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AI4Ed Nepal: Quality Education Service Delivery through Innovation

Evidence to action: AI for teaching and learning in Nepal

Research report
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Abbreviations

ADB	Asian Development Bank
AI	Artificial Intelligence
AI4Ed	Artificial Intelligence for Education
AILS	AI Literacy Scale
AR	Action Research
ARMS	Action Research and Mentoring Scheme
CEHRD	Center for Education and Human Resource Development
CPD	Continuing Professional Development
DoE	Department of Education
EDI	Equity, Diversity and Inclusion
EdTech	Education Technology
EMIS	Education Management Information System(s)
EU	European Union
FCDO	Foreign, Commonwealth and Development Office
FGD	Focus Group Discussion
GEDSI	Gender Equality, Disability and Social Inclusion
ICT	Information and Communication Technology
IT	Information Technology
KII	Key Informant Interview
MoCIT	Ministry of Communication and Information Technology
MOES	Ministry of Education and Sports
MOEST	Ministry of Education, Science and Technology
SESP	School Education Sector Plan
SSDP	School Sector Development Plan
STEM	Science, Technology, Engineering and Mathematics
TPD	Teacher Professional Development
UDL	Universal Design for Learning
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund

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Foreword

Various studies show that artificial intelligence (AI) is already becoming a part of education in Nepal. Across the country, teachers are exploring AI tools to adapt learning materials, plan lessons, assess students' learning and reflect on their practices. The question is no longer simply whether AI will enter our classrooms. It is how Nepal can make thoughtful choices about its use, so that AI strengthens teaching, protects learners and creates opportunities for everyone without widening existing inequalities.

This publication, Evidence to action: AI for teaching and learning in Nepal, offers timely evidence to inform these choices. It presents the findings of a joint initiative of the British Council and the Ministry of Education and Sports, as part of the UK's Foreign, Commonwealth and Development Office Samartha programme. This publication explores what responsible, ethical and effective use of AI could look like in Nepal's basic education system through a national-level mixed-methods study, teacher-led classroom action research and structured policy dialogues.

What I find particularly encouraging is that teachers are not simply waiting for change to happen. Many are already using AI and can see its potential. The teacher researchers featured in this publication show what becomes possible when teachers experiment, while continuing to draw on their own professional knowledge and judgement. Their experiences remind us that meaningful innovation often starts with a teacher trying to solve a real classroom problem.

At the same time, the findings ask us to pay close attention to who benefits and who may be left behind. Gender, age, connectivity and access to mentoring all shape teachers' opportunities to use AI confidently and effectively. Teachers' interest and experimentation are moving ahead more quickly than the guidance, ethical understanding, infrastructure and institutional support available to them. Providing the same opportunities to everyone will not necessarily lead to equitable outcomes, we must respond to teachers' different circumstances and starting points.

Above all, this publication reinforces a simple but important message: AI should support teachers, not replace the expertise, creativity, empathy, relationships and professional judgement that they bring to their classrooms every day. School leaders, local governments, professional-development systems and national guidance can lay the groundwork that underpins a more systematic AI adoption by teachers.

Although beyond the scope of this publication, we acknowledge wider debates around the environmental impact of the energy and resources consumed by using AI. This is particularly relevant in a country such as Nepal, which is highly vulnerable to climate change.

I would like to thank the Ministry of Education and Sports for its leadership and close collaboration. I am equally grateful to the teachers, head teachers, education officers, local governments, researchers and the technical project team who generously shared their time, experiences and ideas. I offer particular thanks to the teacher researchers, whose classroom inquiries have helped turn broad questions about AI into practical insights grounded in the realities of teaching and learning in Nepal.

I hope this publication encourages open and constructive discussion, inspires further collaboration and supports Nepal in developing an approach to AI in education that is responsible, ethical and inclusive.

Rustom Mody
Country Director
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Executive Summary

Integration of information and communication technology (ICT) has been a priority in Nepal's educational reform and development agenda as outlined in various policy documents that include School Education Sector Plan (SESP) – 2022/23 – 2031/32 and The Digital Nepal Framework (2019). With the emergence of Artificial Intelligence (AI) in recent years, the education landscape, including modes of teaching and learning, has been further transformed, indicating an urgent need to build AI capacity in the education system for ethical use. The Government of Nepal has taken a strategic step in this direction by approving the National AI Policy (2025), outlining six key pillars for ethical and inclusive AI development that include: i) AI Governance, ii) Human Capital Development, iii) Research and Innovation, iv) Economic and Social Integration, v) Public-Private Partnerships, and vi) Protection of Citizen Rights. However, education receives limited specific attention within the policy.

While it acknowledges AI's importance for skills development, it does not establish detailed standards, implementation pathways, or safeguards for basic education contexts. The Ministry of Education and Sports (MOES) Nepal and British Council together have made an attempt to address this gap by generating evidence to establish where teachers and the education system currently stand on AI-enabled education. Thus, this research, through a nationally representative survey, examined what Nepal's teachers currently know about AI, how (if at all) they are already using it, what they believe it could do for their classrooms and what stands in the way, with explicit attention throughout to gender, geography, school type, teaching experience and equity group. This national picture was paired with the perspectives of head teachers and local education stakeholders and with teacher-led classroom action research, so that findings are grounded not only in what teachers say but in what happens when they try.

This report is based on the evidence generated through a convergent parallel mixed-methods design using: a nationwide quantitative survey of teachers (815) and head-teachers which provided nationally representative evidence; qualitative inquiry teacher interviews, headteacher interviews, classroom observations and focus group discussions) for contextual understanding and experiences; 21 teacher-led innovations that provided practice-based evidence from classrooms; and 4 thematic and 2 geographical roundtable discussions that helped validate the early findings and gave indicative directions for developing policies, national standards, programmes and an equity-based AI-in-education ecosystem in Nepal.

AI literacy and awareness among teachers

This research shows that majority of the teachers (76%) are already using AI, but it is mostly self-driven rather than guided by formal education or training. They are using AI mainly to find information, prepare teaching materials, generate learning resources, translate terminologies and for conceptual understanding of technical terms. However, AI literacy has been mostly self-taught and curiosity-driven rather than any formal training from the education system. In terms of gender, female teachers reported time and device access as the key hurdles to develop AI literacy. The literacy level varies among the teachers of different age groups and across genders, indicating the need for differentiated entry points and flexible AI literacy education in the future. Also, teachers reported uneven ethical understanding and the near absence of a support system outside of the classroom. Despite the differences in the literacy level, this research shows that teachers see immediate pedagogical value of AI in education provided that they receive structured support both in terms of training, mentoring, feedback and availability of the digital infrastructures. Thus, the AI literacy gap is about time and opportunity, and not talent.

