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AI Tools in Classroom Teaching: Experiences of Pre-Service Teachers during School Internship

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Abstract: This study explores the lived experiences of B.Ed. pre-service teachers using Artificial Intelligence (AI) tools during school internship. Although research increasingly examines AI adoption, ethical concerns, teacher readiness, and digital competence, comparatively less attention has been given to what pre-service teachers experience when AI is used in real school classrooms. An interpretive phenomenological orientation was used with eight fourth-semester B.Ed. students purposively selected from two Indian universities. Semi-structured interviews containing 15 questions were analysed through systematic coding and thematic interpretation. Findings indicate three broad patterns of AI use: Content Generation, language Focused, and Interactive Learning Tools. Participants perceived AI as useful for Lesson Organization and Delivery, Student Engagement and Motivation, Communication and Inclusivity, and Confidence and Professional Growth. They also described Technical and Infrastructural Constraints, Accuracy and Reliability Concerns, Ethical and Pedagogical Risks, and Lack of Support & Resistance. The study interprets these experiences through the Technology Acceptance Model (TAM), showing that perceived usefulness is shaped by contextual conditions. The findings suggest that teacher education should move beyond general AI awareness toward guided, ethical, context-sensitive preparation combining technological competence with verification, pedagogical judgement, and institutional support.

Keywords: Artificial Intelligence (AI), Pre-service teachers, AI in education, Classroom teaching, School internship, Technology Acceptance Model

1. Introduction

Artificial Intelligence (AI) has moved from being primarily a technological concern to becoming an increasingly visible part of educational practice. AI, broadly understood as computational systems capable of performing tasks associated with human intelligence, has increasingly entered educational practice (Russell & Norvig, 2021). AI-supported systems can generate instructional materials, provide language support, facilitate interactive activities, assist assessment, and offer forms of personalization. At the same time, the growing presence of generative and conversational AI has created questions about accuracy, academic integrity, over-reliance, teacher agency, equity, and institutional preparedness. Saltman (2022) draws attention to the broader implications of digital technologies for knowledge and educational practice, while systematic reviews have shown that AI applications in education have expanded across teaching, learning, assessment, and institutional functions (Forero Corba & Negre Bennasar, 2023; Zawacki-Richter et al., 2019). Thus, the educational significance of AI cannot be reduced to whether a tool is available, it also concerns how teachers interpret, negotiate, and pedagogically use that tool.

Teacher education is a particularly important setting in which these questions should be examined. Pre-service teachers are developing pedagogical identities while simultaneously learning to work within the practical constraints of schools. Their school internship is therefore different from a classroom discussion about educational technology. During internship, pre-service teachers have to prepare lessons, respond to learners, communicate with mentors, select instructional materials, manage time, and make immediate pedagogical decisions. When AI tools enter this environment, the technology becomes part of an emerging professional practice rather than simply an object of theoretical discussion. The experiences of pre-service teachers can consequently reveal how technological possibilities are translated or not translated into classroom action.

Recent scholarship suggests that educators see considerable potential in AI for lesson planning, individualized support, digital literacy, communication, and creative production, but they also report concerns related to ethics, authenticity, trust, accuracy, institutional readiness, and infrastructure (Bobrytska et al., 2024; Woodruff et al., 2023; Yue et al., 2024). Studies of conversational and generative AI further suggest that AI can alter patterns of interaction and

learning while requiring meaningful human guidance (Ji et al., 2023). The literature also indicates that teachers' technological competence and attitudes are connected: digital competence can shape attitudes toward AI, while concerns about anxiety and trust can influence willingness to adopt AI-supported systems (Galindo Dominguez et al., 2024; Hopcan et al., 2024; Wang et al., 2024). These findings point to a central issue: acceptance of AI is not simply a matter of technical functionality but is embedded in teachers' perceptions and professional contexts.

The Indian school-internship context makes this issue particularly important. Pre-service teachers may encounter differences in school infrastructure, internet connectivity, access to smart devices, institutional expectations, mentor attitudes, and classroom diversity. Research from underrepresented contexts similarly indicates that educational technology cannot be separated from cultural, institutional, and technological conditions (Itmazi & Khlaif, 2022). The school internship therefore provides a situated context in which the usefulness and limitations of AI become visible through actual pedagogical encounters.

The present study addresses this problem by examining the lived experiences of eight B.Ed. pre-service teachers who had completed their school internship. The purpose is not to establish that AI objectively improves teaching or learning. Rather, the study seeks to understand how participants experienced AI-supported teaching, what types of tools they used, what usefulness they attributed to those tools, and what challenges shaped their use. This distinction is important because the evidence is experiential and interpretive.

The study is guided by the Technology Acceptance Model (TAM). TAM provides a useful conceptual lens because perceived usefulness and perceived ease of use help explain why users accept or reject technologies. More recent applications of technology-acceptance frameworks have extended attention to trust, anxiety, teaching efficacy, and other contextual factors (Wang et al., 2024; Zhang & Wareewanich, 2024). In the present study, TAM is not treated as a statistical model to test causal relationships. Instead, its constructs inform the interview questions and provide a sensitizing framework for interpreting how usefulness, effort, trust, concerns, and contextual barriers appeared in participants' narratives.

