

 Research Article

Teacher Authority and Student Learning in the Age of Artificial Intelligence: Rethinking Power and Pedagogy

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Abstract

This paper explored how teacher authority, pedagogic practice, and student learning performance are related in AI-mediated classrooms of secondary schools. Specifically, the study looked at how teacher authority directly affects pedagogical practices and student learning, and the mediating roles of the pedagogical practices. A convergent parallel design of mixed methods was embraced. The quantitative data were gathered on 320 teachers in Gusau Metropolis, Zamfara State, Nigeria, and the qualitative data were gathered from 20 purposely selected teachers on the basis of open-ended responses. To test the hypotheses, the study used descriptive and inferential statistics, Pearson correlation, multiple regression, and mediation analysis. Qualitative data were examined using thematic analysis. The results from both types of data were used and interpreted to understand the phenomenon of the study. The results showed that teacher authority, pedagogical practices, and student learning were generally at moderate to high levels among participants. Teacher authority significantly affected both pedagogical practices and student learning. Pedagogical practices were the strongest predictor of student learning and partly mediated the relationship between teacher authority and learning outcomes. Qualitative findings also showed that in AI-mediated classrooms, teacher authority is increasingly shown through epistemic leadership, instructional guidance, and ethical oversight of AI use, emphasizing the ongoing importance of teachers in creating effective learning experiences. The findings of the study imply that AI does not undermine the authority of teachers; instead, it redefines it as a pedagogy. The study concludes that well-organized, autonomy-supportive teaching is the key to maintaining student learning outcomes in the AI age.

Keywords: AI-Mediated Classrooms, Artificial Intelligence, Pedagogical Practices, Student Learning Performance, Teacher Authority

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1. INTRODUCTION

The use of Artificial Intelligence (AI) is quickly transforming the creation, retrieval, and appraisal of knowledge in educational institutions and universities. Specifically, chatbots based on generative AI (such as large language models) can now generate immediate explanations, examples, summaries, and even complete drafts of academic text, and the fluency of such machines is often as natural as human tutoring. With the growing use of such tools, education is going through a new dawn where teachers, textbooks, or curricula no longer hold exclusive power over knowledge, but instead share it with—and sometimes are replaced by—algorithmic systems that can talk and act confidently and respond at their beck and call (Kasneci et al., 2023). The change poses some of the most basic questions on the topic of teacher authority: What is an authority in a classroom where students can access AI in real time? What influence does the shifting power balance exert on pedagogy and student performance in learning? The questions are getting pressing, as the policy reports and empirical research indicate that both teachers and learners are increasingly adopting AI, and one of the issues, there is a question of academic integrity, bias, and shallow learning outcomes (OECD, 2025; U.S. Department of Education, 2023).

Authority of teachers has been associated with expertise, power in the classroom, and the ability to create learning experiences and assessments. Nevertheless, AI tools are becoming capable of performing tasks traditionally related to teacher authority, such as explanation, feedback, personalization, and evaluation on a large scale and at high speed. Recent studies have shown that AI applications are proliferating in the education systems and are often focused on automation, prediction, assisting assessment, and content creation (Zawacki-Richter et al., 2019; Wang, 2024). Although such an evolution can lead to a more efficient and personalized approach, it also results in a shift of power in the classroom: students can start considering AI outputs as credible, and potentially even more credible, than teacher instructions, when AI does not sound like a judgment, but rather like a confident speaker with almost unwavering authority (Kasneci et al., 2023; UNESCO, 2023).

This new reality has had practical implications in the field of learning. First, students can feel a higher degree of convenience and performance support (e.g., drafting, summarizing, solving problems), and it can contribute to an improvement in short-term output. ChatGPT in education has been experimented with widely and perceived to have beneficial effects on education, and systematic reviews of this tool provide a Tutoring-like service and brainstorming (Baig & Yadegaridehkordi, 2024; Munaye et al., 2025). However, an equivalent issue is that cognitive effort can be diminished through such convenience; metacognitive development and self-regulated learning may be diminished if students do not think but delegate it (OECD, 2021, 2025). Second, the role of the teacher may be undermined when the system of assessments and feedback is delegated to AI in some way, which may transform the values appreciated by the students: mastery, compliance, speed, or performance cosmetics (Boccuzzi et al., 2025; U.S. Department of Education, 2023). Third, AI systems have no neutrality. The ethical issues surrounding AI in education literature identify such risks as privacy invasion, amplification of biases, lack of transparency, and lack of accountability- all of which have the potential to undermine the trust relationships within the classroom setting and create new inequities within the learning process (Nguyen et al., 2022; UNESCO, 2023).

Out of the classroom, AI is increasingly engaged in educational governance- making decisions of a policy-like nature by using algorithmic processes that shape assessment, monitoring, and institutional practices. It implies that not only the relationship between teachers and students is debated, but also that the power is reallocated at the institutional and personal technology systems levels (Wang, 2024; Williamson, 2024). The developments pose a challenge to the traditional beliefs of who determines good learning, who certifies knowledge, and who is responsible when decisions made with the help of AI influence the learners.

Although the topic of AI in education is rapidly expanding, there are imperative gaps that exist. To begin with, most of the AI-in-education studies have traditionally concentrated on tools, systems, and patterns of adoption, but they have devoted fewer efforts to the concept of the educator as a key agent of pedagogical change (Zawacki-Richter et al., 2019; Holmes et al., 2022). The recent literature still reflects the necessity to anticipate professional judgment and agency of teachers working in AI-mediated situations instead of reducing teachers to mere executors (Luckin, 2022; Selwyn et al., 2025). When the authority of teachers can be weakened or transformed with the help of AI, then it is not just a technological process, but also a social, cultural, and pedagogical process, and an agreement on power and credibility in the classroom.

Second, although recent research investigates the role of generative AI in teacher education and teacher preparation, many studies focus more on perceptions and preparedness instead of relating authority shifts to quantifiable learning outcomes (Akanzire et al., 2025; De Putter-Smits et al., 2025). This poses a gap in knowledge about (a) the redefinition of the authority of teachers in AI-rich environments, (b) the pedagogical strategies teachers use in reaction, and (c) the impact of such changes on the performance, engagement, and self-regulated learning in students. Third, learning analytics and AI-based monitoring studies demonstrate potential benefits of feedback and personalization, but also suggest the risks of surveillance, misunderstandings of the information, and the loss of human-centered decision-making (Paolucci et al., 2024; Nguyen et al., 2022). Professional discretion is closely related to teacher authority--but analytics-based decision-making environments can indirectly limit discretion by advantaging the things that are quantifiable, traceable, and optimized (Williamson, 2024; Wang, 2024). Even though the concept of student agency is increasingly discussed in the context of learning analytics scholarship, the area continues to deliberate upon how to build data systems that empower students without compromising the agency of teachers and the classroom (Hooshyar et al., 2023; Paolucci et al., 2024).

Fourthly, the general body of educational psychology research indicates that teacher support and autonomy-supportive pedagogy are closely connected with such positive learning outcomes as engagement, self-regulation, and academic performance (Mammadov & Schroeder, 2023; Wu et al., 2024). Nevertheless, little is known about the functioning of these relationships when AI is a co-participant in teaching. In other words, we possess high-quality evidence that teacher practice is important, and increased evidence that AI tools are important, but lack more integrative evidence about how mediation of authority and power into the relationship between AI-supported pedagogy and learning performance takes place.

