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In-service training as a correlate of teachers' productivity in Nigeria

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ABSTRACT

Teachers are the final mediators of the school curriculum, and their competence level largely impacts students' learning outcomes. This quantitative study aimed to explore the mediation of teacher productivity with the instrumentation of in-service training (INSET) while adopting Social Learning Theory (SLT) as the theoretical framework. A descriptive survey research design was adopted while a multi-stage sampling procedure was used to select samples from a population of 7538 public secondary school teachers and 203 principals in secondary schools in Ekiti state, Nigeria. The sample for this study consisted of 396 participants which comprised of 360 teachers and 36 school principals. Data were gathered and analysed through In-service Training Experience and Impact Questionnaire (ITEIQ) and Teachers' Productivity Questionnaire (TPQ) and Pearson Product Moment Correlation respectively. The study revealed that INSET moderately enhances teacher productivity. The study recommends providing continuous and regular in-service training to teachers in Nigeria to improve their productivity. In addition, such training programs could be designed based on the principles of Social Learning Theory through the instrumentation of collaborative learning, peer mentoring, and feedback mechanisms.

INTRODUCTION

In-service training is critical to teacher professional development (Alfaidi & Elhassan, 2020; Chaipidech et al., 2020). It is an ongoing process of enhancing a teacher's knowledge and skills to improve teaching quality and student learning outcomes. In-service training can take different forms, such as workshops, seminars, conferences (Saboowala & Manghirmalani Mishra, 2021) and mentoring programs. It can be delivered through various modalities, such as face-to-face sessions, online courses, or blended approaches (Wadams & Schick-Makaroff, 2022). The effectiveness of in-service training programs in enhancing teacher productivity has been a topic of interest for educational researchers, policymakers, and practitioners (Barenthien et al., 2020).

In-service training for teachers are forms of trainings that serving teachers participate to upgrade their professional knowledge, skills, and competence in the teaching profession (Ayvaz-Tuncel & Çobanoğlu, 2018; Egert et al., 2020). The goal of in-service training is to improve the quality of teaching and learning by providing teachers with new knowledge, skills, and instructional strategies that they can apply in their classrooms. In-service training enables teachers to keep up with changes in curriculum, technology, and teaching methods (El-Hamamsy et al., 2021). Moreso, effective in-service training courses increase teachers' knowledge, build positive attitudes and beliefs, and enhance teaching practices. For in-service training to be effective, it has to be need-specific (Kivirand et al., 2021). In addition, in-service training should also be ongoing and integrated into teachers' professional development plans. The continuity will ensure that teachers continue to learn and grow throughout their careers, which is essential to improving students' education quality.

Teacher productivity is a multifaceted construct that refers to how teachers achieve their instructional goals and fulfil their professional responsibilities. It includes indicators such as instructional quality, student engagement, and academic achievement (Awan & Tahir, 2015; Surur et al., 2020). Utami & Vioreza (2021) defined work productivity as the positive contribution of an employee's work towards achieving organisational goals. According to them, the measures of work

productivity include; the value added in performing tasks; the effectiveness of the work; the efficiency of the work; the quality of the work; and the attainment of organisational goals. In Sedarmayanti & Haryanto (2017) view, there are several indicators of work productivity, including: taking constructive actions; having self-confidence; being accountable; having a passion for work; having a forward-thinking perspective, and making a positive impact on the surrounding environment through creativity, imagination, and innovation.

The nexus between teacher in-service training and teacher productivity has been the subject of extensive research in recent years (Alfaidi & Elhassan, 2020; Iqbal et al., 2020; Tumkaya & Miller, 2020). Findings from previous studies reported mixed results on the impact of in-service training on teacher productivity. Steyn (2010) examined the perceptions of teaching staff from Nigerian independent schools in a South African professional development workshop. The delegates was reported to have had positive experiences with the quality of the presentations, content, and learning experience. The workshops were found to be relevant and applicable to educational practice in Nigerian schools. This finding was consistent with Anulika (2020), who reported that teachers in Enugu State had a positive rating of their participation in in-service training programs, and their job performance was also above average. The study found a strong and significant relationship between teacher professional in-service training, teacher workshop training, teacher orientation, conference attendance, and job performance. Similarly, Igbodo & Nwalado (2022), in a study, found positive impact of in-service training on teachers' productivity to include; improved ICT competence, critical thinking ability, use of analytical/statistical packages, instructional management ability, knowledge of pedagogical techniques, subject matter expertise, administrative competence, and public presentation skills.

