

Exploring Teachers' Perceptions of AI-Assisted Teaching of Pakistan Studies in High School

Anila Jawad

anilajawad29@gmail.com

School of Education, Educational Leadership and Management, Beaconhouse National University, Lahore

Dr. Shahbaz Khan

Supervisor, School of Education, Educational Leadership and Management, Beaconhouse National University,
Lahore

Corresponding Author: Anila Jawad anilajawad29@gmail.com

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ABSTRACT

Artificial intelligence (AI) is increasingly entering school classrooms, yet evidence about its use in humanities subjects and in the Pakistani school context remains limited. This qualitative study explored high school Pakistan Studies teachers' perceptions of AI-assisted teaching, focusing on classroom use, perceived benefits and limitations, commonly used tools, and the influence of teacher and institutional characteristics. Semi-structured interviews were conducted with 10 Pakistan Studies teachers from private schools. Data were manually transcribed and analyzed thematically using an interpretive approach informed by the UNESCO AI Competency Framework for Teachers and meaningful learning theory. Seven participants reported regular or occasional classroom use of AI, while nine perceived AI-supported teaching as more engaging and interactive than conventional approaches. ChatGPT, Canva, Google Gemini, Kahoot, and Gamma were used mainly for lesson planning, visual materials, quizzes, summaries, timelines, and student projects. Teachers perceived gains in student attention, creativity, participation, and opportunities for student-led learning, while also reporting time savings in lesson preparation. However, all participants identified barriers related to infrastructure, affordability, curriculum alignment, content accuracy, ethical use, and potential student over-reliance on AI. Age and prior digital exposure influenced confidence, but all participants expressed a need for structured professional development. The study concludes that AI is best positioned as a teacher-guided supplement rather than a replacement for professional judgment. Effective integration requires teacher training, reliable infrastructure, curriculum alignment, ethical safeguards, localized content, and supportive school leadership.

Keywords: artificial intelligence; Pakistan Studies; teacher perceptions; generative AI; high school; meaningful learning; teacher agency; UNESCO AI competency

INTRODUCTION

Artificial intelligence has moved from a specialist technological field into an increasingly visible part of educational practice. Generative AI systems can produce text, images, summaries, questions and other learning materials within seconds, while digital platforms can support formative assessment, visualization and individualized learning activities. The educational significance of these developments, however, cannot be reduced to the availability of new tools. The central question is how teachers interpret, select, adapt and evaluate AI within particular pedagogical, curricular and cultural contexts. This question is especially important in humanities and social science subjects, where learning depends not only on factual recall but also on interpretation, argumentation, contextual understanding, civic reasoning and engagement with contested narratives.

International research has identified substantial opportunities for AI-supported education, including personalization, feedback, learning analytics, content creation and support for teachers. At the same time, research has raised concerns about bias, inaccurate outputs, privacy, academic integrity, unequal

access and the possibility that students may become dependent on automated answers. A systematic review by Zawacki-Richter and colleagues (2019), for example, showed that AI-in-education research has historically been concentrated in technical and quantitative areas and that educators' perspectives have received comparatively less attention. More recent discussion of generative AI has reinforced the need to balance innovation with human oversight, critical literacy and equitable access (Kasneji et al., 2023).

These issues are particularly relevant to Pakistan Studies. The subject addresses historical developments, geography, citizenship, political processes, national identity and social values. Its content is therefore both information-rich and interpretive. In conventional classroom practice, Pakistan Studies may rely heavily on textbooks, lectures, note-taking and memorization. Such approaches can provide students with a structured body of knowledge, but they may provide fewer opportunities for students to visualize historical processes, compare perspectives, construct arguments, collaborate on projects or connect classroom content with contemporary civic questions. AI-assisted tools may create opportunities for these forms of learning, but only when they are integrated purposefully by teachers.

The present study therefore examines AI-assisted teaching from the perspective of Pakistan Studies teachers. Rather than treating AI as inherently beneficial or harmful, the study asks how teachers experience it in practice. It focuses on the ways teachers use tools such as ChatGPT, Canva, Google Gemini, Kahoot and Gamma; the reasons that encourage or discourage adoption; perceived differences between AI-supported and traditional teaching; challenges associated with infrastructure and curriculum; and the professional learning teachers believe they need. The study is situated within an interpretivist qualitative paradigm and uses meaningful learning and the UNESCO AI Competency Framework for Teachers as complementary conceptual lenses.

The study makes three main contributions. First, it provides a subject-specific account of AI use in Pakistan Studies rather than treating AI integration as a generic school technology issue. Second, it places teachers at the centre of analysis and recognizes that technology adoption is mediated by professional judgment, school culture and curriculum demands. Third, it connects the empirical findings to practical implications for teacher development, school leadership, curriculum alignment, infrastructure and ethical AI literacy. The findings are intentionally presented as teachers' perceptions rather than as experimental evidence of measured learning gains.

Research Questions

1. How do Pakistan Studies teachers perceive the integration of AI-assisted teaching methods in high schools?
2. What are the perceived benefits and limitations of AI-assisted teaching in comparison with traditional methods?
3. What AI tools and platforms are commonly used by Pakistan Studies teachers, and how are they applied in classroom practice?
4. How do teacher characteristics, including age, gender and subject experience, influence perceptions of AI-assisted teaching?