Offering the same training to everyone will not produce equal take-up. Female teachers described unpaid domestic work as the binding constraint on continuing professional development, so provision must fit the timing, location and format of their lives and not assume that an open invitation is an accessible one. As the findings suggest that age, more than experience, is associated with AI literacy, older teachers are the group most at risk of being left behind and may need differently paced support rather than being offered the same intervention as early-career peers. A ready, motivated group of 'interested non-users' already exists. They are a natural early audience for any future initiatives where the task is to convert readiness into confident practice.

Use of AI and other digital tools

Teachers reported that they are using several AI tools and some other digital tools and technology to improve their practice. The most common tools include general-purpose assistants and translation aids, such as ChatGPT, Gemini, Google Lens and Google Translate, alongside presentation tools such as Gamma and, in better-resourced schools, smartboards. The uses are practical and teacher-facing: preparing and simplifying lesson content, generating slides and worksheets, translating difficult terms, marking written work and drafting administrative letters. A minority go further and weave AI directly into the lesson as indicated in this quote, 'I played the conversation for the students through AI, and then I put two students in that same scenario and made them act it out themselves. The children learned from the AI, and I found their learning achievement was good' (teacher interview). During this research, 21 teachers experimented with various AI tools under the teacher-led innovations component of this study following the Action Research Mentoring Scheme (ARMS) approach for eight weeks. The teachers used a wide variety of tools in different subjects such as English, Mathematics, Science, Nepali, Social Studies in different classes from Grades Two to Ten addressing topics such as writing, reading, vocabulary, pronunciation, concept simplification, scaffolding, and peer teaching. These action research projects also demonstrate that AI-supported teaching is feasible in Nepali classrooms and AI has potential to improve practice: teacher agency, mentoring, adaptation and reflective inquiry.

Opportunities of AI use in education

Teachers reported that AI could help them in two ways; by improving their teaching practice and student engagement in learning. They can see that AI could save their time in lesson preparation such as designing learning tasks and activities, generating differentiated learning resources, organising lesson activities, preparing multilingual resources. One teacher researcher reflected 'I used ChatGPT and it helped me prepare lesson plans, create flashcards, design differentiated activities, prepare assessments, organise weekly reflections and think of different ways to solve the listening problems in my classroom'. Almost all the teacher researchers felt that there are varied opportunities to use AI in education and that AI supports teachers in many ways.

Similarly, they also saw AI as helping students understand difficult concepts more easily. Many described using visuals, examples and multimedia to make abstract ideas easier to grasp than through explanation alone. One teacher noted that instead of offering 'two or four' examples, AI could provide '10, 20, 25 examples', helping students understand concepts more fully. Others highlighted its value for language learning, where AI-generated audio could provide accurate pronunciation and support more confident teaching. Across these accounts, teachers valued AI less for generating new content than for helping them explain existing content more clearly, in more engaging and varied ways.

Barriers to AI integration

Despite the widespread use of AI in education, the research also identified some barriers to AI integration. One of the barriers that was common in many schools is the required infrastructure for technology integration, including AI. In many schools, a single computer or smartboard had to be shared across multiple classes. 'We only have one desktop and one smartboard,' one teacher explained, 'so … only one class gets to use it for one period on a given day … even teachers who know how to use it are deprived of using it due to a lack of sufficient equipment', a head teacher said in an interview. Connectivity is another issue in most of the rural schools, where, as one focus group put it, 'there is no internet, no mobile network, and knowledge is also lacking', widening the gulf between rural and urban teachers before AI even enters the picture. For some teachers, the lack of training and technical support on how to use AI in education is a barrier. Teachers and head-teachers insisted that they need training. 'Training is the very first need,' a head teacher said, and in its absence, teachers are 'learning from each other among ourselves'. Another teacher shared, 'I feel scared, like, how to do it. I don't really know right now … the children might think 'Oh, maybe Ma'am doesn't know, that's why she is looking at it'.

Time is another major barrier. Teachers repeatedly described struggling to find time to learn and experiment with AI alongside their existing responsibilities. As one teacher observed, 'One person cannot handle the home, family and their profession all at once', a pressure falls disproportionately on women. Beyond these individual challenges lies a broader systems issue. Education officers were almost unanimous that institutional support for AI has yet to emerge. They described a lack of municipal investment, training, guidance and, in some cases, even a lack of discussion about AI in schools.

Risks and concerns

Teachers have reported growing awareness of risks if AI is not used ethically and responsibly. What might AI do to their students' minds? Will AI kill creativity? Are AI-generated resources authentic? Can we fully trust AI? How should they verify AI-generated content? How much AI use is acceptable? These are some of the questions that emerged from the teachers' and head-teachers' responses both in the surveys and the interviews.

Over-dependence, the fear that children will stop thinking for themselves, dominates the interviews.' Some teachers worried that students were relying on AI to complete homework rather than thinking for themselves. They also raised concerns about misuse, including deepfakes, reputational harm and cybercrime.

Equally important are the risks that teachers mentioned less often. Discussions of ethical issues such as bias, discrimination and culturally inappropriate outputs were relatively rare. Similarly, when teachers spoke about privacy, they tended to focus on highly visible harms such as deepfakes and reputational damage rather than the everyday challenges of protecting student data, obtaining consent or using AI securely, suggesting a need for any teacher development interventions in this area to raise awareness of various AI use risks.

Strategic priorities

Based on the responses from teachers, head-teachers, education officers who participated in the mixed-method research, and the broader education sector stakeholders who participated in the four thematic and two geographical roundtables five strategic priority areas have been identified:

Priority 1: Interim guidance now and national standards next: Develop a two-stage framework for responsible AI in school education. Begin with interim guidance for schools and teachers covering ethical use, classroom applications, data privacy and verification of AI-generated content. This should be followed by a comprehensive national AI-in-education framework and school-specific standards aligned with the School Education Sector Plan and reviewed periodically as AI evolves.

Priority 2: AI literacy pathway built into existing teacher development: Integrate foundational AI literacy into existing pre-service and in-service teacher development, including the TPD Framework 2080, Educational Training Centres and Teacher Professional Learning Communities. The pathway should cover what AI is, what it can and cannot do, how to evaluate and adapt AI-generated content and responsible AI use, with dedicated modules on bias, cultural appropriateness and data privacy.

Priority 3: Mentored classroom practice at scale: Expand the mentored action research model through structured cycles of classroom inquiry supported by regular mentoring. Use this as the primary approach for helping teachers translate AI literacy into confident, responsible classroom practice, including the use of AI for formative assessment.