A further rationale for the study emerges from the distinction between general attitudes toward AI and situated experiences of AI. Existing research has examined teachers' perceptions, policy frameworks, ethical issues, digital competence, and AI applications across educational settings. However, comparatively fewer studies focus specifically on pre-service teachers while they are undergoing school internship and teaching real pupils. This gap matters because the internship is the point at which pre-service teachers begin to translate pedagogical knowledge into professional action. Understanding their experiences can therefore contribute to teacher education curricula, internship supervision, and institutional planning for responsible AI use.

1.1. Research Questions

RQ1. What are the AI tools that pre-service teachers use the most in classroom teaching during their school internship?

RQ2. How do pre-service teachers perceive the usefulness of AI tools in classroom teaching during their school internship?

RQ3. What challenges do pre-service teachers perceive regarding the use of AI tools in classroom teaching during their school internship?

1.2. Theoretical Framework

The Technology Acceptance Model (TAM) provides the theoretical lens for interpreting participants' experiences. TAM emphasizes perceived usefulness and perceived ease of use as central determinants of technology acceptance. In this study, perceived usefulness is reflected in participants' descriptions of lesson organization, engagement, communication, and confidence, while effort, trust, infrastructure, and institutional response are considered contextual conditions shaping use (Wang et al., 2024). The phenomenological design complements TAM by examining how these constructs are experienced in actual school settings rather than statistically testing relationships among them. Thus, TAM informed the interview protocol, sensitized the coding process, and supported interpretation without functioning as a rigid deductive coding framework.

2. Literature Review

2.1. AI in Education and Teacher Practice

Research on AI in education presents a dual picture of opportunity and constraint. AI-supported systems can assist teachers with planning, assessment, content generation, personalization, and language-related tasks, but their educational value depends on the quality of human oversight and the context in which they are used. Galindo Dominguez et al. (2024) synthesized research on the promises and challenges of AI for teachers and emphasized that teacher-related factors remain central to successful adoption. Forero Corba and Negre Bennasar (2023) similarly reviewed applications of machine learning and AI in education, illustrating the breadth of technological possibilities while also reinforcing the importance of educational context. Zhang and Aslan (2021) describe AI technologies as an expanding research area whose future directions require continued attention to pedagogical application.

The literature on generative AI adds another layer to this discussion. Firat (2023) considers conversational educational agents as part of a significant shift in educational interaction, while Rahman and Watanobe (2023) identify both opportunities and threats associated with ChatGPT in education and research. Garcia Castro et al. (2024) examined ChatGPT in basic education and highlighted both advantages and disadvantages in school-related tasks. Hamarma et al. (2024) likewise examined generative AI use in a university context, illustrating the importance of understanding how users negotiate technological possibilities and concerns rather than assuming that adoption is automatically beneficial. Khalil et al. (2025) further indicate that assessment practices may need redesign in response to AI-enhanced learning environments.

These studies collectively suggest that AI use is best understood as a pedagogical practice rather than a purely technical act. The value of an AI tool depends on the task for which it is used, the user's ability to evaluate the output, the expectations of the institution, and the degree of human guidance. This perspective is particularly relevant to pre-service teachers, whose pedagogical judgement is still developing.

2.2. Teacher Readiness and Professional Learning

Teacher readiness is closely associated with digital competence and attitudes toward AI. Galindo Dominguez et al. (2024) examined the relationship

between teachers' digital competence and attitudes toward AI, reinforcing the importance of teachers' knowledge and confidence. Uygun (2024) similarly examined teachers' perspectives on AI in education and highlighted the need to consider teachers' practical views when discussing implementation. Yue et al. (2024) focused on K–12 teachers' technological pedagogical content knowledge readiness and attitudes toward AI education, demonstrating that AI readiness is not merely technical; it is related to teachers' capacity to integrate technology with content and pedagogy.

Research focusing on pre-service teachers also identifies affective and professional dimensions. Hopcan et al. (2024) examined AI anxiety and machine-learning attitudes among teacher candidates, indicating that emotional responses can shape technology-related orientations. Zhang and Zhang (2024) discuss AI in teacher education in relation to teaching support, inclusive learning, and digital literacy. Zakariya et al. (2024), although situated in blended learning rather than AI specifically, provide a useful contextual reminder that pre-service teachers' technology experiences are shaped by both affordances and constraints. Such findings support the need to examine what pre-service teachers actually experience during field-based practice.

2.3. Technology Acceptance Model as an Interpretive Lens

TAM was originally developed to explain technology acceptance through constructs including perceived usefulness and perceived ease of use. The model has subsequently been extended and applied across educational technology contexts. Venkatesh et al. (2003) broadened technology-acceptance research through the Unified Theory of Acceptance and Use of Technology, while Saltman (2022) review the development and continued relevance of TAM. Wang et al. (2024) demonstrate how technology acceptance can be extended by considering teaching efficacy, goal orientation, anxiety, and trust. Zhang and Warewanich (2024) similarly identify factors influencing teachers' willingness to use generative AI.

For a phenomenological study, TAM should not be used as a rigid coding template that forces participants' accounts into predetermined categories. Instead, TAM can operate as a sensitizing framework. Perceived usefulness can help interpret participants' descriptions of improved organization, engagement, communication, and confidence. Ease of use and contextual conditions

can help interpret technical difficulties and the practical effort required to use AI. Trust-related issues can illuminate concerns about accuracy and reliability. Ethical concerns and institutional resistance can then be considered as contextual conditions that shape whether perceived usefulness is translated into actual classroom use.