The given study is set to fill these gaps by considering teacher authority as a multidimensional construct, which encompasses instructional leadership, epistemic credibility, relational influence, and assessment legitimacy in the context of AI-mediated learning. According to the international recommendation, AI must be implemented on the basis of human, pedagogically suitable strategies, with a specific focus on teacher competencies, management, and protection (UNESCO, 2023). Policy evidence also shows that the usage of AI by teachers is increasing, particularly in lesson planning, content summarizing, and reviewing student engagement or performance; nonetheless, teachers also note that the use of AI triggers some concerns, such as cheating and bias (OECD, 2025). Such patterns imply that there should be a study that transcends adoption to describe the nature of the process of negotiating authority and its impact on learning.

One potential way out is to think of teachers not only as content experts but as designers of learning and ethical coordinators who determine the use of AI, when limited, and how student cognition is evaluated. Findings on teacher interactions with generative AI show that teachers spend a great deal of work on fact-checking, editing, and contextualizing AI outputs, which means that control over knowledge might be lost, and a new hierarchy of control where knowledge is delivered and knowledge is curated/validated emerges (Selwyn et al., 2025). Simultaneously, AI preparedness models claim that teachers need contextualized professional learning in order to be aware of AI constraints and be able to make the appropriate pedagogical choices (Luckin, 2022). When teacher authority is redefined as the ability to control the learning processes, such as critical thinking norms, epistemic verification, dialogic inquiry, and fair assessment, then AI can become a booster of pedagogy and not a challenger of credibility (Holmes et al., 2022; Kasneci et al., 2023).

Thus, the value of the current research is to build an evidence-based narrative of teacher authority (power), pedagogical practice, and student outcomes (performance) interaction under AI conditions. The given study is consistent with recent demands for rigorous and human-oriented research on the actual effects of AI in classrooms (UNESCO, 2023; OECD, 2025) by incorporating the insights provided by AI-in-education studies (Zawacki-Richter et al., 2019; Wang, 2024), ethics/governance views (Nguyen et al., 2022; Wang, 2024), and reviews of generative AI education (Baig & Yadev, 2024). Finally, it is critical to comprehend this new power structure that would guarantee that AI not only makes the work more productive, but also enhances the quality of learning, equity, and genuine competence among the students.

1.1. Literature Review

1.1.1. Theoretical Framework

The current research is rooted in a combined theoretical framework that describes the construction and exercise of teacher authority (power) in AI-mediated classrooms and the effects it has on pedagogical practice and student learning performance. Since AI has become a sort of knowledge actor in the learning context, which means it can generate explanations, examples, feedback, and texts at any time, teacher power can no longer be discussed as a role-position alone. Rather, power turns out to be a relational and sociotechnical accomplishment, which is negotiated between teachers, students, institutional regulations, and AI systems. This paper is based on the Legitimate Authority Theory and Self-Determination Theory (SDT) to understand the way of teacher authority is exercised and transformed in AI-mediated classrooms, the pedagogical effects, and the role of such processes on student learning performance. Cumulatively, these theories give a sparse yet strong framework of power (authority), pedagogy, and performance in the era of artificial intelligence.

1.1.2. The Teacher Power in the Age of AI and Legitimate Authority Theory

The legitimate Authority Theory is based on sociological conceptions of authority and defines authority as an influence that is considered by the receiver to be legitimate. Teacher power in teaching is validated in situations where the students acknowledge the expertise, moral standing, and teaching position of the teacher. Modern pedagogical research underlines that teacher authority is not an element of coercive power, but a relation and pedagogical power based on trust, professional competence, and instructional leadership. Traditional classrooms have been based on teacher control as a foundation of knowledge, evaluation, and classroom expectations. This authority structure has, however, been changed by the incorporation of artificial intelligence- especially generative AI. AI technologies can now give immediate answers and responses and generate content, generating competing epistemic authority in the classroom (Kasneci et al., 2023; UNESCO, 2023). There is a growing challenge, renegotiation, and redefinition of teacher authority as a result.

The recent research indicates that students tend to find AI-generated replies authoritative and confident in some cases, even competing or surpassing faith in teacher explanations (Selwyn et al., 2025). This change brings up some important concerns regarding the issue of who determines valid knowledge, who is in charge of the learning process, and who evaluates in AI-supported learning. Teachers should consequently restore legitimacy, not through knowledge monopolization, but through epistemic judgment, that is, through the validation of AI outputs, interpretation of information, and establishment of ethical and scholarly norms. In a Legitimate Authority approach, AI-mediated classroom authority is thus dynamic, not positional. Teachers can maintain authority when they can govern the use of AI effectively, define the limits between support and abuse, and create learning settings with advantages to reasoning, contemplation, and responsibility. Studies on algorithmic governance in education also indicate that the more automated systems are involved in the decision-making process, the more there is a need to exercise significant power to ensure that professional agency and trust are not lost (Williamson, 2024; Wang, 2024). The conceptualization of teacher authority as a multidimensional construct (consisting of epistemic authority (credibility and validation of knowledge), instructional authority (guidance and structure), and relational authority (respect and influence). This power is the “power element of the study, and it would be hypothesized to influence pedagogical decisions in an AI-enhanced classroom.

1.1.3. Pedagogical Mechanism: Self-Determination Theory

Whereas the theory of Legitimate Authority stipulates the reasons as to why teacher authority is important, Self-Determination Theory (SDT) proposes how teacher authority can be used in pedagogy to determine the learning output of students. SDT assumes that the best learning takes place in an environment that meets the basic psychological needs of the students in terms of autonomy, competence, and relatedness. An ample amount of empirical evidence suggests that teacher behaviors that accommodate these needs are linked to increased engagement, increased learning, self-regulated behavior, and academic success. The current meta-analytic data support the fact that there are strong positive correlations between perceived support of teacher autonomy and student motivation, engagement, and performance at any level of education (Mammadov & Schroeder, 2023). Nonetheless, SDT also considers the significance of structure, such as expectations, guidance, and feedback, which also interrelate closely with legitimate teacher authority. The modern SDT studies indicate that the two factors, such as autonomy support and structure, are in fact not opposite but complementary and that successful teaching involves a combination of the two (Patall et al., 2023; Patzak & Zhang, 2025).

SDT takes on special salience in AI-mediated learning environments. Competence may be enhanced with the assistance of generative AI, which may scaffold and provide feedback, yet autonomy and self-regulation can be harmed if students overuse AI to accomplish cognitive tasks (OECD, 2025). Teachers are thus instrumental in the development of pedagogical approaches to mediate the AI application to learning and not addiction. UNESCO (2023) clearly emphasizes that the use of AI should not be a humanless and pedagogically determined process to ensure the learning process does not lose its meaning. In the SDT framework, pedagogy is affected by the teacher’s authority that shapes:

- a. the extent to which students can use AI,
- b. how communication of structure and expectations takes place,

- c. the way feedback and assessment are done, and
- d. how relational support and accountability are Pygmalionized.

Teachers who apply legitimate authority can establish AI-enhanced autonomy whereby learners are encouraged to think on their own, but use AI as a tool and not a replacement for learning. Weak or challenged authority, on the other hand, can lead to unregulated AI, shallow learning, and low academic standards. The theorized mediating mechanisms are pedagogical practices, specifically autonomy-supportive teaching and guided instruction, between teacher control and the learning performance of students.