Priority 4: Connectivity-resilient infrastructure, targeted where it changes outcomes: Prioritise investment in the infrastructure that the mixed-methods study identified as most critical for AI use: reliable internet connectivity, access to devices with equitable arrangements for their use and dependable electricity. Where possible, promote AI tools that are mobile-friendly, low bandwidth and available in Nepali and other local languages.

Priority 5: Municipal capacity and the financing pathway: Strengthen the institutional foundations for AI in education by supporting municipal AI implementation plans, dedicated budget allocations where feasible, local resource teachers or hub models to share expertise, and financing arrangements that enable local governments to invest in AI-related priorities.

Indicative activities

Nepal needs to move from unguided adoption toward a coherent national framework for responsible AI in education. In this direction, a collaborative phased approach could be planned. Based on this research, below are the three indicative phases that could guide next steps for building an AI in education ecosystem.

Immediate (first six months):

- Support MoES and DoE to develop and issue interim guidance on responsible AI use in schools, covering classroom applications, data privacy, ethical use and verification of AI-generated content.
- Integrate foundational AI literacy modules into existing teacher professional development and training centre programmes, with flexible delivery formats accessible to women and older teachers.
- Identify demonstration municipalities and schools.
- Establish the first cohort of mentors using the ARMS model.
- Establish baseline measures using the validated AI Literacy Scale.

Medium term (six months to two years):

- Scale mentored classroom inquiry through local governments, teacher education institutions and professional learning communities, including support for AI-enabled formative assessment.
- Develop a multilingual repository of curriculum-aligned teaching resources adapted for Nepali classrooms.
- Support demonstration municipalities to prepare AI-in-education implementation plans, with dedicated budget allocations where feasible.
- Establish structured peer-learning opportunities that enable teachers to share effective practice across schools.

Longer term (system strengthening):

- Develop a comprehensive national AI-in-education framework and school-level standards, informed by implementation evidence from future initiatives.
- Integrate AI competencies into the national teacher competency framework.
- Establish local resource teacher or hub models to support ongoing professional learning.
- Work with federal and local governments to strengthen financing arrangements for sustainable implementation.

Section 1: The context
Why AI in basic education, why Nepal, why now?

Nepal has achieved remarkable success in expanding access to education, with a net enrolment ratio of 96.9 per cent in primary education (MoES, School Education Sector Plan 2022/23–2031/32), with gender parity almost fully achieved.[1] But access has not always translated into meaningful learning outcomes. A significant share of children leave primary school without the foundational literacy, numeracy and transversal skills they need: the pattern the World Bank terms ‘learning poverty’, where physical presence in a classroom is not the same as learning in one.[2] The consequences compound over time: weakened human capital, persistent inequity and a workforce mismatch reflected in a youth unemployment rate of 23.4 per cent, well above regional medians.[3] Therefore, addressing the quality of teaching, not only access to it, is central to breaking this pattern.

Women make up 39.5 per cent of the community- and private-school teaching workforce nationally, but their representation is concentrated at the earliest grades: 47.4 per cent at basic level Grades 1–5, falling to 32.4 per cent at Grades 6–8, 21.7 per cent at Grades 9–10 and 18.7 per cent at Grades 11–12.[4] Because women are most present precisely where basic education begins, and because socio-cultural expectations around care work constrain many female teachers’ time for professional development, any intervention in basic education is inescapably a gender-equity question. This research was designed to treat it as one throughout, not as an add-on.

Artificial intelligence (AI) has already begun reshaping teacher professional development and classroom practice elsewhere: personalised mentoring platforms in Chile have supported teacher recruitment and retention;[5] co-creative generative-AI mentoring models piloted by the Commonwealth of Learning across Ghana, India, Jamaica and Kenya have lifted teacher confidence and the relevance of learning materials.[6] Nepal has not yet had the chance to test whether these gains translate to its own classrooms.

Integration of information and communication technology (ICT) has been a priority in Nepal’s educational reform agenda, accelerated significantly by Covid-19’s exposure of both digital learning potential and infrastructure inequalities. The School Education Sector Plan (SESP) 2022/23–2031/32 positions technology-enabled education as central to quality improvement. The Digital Nepal Framework (2019) established Nepal’s initial digital transformation roadmap, highlighting issues such as teacher shortages, poor infrastructure in rural areas and gaps between public and private institutions. While it referenced existing ICT programmes like the School Sector Development Plan and Open Learning Exchange, it lacked a coordinated digital strategy for education.

With the emergence of AI in recent years, the education landscape – including modes of teaching and learning – has been further transformed, indicating an urgent need to build AI capacity in the education system for ethical use. The Government of Nepal has taken a strategic step in this direction by approving the National AI Policy (2025) in January 2025. However, education receives limited specific attention within the policy. While it acknowledges AI’s importance for skills development, it does not establish detailed standards, implementation pathways or safeguards for basic education contexts.

Despite these policy efforts, significant implementation challenges persist. Rural and mountainous regions experience unreliable internet connectivity and intermittent electricity. Device availability remains limited, particularly in community schools, serving 80 per cent of Nepal’s students. Teachers’ digital literacy levels vary considerably. A

1 Global Education Monitoring Report Team (2026). Global Education Monitoring Report 2026: Access and equity – Countdown to 2030. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000397618

2 World Bank (2020). Economy, Nepal Human Capital Index. Human Capital Project. Retrieved from https://humancapital.worldbank.org/en/economy/NP

3 The Nepali Post (2022). When Will Our Schools Get 50 Percent Female Teachers? https://thenepalipost.com/details/20446

4 Molina, E., Cobo, C., Pineda, J. & Rovner, H. (2024). AI revolution in education: What you need to know. (Digital Innovations in Education Brief No. 1). World Bank. https://documents1.worldbank.org/curated/en/099734306182493324/pdf/IDU152823b13109c514ebd19c241a289470b6902.pdf

5 Ogange, B. (2025, January 24). AI and education: Empowering teachers in the digital age. Commonwealth of Learning. https://www.col.org/news/ai-and-education-empowering-teachers-in-the-digital-age

6 AI4Ed Nepal Phase 1 qualitative dataset: semi-structured teacher interview IT#18, translated transcript, Section D (Perceived Opportunities of AI), April 2026. Quoted verbatim from the English translation; attribution anonymised per project conventions.

pronounced gender digital divide exists, with cultural norms restricting female teachers' technology access. Most digital resources remain English-only, with limited Nepali language support. Disparities in internet access, weak technological infrastructure and lack of digital proficiency among teachers constitute major barriers to ICT integration.