Significance of the Study

The significance of the study lies in its combination of subject specificity, teacher voice and contextual sensitivity. Much of the established AI-in-education discussion has developed around higher education, STEM disciplines, learning analytics or technological performance. Pakistan Studies presents a different pedagogical environment because its content includes historical narratives, civic concepts and

questions of identity and interpretation. Understanding how teachers navigate AI in this environment can help educational leaders move beyond technology adoption as an end in itself and toward pedagogically responsible implementation.

The study also has practical significance for private schools in Pakistan. Schools may have access to devices and internet connectivity yet still experience uneven teacher confidence, inconsistent policies and uncertainty about appropriate classroom use. Conversely, teachers who are willing to experiment may be prevented from doing so by institutional restrictions. The findings suggest that successful AI integration depends on an interaction among teacher capability, school leadership, infrastructure, curriculum fit and ethical guidance. These factors should therefore be addressed together rather than through isolated technology purchases.

LITERATURE REVIEW

AI and the Changing Role of the Teacher

AI-supported education has developed through several waves, including intelligent tutoring systems, adaptive learning, automated assessment, learning analytics and, more recently, generative AI. Earlier approaches were often designed around prediction, personalization or automation. Generative AI has expanded the range of tasks that teachers and students can perform through natural-language interaction. A teacher can ask a system to generate a lesson outline, produce alternative explanations, create quiz questions or suggest classroom activities. Students can request explanations, examples, summaries or brainstorming support. These capabilities can reduce routine preparation time, but they also make teacher judgment more important because AI output is not automatically accurate, contextually appropriate or pedagogically sound.

The teacher's role is therefore better understood as changing rather than disappearing. UNESCO's 2024 AI Competency Framework for Teachers describes five dimensions of teacher competency: a human-centred mindset, ethics of AI, AI foundations and applications, AI pedagogy, and AI for professional learning. The framework emphasizes human agency and recognizes that teachers need knowledge and values as well as technical skills. This orientation is particularly relevant to the present study because the participants repeatedly described AI as a support for lesson planning, presentation and activity design rather than as a replacement for the teacher.

The distinction between tool use and pedagogical integration is important. Using an AI system to produce a worksheet does not necessarily create better learning. Pedagogical value depends on what students subsequently do with the material. If students simply copy AI-generated answers, the technology may reduce rather than strengthen independent thinking. If students compare AI outputs with textbooks, identify errors, defend interpretations, construct timelines or debate alternative explanations, the same technology can become a stimulus for inquiry. AI therefore changes the resources available to teachers, but teachers remain responsible for designing the learning process.

AI, Engagement and Student-Centred Learning

One of the strongest arguments for AI-supported education is that digital tools can make learning more interactive and responsive. Multimedia, visual timelines, quizzes and generated scenarios can provide alternative representations of information. This can be valuable in Pakistan Studies, where students encounter long sequences of historical events and concepts that may appear abstract when presented only through prose. The participants in the present study described using visual presentations, interactive quizzes, timelines and AI-generated characters to make content more accessible and interesting.

Meaningful learning theory provides a useful way of interpreting this finding. Ausubel's account of meaningful verbal learning emphasizes the importance of connecting new information with existing cognitive structures. Novak (2010) further developed this tradition through work on knowledge construction and concept mapping. From this perspective, technology is valuable when it helps learners organize, connect, explain and apply ideas. A visually attractive presentation is therefore not automatically meaningful; it becomes meaningful when it helps students relate a historical event to prior knowledge, identify relationships, ask questions or use knowledge in an authentic context.

The present study also found evidence of a movement toward student-centred learning. Eight of the ten teachers reported a noticeable shift in classroom roles, with students becoming more active in researching, producing and presenting material while teachers acted more as facilitators. This finding is consistent with the teacher-agency perspective in UNESCO's framework. AI can expand the range of activities available to learners, but student agency still depends on the teacher establishing purposeful tasks, monitoring learning and encouraging reflection.

AI in Humanities and Social Science Education

The literature on AI in education has often been shaped by disciplines where learning outcomes can be easily quantified. This has contributed to a relative shortage of research on humanities and social science teaching. Zawacki-Richter et al. (2019) found that the research base was strongly connected to computer science and STEM-oriented applications. This imbalance matters because humanities learning involves forms of reasoning that are not reducible to factual correctness. History and civic education require learners to interpret evidence, consider context, compare accounts and construct arguments.

Generative AI creates particular opportunities and risks in these fields. It can rapidly provide multiple descriptions of an event, generate questions or create simulated perspectives. Yet it can also reproduce omissions or biases embedded in its training data. In a subject such as Pakistan Studies, where historical and political topics may be interpreted differently, teachers cannot assume that an AI-generated answer is neutral. Content must be checked against authoritative sources and curriculum requirements. The concern expressed by participant T5 that dates and facts should be double-checked illustrates the importance of verification in humanities education.

The issue is therefore not whether AI can produce historical information, but whether teachers can use it to support historical thinking. A productive classroom may ask students to examine an AI-generated summary, compare it with a textbook or primary source, identify missing context, and explain why a particular interpretation is stronger. In this form, AI becomes an object of critical inquiry as well as a source of learning material.