This approach also responds to an important limitation in technology-acceptance research. Acceptance models may explain intention or use, but they do not always capture the texture of lived experience: uncertainty before a lesson, the need to verify an AI response, the reaction of pupils, the attitude of a mentor, or the frustration created by weak connectivity. A phenomenological account can complement TAM by showing how acceptance is experienced in practice.

2.4. Ethical and Institutional Concerns

Ethical concerns are a recurring part of the AI-in-education literature. Holmes et al. (2022) call for a community-wide framework for the ethics of AI in education, highlighting issues that include fairness, accountability, transparency, and human responsibility. Farazouli (2024) similarly approaches automated assessment through relational ethics, emphasizing that automation cannot be separated from educational relationships and responsibilities. Khalil et al. (2025) argues for professional knowledge that supports ethical integration of AI-based tools.

Concerns about over-reliance are also relevant. Zhai et al. (2024) reviewed the effects of over-reliance on AI dialogue systems and raised concerns about possible effects on cognitive abilities. The concern expressed by participants in the present study about dependence on AI therefore reflects a wider debate about whether technological convenience may displace independent thinking. Firat (2023) and Koroleva and Jomezai (2024) also illustrate that generative AI can generate enthusiasm alongside apprehension among educational stakeholders.

Policy and institutional support establish another layer. Some studies proposes a comprehensive AI policy education framework, suggesting that responsible implementation requires institutional structures rather than individual enthusiasm alone. Kusal et al. (2022) review conversational AI and point toward the continuing evolution of AI-supported interaction. Sadykov et al. (2023), although focusing on programmed learning in science education, also demonstrate the continuing importance of structured

instructional design when technology is introduced into educational practice. Together, these studies indicate that the institutional environment matters: teachers require guidance, policies, infrastructure, and opportunities to develop judgement.

2.5. Research Gap

The reviewed literature establishes that AI is increasingly relevant to teaching, that teacher readiness and attitudes influence adoption, and that ethical and institutional concerns complicate implementation. Yet three limitations remain visible. First, many studies examine teachers or students broadly rather than pre-service teachers at the point of school internship. Second, much of the literature emphasizes perceptions, attitudes, or technological frameworks without reconstructing the lived experience of using AI in real classroom situations. Third, technology acceptance and phenomenological inquiry are not often brought together to explain how perceived usefulness, trust, anxiety, infrastructure, and institutional conditions are experienced simultaneously.

The present study addresses this gap through an interpretive phenomenological reading of internship experiences. It contributes a situated account of AI use by pre-service teachers from two Indian universities and uses TAM as a sensitizing framework rather than as a quantitative predictive model. The focus on actual school-internship experiences is particularly important because it reveals not only which tools were used but why they were used, what participants believed those tools enabled, and what prevented their consistent or confident use

3. Methodology

3.1. Research Design and Phenomenological Orientation

The study adopted a phenomenological design to explore the lived experiences of pre-service teachers using AI tools during school internship. In the revised methodological framing, the study follows an interpretive or hermeneutic phenomenological orientation because the purpose is not merely to catalogue events but to understand how participants interpreted the meaning and usefulness of AI within their emerging teaching practice. Phenomenological inquiry is appropriate when a study seeks to understand how individuals experience a shared phenomenon in a particular context (Creswell & Creswell, 2017).

The phenomenon investigated was the use of AI tools in classroom teaching during school internship. The focus therefore remained on participants' descriptions of actual teaching-related encounters rather than on hypothetical attitudes toward AI. The interpretive orientation also provides a logical connection with thematic analysis: participant statements were examined for recurring meanings, grouped into thematic patterns, and interpreted in relation to the practical context of internship and the sensitizing concepts of TAM.

3.2. Participants and Sampling

Eight fourth-semester B.Ed. pre-service teachers participated in the study. Four participants were purposively selected from Baba Saheb Ambedkar Education University, Kolkata, West Bengal, and four from Central University of Jharkhand, Ranchi. Each university contributed two male and two female participants. Fourth-semester students were selected because the internship had been completed in the preceding semester, allowing participants to reflect on classroom experiences after returning from the field.

Purposive sampling was used because the study required participants who had direct experience of using AI tools during school internship. The inclusion criteria were therefore: being enrolled in the B.Ed. programme, having completed the school internship, having used at least one AI-supported tool in classroom teaching during the internship, and being able to describe those experiences in an interview. Participants without direct internship-based experience of AI use were not part of the intended sample. The study deliberately sought information-rich cases rather than statistical representation.

The sample of eight is consistent with the intensive character of phenomenological inquiry, in which the quality and relevance of participants' experiences are more important than numerical size. At the same time, the findings should not be interpreted as representative of all Indian pre-service teachers. The two-university context and small sample provide contextual depth but place clear limits on transferability.

3.3. Theoretical Integration of TAM

TAM informed the interview protocol, coding, and interpretation at three levels. First, perceived usefulness guided questions about whether AI helped participants organize lessons, communicate with learners, engage students, or develop confidence. Second, ease-of-use

and effort-related considerations sensitized the analysis to practical difficulties, including connectivity and equipment. Third, extensions of TAM that consider trust, anxiety, teaching efficacy, and contextual influences informed interpretation of participants' concerns about accuracy, dependence, and institutional support (Wang et al., 2024).