In summary, AI integration in Nepal's teacher professional development remains constrained by limited digital infrastructure, a significant gender digital divide, the need for education-specific AI policy frameworks and institutional readiness gaps, and not by any absence of interest or need. The qualitative data gathered for this report points the same way. When teachers interviewed for this study were asked about the opportunities AI might hold for their classrooms, many answered from experience rather than speculation. This indicates that the constraint in Nepal is not teacher appetite, and that the opportunity is one teachers themselves can already articulate.[7,8]

Nepal is unusually well positioned, on paper, to act. The SESP 2022/23–2031/32 identifies ICT management, continuing professional development and teacher support as central strategic priorities.[9] The Teacher Professional Development (TPD) Framework 2080 (Nepali year) sets out a vision of competent, motivated, reflective teachers, with digital literacy as an explicit competency domain. The Digital Nepal Framework (2019) and National AI Policy (2025) establish a national mandate for digital transformation and responsible AI adoption.[10] What is missing is that there is no dedicated AI-in-education policy or standards framework translating these commitments into classroom-level guidance, and, until now, no systematic evidence on where Nepal's teachers actually stand. Evidence to action: AI for teaching and learning in Nepal exists to fill that gap.

7 AI4Ed Nepal Phase 1 qualitative dataset: semi-structured teacher interview IT#18, translated transcript, Section D (Perceived Opportunities of AI), April 2026. Quoted verbatim from the English translation; attribution anonymised per project conventions.

8 AI4Ed Nepal Phase 1 qualitative dataset: semi-structured teacher interview IT#6, translated transcript, Section D (Perceived Opportunities of AI), 2026. Quoted verbatim from the English translation; attribution anonymised per project conventions.

9 British Council (2024). The status of teacher education and development in Nepal. British Council Nepal. https://www.britishcouncil.org.np/status-teacher-education-and-development-nepal

10 Al Jazeera (AP/Reuters) (2026, March 27). Nepal's youngest premier sworn in after releasing new rap song about unity. https://www.aljazeera.com/news/2026/3/27/nepals-youngest-premier-sworn-in-after-releasing-new-rap-song-about-unity

A changed political moment

The national context in which these frameworks (the SESP, the TPD Framework 2080, the Digital Nepal Framework and the National AI Policy) will be carried forward has changed fundamentally. Youth-led protests in September 2025, set in motion a political transition: an interim government, led by Nepal's first woman head of government, steered the country to early federal elections on 5 March 2026, and a new government took office later that month with a strong electoral mandate, a younger generation of political leadership and the youngest prime minister in the history of the Federal Democratic Republic of Nepal.[10]

The new government's stated priorities include public service reform, digital governance, transparent appointments, anti-corruption measures and stricter enforcement of the rule of law; its own diagnosis of public frustration centres on youth unemployment, youth migration and declining trust in state institutions.[11]

The new government's stated priorities include public service reform, digital governance, transparent appointments, anti-corruption measures and stricter enforcement of the rule of law.[12,13]

For education policy, the essential point is continuity of architecture alongside a change of mandate. The March 2026 election was federal only: provincial assemblies were not dissolved, and Palika (local government) mandates are unchanged.[14] The new government inherits the SESP 2022/23–2031/32, the TPD Framework 2080, the Digital Nepal Framework 2019 and the National AI Policy (2025) as the standing policy architecture for education and digital transformation, and nothing in that inheritance closes the gap identified above: Nepal still has no dedicated AI-in-education policy or standards framework. The evidence base this research was designed to build remains the necessary first step towards one.

The transition strengthens, rather than complicates, the case for acting now. The generation that drove the protests of 2025 and the electoral outcome of 2026 is the generation now filling Nepal's classrooms as students and entering its teaching profession as early-career teachers. An electorate that has made opportunity, digital governance and better public services its central demands has made teaching quality, and the responsible adoption of AI in support of it, more salient, not less. A basic education system that equips teachers to use AI well, and children to grow up with it critically and safely, is a direct, practical answer to the demand for opportunity that defined the transition.

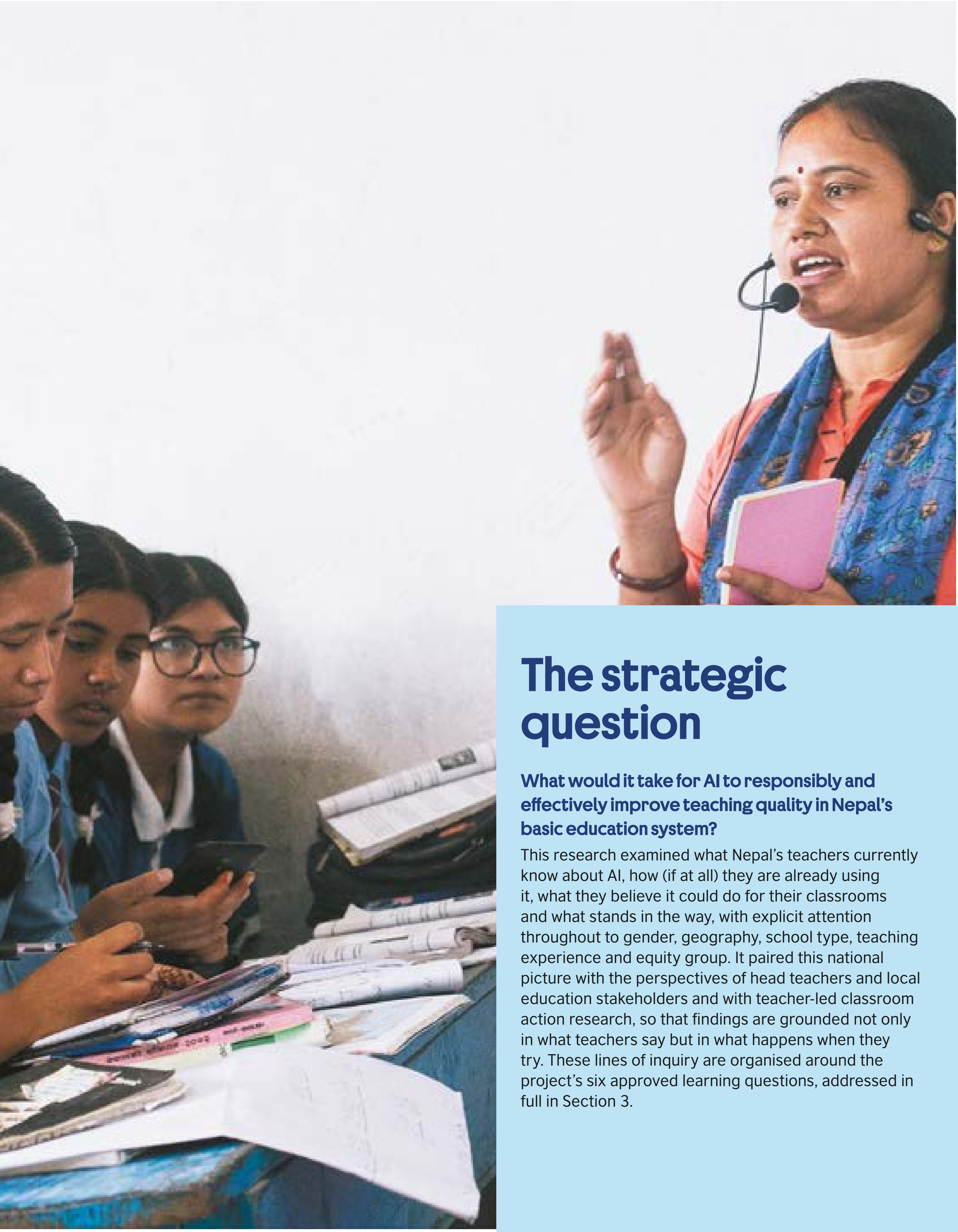
Nepal's 2018 devolution of governance handed Palikas constitutional responsibility for school education, including teacher support and assessment. Many Palikas are still building the technical, financial and human capacity to fully exercise that mandate. This is not only a constraint; it is an opening. Because school education sits with local governments, teachers' AI literacy cannot be understood in isolation from the readiness of the local systems around them. This point was raised early by the Nepal research team and built into the study's stakeholder engagement. Local governments are potential delivery partners for AI-in-education initiatives that are more responsive, more locally owned and more sustainable than a centrally imposed programme could be, provided any proposed future initiatives are designed with their realities in mind. Future initiatives should therefore continue to treat Palikas as core delivery partners, while actively tracking the intergovernmental settlement as it develops..