Equity, Infrastructure and the Pakistani Context

The educational benefits of AI are unevenly distributed because access to devices, internet connectivity, electricity, software and professional development varies across schools and communities. UNESCO's ethical framework emphasizes fairness, inclusion, privacy, human oversight and AI literacy. These principles are particularly important in contexts where digital infrastructure remains uneven. A school cannot reasonably expect teachers to integrate cloud-based AI tools when internet access is unstable or when teachers and students lack appropriate devices.

The present study focused on private schools, where access to technology is generally more feasible than in many under-resourced settings. Even within this relatively advantaged context, however, participants described power interruptions, connectivity problems, affordability concerns and institutional restrictions. This finding suggests that infrastructure remains a practical issue even where technology adoption is comparatively advanced. It also highlights a wider equity concern: if AI becomes

an expected component of high-quality education but access remains concentrated in better-resourced schools, AI could widen rather than reduce educational inequality.

Equity also has a pedagogical dimension. AI systems may perform differently across languages and cultural contexts. Teachers in Pakistan may need tools that can support English as well as local languages and that recognize the historical and cultural context of the national curriculum. Localization should therefore include not only translation but also culturally and academically appropriate content, examples and sources.

Ethical Risks: Accuracy, Bias, Privacy and Over-Reliance

Ethical concerns emerged strongly in the present study. Teachers were particularly concerned about content accuracy and the possibility of students copying AI-generated responses without analysis. These concerns correspond with broader scholarship on generative AI, which highlights both its educational potential and risks related to misinformation, bias, academic integrity and unequal access (Kasneci et al., 2023; Tlili et al., 2023). UNESCO's Recommendation on the Ethics of Artificial Intelligence places human dignity, fairness, transparency, privacy and human oversight at the centre of responsible AI use.

For Pakistan Studies, accuracy has a special significance because historical and civic content can influence students' understanding of national identity and citizenship. Teachers in the study reported checking AI-generated information against textbooks and other sources. This practice should be understood as a form of professional mediation. Rather than treating AI output as authoritative knowledge, teachers position it as a draft or resource that requires verification. Such mediation can also become a learning opportunity if students are taught to ask why an AI response may be incomplete or inaccurate.

Privacy is another concern. Educational AI platforms may process user prompts, uploaded documents or other information. Schools therefore need clear rules about what student information may be entered into external systems. AI literacy should include not only prompt skills but also an understanding of data privacy, authorship, bias, source evaluation and responsible use.

Teacher Agency and Professional Development

Teacher agency is central to meaningful AI integration. Teachers decide whether a tool is appropriate, how much authority to give it, what students should do with its output and how its accuracy will be checked. The present study found that teachers with greater digital exposure tended to adapt more comfortably, while some experienced teachers required more support. Importantly, the findings also indicate that age itself should not be treated as a fixed barrier: professional development helped teachers gain confidence.

All ten participants identified a need for structured AI training. Their preferred forms of development included hands-on workshops, school-based support, access to software and integration of AI into pre-service teacher education. This aligns closely with UNESCO's 2024 framework, which treats AI competence as a multidimensional professional capacity rather than a single technical skill. Training should therefore move from "how to use the tool" to "when, why and how to use the tool for learning."

Research Gap

The literature and the present study together identify four important gaps. First, subject-specific research on AI in Pakistan Studies is limited compared with broader AI-in-education research. Second, teacher perspectives remain underrepresented even though teachers mediate classroom implementation. Third, research from high-income contexts cannot simply be transferred to Pakistan because infrastructure, language, policy and institutional conditions differ. Fourth, there is a need for research

that treats ethical and cultural relevance as central rather than peripheral to AI adoption. The present qualitative study addresses these gaps by examining teacher experience in a defined Pakistani private-school context.

METHODOLOGY

Research Paradigm and Design

The study adopted an interpretivist qualitative approach. The purpose was to understand how Pakistan Studies teachers make sense of AI-assisted teaching within their professional and institutional contexts rather than to establish a universal causal effect. Interpretivism is appropriate where meanings are socially constructed and where participants' experiences may differ according to school culture, professional background and prior technology exposure. A qualitative design also allowed participants to explain unexpected issues, such as concerns about AI credibility, which were not necessarily predictable from the interview questions.

Semi-structured interviews were selected as the primary method. The interview format provided consistency across participants while allowing probing and follow-up questions. The unit of analysis was the individual Pakistan Studies teacher. The study was cross-sectional and focused on high school teaching in private-school settings. The final dissertation identifies ten participants, coded T1–T10, to protect confidentiality.

Participants and Sampling

Purposive sampling was used to identify teachers with experience teaching Pakistan Studies and exposure to AI-assisted educational tools. The participant table in the dissertation reports ten teachers from private schools, with ages ranging from 28 to 53 years and different levels of AI exposure. The sample included both male and female teachers. The variation in AI exposure was useful because it allowed the study to capture both enthusiasm and hesitation rather than presenting AI adoption as uniform.

Participant	Gender	Age	AI exposure
T1	Female	45	Low
T2	Male	32	Medium
T3	Male	38	Medium
T4	Female	29	High
T5	Male	41	Low
T6	Female	35	High
T7	Male	53	Medium
T8	Female	31	High
T9	Male	47	Low
T10	Female	28	High

The participant profile should be interpreted as contextual rather than representative of all Pakistan Studies teachers. The study does not support statistical generalization to public schools, rural schools or the wider Pakistani teaching population.