TAM was not imposed as a deductive coding system. The first stage of analysis remained open to participants' own descriptions. TAM was then used to interpret how emerging themes related to technology acceptance. This distinction is important because the study's purpose was phenomenological rather than predictive.

3.4. Data Analysis

The analysis combined phenomenological interpretation with thematic analysis. First, the interview responses were organized and prepared for analysis. Second, responses were rearranged question by question to facilitate cross-participant comparison. Third, open coding was used to identify meaningful units, including planning, creativity, confidence, engagement, connectivity, accuracy, ethics, and support. Fourth, axial coding connected related codes with the three research questions. Finally, selective coding was used to identify broader narratives.

This procedure produced a two-level analytic structure. At the descriptive level, the analysis identified what participants said they used, what they considered useful, and what challenges they encountered. At the interpretive level, the analysis examined how these experiences reflected perceived usefulness, contextual effort, trust, professional confidence, and constraints on acceptance. The approach therefore retained the phenomenological emphasis on lived experience while using thematic organization to make the eight accounts analytically visible.

The percentages reported for RQ1 and RQ2 are not prevalence estimates. Participants could contribute to more than one theme, and the counts represent coded mentions or participants represented within a theme. Consequently, percentages are used only to display the distribution of coded thematic references and should not be read as quantitative evidence of population-level frequency. RQ3 is presented primarily through a percentage distribution, however, the original evidence for the institutional-support theme overlapped with ethical concerns.

3.5. Ethical Considerations

Participant identities were protected through the use of labels such as P1 to P8 rather than names. The manuscript also treats participants' accounts as confidential qualitative material.

Table 1. Participant characteristics

Participant	Gender	University
P1	Male	Baba Saheb Ambedkar Education University
P2	Male	Baba Saheb Ambedkar Education University
P3	Female	Baba Saheb Ambedkar Education University
P4	Female	Baba Saheb Ambedkar Education University
P5	Male	Central University of Jharkhand
P6	Male	Central University of Jharkhand
P7	Female	Central University of Jharkhand
P8	Female	Central University of Jharkhand

Table 2. Themes identified across the research questions

Research question	Identified themes
RQ1	Content Generation tools, Language Focused Tools, Interactive Learning Tools
RQ2	Enhanced Lesson Delivery and Organization, Student Engagement and Motivation, Improved Communication and Inclusivity, Confidence and Professional Growth
RQ3	Technical and Infrastructural Barriers, Accuracy and Reliability Concerns, Ethical and Pedagogical Concerns, Institutional Support and Resistance

Table 3. Illustrative coding framework

Illustrative participant statement	Analytic focus	Theme
"I primarily used ChatGPT and Google Bard." (P1)	AI tool use	Content Generation Tools
"I relied on Grammarly and Quillbot." (P2)	AI tool use	Language Focused Tools
"Students loved competing in an AI-generated quiz." (P3)	AI tool use	Interactive Learning Tools
"Students loved competing in an AI-generated quiz." (P3)	Perceived usefulness	Enhanced Lesson Delivery and Organization
"Designing a poster on environmental awareness fascinated students." (P5)	Perceived usefulness	Student Engagement and Motivation
"Grammarly corrected my speech... students appreciated the clarity." (P2)	Perceived usefulness	Improved Communication and Inclusivity
"Using AI boosted my confidence." (P1)	Perceived usefulness	Confidence and Professional Growth
"Poor Wi-Fi and lack of smartboards limited my ability." (P1)	Challenges	Technical and Infrastructural Barriers
"Some answers didn't match textbook standards." (P3)	Challenges	Accuracy and Reliability Concerns
"I worried that students might become dependent on AI." (P1)	Challenges	Ethical and Pedagogical Concerns
"Senior teachers doubted AI's reliability." (P1)	Challenges	Institutional Support and Resistance

4. Findings

4.1. AI Tools Used During Internship

RQ1 asked what AI tools pre-service teachers used most during school internship. Three themes emerged: Content Generation Tools, Language Focused Tools,

and Interactive Learning Tools. The themes describe functional categories rather than mutually exclusive tool types because some tools could support more than one pedagogical purpose.

Content Generation Tools

Content-generation tools were the most prominent pattern in the accounts. Six participants referred to this category. Participant 1 explained, "I primarily used ChatGPT and Google Bard. ChatGPT was my go-to for generating lesson outlines, while Bard helped me refine explanations." Participant 5 connected AI use with visual creativity: "Canva AI and ChatGPT... designing a poster on environmental awareness fascinated students." Participant 6 described the use of Bard and Perplexity AI for literature-related content, while Participant 8 mentioned Grammarly, Canva AI, and ChatGPT for charts, posters, and notes.

These accounts suggest that content generation was attractive because it reduced the time and effort required to prepare teaching materials and offered multiple ways of presenting a topic. Importantly, participants did not describe AI as replacing their teaching role. Their accounts show AI being used as a preparatory and supportive resource for lesson outlines, explanations, visual materials, and examples. The lived experience therefore involved a form of mediated preparation in which AI-generated content was brought into classroom practice after being selected or adapted by the pre-service teacher.

Language Focused Tools

Three participants referred to language-focused tools. Participant 2 stated, "I relied on Grammarly and Quillbot. Grammarly helped me correct grammar errors, while Quillbot assisted in paraphrasing complex texts." Participant 4 reported using Microsoft Copilot and Google Translate and explained that translating science lessons into Hindi helped students feel "included and valued."