While in-service education is expected to enable teachers improve teacher professional knowledge, skills, and teaching pedagogy, some previous studies revealed the opposite. For instance, in a study, Harris & Sass (2011) investigates how different forms of education and training impact teacher productivity. They found that informal on-the-job training boosts teacher productivity, but formal professional development training does not consistently enhance productivity. Similarly, Ige Akindele (2014) in a study found that teachers attendance at in-service programs in Nigeria did not translate to improved productivity. In another study, Essien et al. (2016) found a weak relationship between the frequency of teachers' attendance at in-service training, seminars and workshops and students' academic performance in social studies.

On the frequency of in-service training and the appropriateness of such training, Ajani & Govender (2019) revealed that teachers in Nigeria did not receive frequent In-service Professional Development (IPD) training. Moreso, it was found that the contents of such training were not satisfactory to the teachers because they failed to meet their professional needs. The finding was corroborated by Ajani (2021) in a study that examined teachers' perspectives on professional development for teachers in South Africa and Nigeria. The result shows that professional development programs for teachers in both countries are inadequate and irregular.

Though previous studies have associated teacher productivity with in-service training, working conditions, inadequate infrastructure, insufficient funding, poor funding (Anjum et al., 2018; Gistituati, 2020), however, not so much evidence had been shown on the relationship between teacher in- service training and teacher productivity in Nigeria. To fill this gap as well as add to the body of existing body of knowledge, this article examines the relationship between in-service training and teacher productivity in Nigerian schools, focusing on the theoretical and empirical evidence that supports the relationship and also advances theoretical underpinnings as a complementary panacea. The aim of the study is to contribute to understanding the role of in-service training in improving teacher productivity and provide insights for educational policymakers and practitioners on how to design and implement effective in-service training programs that meet the needs and expectations of teachers and students. Specifically, the study will answer the following question and test the corresponding hypothesis; Is there any relationship between teachers' in-service training experience and productivity? There is no significant relationship between in-service training and teachers' productivity.

Theoretical Underpinning

Canadian psychologist Albert Bandura proposed Social Learning Theory in the 1960s. Bandura's theory emphasises the importance of observational learning, imitation, and modelling in acquiring new behaviours, attitudes, and values (Bandura, 1978). Social learning theory posits that individuals learn from their environment through continuous observation, imitation, and feedback and that social factors play a critical role in shaping behaviour and personality (Allan, 2017; Bandura, 1978). Social Learning Theory holds that learning occurs through social interaction and observation of others' behaviour. According to this theory, individuals can learn new behaviour, skills, and attitudes by observing others and imitating their behaviour (Akers & Jennings, 2015; Deaton, 2015). This framework emphasises the importance of social context, feedback, and reinforcement in shaping individuals' behaviour. The principles of Social Learning Theory include the following: ***Observational learning:*** Individuals can learn by observing others' behaviour and consequences. They can acquire new skills and behaviours by observing competent models and imitating their behaviour. ***Modelling:*** Modeling involves imitating the behaviour of others, either in real-life situations or through media. Individuals can learn by observing models and imitating their behaviour, whether the models are live or recorded. ***Feedback:*** Feedback is an essential component of social learning, as it informs individuals about the consequences of their behaviour and helps them adjust their behaviour accordingly. Positive feedback can reinforce desirable behaviour, while negative feedback can discourage undesirable behaviour. ***Reinforcement:*** Reinforcement involves providing rewards or punishments for specific behaviours. Positive reinforcement can increase the likelihood of desirable behaviour, while negative reinforcement can decrease the likelihood of undesirable behaviour.

Social Learning Theory posits that individuals learn by observing and modelling the behaviour, attitudes, and emotions of others and that this learning can be facilitated through various social processes. In the context of this study titled "Mediating Teacher Productivity with the Instrumentation of INSET: Nigeria Perspective," the principles of peer mentoring, collaborative lesson planning, observation of other teachers' modelling, feedback on classroom practices, and positive reinforcement can be seen as effective mechanisms for enhancing teacher productivity, in line with the principles of the Social Learning Theory.