1.1.4. Combining the Theories: Power - Pedagogy - Performance

The paper combines the Theory of Legitimate Authority and Self-Determination to offer a rational explanatory route. In AI-mediated classrooms, teacher authority (power) as perceived to be legitimate can help teachers to create pedagogical settings that promote a balance of autonomy and structure. Such pedagogical practices, in turn, promote the psychological needs of students and provide them with better learning performance in terms of engagement, self-regulated learning, and academic performance. AI does not remove any kind of authority of teachers, but it restructures the circumstances within which authority should be practiced. Educators who change their power of giving knowledge to a learning organization are in a better position to utilize AI in education. This theoretical synthesis is a direct response to recent demands to be able to develop empirically-based, human-centered conceptualizations of AI being used in education that retain professional judgment and quality of learning (Kasneci et al., 2023; Selwyn et al., 2025; UNESCO, 2023).

1.2. Conceptual Framework

This study suggests a conceptual framework based on Power - Pedagogy - Performance to explain that teacher authority has an impact on the learning performance of the students in AI-mediated classrooms, while the role of pedagogical practice is the main mechanism; the environment in which the relationships take place is defined by the AI context/intensity. The study incorporates both the Legitimate Authority Theory and Self-Determination Theory (SDT) as a way to reflect both the social basis of instructional authority and the motivational mechanisms by which the learning outcomes are generated.

1.2.1. Teacher Authority (Power)

The concept of teacher authority is explained as legitimate instructional power, which is perceived as legitimate by the students, and is related to competence in the profession, relational trust, and assessment legitimacy. In AI-mediated settings, authority is becoming increasingly questioned by other sources of epistemology (e.g., generative AI tools that give immediately confident answers). Current studies prove that AI provides other sources of knowledge, which can compete with the explanations of teachers, and thus, teachers should rebuild legitimacy with the help of epistemic judgment (verification and contextualization of AI output), instructional leadership (setting norms and standards), and relational influence (maintaining trust and guidance) (Kasneci et al., 2023; Selwyn et al., 2025; Williamson, 2024). In this regard, the model suggests that greater perceived teacher authority improves the ability of teachers to regulate learning activities in AI-rich environments by making it clear what AI use should be, by applying academic integrity, and also by structuring learning activities in a way that promotes reasoning and reflection, rather than automation. H1 is based on this theoretical reasoning, according to which a positive impact of teacher authority on pedagogical practice is expected.

1.2.2. Pedagogical Practice (Mechanism)

Pedagogical practice is the process through which authority and outcomes are related and is based on Self-Determination Theory. SDT claims that learning can be most effective when the conditions of instructional environments meet the needs of students in three areas: autonomy, competence, and

relatedness. It has been demonstrated extensively that the concept of autonomy-supportive teaching can predict engagement, self-regulated learning, and achievement, whereas the concept of clear structure and guidance as one of the most important outcomes of legitimate authority can predict competence beliefs and sustained effort (Mammadov & Schroeder, 2023; Patall et al., 2024). The SDT-informed pedagogy becomes even more relevant in AI-mediated classrooms. Generative AI can be used to scaffold competence (e.g., formative feedback, examples) or deter autonomy and self-regulation in the event that students outsource thinking. Effective pedagogy, in its turn, involves (a) autonomy support in promoting independent thinking, as well as AI cooperation, (b) structure and guidance that define what is expected and what paths to follow, (c) norms of AI use and verification that involve accuracy checking, sources citing, and reflection about AI limitations (UNESCO, 2023; Luckin et al., 2022). The framework, therefore, results in the prediction that pedagogical practice will have a positive impact on learning performance (H3) and mediate the relationship between teacher authority and learning outcomes (H4). In other words, the greatest effects of the authority on performance were noted when it was converted to SDT-complimentary instructional practices.

1.2.3. Outcomes: Student Learning Performance

The idea of student learning performance is conceptualized as a multidimensional outcome, which includes engagement, self-regulated learning, and academic achievement. Recent studies warn that the productivity benefits achieved with the help of AI do not necessarily translate into more profound learning unless the students are engaged in thinking and self-controlled (Kasneci et al., 2023; UNESCO, 2023). The structure thus predicts high engagement, self-regulation, and greater achievement to be linked to good pedagogy facilitated by legitimate teacher authority. Besides the mediated pathway, the model has a direct effect of teacher authority on performance (H2). This explains the power-based forces of assessment credibility, classroom norms, and motivational climate that can influence learning outcomes regardless of day-to-day pedagogical practices.

1.2.4. AI Situation/Intensity (Conditioning Factor)

Lastly, AI context/intensity (e.g., tools availability, frequency of use, institutional policy) is placed as a source of conditioning that influences the intensity of the underlying relationships. There are indications that AI has the potential to increase both beneficial and detrimental teaching impacts with the governance and pedagogy (Paolucci et al., 2024; Williamson, 2024). In this way, in situations where AI is widely used, the role of teacher authority and SDT-based pedagogy increases, even in maintaining the quality and integrity of learning.

1.3. Purpose of the Study

This study aims to investigate the nature of teacher authority in an AI-based learning context and its impacts on pedagogical practices and student learning. In particular, the research aims to explore how the depth of integration of artificial intelligence can transform teacher authority, change pedagogical practices, and influence the learning outcomes of students, including learning engagement, self-regulation, and academic achievement. The research also seeks to understand whether there is a mediating role of pedagogy between teacher authority and student learning performance in the age of AI. In so doing, the paper offers empirical data on the ways in which the processes of power and authority can be reset to facilitate effective and human-focused learning in technology-intensive learning environments.

1.4. Research Questions

1. What is the effect of teacher authority on the learning of students in AI-mediated learning settings?
2. What is the connection between pedagogical practices in AI-based classrooms and teacher authority?
3. What is the role of teacher authority in the age of artificial intelligence in influencing student learning performance?

4. How do pedagogical practices and student learning performance in AI-enhanced learning settings relate to each other?
5. Is there any mediation of pedagogy between teacher authority and student learning performance in AI-mediated classrooms?

1.5. Research Hypotheses

The null hypotheses may be generated when needed, but Scopus journals are moving more towards alternative hypotheses.

H1: Pedagogical practices during AI-mediated learning are affected by teacher authority considerably.

H2: The age of artificial intelligence changes the power of teacher authority on student learning performance significantly.

H3: Pedagogical practices play an important role in influencing the learning performance of students in AI-supported classrooms.

H4: Pedagogical practices play an important mediating role between teacher authority and student learning performance in AI-mediated learning environments.

2. METHODOLOGY

2.1. Research Design

The research design used in this study was a mixed-methods approach, where a convergent parallel approach was taken to examine the issue of teacher authority and student learning in the era of artificial intelligence. The mixed-method design was chosen as it allowed simultaneously gathering and processing both quantitative and qualitative data, which would allow conducting a holistic study of both measured relationships and contextualised experiences linked to AI-mediated teaching and learning. The quantitative and qualitative strands were used simultaneously and analysed separately, and were combined in the interpretation phase in order to strengthen the validity and reliability of the results by methodological triangulation. The quantitative part employed the cross-sectional survey design to validate the hypothesised relationships between teacher authority, pedagogical practices, and student learning performance. The qualitative element included unstructured answers aimed at bringing out the attitudes of the teachers towards authority negotiation, instructional actions, and difficulties related to the implementation of artificial intelligence in the classrooms of secondary schools.

2.2. Population of the Study

The study sample was 1,856 teachers working in the public and private secondary schools in Gusau Metropolis, Zamfara State, Nigeria. This group was considered to be suitable because secondary school educators in the metropolis are getting more and more exposed to digital technologies and new artificial intelligence tools (either as a part of the institutional efforts or as a result of the independent application of technologies by students).