Data Collection

The interview guide contained eight core questions addressing usefulness of AI, motivations and barriers, comparison with traditional methods, commonly used tools, school support, the influence of teacher age and experience, and the need for AI training. Probing questions asked teachers to describe concrete classroom examples and student responses. Interviews were conducted over approximately

two weeks, either in person or through remote voice/video communication depending on participant availability. The dissertation reports interviews of approximately 30–45 minutes in the data-collection chapter. Audio recording was undertaken with consent, and transcripts were manually prepared and de-identified.

Ethical procedures included informed consent, confidentiality, voluntary participation and secure storage of data. Participants were identified through codes rather than names or school affiliations. The study also recognized the researcher's role in interpretation and used reflexive attention to reduce the risk that personal assumptions would determine the analysis.

Data Analysis

The data were analyzed manually using thematic analysis. The process involved repeated reading and familiarization, initial coding, grouping related codes, reviewing candidate themes, defining themes and producing the analytical narrative. Braun and Clarke (2006) describe thematic analysis as a flexible method for identifying patterned meaning across qualitative data. In the present study, themes included AI as a supplementary tool, motivation and time saving, engagement, challenges, curriculum alignment, teacher background, training needs and student-centred learning.

The analysis was also connected to two conceptual lenses. The UNESCO AI Competency Framework helped interpret issues related to ethical use, teacher capability, pedagogy and professional learning. Meaningful learning theory helped examine whether AI-supported activities appeared to promote active engagement, connections with prior knowledge, authentic tasks and student construction of understanding. The frameworks were used as interpretive guides rather than as rigid categories that excluded emergent themes.

Trustworthiness and Limitations of Method

Credibility was supported through repeated engagement with transcripts, consistent participant coding and attention to the relationship between interview statements and themes. Rich description was used to support transferability. An audit-oriented record of coding and reflexive notes contributed to dependability and confirmability. Nevertheless, the study has limitations. The sample is small and geographically constrained; participants were predominantly urban or semi-urban and came from private-school settings. Data were self-reported, and the study did not directly observe lessons or measure student achievement. The participants' perceptions of improved outcomes therefore should not be interpreted as experimentally demonstrated effects.

Findings

Ten themes emerged from the interviews. The findings below preserve the study's reported frequencies while interpreting them cautiously because the data are qualitative and the frequencies indicate the number of participants mentioning a theme rather than statistical prevalence in a wider population.

Theme	Central finding	Participants
AI usage frequency	Most participants used AI regularly or occasionally, particularly for visuals and presentations.	7/10
Motivation	Engagement, innovation and time saving motivated adoption.	8/10
Comparison with traditional methods	AI-supported teaching was perceived as more engaging and interactive.	9/10

Challenges	Infrastructure, affordability, over-reliance and curriculum mismatch were concerns.	10/10
Popular tools	ChatGPT, Canva, Gemini, Kahoot and Gamma were commonly mentioned.	10/10
Curriculum and ethics	Teachers checked AI content against curriculum and other sources.	10/10
Teacher background	Age, experience and digital exposure influenced confidence.	8/10
Training	All participants wanted structured AI professional development.	10/10
Student engagement	Teachers perceived improved attention, creativity and participation.	9/10
Student-centred learning	AI supported more autonomous and collaborative classroom activity.	8/10

Extent and Nature of AI Use

Seven of the ten teachers reported frequent or occasional use of AI tools. AI was primarily used as a supplement to existing teaching rather than as a replacement for the teacher. Common uses included lesson planning, visual presentations, timelines, quizzes, short summaries and student research. Participant T1 explained that ChatGPT, Canva and Gemini were useful for preparing timelines and events in a content-heavy subject. T4 similarly distinguished between using AI for the content itself and using it to improve the way a topic was structured and presented.

This pattern is significant because it demonstrates selective adoption. Teachers were not handing the full teaching process to AI. Instead, they were choosing tasks for which AI could provide efficiency or alternative forms of representation. This selective approach also suggests that teacher agency remained central. At the same time, institutional policies influenced what teachers could do. T6 reported that her school did not permit classroom AI use and that even lesson-planning use could attract warnings. Thus, willingness alone did not determine adoption.

Motivation: Engagement, Innovation and Time Saving

Teachers described three major motivations: increasing student engagement, making lessons more innovative and saving preparation time. T4 reported that AI allowed her to prepare visually rich lessons in approximately half the time required previously. T9 explained that students became more alert and responsive when lessons included presentations or Kahoot quizzes. These comments suggest that teachers valued AI not only for novelty but for its practical contribution to workload and classroom interaction.

Time saving is an important but sometimes overlooked dimension of educational technology. Teachers' preparation includes searching for resources, designing questions, producing visual material and adapting content. AI can accelerate some of these tasks, potentially freeing time for discussion, feedback and classroom relationships. However, efficiency should not be confused with educational quality. Faster production of inaccurate or poorly aligned material can create additional workload because teachers must verify and revise the output.

AI Compared with Traditional Teaching

Nine participants perceived AI-supported teaching as more engaging and interactive than conventional methods. T3 contrasted memorization with activities such as documentaries, timelines and AI-generated historical characters. T7 described a move toward student-led sessions in which learners prepared and presented material. These accounts indicate a shift from a transmission-oriented model toward more participatory learning activities.