Peer mentoring means learning from colleagues through observation, feedback, and support. Peer mentoring can help teachers acquire new skills and strategies by observing and modelling the behaviours of more experienced colleagues and by receiving feedback on their teaching practices. (Korhonen et al., 2017; Ma et al., 2018). Collaborative lesson planning is another mechanism that can facilitate social learning among teachers, as it involves working together to develop lesson plans that are engaging, effective, and aligned with instructional objectives.

Observation of other teachers' modelling is also an effective mechanism for social learning, as it allows teachers to observe and learn from the practices of successful peers (Akhmedova & Rozikova, 2021). Through observation, teachers can identify effective teaching strategies, instructional techniques, and classroom management practices that they can incorporate into their teaching (Baecher & Chung, 2020). Feedback on classroom practices is another mechanism that can facilitate social learning, as it provides teachers with constructive feedback on their instructional practices and allows them to identify areas for improvement (Vadahi & Lesha, 2015).

In addition, positive reinforcement motivates teachers to engage in productive behaviours, such as seeking out and incorporating feedback, experimenting with new instructional techniques, and collaborating with colleagues (Aljaberi & Gheith, 2018; Kattari, 2015). By providing positive reinforcement for these behaviours, administrators can create a culture of continuous improvement that fosters a sense of community and promotes social learning among teachers (Khanshan & Yousefi, 2020).

Evidence from extant literature further establish an association between the principles of SLT and teacher productivity. Noting that teaching-learning process is a social engagement between teachers and students (Abdumalikovna, 2021), the same holds for teachers and facilitators during in-service training. In a study that explored social learning as an approach to teacher professional development, Meijs et al. (2016) found that teachers are generally receptive to social learning, with a

positive attitude towards this approach. Similarly, Postholm (2012) argues that teacher cooperation and positive school culture can facilitate teacher ttthat social learning theory is a valuable framework for developing formal professional development for teachers.

Social learning theory also stresses the importance of the social context in facilitating learning and behaviour change. This implies that providing opportunities for teachers to interact with their peers, share experiences and knowledge, and receive feedback and support enhances the effectiveness of in-service training and promotes the transfer of learning to actual practice. Ogbuanya & Shodipe (2022), in a study that explored workplace learning for pre–service teachers' practice and quality teaching and learning in technical vocational education and training, found that Social Learning Theory constructs were more strongly linked to constructive teaching than traditional management. In another study, Hauge & Wan (2019) found that collective processes in professional learning communities (PLCs) with trust between participants were important for teachers' professional development. This implies that trust among teachers as an element of the school context contributes to effective TPD.

In summary, the principles of the Social Learning Theory, such as peer mentoring, collaborative lesson planning, observation of other teachers' modelling, feedback on classroom practices, and positive reinforcement, can be seen as effective mechanisms for enhancing teacher productivity, in line with the aims of this study. These mechanisms facilitate social learning among teachers, allowing them to acquire new skills and knowledge through observation, feedback, and collaboration, ultimately leading to improved teacher productivity and student learning outcomes.

RESEARCH METHODS

This session presents the research design, population, sample and sampling techniques, research instruments, the validity of the instruments, reliability of the instruments, administration of the instruments and data analysis.

Research Design

A descriptive research design of the survey type was adopted for the study. The descriptive research design of the survey type is a suitable approach for conducting a study that describes and analyses a phenomenon or situation (Doyle et al., 2020). This study justifies the approach as it will provide a comprehensive understanding of the factors that mediate teacher productivity with the instrumentation of INSET from a Nigeria perspective. The survey will allow the collection of reliable and valid data on teachers' attitudes, beliefs, and behaviours and identify patterns and trends that exist (Atmowardoyo, 2018). A survey design was appropriate because it has a wide range of scope and coverage; hence generalisation is possible. Samples are selected in survey studies to establish the relative incidence, distribution, and interrelationship of variables.