The accounts indicate that language support was experienced not only as correction but also as a means of negotiating classroom diversity. For pre-service teachers working in multilingual settings, translation and language refinement could reduce communication difficulty. At the same time, the later findings on accuracy show that participants did not consider language outputs automatically reliable. Thus, usefulness and verification appeared together in the experience of using AI.

Interactive Learning Tools

Two participants described interactive AI-supported learning activities. Participant 3 recalled, “Students loved competing in an AI-generated quiz. Their excitement showed me how motivating technology can be.” Participant 7 similarly mentioned ChatGPT and Quizizz AI and observed that students enjoyed AI-generated quizzes.

The significance of this theme lies less in the number of participants and more in the type of classroom experience described. Interactive tools appeared to change the participation pattern of lessons by introducing competition, gamification, and immediate activity. The accounts suggest that pre-service teachers interpreted learner excitement as a sign of engagement, although the study did not independently measure student engagement. Figure 1 therefore presents the distribution as coded thematic references rather than as an objective measure of tool effectiveness.

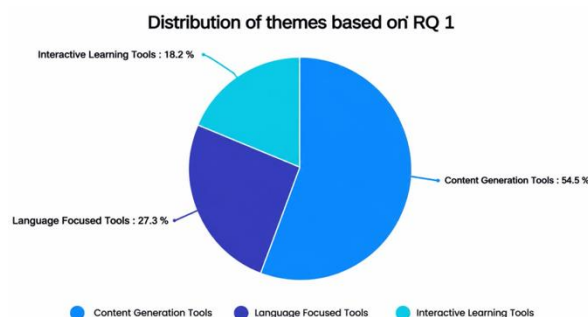


Figure 1. Distribution of coded AI-tool-use themes for RQ1.

4.2. Perceived Usefulness of AI Tools

RQ2 explored how pre-service teachers perceived the usefulness of AI tools. Four themes were identified: Enhanced Lesson Delivery and Organization, Student Engagement and Motivation, Improved Communication and Inclusivity, and Confidence and Professional Growth.

Enhanced Lesson Delivery and Organization

This was the recurring perception among the participants. It was found that four out of eight participants emphasized upon this theme. AI tools were perceived as very helpful in developing lessons, breaking down complex topics and secure logical sequencing. Participant 1 noted, “AI tools helped me break down lessons into clear steps, ensuring I didn’t miss important points.” Similarly, Participant 3 explained, “AI suggested structured lesson plans with

clear objectives, which made my teaching more systematic.” Participant 6 emphasized efficiency, “AI helped summarize lessons concisely,” while Participant 7 added, “AI suggested step-by-step strategies.”

These accounts suggest that perceived usefulness was closely related to organization. Participants appeared to value AI when it transformed a broad teaching task into smaller, more manageable components. For pre-service teachers who were still developing lesson-planning expertise, this form of support may have reduced uncertainty. The interpretation, however, remains experiential: participants perceived AI as helping them organize lessons, the study did not objectively evaluate lesson quality.

Student Engagement and Motivation

This was another key theme that was found from the responses of pre-service teachers. Again, four out of eight participants emphasized on this theme in their responses. In this regard, participants mirrored regarding how AI served as a tool of creativity and interactivity into real classroom settings. Participant 3 recalled, “Students loved competing in an AI-generated quiz. Their excitement showed me how motivating technology can be.” Participant 5 shared, “Designing a poster on environmental awareness fascinated students.” Participant 7 emphasized, “Students enjoyed AI-generated quizzes,” while Participant 8 added, “Canva helped design a colourful chart for geography that fascinated students.”

Across these accounts, AI was experienced as a resource for introducing novelty, visuality, interaction, and competition. The participants’ descriptions are consistent with literature emphasizing the potential of conversational and generative AI to support interaction and creativity when human teachers guide its use (Garcia Castro et al., 2024; Ji et al., 2023). Nevertheless, because students were not directly interviewed or assessed, the present finding should be understood as pre-service teachers’ perception of student engagement.

Improved Communication and Inclusivity

This theme was least explored themes by the participants and mainly emphasized by those participants who used Language focused tools in classroom teaching during their internship. Only three out of eight participants talked about this theme. Participant 2 stated, “Grammarly corrected my speech for an English lesson. The students appreciated the

clarity.” Participant 4 explained, “Translating science lessons into Hindi made students feel included and valued.” Participant 8 also noted, “Created charts, posters, and corrected notes.”

This theme shows how AI was experienced as a bridge across language and presentation difficulties. The finding is especially meaningful in diverse classrooms, where pre-service teachers may need to adjust explanations for learners with different linguistic resources. However, the accuracy concerns reported under RQ3 demonstrate that translation and language generation were not treated as infallible. The usefulness of AI therefore depended on the teacher's ability to review and contextualize its output.

Confidence and Professional Growth

This particular theme was most recurring theme highlighted by the participants. six out of eight participants emphasized upon this theme. It was an important theme because confidence acts as a huge aspect in teaching that provides a boost in professional growth later on. Participant 2 added, “I felt more confident presenting error-free materials.” Participant 4 emphasized, “AI boosted my confidence in teaching diverse classrooms.” Participant 5 noted, “AI increased my confidence in creativity.” Participant 6 reinforced, “AI boosted my confidence in literature teaching,” and Participant 7 concluded, “Boosted confidence in interactive teaching.”