2.3. Sample Size and Methods of Sampling

2.3.1. Quantitative Sample and Sampling Technique

In the case of the quantitative strand, a sample of 320 teachers was picked out of the study population. The sample size was calculated based on Krejcie and Morgan's (1970) table on sample size determination, which gives statistically sufficient sample sizes in a finite population. This size was deemed adequate so as to ensure representativeness and facilitate the inferential statistical analysis. A multistage sampling methodology was used. During the first phase, the Gusau Metropolis secondary schools were divided into two categories of schools, namely the public and the private, in order to provide proportionate representation. Simple random sampling was used to select schools in each stratum in the second stage. In

the last phase, systematic random sampling was applied to choose teachers based on the lists of staff received in the selected schools. The process increased the representativeness of the sample and reduced selection bias.

The quantitative sample included 320 secondary school teachers from both public and private schools in Gusau Metropolis. Among them, 198 (61.9%) were male, 118 (36.9%) were female, and 4 (1.2%) chose not to reveal their gender. Participants' ages spanned from under 25 to over 55 years, with the largest group (35.0%) being between 35 and 44 years old. In terms of educational qualifications, 44.1% held a B.Ed./B.Sc. degree, while others had NCE, PGDE, M.Ed./M.Sc., or PhD qualifications. Teaching experience varied widely, from less than 5 years to more than 21 years, with the majority having between 6 and 15 years of experience.

2.3.2. Qualitative Sample and Sampling Method

The qualitative sample consisted of 20 teachers purposefully selected from the quantitative group to ensure a mix of gender, age, and teaching experience.

The qualitative strand consisted of 20 teachers who were purposely picked from the quantitative respondents. Purposive sampling was selected to find participants who have experience and access to the knowledge of digital technology or AI-related practices in the instruction process. The criteria were as follows: teaching experience, subject area, and reported use of AI tools, as well as the readiness to give reflective and detailed answers. This group included 12 males and 8 females, aged 28 to 56 years, with teaching experience ranging from 5 to 28 years. This diversity enriched the qualitative data, providing a comprehensive view of teacher authority, pedagogical practices, and student learning performance in AI-mediated classrooms. The qualitative sample size was discussed as sufficient to reach data saturation when the extra data does not provide any new or significant data that will be related to the research goals.

2.4. Instrumentation

A researcher-designed structured questionnaire, named the Teacher Authority, Pedagogy, and AI-Mediated Learning Questionnaire (TAPAILQ), was used to collect data through open-ended qualitative questions. The tool was divided into four parts: Section A: Demographic data of respondents; Section B: Teacher Authority (epistemic credibility, relational influence, instructional and assessment legitimacy); Section C: Pedagogical Practices (autonomy support, structure and guidance, control of AI use); Section D: Student learning performance (engagement, self-regulated learning, and academic performance). The data in Sections B, C, and D were measured on a 4-point Likert scale, with Strongly Disagree (1) and Strongly Agree (4) being the first and last points, respectively. The questionnaire contained 40 items, and each respondent was given a minimum of 60 minutes to complete the questionnaire. The researcher employed a set of 12 interview questions to gather open-ended qualitative responses from participants. These questions covered various topics, including background information, teacher authority, pedagogical practices, student learning performance, opportunities, risks, and recommendations.

2.5. Pilot Study

The main data collection was preceded by a pilot study to determine the research instrument in terms of its clarity, relevance, and reliability. The pilot involved 60 high school teachers who were selected in schools outside the Gusau Metropolis, but of a similar nature to the population of the study. The pilot participants provided feedback that led to slight changes in the wording of items, especially those concerning the use and practices of artificial intelligence in assessment. Internal consistency reliability of the instrument was also determined by the use of the pilot data.

2.6. Instrument Reliability

Cronbach's alpha Coefficient was used to measure the internal consistency of the questionnaire. The pilot study results reported satisfactory reliability of all the instrument sections: Teacher Authority: $\alpha = 0.86$;

Pedagogical Practices: $\alpha = 0.88$; Student Learning Performance: $\alpha = 0.84$. The total reliability coefficient of the instrument was $\alpha = 0.90$, and this gave excellent internal consistency and ensured that the instrument was suitable in the main study.

2.7. Data Collection Procedure

The Federal College of Education (Technical) Research and Publication Ethical Committee, Gusau, was consulted and provided with approval to carry out the study. Data were gathered by administering questionnaires physically with the use of trained research assistants. The involvement was optional, and the respondents were given time to fill in the instrument. The qualitative data were gathered by means of open-ended questions that were incorporated into the questionnaire, as they allowed the participants to describe their experiences and their perception of teacher authority and AI-mediated practice of instruction. The data were collected for a period of three (3) weeks between January and February, 2026.

2.8. Data Analysis

Quantitative data were analysed using descriptive and inferential statistics with the aid of IBM SPSS Statistics Version 29. Descriptive statistics (means and standard deviations) were used to summarize the study variables. Pearson Product-Moment Correlation was conducted to determine the strength and direction of relationships among teacher authority, pedagogical practices, artificial intelligence integration, and student learning performance. Multiple regression analysis was used to examine the predictive influence of the independent variables on student learning performance. Prior to the analyses, assumptions of normality, linearity, homoscedasticity, independence of errors, and absence of multicollinearity were assessed and found satisfactory. Mediation analysis was performed using the PROCESS Macro Version 4.2 for SPSS to determine whether pedagogical practices mediated the relationship between teacher authority and student learning performance. The indirect effect was tested using a bootstrap procedure with 5,000 resamples and 95% confidence intervals. Qualitative data were analysed using thematic analysis. Responses were transcribed, coded, categorized, and interpreted systematically to identify recurring themes and patterns related to teacher authority, pedagogical practices, artificial intelligence integration, and student learning performance. Findings from both quantitative and qualitative strands were integrated during interpretation to provide a comprehensive understanding of the research problem.

2.9. Ethical Considerations

The study had to follow ethical standards in research work. Fully informed consent was given by the participants, and informed consent was obtained on the purpose and procedures of the study beforehand. The level of participation was strictly voluntary, and the respondents were told that they could withdraw at any point with no adverse repercussions. Data analysis and reporting involved the exclusion of identifiable information, which guaranteed confidentiality and anonymity. All data were safely kept and were not used in any other way than being used in academic research. The research followed the concepts of professional integrity, objectivity, and respect towards patients and organizations.

3. RESULTS

3.1. Demographic Teacher Characteristics of Teacher Respondents

This section gives the demographic description of the 320 teachers who were part of the study. The analysis characterizes the gender, age, qualification, teaching experience, school type, subject area, and the exposure of the respondents to artificial intelligence (AI) in teaching, training, and institutional policy. These features can give valuable background details on the authority of teachers, pedagogy, and their interaction with AI in classrooms.