Population

The population of a study refers to the entire group of individuals, objects, or events that meet the criteria for inclusion in a study (Delgado et al., 2021). The population is the group the researcher is interested in studying and is the basis for generalisations of research findings. The study population consisted of all the 7538 public secondary school teachers and 203 principals in secondary schools in Ekiti state. These schools are day, public and mixed schools in rural and urban settlements. (Ekiti State Teaching Service Commission, 2020)

Sample and Sampling Techniques

The study employed a multi-stage probability sampling technique to select a sample representative of the population. A sample is a segment of a larger population selected for research purposes (Bhardwaj, 2019), and sampling techniques are used to ensure that the sample is representative of the population (Grochtdreis et al., 2019). Probability sampling involves selecting a sample in a way that guarantees that every member of the population has an equal chance of being selected (Stratton, 2021). The rationale for selecting the sample and the sampling technique was that each teacher in the population was a representative of the population and had an equal chance of being selected (Stratton, 2021). The study involved 396 participants, including 360 teachers and all the principals of the 36 schools chosen for the study. The schools were selected through a multi-stage sampling process. Firstly,

nine local governments were chosen by randomly selecting three from each of the state's three senatorial districts in the 16 Local Government Areas. Secondly, four towns were selected using simple random sampling from the nine chosen local governments. Thirdly, one school was selected from each town using simple random sampling. Finally, ten teachers were randomly selected as respondents from the sample school.

Research Instruments

This study adopted two sets of self-developed questionnaires as an instrument for data collection. The questionnaires are In-service Training Experience, and Impact Questionnaire (ITEIQ) was administered to the teachers, while Teachers' Productivity Questionnaire (TPQ). A questionnaire is a popular tool for collecting data in research, surveys, and evaluations. It is a structured set of questions designed to gather information from participants about their beliefs, attitudes, behaviours, and experiences (Gonzalez-Franco & Peck, 2018). The rationale for adopting questionnaires in this study is that they can be administered to many participants simultaneously, making it a cost-effective and efficient data collection method. It is also easy to standardise and replicate, ensuring consistency in data collection across different settings and participants (Brace, 2018). In-service Training Experience and Impact Questionnaire (ITEIQ) was administered to the teachers, while Teachers' Productivity Questionnaire (TPQ) was administered to teachers.

School principals were respondents who rated teachers' productivity on a 4-point Likert Scale as follows; Strongly Agreed (4 points), Agreed (3 points), Disagreed(2 points) and Strongly Disagreed (1 point). Teachers also rated school factors on the same scale while responding to the In-service Training Experience and Impact Questionnaire (ITEIQ). They are standardised tools that enable researchers to collect data from a large sample of participants in a cost-effective and efficient manner. Moreover, questionnaires are easy to administer, and participants can complete them at their convenience, allowing for high response rates (Khalil, 2018). Notably, questionnaires are a widely accepted and effective instrument for data collection in research, providing researchers with a rich data source for analysis and informing policy and practice in various fields.

Validity and Reliability of Instruments

The validity of an instrument refers to the degree to which it measures what it is intended to measure (Sürücü & Maslakçı, 2020). In the case of the In-service Training Experience and Impact Questionnaire (ITEIQ) and the Teachers' Productivity Questionnaire (TPQ), validity was carried out to determine the accuracy and usefulness of the data collected. The reliability of an instrument refers to the consistency and stability of the results obtained from the instrument (ibid). In this study, the "In-service Training Experience and Impact Questionnaire (ITEIQ)" and the "Teachers' Productivity Questionnaire (TPQ)" reliability was conducted using a test-retest technique to ensure that the data collected are trustworthy and accurate. A reliability coefficient of 0.85 was obtained for the Teachers' Productivity Questionnaire (TPQ), while a reliability coefficient of 0.90 was obtained for In-service Training Experience and Impact Questionnaire (ITEIQ), indicating that the instruments were reliable and consistent for the study.

The reliability of the instruments was determined using the test-retest reliability technique. During the test-retest reliability assessment of the questionnaire, we administered the instruments to thirty (30) respondents, including 20 teachers and ten principals, who were selected from outside the study area. After two weeks, we re-administered the instrument to the same respondents. We analysed the data collected from the two tests using Pearson Products Moment Analysis, which resulted in a reliability coefficient of 0.85 for the Teachers' Productivity Questionnaire (TPQ) and a reliability coefficient of 0.90 for the In-service Training Experience and Impact Questionnaire (ITEIQ). These results indicate that the instruments were reliable and consistent for the study.