The findings do not imply that traditional methods should be abandoned. Some participants remained skeptical of AI because of concerns about factual reliability and depth. T5 preferred books and library sources for historical facts because dates and details required checking. This skepticism is educationally valuable: it demonstrates that teachers recognized the difference between accessibility of information and reliability of knowledge. The strongest interpretation of the findings is therefore that AI can complement traditional sources, not replace them.

Challenges of AI Integration

All ten participants identified barriers. Technological barriers included internet connectivity, electricity interruptions and device affordability. Pedagogical barriers included matching AI output to the syllabus. Cognitive concerns involved students copying and pasting rather than analyzing information. T1 expressed concern that students might simply copy answers, while T10 emphasized the need to verify AI output before using it.

These challenges demonstrate that AI integration is a system-level issue. A teacher can be motivated and digitally confident but still be unable to use an AI tool when connectivity fails. Similarly, a technically functional tool may be unsuitable if its output does not match the national curriculum. The findings therefore challenge a narrow view in which AI adoption is measured only by whether teachers have access to an application.

Tools and Classroom Applications

ChatGPT was mainly associated with outlines, lesson planning, research support and summaries. Canva was used to create visual presentations, infographics and historical timelines. Kahoot was used for quizzes and formative assessment. Google Gemini was used for concise summaries and review material, while Gamma was mentioned as a presentation-related tool. The common feature across these uses was augmentation: AI was employed to help teachers produce resources and help students engage with content in different forms.

The tools were therefore integrated into recognizable pedagogical activities rather than used as isolated technological demonstrations. A timeline generated or designed with AI still needed a curriculum objective. A Kahoot quiz still required appropriate questions. A summary still required verification. The educational value came from how teachers embedded the tool within the lesson sequence.

Curriculum Alignment and Ethical Use

All participants recognized the need to check AI-generated content. T9 stated that historical facts could be interpreted differently and that teachers cross-checked AI information against textbooks. T3 instructed students to use AI for initial research rather than rely on it fully. These practices show that teachers were developing informal safeguards in response to uncertainty about AI output.

Curriculum alignment was particularly important because Pakistan Studies includes politically and historically sensitive material. AI-generated content may simplify complex events, omit perspectives or use terminology that does not match the curriculum. Teachers therefore acted as content validators. This

role is consistent with UNESCO's emphasis on human oversight and with its 2024 framework's focus on ethics, pedagogy and human-centred AI competency.

Teacher Background and AI Adoption

Teacher age, experience and previous exposure to digital tools influenced comfort with AI. Younger or more digitally exposed participants tended to adapt more quickly, while some senior teachers described difficulty with interfaces. However, the data also show that age was not an absolute barrier. T10's account indicated that training could support adaptation. This finding is important for professional development because it shifts the focus from assumptions about "digital natives" to opportunities for structured support.

The interviews also suggest that personal circumstances affected perceptions of usefulness. Some female teachers with family responsibilities particularly valued the time-saving dimension of AI. This does not establish a gender effect in the statistical sense, but it illustrates how professional technology adoption can be connected to teachers' broader workload and life circumstances.

Professional Development Needs

All ten participants called for regular AI training. Preferred approaches included hands-on workshops, ethical-use seminars, curriculum-linked support and access to software. T7 emphasized that professional development should include students as well as teachers. Participants also suggested that AI should become part of pre-service teacher education rather than being treated as an optional skill acquired informally after entering the profession.

The findings indicate that teachers want more than technical demonstrations. They need opportunities to practice designing AI-supported lessons, evaluating output, checking sources, creating assessments and managing student use. Professional development should therefore be continuous and school-based, with peer support and opportunities to share successful and unsuccessful practices.

Perceived Effects on Engagement and Learning

Nine participants reported positive changes in student attention, creativity or participation. T9 described students presenting projects using AI tools and perceived improvement in engagement. T4 explained that Pakistan Studies had become more interesting through presentations and visuals. Teachers also described interactive timelines, historical characters, role-play and student presentations as ways of making the subject more active.

Because the study did not collect standardized achievement data, these findings should be described as perceived effects. Nevertheless, they are important because teachers' perceptions influence whether they continue to use an innovation. The results suggest that teachers saw AI-supported activities as particularly useful for motivating students who found textbook-centred instruction less engaging.

Shift Toward Student-Centred Learning

Eight participants reported a movement toward student-centred learning. Students were increasingly involved in researching, generating, designing and presenting material. T7 summarized this shift by describing the teacher as a facilitator while students controlled more of the learning process. This theme is closely related to meaningful learning because students engage with information through activity rather than only receiving it.

The shift also changes teacher workload and identity. Teachers remain responsible for setting objectives, selecting resources and evaluating learning, but their classroom role can move toward facilitation, questioning and feedback. AI can support this transition when it reduces routine preparation and makes

it easier to create varied activities. However, if AI simply generates ready-made answers for students, the shift may become superficial. Student-centred learning requires students to think, make decisions and justify conclusions.

DISCUSSION

The findings present a balanced picture of AI-assisted Pakistan Studies teaching. Teachers generally viewed AI positively when it was used for specific pedagogical purposes, especially visualization, lesson planning, formative assessment and student projects. At the same time, they did not regard AI as an independent authority. Concerns about accuracy, curriculum alignment, over-reliance and infrastructure were widespread. The central message is therefore not that AI should replace traditional teaching, but that AI can extend teachers' pedagogical options when human judgment remains central.