11 The Kathmandu Post (2026, June 29). RSP's emergence edged Congress out. Now it's not easy for Thapa to reclaim Nepal's democratic space. https://kathmandupost.com/politics/2026/06/29/rsp-s-emergence-edged-congress-out-now-it-s-not-easy-for-thapa-to-reclaim-nepal-s-democratic-space

12 Al Jazeera (AP/Reuters) (2026, March 27). Op. cit.

13 The Kathmandu Post (2026, June 29). Op. cit.

14 The Kathmandu Post (2026, July 1). Opposition parties question RSP's commitment to federalism, demand clarity. https://kathmandupost.com/politics/2026/07/01/opposition-parties-question-rsp-s-commitment-to-federalism-demand-clarity



The strategic question

What would it take for AI to responsibly and effectively improve teaching quality in Nepal's basic education system?

This research examined what Nepal's teachers currently know about AI, how (if at all) they are already using it, what they believe it could do for their classrooms and what stands in the way, with explicit attention throughout to gender, geography, school type, teaching experience and equity group. It paired this national picture with the perspectives of head teachers and local education stakeholders and with teacher-led classroom action research, so that findings are grounded not only in what teachers say but in what happens when they try. These lines of inquiry are organised around the project's six approved learning questions, addressed in full in Section 3.

Section 2: Methodology

This section describes how the evidence base was generated: the research design and learning questions; the study population, sample and sampling logic; data collection and quality assurance; data analysis; the roundtables that validated early findings and translated them into policy directions; and the limitations of the methodology.

This study adopted a convergent parallel mixed-methods design to generate evidence on AI in basic education in Nepal: teachers' literacy, awareness and use of AI technology, the opportunities of using AI in education, and the contextual barriers, risks and equity implications. Based on a pragmatic research paradigm, the study took a multipronged approach to data collection:

- a nationwide quantitative survey provided nationally representative evidence
- qualitative inquiry (interviews, classroom observations and focus group discussions) provided contextual understanding and experiences
- teacher-led innovations provided practice-based evidence from classrooms
- thematic and geographical roundtable discussions helped validate the early findings and gave indicative directions for developing policies, national standards, programmes and an equity-based AI-in-education ecosystem in Nepal.

Data from these sources was collected simultaneously and analysed independently before being integrated in this report, so that findings could be triangulated across sources, and the contextual explanations emerging from the qualitative data could illuminate the statistical findings of the survey.

Learning questions

The study aimed to answer the following learning questions.

1. What is the current level of AI literacy among Nepal's teachers, and how does it vary by gender, geography, school type, teaching experience and equity group (caste/ethnicity)?
2. How do teachers currently use AI (if at all) in classrooms and professional practice, and what tools/approaches are being employed?
3. What opportunities and risks do teachers perceive for AI in basic education, and how do these perceptions differ across contexts? (Risks include both general risks of AI in education and Nepal-specific contextual risks.)
4. What are the primary barriers and enablers to AI literacy, adoption and use, with reference to infrastructure; knowledge; structural, attitudinal, equity-related, policy-level initiatives; school planning?
5. How does teacher-led action research on classroom AI demonstrate teacher agency, inform and deepen the national study findings, and what practice-based insights emerge?
6. How can AI literacy development and responsible AI integration be supported through policy frameworks, CPD structures and school planning to inform the design of future initiatives and national AI-in-education standards?

Study population and sample selection

The target population consisted of all teachers at the basic level of school education, head teachers and the education officers of local governments. Teachers were included principally because they:

- are the primary users of AI in the education system and the key actors who implement the curriculum
- adopt an appropriate pedagogy to facilitate learning
- assess students' learning formatively and summatively
- make most of the professional decisions about the ethical and responsible use of AI technology.

It was, therefore, important to understand teachers' AI literacy and awareness, their current use of AI and their perceived opportunities, barriers, concerns and professional development needs.

It was equally important to see what kinds of AI tools might be suited to use in education in Nepal's context and how AI could contribute to teaching and learning. To generate contextually grounded evidence, the study engaged a group of teachers to identify their pedagogical issues, explore the AI tool(s) that could address them, design and plan implementation strategies, and document the results under a three-tiered scheme called the Action Research and Mentoring Scheme (ARMS), a previously tested and established model of teacher research in Nepal, supported by the British Council.

Teachers, however, do not work in isolation: they work within a broader institutional system in which head teachers, as their immediate leaders, and local education officers, as key members of the local education administration, create the enabling conditions for technology integration. Because local government is responsible for the overall administration and management of school education, the study also included head teachers and education officers so as to capture the educational context at the local level. Table 1 presents the participants in the different components of the study.