Procedure for Instruments Administrator

Two trained research assistants and I (the researcher) administered the questionnaires. The researcher sought the permission of the school authority to administer the questionnaire in the schools sampled for the study. Ten teachers and one principal were given questionnaires to respond to in each

school. I made a follow-up visit to ensure that the respondents accurately and timeously filled in the questionnaires, which aided in retrieving the instruments.

Data Analysis

Inferential statistics are used to generalise a phenomenon over a population based on a sample of data (Pyrczak & Oh, 2018). The data obtained for the study were analysed using inferential statistics. Specifically, Pearson Product Moment Correlation and the hypothesis was tested at a 0.05 level of significance. Inferential statistics are used to make generalisations about a population based on a sample of data (Mishra et al., 2019). Pearson Product Moment Correlation is a statistical technique used to measure the strength and direction of a linear relationship between two variables. The rationale for selecting this method of analysis hinges on the fact that the technique will enable the researcher to investigate the relationship between teacher productivity and the effectiveness of INSET programs, test the study's hypothesis, and provide reliable and credible findings.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 1. Respondents Gender Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	171	47.5	47.5	47.5
	female	189	52.5	52.5	100.0
	Total	360	100.0	100.0	

The gender distribution table 1 shows that the respondents comprise 171 male teachers, representing 47.5% of the total population, while female respondents were 189, comprising 52% of the entire population.

Table 2. Respondents Qualifications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	HND plus PGDE	34	9.4	9.4	9.4
	B.Edu.(Tech)	19	5.3	5.3	14.7
	B.Sc.(Ed)	124	34.4	34.4	49.2
	B.A.(Ed)	30	8.3	8.3	57.5
	B.Sc./B.A./B.Tech/	84	23.3	23.3	80.8
	NCE	69	19.2	19.2	100.0
	Total	360	100.0	100.0	

Table 2 reveals that the respondent's educational qualifications spread across various degrees awarded in tertiary institutions in the country ranging from a National Certificate of Education (NCE) to a Postgraduate Diploma. They are thus HND plus PGDE, B. Edu. (Tech), B.Sc.(Ed),B.A.(Ed), B.Sc./B.A./B.Tech/NCE, with B.Sc. being the highest.

Table 3. Respondents' Years of Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5years	42	11.7	11.7	11.7
	6-10years	97	26.9	26.9	38.6
	11-15years	126	35.0	35.0	73.6
	above 15 years	95	26.4	26.4	100.0
	Total	360	100.0	100.0	

Table 3 X-rays the year of experience distribution among the respondents using the interval of 5 years. Respondents with 1-5 years of experience were 42, which represented 11.7%, those with 6-10years, 11-15years were 125, which represented 35% and those above 15 years and above were 95, which represented 26.4% of the entire population respectively. This shows that the respondents with 1-5 years of experience are the least while respondents with 11-15 years of experience are the majority.

Table 4. Mean and Standard Deviation

	Mean	Std. Deviation	N
In-service Training	18.10	2.900	360
Teachers' Productivity	73.11	6.639	360

Table 4 presented descriptive statistics table outlines the key characteristics of "In-service Training" and "Teachers' Productivity". The table shows the mean and standard deviation values for in-service training and teachers' productivity. The mean value for in-service training is 18.10, indicating that the teachers in the sample received moderate in-service training. The standard deviation of 2.900 suggests some variability in the amount of in-service training received by the teachers. The mean value for teachers' productivity is 73.11, which suggests that the teachers in the sample were relatively productive. The standard deviation of 6.639 indicates that there was some variability in the productivity levels of the teachers. The total number of respondents for this variable was also 360.

Hypothesis Testing

There is no significant relationship between in-service training and teachers' productivity.

In order to test the hypothesis, scores on in-service training and teachers' productivity were computed using the "In-service Training Experience and Impact Questionnaire (ITEIQ)" and "Teachers' Productivity Questionnaire (TPQ)", respectively. These scores were subjected to statistical analysis involving Pearson Product Moment Correlation at a 0.05 level of significance. The result is shown in Table 5.

Table 5. Correlation of in-service training and teachers' productivity.

Variables	***N***	***Mean***	***SD***	r_{cal}	r_{table}
In-service Training	360	16.91	3.973		
Teacher Productivity	360	73.11	6.639	0.183^{*}	0.088

****p≤ 0.05***

Table 5 shows a weak positive correlation between in-service training and teacher productivity, with a correlation coefficient of 0.183. The P-value for this correlation was 0.05, indicating that the correlation was statistically significant. However, the critical value for this correlation was 0.088, suggesting that the relationship between in-service training and teacher productivity was not very strong.