AI as a Catalyst for Pedagogical Change

The shift from teacher-centred to student-centred learning was one of the most significant findings. Eight participants described greater student autonomy and collaborative activity. This is consistent with meaningful learning theory, which emphasizes connections among new information, prior knowledge and active construction of understanding. The AI tools were most educationally promising when they enabled students to produce something, investigate a question or present an interpretation rather than merely receive an answer.

For Pakistan Studies, this distinction is important. Historical and civic learning can be transformed through tasks such as comparing two accounts of an event, creating a visual timeline, designing a civic-awareness presentation or evaluating the strengths and weaknesses of an AI-generated explanation. In such activities, AI becomes a resource within a broader inquiry process. The teacher's role is to design the task and create conditions in which students must think beyond the AI output.

Teacher Agency and School Culture

The findings indicate that school culture strongly shapes technology adoption. Teachers in supportive environments were more willing to experiment, while institutional restrictions discouraged use even among motivated teachers. This supports the view that technology integration is organizational as well as individual. School leaders need to establish clear policies that distinguish responsible experimentation from inappropriate use rather than adopting blanket bans or unrestricted access.

Leadership should also create time for professional learning. Teachers cannot be expected to redesign pedagogy while simultaneously managing full workloads without support. School-based AI communities of practice could allow teachers to test tools, share prompts and lesson designs, discuss errors and develop common standards for verification. Such collaborative structures would make AI integration a collective learning process rather than an individual responsibility.

Professional Development as the Core Enabler

The unanimous call for training is perhaps the clearest practical finding. UNESCO's 2024 framework similarly identifies multiple dimensions of competency, including ethics, foundations, pedagogy and professional learning. The present study suggests that training should be staged. Initial sessions can introduce basic tools and concepts; intermediate sessions can focus on curriculum-linked lesson design; advanced sessions can address evaluation, bias, assessment redesign and student AI literacy.

Professional development should also be differentiated. Teachers with limited digital confidence may need guided, hands-on support, while experienced users may benefit more from sessions on pedagogy, ethics and curriculum design. This approach respects teacher diversity and avoids presenting AI training as a one-size-fits-all intervention.

Curriculum Alignment and Localization

Curriculum alignment emerged as a central condition for responsible AI use. Teachers repeatedly described checking AI output against textbooks and syllabus requirements. This practice should be institutionalized rather than left to individual teachers. Schools can develop curriculum-aligned prompt banks, verification checklists and approved source lists. Curriculum developers can also collaborate with teachers and technology specialists to identify topics where AI-generated material requires especially careful review.

Localization should extend beyond language. AI resources for Pakistan Studies should reflect local historical sources, terminology, geography, civic structures and cultural contexts. Where multiple interpretations exist, classroom materials should encourage comparison and evidence-based reasoning rather than presenting one automated response as definitive. This is particularly consistent with UNESCO's emphasis on human-centred and culturally responsive AI.

Ethical and Critical AI Literacy

The study shows that ethical AI literacy must be integrated into both teacher and student learning. Teachers need to understand data privacy, bias, inaccurate outputs and responsible prompting. Students need to understand that AI-generated text is not automatically evidence. They should learn to verify claims, identify unsupported assertions, recognize copied work and disclose appropriate AI assistance where required.

This is particularly important for Pakistan Studies because the subject can shape civic understanding. Students should be encouraged to interrogate AI-generated historical narratives rather than accept them passively. An AI response can become the starting point for a source-evaluation exercise: What claim is being made? What evidence supports it? What information is missing? How does the response compare with the textbook or primary source? Such activities convert an ethical risk into an opportunity for critical literacy.

Infrastructure and Educational Equity

The infrastructure findings demonstrate that AI integration cannot be separated from basic educational provision. Reliable internet, electricity and devices are prerequisites for many AI applications. If these conditions are absent, teachers cannot implement even well-designed pedagogical plans. The private-school context of the study may therefore represent a relatively favourable environment compared with many public or rural schools. Future policy should avoid assuming that successful implementation in private urban schools can be transferred automatically to all settings.

Equity also requires attention to software costs. Free versions of tools were popular in the study, but access to premium features may influence the quality and range of educational use. Schools should evaluate affordability and avoid creating a system in which only students with personal subscriptions receive advanced AI opportunities.

Interpreting the Findings Through UNESCO's Framework

The findings map closely onto UNESCO's five competency dimensions. First, the human-centred mindset is visible in teachers' insistence that AI should support rather than replace professional judgment. Second, ethics of AI is reflected in concerns about bias, privacy, accuracy and over-reliance. Third, AI foundations and applications are evident in teachers' use of ChatGPT, Canva, Gemini, Kahoot and Gamma. Fourth, AI pedagogy is reflected in student-centred activities, visual learning and formative assessment. Fifth, AI for professional learning is represented by the unanimous request for training and continuing development.

This alignment suggests that AI competency should be understood as a professional capacity rather than a checklist of software skills. A teacher who knows how to operate ChatGPT but cannot evaluate its historical accuracy has limited AI competency. Conversely, a teacher who understands when not to use AI demonstrates an important aspect of responsible practice. The findings therefore support a human-centred model in which teachers retain accountability for learning decisions.