Table 1: Participants in the study components

Study component	Primary participants	Purpose
Quantitative survey	School teachers – 815 (target: 800) (Online – 573) (In-person – 242)	Measure AI literacy, awareness, use, opportunities, risks, barriers and training/ professional development needs
Qualitative inquiry (semi-structured interviews)	Teachers – 48 (target: 48) Head teachers – 12 Education officers – 9 (target: 12)	Explore experiences, perceptions, institutional practices and policy issues
Focus group discussions	Teachers – 12 groups (target: 12), 6–8 teachers per group	Generate collective perspectives and contextual experiences, opportunities and barriers
Classroom observations	Teachers and classrooms – 12 classes (one class per teacher)	Document the realities of classrooms and authentic teaching practices of technology integration
Action research	Teacher researchers – 21 (target: 18) Mentors – 7 (target: 6) Super Mentor – 1	Generate practice-based evidence on AI implementation in teaching and learning

Sampling and representation

The quantitative component included teachers from all seven provinces of Nepal to make it nationally representative: the online survey ran across all seven provinces, while the in-person survey was administered in Lumbini Province, Madhesh Province and the Kathmandu Valley. Together these three areas represent highly diverse educational contexts: metropolitan and rapidly urbanising municipalities, rural schools, multilingual communities and varying levels of digital infrastructure. The face-to-face survey enabled participation by teachers who might otherwise have been under-represented in the online sample, improving inclusiveness and reducing digital participation bias.

To include Nepal's geographical, socio-economic, linguistic, infrastructural and institutional diversity, alongside gender, disability and equity-related concerns, the study adopted a multistage sampling strategy for the survey. It included teachers from both community (publicly funded) and institutional (private) schools, in rural and urban areas, varying in infrastructure, connectivity, resources, linguistic diversity, socio-economic context and school size. Due consideration was given to including teachers already practising some form of technology alongside novices in digital tools; the range of teaching experience; male and female teachers; teachers with disabilities; teachers serving multilingual communities; permanent, temporary, Rahat (relief-quota) and locally employed teachers; and different subject areas. Figure 1 highlights how the combined dimensions strengthen the study's equity, diversity and inclusion (EDI), and the credibility of its findings.

Figure 1: Inclusive and diverse sampling in the AI in education study, Nepal

Layer 1 — **National coverage**
Online teacher survey: 573 teachers across all seven provinces

Multistage sampling, with post-stratification weighting on gender, province and school type.

Layer 2 — **Three deep-dive regions**
Lumbini Province · Madhesh Province · Kathmandu Valley

In-person teacher survey: 242 teachers, reducing digital participation bias.

Combined survey base: N = 815. The in person collection is regional, not national.

Layer 3 — **Purposive strands, within the three deep-dive regions**

Qualitative inquiry
48 teacher interviews
12 head teacher interviews
9 education officer interviews
12 focus group discussions
81 coded cases in total

Classroom observations
12 classes observed,
one per municipality
Large and small schools
alternated across municipalities
Class chosen by teacher consent

Teacher-led action research
21 teacher researchers
7 mentors and 1 Super Mentor
Eight-week ARMS cycle
Grades 2 to 10, five subjects
Practice-based evidence

All three strands use purposive maximum variation sampling. Their findings generalise analytically, not statistically.

Applied across every strand above — equity, diversity and inclusion dimensions

Gender · Age and teaching experience · Caste and ethnicity · Disability · Language and multilingual settings · Community and institutional schools · Urban and rural · School size · Infrastructure and connectivity · Permanent, temporary, Rahat (relief-quota) and locally employed teachers · Subject and grade taught

Priority two-way intersectional disaggregation was mandatory; three-way cuts were run where cell sizes permitted.

This figure asserts The survey strand is nationally representative, on the basis of multistage sampling and post-stratification weighting.
Coverage narrows deliberately from national breadth to regional depth to purposive richness.

It does not assert That the qualitative, observation or action research strands are statistically representative of Nepal's teachers.

Figure 1 sets out how the sample was built. Coverage narrows in three layers. The online survey reached all seven provinces and carries the study's claim to national representativeness, which rests on multistage sampling and post-stratification weighting on gender, province and school type. The in-person survey added depth in Lumbini, Madhesh and the Kathmandu Valley. The qualitative, classroom observation and action research strands sit within those same three regions and were selected purposively for maximum variation. The equity dimensions set out above apply across every strand rather than to any one of them, so the figure shows where the study's breadth comes from and where its depth comes from, without implying that the purposive strands are statistically representative.

In the qualitative component, participants were selected from the same three regions: Lumbini Province, Madhesh Province and the Kathmandu Valley. Consistent with the overall convergent parallel design, qualitative data collection ran concurrently with the survey, following the purposive maximum variation sampling method,[15] enabling the team to select participants able to provide rich, contextually grounded narratives relevant to the learning questions. The qualitative strand also served an explanatory function, helping to interpret quantitative findings and to uncover contextual factors that structured questionnaires could not capture; this diversity of participants generated rich evidence on the contextual factors influencing the use of AI in education in Nepal and strengthened the credibility of the study.

Classroom observations followed the same logic. One classroom was observed per municipality, giving 12 observations in total. To keep the sample balanced, large and small schools were alternated across municipalities, so that roughly half the observations came from large schools and half from small ones, preventing the observation data from being skewed towards one type of school. Within each selected school, the classroom observed was chosen according to teacher availability and consent.

Regarding the three regions used for the in-person survey and the qualitative component, the Kathmandu Valley was selected for its urban schools, with greater digital infrastructure and more opportunities for teachers to explore resources and professional development. Lumbini Province represents a wide mixture of urban, semi-urban and rural contexts; varied geography from the plains to hills and mountains with difficult terrain; digital infrastructure ranging from high-speed internet in Terai districts such as Rupandehi to frequently interrupted telephone lines in hill districts such as Rolpa; and variation in school resources and community characteristics. Madhesh Province brings perspectives on multilingual education, gender and equity issues, socio-cultural diversity and resource-constrained settings.

The teacher-led innovations, involving 21 teacher researchers, also represent the diversity outlined above. These action research projects provided practical evidence on the feasibility of using AI in Nepali classrooms as well as the contextual challenges on the ground, working as a bridge between perception and practice in AI integration. Teacher researchers were selected purposively for demonstrated commitment to professional learning, willingness to experiment with AI tools and readiness to document their classroom experiences systematically, with due care to include different geographical locations, community and institutional schools, subjects and grades, gender, teaching experience, digital confidence and differing levels of school technological infrastructure.

