klem & Connell, 2004) and supports teachers to provide good teaching strategy (Da Luz, 2015) and enhance quality of teacher affective communication with students (Pianta *et al.*, 2012).

The relationship between teachers and students in primary and secondary schools is essential for the success of both parties (Kahn, 2001). This symbiotic relationship relies heavily on effective mentoring by teachers (Jones *et al.*, 2014). Historically, during the colonial era, students were obedient and eager to learn, while teachers were dedicated and committed to their roles without much supervision. Teachers aimed to inspire students to excel and often completed syllabi well before exams, maintaining discipline when necessary. However, in contemporary times, this dynamic has shifted. Today, the relationship between students and teachers is often lacking in warmth and openness, hindering the transfer of knowledge and students' performance. Issues such as poor self-concept, lack of rapport, misconceptions, and ineffective communication contribute to this disconnect. Teachers may overlook students' individual differences, cultural backgrounds, and personal challenges, resorting to punishment rather than understanding. This approach can make students feel timid and reluctant to engage in learning. The alarming rate of student failures in external examinations like WAEC, GCE, and JAMB may be attributed to this strained relationship. Students may be hesitant to seek clarification from teachers due to perceived laziness or lack of commitment. Moreover, concerns about inappropriate behavior, such as sexual harassment, can further erode trust between students and teachers. Considering these challenges, this study aims to explore the impact of collaborative mentoring on teacher effectiveness in public secondary schools. By fostering supportive relationships between teachers and students, collaborative mentoring endeavors to address these issues and promote positive learning experiences for all involved.

Mentorship is a key aspect of training, providing support and guidance to teachers through structured programs (Gerbman, 2020). Effective teacher training programs aim to improve teaching effectiveness, boost morale, and foster career growth (Kari, 2021).

Mentoring styles in education vary but aim to support teachers' growth and effectiveness (Nwokoro, 2019). Mentoring practices encourage collaboration and reciprocal learning, fostering the development of skills, knowledge, and performance (Lieberman *et al.*, 2012). Successful mentoring programs require careful selection of mentors, evaluation, and alignment with instructional goals (Joyce & Showers, 2012). Collaborative mentoring emphasizes mutual learning and partnership between mentors and mentees (Horn, 2011). It involves a team of mentors sharing insights and experiences to support mentees effectively (Hudson & Hudson, 2010). Collaborative mentoring enhances professional growth through critical dialogue and shared experiences (Sharon, 2010). Coaching, reflective practice, and role modeling are essential components of collaborative mentoring, promoting learning, development, and effective teaching (Deans *et al.*, 2016; Aguwa, 2017).

In the context of teaching biology in Nigerian secondary schools, teacher effectiveness is crucial for student success (Ede *et al.*, 2016). Effective biology teachers possess subject knowledge, teaching skills, and the ability to create engaging learning environments (Lawal, 2011). Teacher effectiveness is measured by students' academic achievements and the quality of teaching practices (Wilson *et al.*, 2018). Collaborative mentoring styles can enhance teacher effectiveness by providing support, guidance, and professional development opportunities (Robert, 2014). Through coaching, reflective practice, and role modeling, collaborative mentoring fosters continuous learning and improvement among biology teachers (Dunnes & Villani in

Aguwa, 2017). By creating collaborative learning environments, mentoring programs contribute to the overall quality of education and student outcomes (Udosen & Ekpe, 2014).

Although literatures have highlighted the value of collaboration, such as collaborative enquiry (InyangUkot, 2019), collaborative teaching (Rosemary et al., 2015), evidence shows that getting teachers to collaborate and network is often challenging (Obiekwe, 2023). Therefore, this study is an attempt to examine the issue of collaboration from the lens of mentoring which is critical in academics. This current study investigates the extent collaborative mentoring correlate teacher's effectiveness in Public Secondary Schools in Abia State, Nigeria, and seeks to explain the nexus between open communication and teacher's effectiveness on one hand and coaching mentoring and teacher's effectiveness on another hand.

METHODOLOGY

The research employed a correlation research design, aiming to explore the relationship between collaborative mentoring styles and teachers' effectiveness. This design was chosen because it allows for investigating how changes in one variable (collaborative mentoring styles) are associated with changes in another (teachers' effectiveness). The study was conducted in Abia State, Nigeria, situated in the eastern region. Abia State was selected due to its familiarity to the researcher and the availability of public secondary schools. The state comprises three educational zones: Aba, Umuahia, and Ohafia. These zones collectively provide a diverse representation of the state's educational landscape. The population of interest comprised 1,037 biology teachers from public secondary schools across the state. This population was disaggregated based on the three educational zones, with each zone contributing a specific number of teachers. To obtain a representative sample, a multi-staged sampling technique was employed. This involved selecting 288 biology teachers from 25 secondary schools in the state. The Taro Yamane sampling formula guided the determination of the sample size, ensuring that it was statistically significant and representative of the population.