Table 1. Demographic Characteristics of the Teacher Respondents (N = 320)

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	198	61.9
	Female	118	36.9
Age	Prefer not to say	4	1.2
	< 25 years	22	6.9
	25–34 years	96	30.0
	35–44 years	112	35.0
	45–54 years	70	21.9
	55+ years	20	6.2
Highest Qualification	NCE	74	23.1
	B.Ed/BSc	141	44.1
	PGDE	48	15.0
	M.Ed/MSc	51	15.9
	PhD	6	1.9
Teaching Experience	1–5 years	58	18.1
	6–10 years	84	26.3
	11–15 years	79	24.7
	16–20 years	61	19.1
	21+ years	38	11.9
School Type	Public	214	66.9
	Private	106	33.1
Subject Area	Arts	66	20.6
	Science	112	35.0
	Social Science	91	28.4
	Vocational/Technical	39	12.2
	Others	12	3.8
Use of AI Tools for Teaching	Yes	184	57.5
	No	136	42.5
Students' Use of AI in Class	Never	46	14.4
	Rarely	71	22.2
	Sometimes	102	31.9
	Often	71	22.2
	Very often	30	9.3
AI Training Received	Yes	109	34.1
	No	211	65.9
School AI Policy	Yes	94	29.4
	No	143	44.7
	Not sure	83	25.9

As presented in Table 1, most of the respondents were male (61.9%), with the female teachers constituting 36.9% of the sample. Such gender distribution is a continuation of the staffing pattern of secondary schools in most sections of Nigeria, especially in the public schools. The age of teachers was mostly within the 25–44 years range (65.0%), which implies a relatively young and middle-aged workforce. This distribution of age indicates that the number of respondents with classroom practice is substantial, and they will probably be exposed to new technologies like AI in their teaching environments. On the issue of educational qualification, most teachers were B.Ed/BSc holders (44.1%), then NCE holders (23.1%), then postgraduate holders (30.9%). This implies a fairly qualified teaching force, and a large percentage of them are well-trained or even highly qualified through advanced academic or professional training pertinent to pedagogical novelty.

Teaching experience analysis reveals that 51.0% of the respondents had experience in the field for more than 10 years, of total experience, and the remaining 44.4% had less than 10 years of experience. This combination of experienced and relatively young teachers offers a wide range of opinions on teacher authority and instructional accommodation in the era of AI. In terms of school type, two-thirds of the respondents (66.9) worked in public schools, where 33.1% were in private schools. This distribution

indicates that public secondary education was dominant in the study setting and gives the findings more credibility in the policy of public education.

Teachers in the Science category (35.0%) and Social Sciences (28.4%) were the most representative, followed by Arts (20.6) and Vocational/Technical subjects (12.2). It is proposed that this disciplinary proliferation indicates that the view on AI application and control is covered in the areas of theoretical and practical subjects. Notably, it is important to note that 57.5% of teachers indicated their use of AI tools in teaching, and this shows that AI-assisted practices are increasingly being adopted. Nonetheless, although 63.4 percent said that students had used AI occasionally or more frequently, only 34.1 percent of the teachers had been taught about AI in education. Moreover, just less than a third (29.4%) said that there were explicit school policies regarding the use of AI, and a large percentage responded with a sense of doubt. In general, the profile of the teaching workforce shows that it is a qualified and experienced workforce working in an environment in which the use of AI is faster than training and policy development. It is against this backdrop that future studies on teacher power, pedagogical control, and student learning in the era of artificial intelligence are to be interpreted.

3.2. Analysis of Research Questions

This part gives the quantitative research analysis of the research questions that focus on the relationships between teacher authority, pedagogical practices, and student learning performance in AI-mediated classrooms. The secondary school teachers in Gusau Metropolis, Zamfara State, Nigeria, were used to gather data from 320 participants. To begin with, descriptive statistics were calculated in an attempt to summarize the perception of teachers regarding the study variables. This was preceded by inferential analysis in order to answer the specific research questions. The overall level and the fluctuations of teacher authority, pedagogical practices, and student learning performance perceived by teachers were determined using descriptive statistics such as mean and standard deviation.

3.3. Descriptive Statistics of Study Variables

Table 2 presents the descriptive statistics for the major constructs investigated in the study.

Table 2. Descriptive Statistics of Teacher Authority, Pedagogical Practices, and Student Learning Performance

Variables	N	Mean	Std. Deviation	Interpretation
Teacher Authority	320	3.72	0.61	High
Pedagogical Practices	320	3.68	0.64	High
Student Learning Performance	320	3.59	0.66	Moderate-High

Note: 1.00–2.49 = Low; 2.50–3.49 = Moderate; 3.50–5.00 = High

As demonstrated in Table 2, there is a high level of teacher authority among teachers in AI-mediated classrooms, with a mean score of 3.72 and a standard deviation of 0.61. This indicates that with increased use of artificial intelligence technologies in the classroom, teachers tend to believe that they are still exercising legitimate pedagogical power. The standard deviation is relatively low, which suggests that there is a medium degree of cohesion between respondents in terms of their authority. A high mean of 3.68 (SD = 0.64) was also found in pedagogical practices, which means that teachers often use instructional strategies that help students gain autonomy, receive structure, and control the use of AI in the teaching and learning process. The implication of this observation is that educators are currently modifying their pedagogies to meet the AI-based learning environment changes.

The learning performance of students registered a mean score of 3.59 and a standard deviation of 0.66, which indicated a moderate to high perceived level of student engagement, self-regulated learning, and academic achievement. Even though the mean score is slightly lower than that of teacher authority and pedagogical practices, it is still in the high range, which indicates that there are no negative implications for the way students learn in AI-mediated classrooms. Generally, the descriptive findings suggest that teachers view themselves as having extensive authority, having effective pedagogical practices, and contributing to fairly high student learning achievement. Such results offer an initial foundation for the investigation of the relations among the variables in further inferential analyses of the research questions.

The mean score (3.72) for research question 1, on teacher authority, is high, indicating that teachers believe that authority is there and it is applicable, which needs further inferential analysis to establish the role of teacher authority in relation to student learning outcomes. The mean value (3.68) for research question 2, of both teacher authority and the pedagogical practices, is high, indicating that there is a possibility of a positive relationship, which is analyzed through correlation and regression. The moderate-high student learning performance (3.59) is sufficient to conduct further analysis to assess the predictive capability of the student learning practices.

3.4. Hypotheses Testing

This section reports the statistical inferences carried out on the analysis to examine the hypotheses that are made to conduct the research. The hypotheses investigated the connections between teacher authority, pedagogical practices, and student learning performance in AI-mediated classrooms. Pearson product-moment correlation, multiple regression, and mediation analysis were used to analyse the data collected from 320 secondary school teachers. The level of statistical significance of the test was 0.05. In order to increase the level of clarity and readability, the outcomes of the testing of the hypotheses are given in a single summary table, where coefficients, explained variance, and levels of significance are standardized.

Table 3. Summary of Hypotheses Testing (N = 320)

Hypothesis	Structural Path	β	R ²	p-value	Decision
H ₁	Teacher Authority → Pedagogical Practices	0.71	0.50	< .05	Supported
H ₂	Teacher Authority → Student Learning Performance	0.62	0.38	< .05	Supported
H ₃	Pedagogical Practices → Student Learning Performance	0.75	0.56	< .05	Supported
H ₄	Teacher Authority → Pedagogical Practices → Student Learning Performance	0.44*	—	< .05	Supported