15 Nyimbili, F. & Nyimbili, L. (2024). Types of purposive sampling techniques with their examples and application in qualitative research studies. British Journal of Multidisciplinary and Advanced Studies, 5(1), 90–99. https://doi.org/10.37745/bjmas.2022.0419

Data collection and quality assurance

Data was collected from April to June 2026 under a systematic, quality-assured approach across all components. The instruments (included in Appendix B), drafted by the research team, were carefully reviewed, discussed, piloted and revised. Comprehensive training of the field researchers was organised, and continuous supervision, field verification, ongoing mentoring support and quality scrutiny measures were in place throughout data collection.

Ensuring the quality, credibility and trustworthiness of the findings was a central methodological priority, founded on the multiple data sources described above and the systematic approach to their collection. In addition, comprehensive field research manuals described each stage of the research process, covering researchers' specific roles, consent procedures, classroom observation protocols, facilitation techniques, documentation requirements, ethical standards and quality assurance procedures, along with interviewer scripts. During field visits, researchers reported daily progress to their supervisors and joined reflective sessions to share, learn and address emerging issues.

In the action research component, mentors met regularly with teachers to review research plans, discuss implementation challenges, examine evidence, encourage reflective practice and provide methodological guidance. The Super Mentor coordinated mentoring across all seven mentoring groups, ensuring consistency in research quality, documentation and reporting, while facilitating the sharing of experiences among teachers. Weekly meetings discussed progress and addressed the challenges teachers reported; mentors compiled summaries of their teachers' action research, and the Super Mentor prepared a synthesis of the entire component to feed into the final report.

Quality assurance continued after fieldwork through systematic verification and cleaning of all datasets. For quantitative data, researchers reviewed completed questionnaires for missing responses, duplicate records, inconsistent coding, logical inconsistencies, incomplete submissions and potential outliers, verifying records against original data-collection files where necessary. For qualitative data, audio recordings were securely stored, transcribed, translated into English, checked against field notes for accuracy and reviewed for completeness before analysis began. Field notes, observation records, interview transcripts and focus group summaries were systematically organised and securely archived under unique participant identification codes.

All ethical protocols were followed, including respect for individuals, confidentiality, voluntary participation and the right to withdraw. Field data was securely stored under anonymised IDs accessible only to the research team, and field researchers were duly instructed in the ethical protocols. Interviews were conducted where conversations could not easily be overheard – private rooms within schools or other mutually agreed locations for teachers and head teachers; private office settings, wherever possible, for education officers. Focus group discussions used neutral venues that encouraged open discussion while maintaining confidentiality among participants. Classroom observations were approved in advance by the head teacher and the teacher, with researchers simply sitting at the back of the classroom to observe. Observation notes include no students' names or private information about students or teachers.

Data analysis[16]

For a full description of the quantitative data analysis, see Appendix C.

In plain language, the survey analysis works as follows. Each teacher answered 12 questions about their awareness, use, evaluation and ethical handling of AI, and their answers were converted into scores from 1 to 5 that place them in a High, Moderate or Low literacy band. Results are then broken down by group (for example, women and men, or rural and urban teachers) and by combinations of groups, to show not just the national average but who is ahead and who risks being left behind. Wherever the report says two groups differ, it states how many teachers are in each group, how large the difference is and how confident in it we can be, rather than a bare claim of statistical significance. The more advanced second-tier techniques serve the same purposes: checking that the questionnaire measured literacy consistently across groups, adjusting results so that the sample better reflects the country's planned mix of teachers, allowing for the fact that teachers in the same school share circumstances, and sorting teachers into a small number of readiness profiles that future initiatives can design for.

Qualitative analysis of the interview and focus group data followed Framework Analysis, a structured, matrix-based thematic analysis combining pre-set codes with codes emerging from the data, conducted in NVivo by a two-person team working from a shared codebook and coding decision rules.[17] Coding of the focus group discussion and key informant interview transcripts was assisted by an AI tool (Claude[18]): the research team developed the codebook, and Claude was used to apply it across the transcripts and to identify relevant quotations under each code. As a safeguard against AI error or fabrication, every quotation was manually verified against the original transcript before being used in the study; only verified quotations appear in this report. Each participant was set up as a case, with attributes covering gender, geography, school type, experience, caste/ethnicity, employment status, language and role, so that findings could be read through the study's cross-cutting lenses of gender, equity and inclusion, infrastructure readiness, and ethical and responsible use. The analysts independently coded a calibration sample and reconciled differences by consensus, logging decisions throughout; coded data was charted into matrices and interpreted question by question, using analytic memos and deviant-case testing to move from description to explanation. Evidence standards required stating whether views were widely shared or held by few, seeking contradictory cases, attributing focus group data only at group level, and giving risks and opportunities equal prominence to counter the optimism bias inherent in an AI-integration programme; quotations were anonymised and, where translated, marked as translated, with the original retained.

Consistent with the convergent parallel design described at the opening of this section, the strands were analysed independently and integrated at interpretation. Both frameworks were organised around the same six learning questions, and findings are integrated under the report's six themes (AI literacy; Current AI use; Perceived opportunities; Barriers to integration; Ethics and risk awareness; and System readiness), each presenting the headline finding, the quantitative evidence with disaggregation and effect size, a qualitative illustration and an implication for the design of future initiatives. Where a quantitative subgroup was too small for inferential analysis, the finding was reported descriptively and routed to the qualitative strand rather than suppressed; the qualitative strand in turn supplies contextual explanation for statistical patterns, and the action research strand contributes practice-based evidence to the same themes.

16 AI4Ed Nepal Quantitative Analytical Plan, Version 2.0 (29 May 2026), internal project document. The locked plan specifies the data preparation, scoring, disaggregation, inferential and reporting procedures summarised here.

17 AI4Ed Nepal Qualitative Analysis Framework, Version 3, internal project document, with its companion Codebook and Coding Decision Rules.

18 The specific model used was Claude Opus 4.8 (Anthropic).

Roundtable discussions: Validation and policy translation

Finally, four thematic and two geographical roundtable discussions served a dual role: validating the early findings of the research with policy-level stakeholders, and translating the emerging evidence into actionable policy directions, AI-in-education standards, implementation strategies and future programme design for Nepal's education system. The four thematic roundtables focused on:

i. AI capacity in education
ii. AI for teacher professional development and student assessment
iii. Access and inclusion in AI in education
iv. National standards development for AI in education.

In the geographical roundtables, participants were guided to discuss local realities in connection with the use of AI in education in their own contexts. Participants included high-level officials of the MoES, EdTech (educational technology) experts, academics, teachers, head teachers, researchers, representatives of development partners (particularly those working in education and technology), and representatives of the Ministry of Information and Communication.