Data collection instruments included the Collaborative Mentoring Style Questionnaire (CMSQ) and Teachers' Effectiveness Questionnaire (TEQ). These instruments were carefully designed and validated by experts to ensure their adequacy, measurability, and relevance to the study objectives. Additionally, the reliability of the instruments was tested using measures of stability and internal consistency, with satisfactory results indicating their dependability. Data collection was carried out by the researcher and three assistants, who were briefed on the research objectives and the proper administration of the instruments. The goal was to achieve a 100% recovery rate for the questionnaires, although 87% were eventually collected and deemed suitable for analysis. Analytically, Pearson Product Moment Correlation Coefficient (r) was employed to examine the relationships between variables, while simple linear regression was used to test hypotheses. These analyses were conducted at a significance level of 0.05, with results categorized based on established criteria for interpreting correlation strength.

RESULTS

The results were presented according to the research questions and the corresponding hypotheses as follows:

Research question 1: To what extent does open communication correlates teacher's effectiveness in Public Secondary Schools in Abia State Nigeria?

Table 1: Correlation matrix of extent open communication correlates teacher's effectiveness in Public Secondary Schools

		Open Communication	Teacher's effectiveness
Open Communication	Pearson Correlation	1	.729**
	Sig (2-tailed)		.000
	N	251	251
Teacher's effectiveness	Pearson Correlation	.729***	1
	Sig. (2-tailed)	.000	
	R2	.723	
	N	251	251

**Correlation is significant at the 0.05 level (2-tailed)

Data in Table 1 indicated a correlation coefficient (r) of .729 which is a positive correlation and is within the coefficient limit of +/- 0.60 to 0.80 as high extent relationship. This indicates that open communication

correlate to teachers' effectiveness in public secondary schools in Abia State. The percentage coefficient of determination (R^2) .723 shows that 72.3% of the variance observed in open communication could be attributed to teachers' effectiveness. This shows that increase in open communication increases teacher's effectiveness and vice versa. The result here is that there is a high positive relationship between open communication and teachers' effectiveness in secondary schools.

A corresponding hypothesis formulated to further address the research question is:

Hypothesis 1: There is no significant correlation between open communication and teacher's effectiveness in public secondary schools in Abia State.

Table 2 Regression analysis of relationship between open communication and teacher's effectiveness in public secondary schools

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	2735.164	1	2735.164	28.647	.000
Residual	220178.234	249	197.846		
Total	22291.398	250			

a. Predictors: (Constant), open communication

b. Dependent variable: Teacher's effectiveness

Df= degree of freedom, F= f-calculated, correlation is significant at 0.05 level (2 tailed)

Table 2 revealed that F-calculated value of 28.647 at 0.05 level of significance. The table also shows that the P-value of .000^a which is less than the alpha value at 0.05; thus, null hypothesis which states that there is no significant correlation between open communication and teacher's effectiveness in public secondary schools in Abia State, Nigeria is rejected and upheld that there was significant correlation between open communication and teacher's effectiveness in public secondary schools in Abia State. This implies that open communication to high extent relates to teacher's effectiveness of secondary schools in Abia State.

Research question 2: To what extent does coaching mentoring correlates teacher's effectiveness in public secondary schools in Abia State, Nigeria?

Table 3 Correlation matrix of extent of relationship between coaching mentoring correlates teacher's effectiveness in public secondary schools

		Cocahing mentoring	Teacher's effectiveness
Coaching mentoring	Pearson Correlation	1	.673**
	Sig (2-tailed)		.000
	N	251	251
Teacher's effectiveness	Pearson Correlation	.673***	1
	Sig. (2-tailed)	.000	
	R2	.462	
	N	251	251

**Correlation is significant at the 0.05 level (2-tailed)

Data in Table 3 indicated a correlation coefficient (r) of .673 which is a positive correlation and is within the coefficient limit of +/- 0.60 to 0.80 as high extent relationship. This indicates that coaching mentoring correlate to teachers' effectiveness in public secondary schools in Abia State. The percentage coefficient of determination (R^2) .462 shows that 46.2% of the variance observed in coaching mentoring could be attributed to teachers' effectiveness. This shows that increase in coaching mentoring increases teacher's effectiveness and vice versa. This implies that there is a high positive relationship between coaching mentoring and teacher's effectiveness in secondary schools. A corresponding hypothesis formulated to further address the research question is:

Hypothesis 2: Coaching mentoring does not have any significant correlation with teacher's effectiveness in public secondary schools in Abia State, Nigeria.

Table 4: Regression analysis of relationship between coaching mentoring and teacher's effectiveness in secondary schools

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	4582.223	1	4582.223	35.212	.000
Residual	257566.187	249	174.627		
Total	292547.408	250			

a. Predictors: (Constant), coaching mentoring

b. Dependent variable: teacher's effectiveness

Df= degree of freedom, F= f-calculated, correlation is significant at 0.05 level (2 tailed)

Table 4 revealed that F-calculated value of 35.212 at 0.05 level of significance. The table also shows that the P-value of .000^a which is less than the alpha value at 0.05; thus, null hypothesis which states that Coaching mentoring does not have any significant correlation with teacher's effectiveness in public secondary schools in Abia State, Nigeria is rejected and upheld that there was significant correlation between coaching mentoring and teacher's effectiveness in public secondary schools in Abia State. This implies that coaching mentoring to high extent relates to teacher's effectiveness of secondary schools in Abia State.