Contribution to Research on AI in Humanities

The study contributes to the growing conversation about AI beyond STEM by showing that humanities teaching has distinctive requirements. In Pakistan Studies, the educational goal is not simply to retrieve information. Students need to develop historical consciousness, civic understanding and the capacity to reason about complex social issues. AI can contribute by expanding representations and enabling interactive tasks, but it must be embedded within source-based inquiry and discussion.

The teacher-centred qualitative approach also contributes an experiential dimension that can be lost in studies based only on performance metrics. Participants described why they adopted tools, what made them hesitant, how school policies affected their decisions and what kinds of support they wanted. These insights can help educational leaders design implementation strategies that reflect classroom realities.

IMPLICATIONS AND RECOMMENDATIONS

Policy Reform and School-Level AI Frameworks

Educational institutions should develop clear, flexible AI policies rather than relying on blanket permission or prohibition. Policies should define acceptable uses for teachers and students, identify prohibited uses, address data privacy, clarify expectations for disclosure of AI assistance and establish procedures for verifying AI-generated content. Policies should be reviewed regularly because AI technologies change rapidly.

Continuous Teacher Professional Development

Schools should provide ongoing professional development covering three interconnected areas: technical capability, pedagogical design and ethical literacy. Workshops should use teachers' actual Pakistan Studies topics so that participants practice producing and evaluating lesson resources. Peer mentoring and professional learning communities can provide continuing support after formal training sessions. Pre-service teacher education should also include foundational AI literacy, curriculum integration and ethical decision-making.

Curriculum and Content Alignment

Curriculum developers and school leaders should establish mechanisms for checking AI-generated materials against approved curriculum standards. Teachers should have access to reliable reference sources for verification. For sensitive historical or civic topics, AI should be used to generate questions, alternative representations or starting points for inquiry rather than as the final authority. Localized content development should be encouraged so that AI resources better reflect Pakistani educational and cultural contexts.

Student AI Literacy

Students should be taught how to use AI critically and responsibly. AI literacy should include understanding how generative systems work at a basic level, recognizing that outputs can be inaccurate, checking information against reliable sources, protecting personal data, avoiding plagiarism and using AI to support rather than replace thinking. Pakistan Studies provides a strong context for these skills because students can practice source evaluation and comparison directly within the subject.

Infrastructure and Access

Schools and policymakers should prioritize reliable internet, electricity and appropriate devices. Investment should consider rural and under-resourced schools so that AI does not intensify existing inequalities. Where online tools are unavailable, schools should explore low-bandwidth or offline resources and ensure that AI-supported learning does not become a requirement that disadvantages students without access.

School Leadership and Change Management

School leaders should model responsible experimentation, allocate time for teacher learning and create channels through which teachers can raise concerns. Leaders should distinguish between responsible AI use and misuse, and they should involve teachers in developing school policy. Recognition for innovative, evidence-informed practice can encourage experimentation while maintaining accountability.

Future Research

Future studies should include students' perspectives, classroom observations and longitudinal evidence. Mixed-method research could compare perceived engagement with measures of learning and retention. Comparative studies across private and public schools, urban and rural contexts, and different provinces would provide a clearer picture of the equity implications of AI. Research should also examine how AI-supported activities affect critical thinking, source evaluation and civic reasoning over time. Finally, studies should investigate the effectiveness of specific professional-development models rather than simply documenting the need for training.

CONCLUSION

This study explored how ten high school Pakistan Studies teachers perceived and used AI-assisted teaching tools in private-school settings. The findings show cautious optimism. Teachers generally valued AI for increasing engagement, improving presentation quality, supporting lesson planning, saving preparation time and creating opportunities for student-led learning. Seven participants reported regular or occasional use, while nine perceived AI-supported approaches as more engaging and interactive than conventional methods. The most commonly mentioned tools were ChatGPT, Canva, Google Gemini, Kahoot and Gamma.

At the same time, the study demonstrates that AI adoption is not a simple story of technological progress. All participants identified challenges, including connectivity, electricity, affordability, curriculum alignment, content accuracy and student over-reliance. Teachers recognized that AI-generated material could contain errors or culturally inappropriate interpretations, particularly in historically and politically sensitive topics. Their response was not to reject technology altogether but to place it under teacher supervision and verify information against curriculum and other sources.

The study's most important implication is therefore that AI should be understood as a pedagogical resource embedded in professional judgment. The strongest classroom possibilities appear when AI helps teachers and students visualize, question, create, compare and discuss. The greatest risks appear when AI becomes an unquestioned source of answers, replaces critical inquiry or is introduced without adequate infrastructure and training. Responsible integration requires a coordinated approach involving teacher professional development, curriculum alignment, ethical guidance, infrastructure, student AI literacy and supportive school leadership.

The findings contribute to the growing literature on AI in humanities and social science education by centring teachers' experiences in a Pakistani context. They suggest that the future of AI in Pakistan

Studies should not be defined by the question of whether AI can replace traditional teaching. A more useful question is how teachers can use AI selectively and critically to strengthen meaningful learning while preserving human agency, cultural relevance and academic integrity. In this sense, the role of AI is not to remove the teacher from the classroom, but to expand what teachers and students can do together when technology is guided by sound pedagogy and ethical responsibility.