The accounts suggest that AI use was experienced as a form of professional scaffolding. Participants did not merely describe obtaining information; they described feeling better prepared to enter classroom interactions. This interpretation aligns with research that connects AI-related experiences with teacher attitudes, competence, and anxiety (Galindo Dominguez et al., 2024; Hopcan et al., 2024). Yet the evidence should not be interpreted as proof that AI objectively increased professional competence. The finding concerns participants' perceived confidence during internship.

Figure 2. Distribution of coded perceived-usefulness themes for RQ2.

4.3. Challenges in Using AI Tools

RQ3 identified four areas of difficulty: Technical and Infrastructural Barriers, Accuracy and Reliability Concerns, Ethical and Pedagogical Concerns, And Lack of Institutional Support and Resistance.

Technical and Infrastructural Barriers

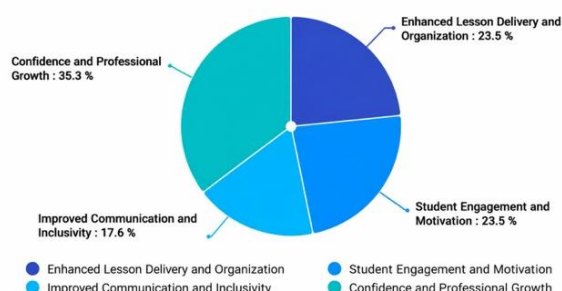
This is one of the most recurring themes that was mentioned by the participants. Technological and infrastructural barriers play a significant role in order to apply AI tools in classroom teaching for pre-service teachers, particularly during their school internship. Participant 1 shared, “Poor Wi-Fi and lack of smartboards limited my ability to use AI effectively.” Participant 2 noted, “The computers in the lab were outdated, which made usage difficult.” Participant 3 added, “Poor Wi-Fi and outdated projectors limited my use of AI.” Participant 4 explained, “Frequent electricity failures disrupted my use of AI.” Participant 5 highlighted, “Limited access to colour printers restricted my creativity.” Participant 6 stated, “Lack of smartboards limited my use of AI.” Participant 7 mentioned, “Low bandwidth issues,” while Participant 8 concluded, “Outdated hardware.”

These accounts demonstrate that technology acceptance was inseparable from material conditions. A pre-service teacher may perceive an AI tool as useful but still be unable to use it consistently when internet access, electricity, hardware, or classroom display facilities are unreliable. This finding supports the wider literature that treats facilitating conditions as an important part of educational technology adoption (Galindo Dominguez et al., 2024; Woodruff et al., 2023).

Accuracy and Reliability Concerns

This has become another essential theme, as pointed out by all the participants. When teachers start using technology in educational instruction, accuracy and reliability become a key concern. This is because, if technology fails to provide accurate information, then the teaching and learning process will affect. Participant 1 explained, “AI-generated facts were sometimes inaccurate. I had to cross-check with textbooks.” Participant 2 noted, “AI sometimes suggested synonyms that didn't fit the context.” Participant 3 shared, “Some answers didn't match textbook standards.” Participant 4 added, “Some translations were inaccurate, which confused students.”

Distribution of Themes based on RQ 2



Participant 5 stated, “Some facts were inaccurate, which required cross-checking.” Participant 6 reinforced, “I had to cross-check with syllabus materials.” Participant 7 mentioned, “Some answers were incorrect,” while Participant 8 concluded, “Some content lacked authenticity.”

The importance of this theme is that verification became part of the participants' lived experience of AI use. AI did not simply save time, it also introduced a new responsibility to evaluate its outputs. In classroom contexts, this responsibility is particularly significant because an inaccurate answer can be transmitted to multiple learners. The finding is consistent with broader concerns about the limitations and risks of generative AI (Rahman & Watanobe, 2023; Zhai et al., 2024).

Ethical and Pedagogical Concerns

Whenever AI is used in the context education, it is seen that some of the ethical concerns may arise regarding the honest application of AI tools in classroom teaching. This is another important theme, that was talked about all eight participants. Participant 1 worried, “Students might become dependent on AI rather than developing their own critical thinking.” Participant 2 added, “I worried about over-reliance on AI for writing.” Participant 3 expressed concern about fairness, “I was concerned about fairness in AI-generated quizzes.” Participant 4 noted, “I worried about authenticity of learning when students relied too much on translated notes.” Participant 5 emphasized, “I worried about plagiarism.” Participant 6 stated, “I worried about losing creativity.” Participant 7 added, “Worried about biased information,” and Participant 8 concluded, “Worried about students memorizing AI notes without thinking.”

These accounts show that participants did not interpret usefulness as equivalent to unrestricted use. Instead, the usefulness of AI was bounded by a concern for learner autonomy, fairness, originality, and critical thinking. This finding resonates with ethical frameworks emphasizing human responsibility in AI-supported education (Holmes et al., 2022; Farazouli, 2024) and with concerns about over-reliance on AI dialogue systems (Zhai et al., 2024).