Discussion of Findings

The findings of the study were discussed based on the major findings of the study. It was found from the study that there is a high positive significant relationship between open communication and teacher's effectiveness in Public Secondary Schools in Abia State, Nigeria. The percentage coefficient of determination (R^2) shows that the variance observed in open communication could be attributed to teachers' effectiveness which implies that increase in open communication increases teacher's effectiveness and vice versa. This finding of the study is in consonance with the findings of Choy, (2012); Enwere and Nwaorgu (2018) and Goddard *et al.* (2004). Good open communication approach will help the teacher in ensuring that instructional activities are effectively discharged. Open communication style is an essential aspect of mentoring style that facilitates effective interaction between the teacher mentor and teacher mentee. Effective classroom communication is very close to what the existing literature refers to as "effective teaching" and it is claimed that effective teachers should possess many different features such as good communication, management, and organizational skills. Choy and O. (2012) observed that ineffectiveness of some teachers in Nigerian secondary schools seems to be because of poor communication mentoring style. Teachers who are unskillful communicators tend to have problems with administrators when making a request supported that when making a request, teachers who are skilled communicators have a better chance of being heard by administrators. Enwere and Nwaorgu (2018) observed that there is poor communication gap between the teachers, principal, and the students. The consequence of the above paucity usually leads to poor performance and teacher ineffectiveness, of which the aftermath is negative to productivity. Denise *et al.* (2017) argued that the transmission of a message that involves a shared understanding between the settings in which the conversation takes place is described as communication style. Open communication style of teachers is crucial in the instructional delivery which is the determinant of teacher effectiveness.

Findings of the study also indicated that coaching mentoring have a high positive significant correlation with teacher's effectiveness in public secondary schools in Abia State, Nigeria. Coaching mentoring, open communication Reflective conservation and Role modeling are surrogate of collaborative mentoring style. The finding of this study agrees with Lofthouse *et al.* (2010) as they noted that coaching mentoring have significant correlation with teacher's effectiveness. Sharon (2010) posited that coaching is the ability to increase and improve the sensitivity and awareness that the client has within him or herself, and for others. According to Deans *et al.* (2016), coaching mentoring style is a major component of collaborative mentoring style. In coaching, the mentor guides and directs the mentee on the path of professional growth, development, innovation, and creativity towards achieving high professional standard in each field of study. It is a process that causes learning and development to occur and as well leads to improved performance. To be a successful coach, it is paramount to possess a knowledge and understanding of the best approach to be adopted, as well as the variety of styles, skills and techniques that are appropriate to the context in which the coaching takes place. Coaching is better done under an environment of truth. Dunnes and Villani in Aguwa (2017) opined that coach mentoring leads mentee along the path of excellence. Aderibigbe *et al.* (2013) noted that mentoring has to do with sharing perspectives, coaching, and transferring wisdom and knowledge to mentee. As a process, coaching facilitates learning and encourages development and enhances performance in the teacher, who would now stand a better chance of teaching professionally, and attaining

the goals which is better teaching and fulfilment as a teacher, and quality outcome from the students. Reflective thus emerges as another factor of collaborative mentoring style to discourse in this study.

CONCLUSION AND RECOMMENDATIONS

In conclusion, this study has explored the intricate relationship between collaborative mentoring styles and teacher effectiveness in public secondary schools in Abia State, Nigeria. Through a rigorous methodology encompassing correlation research design and robust statistical analyses, we have unearthed significant insights into the dynamics shaping teaching quality and student outcomes in the Nigerian educational context. First and foremost, our findings underscore the paramount importance of open communication in fostering teacher effectiveness. The strong positive correlation between open communication and teacher effectiveness highlights the pivotal role of effective communication channels in facilitating instructional delivery, promoting student engagement, and ultimately enhancing learning outcomes. By nurturing a culture of transparent and constructive communication between teachers, students, and administrators, educational institutions can cultivate an environment conducive to academic success and personal growth. Furthermore, our study elucidates the significant correlation between coaching mentoring and teacher effectiveness. Coaching mentoring emerges as a vital component of collaborative mentoring styles, offering teachers invaluable guidance, support, and professional development opportunities. Through reflective practice, role modeling, and targeted feedback, coaching mentors empower teachers to refine their pedagogical approaches, deepen subject knowledge, and foster a culture of continuous improvement. As such, investing in robust coaching mentoring programs holds immense potential for elevating teaching standards and enriching the educational experience for both educators and learners. Overall, our research underscores the imperative of embracing collaborative mentoring approaches to nurture a cadre of effective and empowered teachers capable of driving positive educational outcomes. By fostering supportive relationships, facilitating professional growth, and promoting a culture of excellence, collaborative mentoring initiatives have the potential to catalyze transformative change within the Nigerian educational landscape. As policymakers, administrators, and educators alike strive to navigate the complexities of contemporary education, integrating collaborative mentoring practices represents a promising pathway towards realizing the overarching goals of equity, excellence, and inclusivity in education.

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