The reason for the weak correlation between the two variables may be associated with the probable more significant impact of other variables on teacher productivity. Some of these variables include teacher motivation, class size, availability of resources and instructional supervision. Alternatively, the training teachers receive may not improve teacher productivity, or the quality of training varies widely, leading to inconsistent results.

Discussion

The finding of this study supports the notion that in-service training (INSET) positively correlates with teacher productivity, though the relationship appears to be more complex than initially anticipated. While the study revealed that teachers who participated in in-service training reported increased productivity level (though not so significant), it could be inferred that other factors may be responsible for teachers productivity. This finding is consistent with the result of a study conducted by Essien et al. (2016), which found a positive but insignificant relationship between the frequency of teachers' attendance at in-service training, seminars and workshops and students' academic performance in social studies. This indicates that while professional development through INSET can influence teacher productivity, the magnitude of the impact may vary based on the frequency and the nature of the training. Additionally, this finding resonates with the work of Daneshfard & Alipour (2010), who explored the effect of in-service training on improving the teaching skills of university faculty members. Their findings indicated significant improvement in teaching skills among those who participated in the INSET compared to their counterparts who did not. Furthermore, Van Der Westhuizen et al. (2020) and Gull et al. (2022) found that in-service training contributes to teachers' effectiveness.

On the contrary, the present study's finding contrasts with the findings of Harris & Sass (2011), who found that formal professional development training does not consistently enhance productivity. This discrepancy might be explained by differences in the methodologies, samples, population or types of training examined. This suggests that the impact of ISENT vis is not uniform. Moreso, the discrepancy can further be explained by factors such as training durations, content, delivery method and prior knowledge of the participants. In view of the foregoing, the mixed results from various studies suggest that while INSET holds the potential for increased productivity, its effectiveness may not be guaranteed across all contexts. Hence, there is a need for more targeted and content-specific training programs that align with the practical needs and educational goals of the school in which they work.

CONCLUSION

In conclusion, this study explored the relationship between in-service training (INSET) and teacher productivity in Nigeria. The findings indicated a weak positive correlation between INSET and teacher productivity, suggesting that while in-service training can impact productivity, it is not to a great extent. This finding supports previous studies that found significant improvements in teaching skills and effectiveness among teachers who are beneficiaries of in-service training programs. This study suggests the need for in-service training organisers to leverage social learning theory principles, which emphasise peer mentoring, collaborative lesson planning, observation of other teachers' modelling, feedback, and positive reinforcement. Moreso, in-service training that engenders opportunities for teachers to interact with their peers, share experiences and knowledge, and receive feedback and support leads to robust knowledge transfer and improved productivity.

Based on the study’s findings, I hereby recommend that, given the weak correlation between in-service training and teacher productivity, continuous and regular in-service training be organised for teachers to upskill their instructional delivery practices. Moreso, consistent with social learning theory, in-service training program designers and organisers should incorporate collaborative learning, peer mentoring, and feedback mechanisms into the teacher's training. Such integration enhances the transfer

of learning from training to classroom practice. In addition, in-service training programs should be need-based and not generic. Given that teachers' professional deficiencies differ, differentiated in-service training that is need-assessment-based becomes essential for optimum productivity. This study shed light on the impact of teachers' in-service training on their productivity. In view of its findings and its limitations I suggest further research can be carried out in the following areas. First, future studies could investigate the effectiveness of specific in-service training programs in improving teacher productivity in Nigeria. For example, exploring the impact of technology-based training programs versus traditional face-to-face training programs on teacher productivity would be interesting. Second, further research could investigate social learning theory's role in transferring knowledge and skills acquired through in-service training to actual classroom practice. Specifically, future studies could examine the effectiveness of different social learning strategies, such as peer mentoring, collaborative lesson planning, and feedback on classroom practices, in promoting the transfer of learning to actual practice. Finally, future research could explore the perspectives of school administrators and policymakers on in-service training for teachers in Nigeria. This could provide insight into the current state of in-service training programs in the country and identify potential areas for improvement.

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