Lack of Support and Resistance

This theme has proven to be another barrier that pre-service teachers felt in classroom teaching while school internship. To present AI integration in classroom, it is important to have sufficient support and resistance from

different stakeholders associated with it. This theme was also pinpointed by all 8 participants. Participant 1 worried, “Students might become dependent on AI rather than developing their own critical thinking.” Participant 2 added, “I worried about over-reliance on AI for writing.” Participant 3 expressed concern about fairness, “I was concerned about fairness in AI-generated quizzes.” Participant 4 noted, “I worried about authenticity of learning when students relied too much on translated notes.” Participant 5 emphasized, “I worried about plagiarism.” Participant 6 stated, “I worried about losing creativity.” Participant 7 added, “Worried about biased information,” and Participant 8 concluded, “Worried about students memorizing AI notes without thinking.”

The theme should therefore be interpreted cautiously. The available evidence supports a perception of limited confidence or support among some senior teachers, but it does not justify a broad claim that schools generally resist AI. For a pre-service teacher, however, even localized scepticism can matter because internship teaching takes place within a supervisory structure. Mentor expectations can affect whether an innovative tool is encouraged, questioned, or avoided.

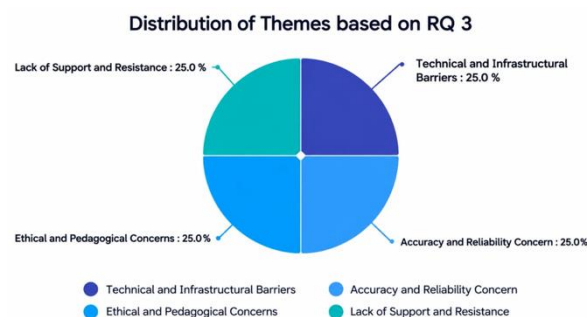


Figure 3. Distribution among challenges experienced during AI use.

5. Discussion

5.1. Interpreting AI use through TAM

The findings indicate that pre-service teachers' AI use was driven primarily by practical classroom purposes. Content Generation Tools were most visible, followed By Language-Focused and Interactive Tools. This pattern is compatible with research describing AI as a resource for planning, content creation, language support, and interaction (Forero Corba & Negre Bennasar, 2023; Ji et al., 2023). The finding also extends the literature by showing that these uses were

not described abstractly: they were embedded in internship tasks such as preparing lesson outlines, refining explanations, creating posters, correcting notes, translating material, and generating quizzes.

The results also help clarify how TAM operates in a phenomenological context. Participants' accounts of organized lesson plans, clearer explanations, engagement activities, language support, and increased confidence can be read as expressions of perceived usefulness. The fact that participants repeatedly returned to these benefits suggests that usefulness was experienced through concrete teaching problems. AI became acceptable when it appeared to solve a problem that the pre-service teacher was already facing.

5.2. RQ1 and the Purposes of AI use

The dominance of Content Generation Tools Suggests that pre-service teachers first encountered AI through the immediate demands of lesson preparation. This finding is understandable because lesson planning requires examples, explanations, sequencing, visual materials, and language adaptation. Generative AI can provide rapid drafts, which teachers can then modify. Rahman and Watanobe (2023) describe this combination of opportunity and risk in relation to ChatGPT, while Garcia Castro et al. (2024) identify both advantages and disadvantages in school-related uses.

The Language Focused Theme is also noteworthy because it points to an inclusion-oriented use of AI. Translation and language refinement were described as tools for making classroom communication clearer. Ji et al. (2023) similarly emphasize the potential of conversational AI in language education when collaboration with human teachers is maintained. The present findings therefore suggest that pre-service teachers may view AI not only as a content generator but also as a mediator of communication.

Interactive Tools formed the smallest RQ1 category, but their accounts were vivid. The descriptions of quizzes and student excitement suggest that AI-supported interactivity may change the social character of a lesson. However, the small number of references means that the study cannot establish that interactive AI is less important in general. It was simply less represented in these eight accounts.

5.3. RQ2 and Perceived Usefulness

The four usefulness themes show that participants experienced AI at multiple levels: planning, classroom

interaction, communication, and professional identity. Enhanced Organization represented the instrumental dimension of usefulness. Engagement And Motivation represented the classroom dimension. Communication And Inclusivity represented the relational dimension. Confidence And Professional Growth represented the professional dimension.

The professional dimension is especially important. Pre-service teachers enter internship with limited classroom experience and may experience uncertainty about lesson sequencing, explanations, materials, and classroom interaction. Participants' descriptions suggest that AI sometimes functioned as a preparatory scaffold. This is consistent with research on teacher readiness and AI attitudes (Galindo Dominguez et al., 2024; Yue et al., 2024) and with research concerning AI anxiety among teacher candidates (Hopcan et al., 2024).

However, the confidence finding should be interpreted carefully. Confidence is a perception, not a direct measure of competence. AI may help a pre-service teacher feel prepared without necessarily ensuring pedagogical quality. Conversely, a teacher may become more confident precisely because AI prompts them to review, organize, or rehearse their lesson. The important implication is that teacher education should help pre-service teachers convert AI-supported confidence into reflective professional judgement rather than encouraging uncritical dependence.

5.4. RQ3 and the Conditions of Responsible Use

The most important tension in the study is that usefulness and risk appeared together. Technical constraints show that adoption depends on facilitating conditions. Accuracy concerns show that AI requires verification. Ethical concerns show that technological convenience can conflict with educational values. Institutional resistance shows that individual willingness is embedded within social and organizational contexts.