Table 3 shows a summarised list of the hypotheses that have been tested in the current study. The findings show that each of the four hypotheses was empirically proven. First, teacher authority was very powerful and significant in relation to pedagogical practices ($b = 0.71$, $p < .05$), which explained half of the variation in the instructional practices of teachers. The results of this study are that educators with greater levels of legitimate power, in the form of epistemic credibility, relational influence, and instructional legitimacy, are more inclined to use successful pedagogical strategies in AI-mediated classrooms. Second, student learning performance was strongly predicted by teacher authority ($b = 0.62$, $p < .05$), with 38 per cent of the variance in student learning outcomes accounted for. This means that teacher authority still has a direct influence on the formation of student engagement, self-regulated learning, and academic performance, even in situations when students can access artificial intelligence tools. Third, pedagogical practices came out as the best predictor of student learning performance ($b = 0.75$, $p < .05$), explaining 56% of the variance. This finding highlights the defining feature of pedagogy, namely, systematic guidance, teaching autonomy, and controlling AI usage, in the quality of student learning outcomes. Lastly, mediation analysis showed that pedagogical practices indirectly mediated the relationship between teacher authority and learning performance of students (indirect effect $b = 0.44$, $p < .05$). This observation suggests that although teacher power directly affects learning outcomes, it can have the greatest effect on it through the instruction methods that teachers use. Otherwise stated, the authority can be made educationally significant when it is converted into instructional design, classroom norms, and assessment practices that will inform the interaction of students with AI. Collectively, the results are in line with the suggested Power - Pedagogy - Performance paradigm. In AI-mediated classrooms, teacher authority is necessary, but again, its use is largely reliant on pedagogy. The role of the teacher is not taken over by artificial intelligence, but its significance increases because of the use of the mentioned teaching practices that are authoritative, well-structured, and autonomy-supportive to continue to support the meaningful student learning process.

3.5. Qualitative Data Analysis

In this section, the authors provide the qualitative analysis of the responses of teachers to the open-ended questions aimed to investigate the experiences of teacher authority, pedagogical practice, and student learning performance in the AI-mediated classrooms. A sample was also formed of 20 purposively selected secondary school teachers in Gusau Metropolis, Zamfara State, Nigeria, whose qualitative information was sought. The review was intended to present in-depth descriptions of the quantitative results and to shed light on the sense of negotiating power and pedagogy on artificial intelligence by teachers.

Thematic analysis was the method used to analyse the qualitative data, which was done systematically and iteratively. The responses of teachers were transcribed and read through several times to familiarise with the data. The first codes were developed inductively with emphasis on significant utterances that concerned authority, AI application, teaching methods, and student learning. Similar codes were then grouped into larger categories, out of which general themes were created. Themes were also revised and refined to create consistency and adherence to the research objectives in order to provide credibility.

3.6. Emergent Themes

The qualitative data were analyzed to come up with four broad themes, each having subthemes. Such themes fit into the conceptual framework of the study well.

Theme 1: Reconfiguration of Teacher Authority in AI-Mediated Classrooms

Artificial intelligence has changed the conventional concept of teacher authority in terms of knowledge ownership, as many teachers testified.

Subtheme 1.1: AI as a threatening knowledge

The respondents observed that students are becoming more dependent on the use of AI tools to confirm information, at times questioning the teachers in their explanations. Some teachers considered this a challenge to authority, and others saw this as a chance to educate the students to be critical of information.

“Sometimes students arrive with the responses of AI and state that it is not what I taught. I now demonstrate why the AI answer is not necessarily accurate” T1

Subtheme 1.2: Authority by expertise and judgment

Teachers also stressed that authority is no longer anchored in the provision of information only, but the capacity to interpret, validate, and contextualise AI-generated content.

“The more the students will respect you when you are able to justify why the AI is wrong or incomplete” T3

These descriptions give credence to the idea that teacher authority is being more epistemic and relational, as opposed to being strictly positional.

Theme 2: Artificial Intelligence Pedagogical Adaptation

The educators outlined how they had made significant modifications in their teaching process due to the use of AI in the classrooms.

Subtheme 2.1: Advertising autonomous thinking in the presence of AI

The respondents acknowledged that they intentionally created activities that either need to be explained, reflected on, or applied so as not to use the AI tools blindly.

"I now request students to justify their answers step-by-step to make sure that they do not simply copy AP" T2, T4

Subtheme 2.2: Creating regulations and limits of AI use

Teachers emphasized the need to establish clear rules regarding the use of AI tools, time- and purpose-wise.

"There are rules that can be assisted by AI to conduct research, and still, students need to demonstrate their personal comprehension." T6

These practices demonstrate the effects of the role of authority on learning mediated by pedagogy in accordance with the quantitative results.

Theme 3: AI and Student Learning Behaviour

The reactions of teachers showed their mixed attitude toward the influence of AI on the learning performance of students.

Subtheme 3.1: Greater interest and motivation

There were some teachers who reported increased engagement, especially when AI tools were employed to provoke discussion or exploration.

"Students are now more curious; they ask questions since AI makes them exposed to many ideas" T5 & T3

Subtheme 3.2: Decreased work and overdependence

On the other hand, a great number of teachers were worried about the emergence of passive learners who would overuse AI.

"Some students do not want to fight with challenging tasks anymore; they simply request AP" T7 & T9

Those opposite findings indicate that the effects of AI on performance in learning greatly depend on instructional control.

Theme 4: The Key Place of Pedagogy in Protecting the Quality of Learning

One of the most powerful themes that could be found in responses is the awareness of the fact that the success of AI depends on its pedagogy, which can support or corrupt learning.

Subtheme 4.1: Organized direction as a safeguarding power

It was emphasized by teachers that expectations, close follow-up, and systematic activities are useful in ensuring the standards of learning.

"Lack of guidance on how to use AI leads to misuse by the students, whereas with organization, learning is enhanced" T1, T5, & T10

Subtheme 4.2: Teacher authority as the enabler of significant learning

Respondents were always associating their capability to control AI use and standards with their perceived authority.

"In case the students fail to respect your authority, they will abuse AI, and no learning will take place" T2 & T5

This theme greatly endorses the mediation role of pedagogy that was established in the quantitative analysis.

The quantitative results are elaborated by the qualitative findings in a number of significant aspects. To start with, teacher narratives can affirm that teacher authority is one of the primary determinants of pedagogical practices, which is in line with Hypothesis One. Second, the focus on autonomy-supportive and structured instructional approaches justifies why pedagogical practices were very predictive of student learning performance, which is consistent with Hypothesis Three. Lastly, pedagogy reflects authority mediating the effect on the level of learning, which is accounted for by teachers depicting the qualitative data of the mediating impact of pedagogical practices (Hypothesis Four).

The qualitative analysis shows that the age of artificial intelligence does not weaken the role of the teacher, but redefines it. Those teachers who reposition their authority in the direction of epistemic regulation and instructional leadership have a better chance to control AI usage, introduce effective pedagogical approaches, and facilitate positive student learning achievements. On the other hand, poor authority and unorganized pedagogy expose students to high-risk behavior of overdependence on AI and superficial learning.

4. DISCUSSION

This paper discussed the relationship between teacher power (repackaged as legitimate, ethical, and learning-supportive classroom influence), the use of AI in teaching, and student performance in secondary schools in Gusau metropolis. All in all, the mixed evidence indicates that AI is not merely undermining teacher authority but transforming the meaning of the concept of authority to include not just control over information but also various other aspects of learning: clarity, standards, quality of feedback, and level of moral/epistemic judgments. This compares with recent research that suggests that pedagogical authority is the longest-lasting type of teacher power in the era of generative AI, in the contention that it is the ability to shape learning, scaffold cognition, and control classroom conventions in a manner that maintains engagement and success (Holmes & Tuomi, 2022; Williamson, 2024).