Finally, the study provides a useful starting point for future empirical investigation. The present findings are based on teacher perceptions, which are valuable for understanding adoption but cannot establish causal effects on achievement. Future research could combine interviews with classroom observations, samples of student work, assessment results and student focus groups. A longitudinal design could examine whether initial increases in engagement are sustained and whether repeated AI use strengthens or weakens students' independent reasoning. Comparative research could also examine schools with different levels of infrastructure and different AI policies. Such work would move the field from documenting perceptions toward understanding the conditions under which AI contributes to durable educational improvement.

The findings further suggest that student AI literacy should be connected to disciplinary literacy. General lessons on how to write prompts are insufficient for Pakistan Studies. Students should learn how to evaluate historical claims, identify evidence, compare sources and recognize contested interpretations. AI literacy in this subject should therefore include disciplinary questions such as: What evidence supports this claim? Which source is being represented? What perspective may be missing? Does the explanation distinguish fact from interpretation? How does the generated answer compare with primary or curriculum-approved sources? These questions can help students become critical users rather than passive consumers of AI-generated information.

From a school leadership perspective, the findings point to the importance of a gradual implementation strategy. Schools could begin with low-risk applications such as brainstorming, visual design and teacher lesson preparation. As teachers gain confidence, schools could introduce more complex uses such as AI-supported inquiry, formative assessment and student content creation. At each stage, clear ethical expectations and verification procedures should be established. This gradual model may be more effective than either unrestricted adoption or complete prohibition. It also allows leaders to collect feedback from teachers and students and adjust policy as experience accumulates.

The findings also complicate the idea that teacher age alone determines technology adoption. The participant profile suggested differences in confidence associated with age and previous exposure, but the interviews also showed that training could reduce hesitation. This has implications for professional development design. Labels such as "digital native" and "digital immigrant" are too broad to guide effective teacher learning. A more useful approach is to assess specific competencies: confidence with digital platforms, ability to evaluate AI output, understanding of privacy, ability to design AI-supported activities and capacity to teach students critical AI literacy. Teachers can then receive targeted support based on actual needs rather than assumptions about age.

A further theoretical implication concerns the relationship between efficiency and pedagogy. Participants repeatedly valued AI because it reduced the time required to prepare visual resources, lesson structures and assessments. Efficiency can be educationally beneficial when the time saved is redirected toward higher-value activities such as discussion, feedback, individual support and collaborative learning. However, efficiency can also create pressure to automate tasks that should remain relational or intellectually demanding. The appropriate question is therefore not whether AI saves time, but what teachers and students do with the time and cognitive space that technology creates. School leaders should evaluate AI adoption partly in terms of whether it increases opportunities for meaningful interaction.

The study also has implications for the concept of teacher agency. Agency should not be understood as the freedom to use any technology at any time. Rather, professional agency includes the capacity to make informed choices about whether a technology is appropriate, to adapt it to curriculum objectives and to refuse its use when the risks outweigh the benefits. The participants' insistence on verifying historical information demonstrates this form of agency. Their practices suggest that responsible AI integration may actually require stronger teacher authority, because teachers must evaluate sources, establish boundaries and decide how much autonomy should be given to students.

This interpretation strengthens the relevance of meaningful learning theory to AI-assisted Pakistan Studies. Meaningful learning requires more than exposure to information. Learners need opportunities to connect new information to what they already know, organize concepts, make relationships visible and apply knowledge to meaningful questions. AI can support these processes by providing multiple representations, examples and starting points for inquiry. For example, a teacher may ask students to generate a short explanation of a historical event with an AI system, identify three claims that require verification, compare the output with a textbook passage and then produce a revised explanation supported by evidence. In this sequence, AI does not replace historical reasoning; it creates an object that students must interrogate. Such a design is more consistent with meaningful learning than simply asking students to submit AI-generated answers.

The findings can also be interpreted through the relationship between technology, pedagogy and professional judgment. A common assumption in discussions of educational technology is that the introduction of a powerful tool will automatically produce a corresponding improvement in learning. The present study does not support such a deterministic interpretation. Instead, the evidence indicates that the same AI capability can produce different educational experiences depending on the teacher, school policy, curriculum and learning task. When teachers used AI to create visual material, quizzes or project resources, participants described greater engagement. When AI was used as an unquestioned source of factual information, participants expressed concern. The educational value of AI therefore emerges from the interaction between the affordances of the technology and the intentions of the teacher.

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PUBLICATION INTEGRITY NOTE

This manuscript is a substantially restructured journal-style version of the submitted M.Phil. dissertation. The empirical sample, interview themes, participant codes and reported findings have been retained from the dissertation. The manuscript deliberately uses cautious wording such as “teachers perceived” where the original study did not collect independent student achievement data. The dissertation’s original reference list contains several placeholder DOI strings (for example, “10.xxxx/...”) and references that could not be treated as publication-ready without verification; those entries have therefore not been carried into this manuscript. Before journal submission, the author should check every remaining citation against the final source, confirm the target journal’s reference style, and ensure that the journal permits publication of material derived from the dissertation.

Important consistency checks before submission: the dissertation contains a few internal differences in descriptions of minimum teaching experience and interview duration, while the participant table identifies all ten participants as private-school teachers. This manuscript follows the participant table and the clearest data-collection description, but the author should verify these details against the original interview records before submission.