The accuracy theme is particularly significant. Participants described cross-checking AI-generated information with textbooks and syllabus materials. This practice suggests that AI literacy in teacher education should include verification literacy: the ability to question, compare, contextualize, and correct AI output. This point is consistent with research on AI ethics and over-reliance (Holmes et al., 2022; Rahman & Watanobe, 2023; Zhai et al., 2024).

The ethical concerns similarly reveal that participants were thinking beyond efficiency. Their concerns about plagiarism, bias, dependence, creativity, and fairness indicate an emerging awareness that AI changes the conditions under which learning occurs. Such concerns are central to ethical AI scholarship (Farazouli, 2024; Holmes et al., 2022). They also resonate with broader concerns raised in studies of generative AI in educational settings (Firat, 2023; Koroleva & Jomezai, 2024).

The institutional-support theme requires more cautious interpretation because the evidence was comparatively limited. The statement that senior teachers doubted AI reliability suggests that mentor attitudes can shape pre-service teachers' willingness to experiment. Chan (2023) emphasizes the importance of institutional policy and guidance, while Woodruff et al. (2023) identify barriers to AI adoption in K–12 contexts. The present study adds a field-based perspective: for an intern, institutional support is not an abstract policy matter but part of the immediate professional environment.

5.5. Critical Synthesis with Previous Research

The present findings largely support earlier literature while adding a contextual perspective. Previous research often examines AI readiness through attitudes, competencies, or institutional frameworks, whereas this study shows how usefulness, constraints, and concerns coexist during everyday teaching. Participants negotiated AI adoption selectively, balancing benefits with unreliable infrastructure, inaccurate outputs, and risks of student dependence. This negotiated acceptance complements extended TAM perspectives while demonstrating the value of lived experience. The study also highlights the importance of school contexts in India and supports calls for assessment redesign, particularly regarding AI-generated tasks, fairness, learning outcomes, and responsible assessment practices.

5.6. Theoretical Contribution

The theoretical contribution lies in connecting TAM with lived experience. Rather than using TAM only to predict technology adoption, the study shows how perceived usefulness is embedded in professional, material, ethical, and relational contexts. The participants did not experience usefulness as an isolated psychological judgement. They experienced it through specific tasks and within specific conditions.

The findings therefore suggest a contextualized interpretation of technology acceptance: perceived usefulness may encourage experimentation, but trust, infrastructure, ethical judgement, mentor response, and professional confidence influence whether that usefulness can be translated into classroom practice. Phenomenology contributes the experiential layer that acceptance models may overlook, while TAM provides a conceptual vocabulary for interpreting recurring patterns in the accounts.

5.7. Practical Implications

The findings have several practical implications. Teacher education institutions should integrate AI literacy into coursework and internship preparation, covering prompt design, output verification, bias, copyright, privacy, and responsible lesson design. School mentors should guide interns to justify AI use, verify outputs, and align activities with learning outcomes. Policymakers should strengthen internet, hardware, display facilities, technical support, and clear guidelines on privacy and academic integrity. Pre-service teachers should treat AI as an assistant, combining its benefits with verification and sound pedagogical judgement.

6. Limitations

The study has several limitations. First, the sample included only eight participants from two universities, limiting transferability. Second, the participants were drawn from two institutional contexts in India, so their experiences may not reflect the conditions of other states, universities, or school systems. Third, the study relies on self-reported interview accounts rather than direct classroom observation or independent measures of teaching effectiveness. Fourth, interviews lasted approximately 20–25 minutes, which constrained the depth of some accounts. Fifth, participants may have selectively remembered or emphasized particular experiences. Finally, because the study was phenomenological, it was designed for depth of interpretation rather than statistical generalization.

These limitations do not invalidate the findings; rather, they define the claims that can reasonably be made. The study provides contextual insight into how a small group of pre-service teachers experienced AI during internship. It does not establish the effectiveness of AI for all pre-service teachers or demonstrate causal effects on student learning.

7. Recommendations

Teacher education programmes should integrate AI literacy through guided practice, output verification, ethical decision-making, and reflection on learner autonomy. Schools should provide clear expectations, mentorship, and orientation for responsible AI use. Institutions should strengthen infrastructure, technical support, privacy, academic integrity, and accountability frameworks. Future research should examine larger and more diverse samples across Indian contexts, using longitudinal, mixed-methods, quasi-experimental, and phenomenological designs to investigate changes in AI perceptions, learning outcomes, engagement, language proficiency, critical thinking, and the influence of institutional policies and curricula.

8. Conclusion

This study explored the lived experiences of eight pre-service teachers using AI tools during school internship. Three broad patterns of AI use emerged: content-generation tools, language-focused tools, and interactive learning tools. Participants perceived AI as useful for organizing and delivering lessons, supporting engagement, improving communication and inclusivity, and strengthening confidence. At the same time, they experienced technical limitations, concerns about accuracy and reliability, ethical and pedagogical risks, and limited institutional support.

The central conclusion is that AI acceptance among pre-service teachers is contextual and negotiated. Perceived usefulness encourages experimentation, but usefulness alone does not guarantee effective or responsible classroom integration. Trust, verification, infrastructure, mentor responses, and professional judgement shape how AI is actually experienced. The theoretical contribution of the study lies in showing how TAM can be enriched by phenomenological attention to the lived context of technology use. Practically, the findings support teacher education that combines AI competence with ethical reasoning, critical verification, and pedagogical judgement. Given the study's small and context-specific sample, these conclusions should be treated as situated insights rather than generalizable claims.

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