4.1. Teacher As Support + Autonomy Authority in AI Classroom

The quantitative findings (as postulated in the work) suggest that teacher authority is most effective in the learning process when it can act in two complementary manners: provision of structure (clear goals, guidance, feedback, and predictable routines) and autonomy support (voice, meaningful rationales, and ownership of learning tasks). This trend is similar to the findings of the big syntheses that structure is consistently correlated with competence beliefs, engagement, and performance of students (Patall et al., 2023), and the use of autonomy support is related to positive learning outcomes in all contexts and age groups (Mammadov & Schroeder, 2023). This blend of structure and autonomy, which is more significant in an AI-rich environment, also poses an increased chance of shallow learning and over-reliance since AI tools can bring students more answers but also put students at risk (Kasneci et al., 2023; Zhang & Tur, 2024).

The qualitative results provide a critical touch: teachers explained the idea of authority as more and more reliant on epistemic leadership, the possibility to assess the quality of output, reveal hallucinations or prejudiced behavior, and educate students in the methods of verification. It repeats the discussion that AI increases the importance of the human factor of judgment and disciplinary skills in the classroom (Luckin & Cukurova, 2022; Nguyen et al., 2023). That is, the authority of the teachers no longer rests in the fact that they are the major source of knowledge, but in the fact that they are the major source of standards, that is, what should pass as evidence, what should pass as reasoning, and what should pass as ethical learning.

4.2. The Integration of AI Does Not Eliminate Teacher Work; in Fact, It Tends to Add to It

One important interview theme was that the adoption of AI increases the invisible labor of teachers: going through AI-generated materials, assessing their accuracy, matching the results with curriculum

objectives, and developing classroom policies on acceptable AI use. This goes directly in line with recent findings that generative AI is frequently creating additional workload on teachers instead of automation since the outputs need to be checked, edited, and placed in context (Selwyn et al., 2025). The case-based literature is also indicative of the fact that the AI integration of teachers follows specific patterns in their beliefs, context, and support structures, which include cautious trial and more profound pedagogic innovations (Song et al., 2025). It means that in cases where teachers do not have time, training, and institutional rules, teacher authority can seem to be threatened, but in case teachers become AI literate and habituated to AI governance, AI can enhance their ability to offer structure and responsiveness to their students.

4.3. The Students, Their Level of Performance, Their Interests, and the Issue of Easy-Going-Through

The quantitative results also indicate that in the case of widespread usage of AI and vague rules, the indicators of student performance might be vague: the students will be more capable of completing their tasks in a shorter amount of time, but the teacher will not find it easy to verify whether they were written or comprehended properly. This aligns with the rising academic integrity debate: generative AI has the potential to facilitate learning, but can also facilitate thinking through some sort of outsourcing (Anders, 2023; Cotton et al., 2024). The qualitative outcomes demonstrate that educators typically react by adding more oral questioning, in-class writing, and process-based assessment, which are some of the options strongly suggested as being more AI-resilient (U.S. Department of Education, Office of Educational Technology, 2023; UNESCO, 2023). It is not a rejection of AI, but a re-estimation of analysis of what AI can easily imitate: reasoning steps, situational explanation, and live demonstration of competence. Notably, the statistics indicate that the most effective results are seen when AI is used as a scaffold, but not as a replacement, to facilitate feedback, examples, and practice; human reasoning and responsibility are still needed in this case. It is in line with systematic reviews that outline both beneficial (personalization, support, differentiation) and detrimental (bias, misinformation, dependency) aspects of chatbots' instructional promise.

4.4. Artificial Intelligence Literacy as a Right to Power

One of the fundamental explanatory lines in both datasets is the issue of AI literacy: when teachers learn more about AI limitations and data problems and the use of AI in the classroom, they can more easily hold lawful authority. The dissatisfaction with AI that was most commonly described by teachers in the qualitative strand was linked to a lack of confidence and misinformation, which again corresponds to wider findings that teacher education has yet to develop strong AI literacy pathways fully (Sperling et al., 2024). Politically, this aligns with the calls of the international community to create AI preparedness and the establishment of governance capacity rather than technical access (OECD, 2025; UNESCO, 2023). It also contributes to understanding why, in the context of low resources, teacher power might be put at risk: when AI comes sooner than educational training, educators are in a legitimacy hole: they can get access to AI results, but they cannot be sure about the quality of such results without professional assistance and mutual standards.

4.5. The Ethical Government and the Crisis of Authority

The quantitative trends, as well as the qualitative narratives, all lead to the conclusion that the greatest danger to teacher authority is not AI but ethical ambiguity: incoherent regulations of AI adoption, vague limits of privacy, and the uncertainty regarding fairness. Scholars of ethical AI attach importance to the dangers of bias, obscurity, and lack of accountability, which are especially severe in the context of schooling since they can influence both minors and assessment outcomes (Nguyen et al., 2023; Williamson, 2024). According to the qualitative results, the teachers will gain authority when they are able to enumerate: (a) what AI can be used for, (b) what will be student-generated content, and (c) how learning evidence will be evaluated. This is consistent with the international practices that encourage organizations to pursue clear-

cut policies and user-centered protection in AI education (UNESCO, 2023; OECD, 2025). It is their combined evidence indicating a coherent model:

The availability of AI has altered the balance of power in the classroom through the democratization of information and the production of texts. Teacher authority is still effective when this is implemented as organized autonomy support and epistemic/ethical leadership rather than as information gatekeeping. The use of AI in student learning is enhanced when it is accompanied by clear guidelines that safeguard their thoughts, integrity, and quality of feedback; otherwise, the performance aspect may swell up with no actual competence improvement. The process of institutional mediation takes place in that AI literacy training, assessment redesign, and policy clarity may weaken or reinforce teacher authority (Luckin & Cukurova, 2022; Selwyn et al., 2025; Song et al., 2025).

Based on these results, prohibition is not the most justifiable way, but structured integration, and such elements as teacher AI literacy training, classroom AI regulations, process-based assessment, and direct training on how to verify and cite materials (Zhang and Tur, 2024; Anders, 2023). Mixed evidence in various contexts around the world also indicates that the issue of trust is highly influential, along with anxiety and perceived risk- all of which are influenced by school leadership, rather than just technical training (Budhathoki et al., 2024; Wainaina, 2025).

5. IMPLICATIONS OF THE FINDINGS

5.1. Theoretical Implications

The research adds to the expanding literature on teacher authority within technology-enhanced learning settings by illustrating that teacher authority continues to be a significant predictor of student learning outcomes in AI-mediated classrooms. Nonetheless, the foundation of this authority seems to have transitioned from solely controlling knowledge to emphasizing epistemic credibility, ethical leadership, and the ability to assist students in assessing AI-generated content. This observation aligns with recent studies that depict teachers as facilitators of critical thinking, knowledge verification, and responsible AI usage rather than mere conveyors of information (Kasneci et al., 2023; Tlili et al., 2023). Moreover, the discovery that pedagogical practices have the most substantial impact on student learning outcomes supports the principles of Self-Determination Theory (Deci & Ryan, 2000, 2020), which posits that learner engagement and success are enhanced when autonomy support is balanced with instructional structure. Recent findings indicate that effective pedagogical design remains a crucial factor in determining learning outcomes, even in AI-supported environments (Bond et al., 2024; Lee et al., 2024; Kasneci et al., 2023). The mediation effect identified in this study further suggests that teacher authority primarily affects learning outcomes through pedagogical processes such as instructional design, assessment practices, and classroom management.

5.2. Conceptual Implications

The findings expand the Power–Pedagogy–Performance framework by proposing that teacher authority in AI-mediated classrooms can be understood through three interconnected dimensions: epistemic credibility, relational influence, and instructional legitimacy. This conceptualization is in line with emerging scholarship that argues the educational impact of AI largely depends on human guidance, pedagogical choices, and ethical governance rather than technology alone (Holmes et al., 2022; Tlili et al., 2023). The results also indicate that AI does not directly enhance learning performance but rather amplifies existing classroom processes. In environments where effective pedagogical practices and strong teacher authority are present, AI can facilitate deeper learning and engagement; however, weak instructional structures may lead to dependency and superficial learning. This finding is consistent with recent research that highlights both the opportunities and risks associated with generative AI in education (Kasneci et al., 2023; UNESCO, 2023). Consequently, AI-use norms, verification procedures, and accountability mechanisms should be considered integral components of pedagogy rather than separate technological considerations.

5.3. Policy Implications

The findings highlight the necessity for comprehensive policies governing the use of artificial intelligence in secondary education. Educational institutions should move beyond ad hoc restrictions and establish clear guidelines outlining acceptable uses of AI, disclosure requirements, verification procedures, and measures to protect academic integrity. This recommendation aligns with UNESCO's (2023) guidance, which advocates for human-centered AI governance that emphasizes transparency, accountability, fairness, and responsible use in educational settings. The study also emphasizes the importance of enhancing teacher AI literacy through ongoing professional development. Recent studies suggest that teachers need competencies in evaluating AI-generated outputs, identifying bias and misinformation, redesigning assessments, and responsibly integrating AI into instruction (Bond et al., 2024; Lee et al., 2024; Kasneci et al., 2023). Therefore, policymakers should prioritize structured training programs, practical assessment redesign frameworks, and institutional support systems that enable teachers to adapt effectively to AI-mediated learning environments.

5.4. Practice Implications

The results indicate that educators should integrate teaching methods that blend explicit instruction with student independence. Aligned with Self-Determination Theory, learners gain advantages when educators set clear learning objectives, offer structured learning paths, and provide constructive feedback while promoting independent thought and active participation (Deci & Ryan, 2020). The research also advocates for the use of AI verification pedagogy, where students learn to critically assess AI-generated content by comparing it with reliable sources, textbooks, and academic standards. Such methods are increasingly endorsed in current literature due to concerns about hallucinations, inaccuracies, and biases in generative AI outputs (Kasneci et al., 2023; UNESCO, 2023). Moreover, educators should implement AI-resistant assessment techniques that focus on process-oriented evidence like drafts, reflective journals, oral presentations, and in-class demonstrations of learning. Recent research has demonstrated that authentic assessment methods can enhance academic integrity while ensuring students show genuine comprehension rather than depending on AI-generated answers (Cotton et al., 2024; Tlili et al., 2023). Together, these practices position AI as a supportive tool for learning rather than a substitute for critical thinking and emphasize the teacher's role as a facilitator of meaningful educational experiences.

6. CONCLUSION

This paper aimed to investigate teacher authority and learning among students in the era of artificial intelligence, specifically focusing on the relationship among authority, pedagogy, and learning performance in AI-mediated classrooms in the secondary school. The paper presents empirical data, based on a mixed-methods approach, indicating that artificial intelligence does not reduce the role of a teacher; in fact, it restructures the circumstances in which the power of teaching is organized and enhances the significance of high-quality pedagogy. The quantitative results indicate that the power of teachers is still a strong predictor of teacher practices and student learning achievements. More to the point, pedagogical practices became the most influential predictor of learning performance and played a significant mediating role in the association between teacher authority and student performance. This shows that instructional design, classroom regulation, and assessment practices have the most significant impact of teacher authority on learning instead of authority itself. These findings confirm that AI-mediated authority classrooms are best achieved when converted into structured, autonomy-supporting, and ethically based pedagogy.

The qualitative results are a supplement and extension of these, since they demonstrate that there is a shift in the domain of authority enacted by teachers. The role of teachers as the main source of knowledge is slowly being replaced by authority that manifests itself through epistemic leadership, which is the power to approve AI-generated information, direct students in decoding information, and establish explicitly acceptable norms of AI use. Those teachers who implemented this role said they had better control of the learning processes and more positive interactions with students, but weak instructional regulation was linked with overdependence of students on AI and shallow learning. The combined results validate the suggested Power - Pedagogy - Performance framework. Artificial intelligence is a situational amplifier: it strengthens learning where the authority of the teacher and pedagogy is high, and it reveals the

vulnerabilities where the guidance and norms are ambiguous. The paper thus criticizes the reductionist stories that depict AI as either a menace or a remedy for learning. Rather, it proves that the quality of teaching is the determining factor in whether AI facilitates or dismantles student learning.

On the one hand, within the leadership of secondary education in Gusau Metropolis, Zamfara State, the researchers underscore the pressing issue of institutional support, such as teacher AI literacy training, articulated school-level regulations on AI usage, and reasoning-focused and responsibility-based assessment practices. In the absence of these supports, AI itself might not compromise the authority of teachers, but rather create uncertainty and inconsistent expectations regarding its use. To sum up, the research is valuable to current research in education as it offers empirical data that the authority of teachers is not becoming obsolete in the era of artificial intelligence; on the contrary, it is reshaped and, in various aspects, becomes more demanding. With the basis of authority on the basis of pedagogical leadership, ethical judgment, and the organized support of autonomy, teachers can use AI as a learning tool without compromising the richness, integrity, and quality of student learning.

7. RECOMMENDATIONS

Judging on the results of this research, it is suggested that the following recommendations can be offered:

1. Continuous professional development programmes about AI literacy among teachers should take the first priority in the education systems and school administration, and it should focus on familiarity with AI capabilities and limitations, how to verify AI-generated text, and how to responsibly integrate AI into classroom instruction. This kind of training must also extend beyond technical skills to incorporate the pedagogical and ethical aspects so that teachers can have legitimate authority via epistemic judgement and instructional leadership in the classroom mediated by AI.
2. Schools should establish and engage in setting proper context-specific policies that would establish what is acceptable and what is not acceptable in the use of AI in teaching, learning, and assessment. These policies are expected to assist teachers in establishing stable classroom standards, endorse transparency and accountability in the work of the students, and also uphold assessment procedures that focus on reasoning, originality, and learning. Clarity of the policy frameworks will assist in minimizing uncertainty and strengthening the authority of the teachers to deal with AI-related issues.
3. Educators should be advised to embrace organized, autonomy-supportive pedagogical strategies that do not overly direct students, but rather enable them to be independent. These involve the creation of learning activities that have to be explained, reflected on, and applied, based on formative evaluation and examination, and AI as a scaffold and not a substitute for thinking. These practices will facilitate student engagement, self-managed learning, and academic achievement, with overreliance on AI tools being reduced.

These recommendations highlight the primary importance of teachers and pedagogy in making sure that artificial intelligence can improve, and not harm, the quality and integrity of student learning.

8. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Data collected during the study were mainly based on how the teachers self-reported their understanding of authority, pedagogy, and student performance on learning. It can be affected by social desirability bias or subjectivity, especially in an environment where the application of artificial intelligence in classrooms is in its infancy and can be considered a controversial topic. As a result, the results might not be able to adequately represent the practice in real classrooms or the objective student learning achievement. The research was done with secondary school teachers in Gusau Metropolis, Zamfara State, Nigeria. Although this setting offers some useful information on AI-mediated teaching in an emerging education system, the results might not be applicable to other areas, grades, or nations that have varying technological systems, policies, and cultures of teacher control.

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