During the roundtables, the research team shared the preliminary findings of the mixed-methods research and the teacher-led innovations, followed by guided discussion questions as prompts for group work; each group had about an hour to examine the questions under its designated theme, followed by a presentation and plenary discussion. In addition, representatives of the teachers engaged in teacher-led innovation shared their experiences of using AI in their teaching – the AI tools they use to address their pedagogical issues, emerging patterns of improvement in their pedagogy, the challenges they face and how AI tools could support teachers' pedagogy. These sharing sessions enabled participants to connect their discussions to the ground realities of AI use in Nepali classrooms. A summary of all the roundtables was then developed to feed into this report.

Limitations

The findings in the following sections should be read against limitations that follow from the design itself.

First, the study is cross-sectional: it describes teachers' AI literacy, use and perceptions at a single point in time, so the relationships reported are associations, not causal effects.

Second, although the online survey covered all seven provinces, its reach was conditional on connectivity and carries a risk of self-selection towards digitally connected teachers; the in-person survey was designed to reduce this digital participation bias, but it was administered in three regions only (Lumbini, Madhesh and the Kathmandu Valley), so the correction it provides is regional rather than national. The analytical plan therefore screens for differences between the two survey modes and applies post-stratification weighting in the final analysis.

Third, the survey relies on self-reported measures of AI literacy and use, which are subject to social desirability and related response biases. The analytical plan builds in internal validity checks, but self-report remains a limitation. One sub-scale of the literacy instrument (Ethics) showed marginal internal consistency at interim testing, and pre-specified rules in the locked plan govern how it is reported.

Fourth, some subgroups of policy interest, such as teachers with disabilities, were expected to be small in the achieved sample; findings for such groups are reported descriptively rather than tested inferentially.

Fifth, the qualitative and action research samples were selected purposively. Designed to maximise variation and generate contextually rich evidence rather than statistical representativeness, their findings generalise analytically, not statistically. Focus group findings are reported at group level only, and much of the qualitative data was translated from Nepali, with originals retained but some nuance inevitably at risk.

Finally, the teacher-led innovations represent early-stage practice by 21 teacher researchers within a single implementation period. They demonstrate feasibility, teacher agency and contextual challenges, but are not an evaluation of AI tools at scale, and their results should be read as practice-based insight rather than measured impact.

Section 3: What we found

This section reports what we learned about Nepal's teachers and artificial intelligence in this mixed-methods study. It is organised around six themes that bring the two kinds of evidence together: a national survey of 815 teachers shows the scale and shape of each pattern, while interviews and group discussions with teachers, head teachers and education officers explain what lies behind each one.[19]

The six themes tell a single, connected story. Many teachers, including a majority of female teachers, are already using AI and report a working level of AI literacy (Themes 1 and 2), and they are optimistic about what it can do (Theme 3) – but that progress is uneven, self-taught and advancing faster than the training, guidance and infrastructure needed to sustain it. What holds teachers back is not appetite but the material and institutional environment: the barriers teachers face day to day (Theme 4), the uneven ethical understanding they bring to the tools (Theme 5) and the near absence of a supporting system above the classroom (Theme 6). Each theme opens with a headline finding, sets out what the evidence shows in plain terms, illustrates the finding in teachers' own words and closes with what the findings imply for future initiatives. A short synthesis at the end draws the themes together.

Theme 1. AI literacy: where Nepal's teachers stand today

Nepal's teachers are not starting from zero on AI, but they are not all starting from the same place. A real, measurable level of AI literacy is already reflected in the survey respondents, yet it is spread unevenly, and the sharpest divides run along lines of gender and age rather than geography, school type or caste.

The study measured teachers' AI literacy on a purpose-built scale covering awareness, use, evaluation and ethics. In this report, AI literacy therefore means more than knowing how to operate a tool: it covers what teachers understand AI to be and do, how they use it in practice, how critically they judge its outputs and how far they are aware of its ethical risks. The scale performed well as a measure, so the differences it reveals can be trusted, but with one exception that the study handles openly: the ethics component was less internally consistent than the rest and is therefore reported item by item and taken up under Theme 5.[20]

The clearest divide is by gender. On average, male teachers scored meaningfully higher than their female colleagues. This gap is wide enough to meet the study's formal threshold for an equity concern.[21] What the numbers cannot explain on their own is why. Here the interviews are strikingly consistent, and they point not to ability but to time. Most female teachers returned – unprompted – to the same obstacle: the double load of paid teaching and unpaid work at home leaves little room to learn a new technology:

> **the male teachers are a bit ahead in that regard. We, the female teachers, don't really know. Now we have curiosity, maybe because we don't have interest, or maybe because at home too we get busier with household work.**
>
> — *Teacher (interview)*

> **As women, our routine starts with waking up in a rush, cooking, feeding and managing household chores. That is why I feel male teachers use it much more than female teachers.**
>
> — *Participant, primary-teacher focus group (majority view)*

The second divide is by age, and it points somewhere specific. Literacy declines steadily from the youngest teachers to the oldest – and, tellingly, it is age that tracks with literacy, not length of teaching experience. A teacher in their fifties with decades in the classroom

19 This section draws on the two approved Phase 1 data streams: the quantitative teacher survey (N = 815) and the qualitative coding matrix of 81 coded cases — 48 teacher interviews, 12 focus group discussions, 12 head teacher interviews and 9 education officer interviews. Figures in the footnotes are drawn from the survey; quotations are verbatim from the coded transcripts.

20 The 12-item AI Literacy Scale (AILS) is reliable overall (Cronbach's $\alpha = 0.898$; McDonald's $\omega t = 0.916$) and its four-factor structure fits the data well (CFA: CFI = 0.983, TLI = 0.977, RMSEA = 0.042, SRMR = 0.025). One component, the ethics sub-scale, fell below the pre-set 0.60 reliability floor ($\alpha = 0.575$) and, per the locked analysis plan, is reported item by item rather than as a combined score; those findings are taken up under Theme 5.

21 On the AILS composite, male teachers averaged 3.85 and female teachers 3.56 (higher = greater literacy). The difference is statistically robust (Welch's $t = 5.948$, $p < 0.001$) and moderate in magnitude (Cohen's $d = 0.43$, 95% CI [0.29, 0.57]), meeting the study's pre-set 'equity flag' threshold. Comparison sample: 438 male, 354 female (complete-demographic cases).

tends to score lower than a recruit in their twenties.[22] Education officers described exactly this generational split in their own terms, one even sorting colleagues into the 'digital native, digital migrant, digital dinosaur' who sit, respectively, at ease, in transition and at a distance from the technology. Figure 2 sets out both the gender and the age pattern.

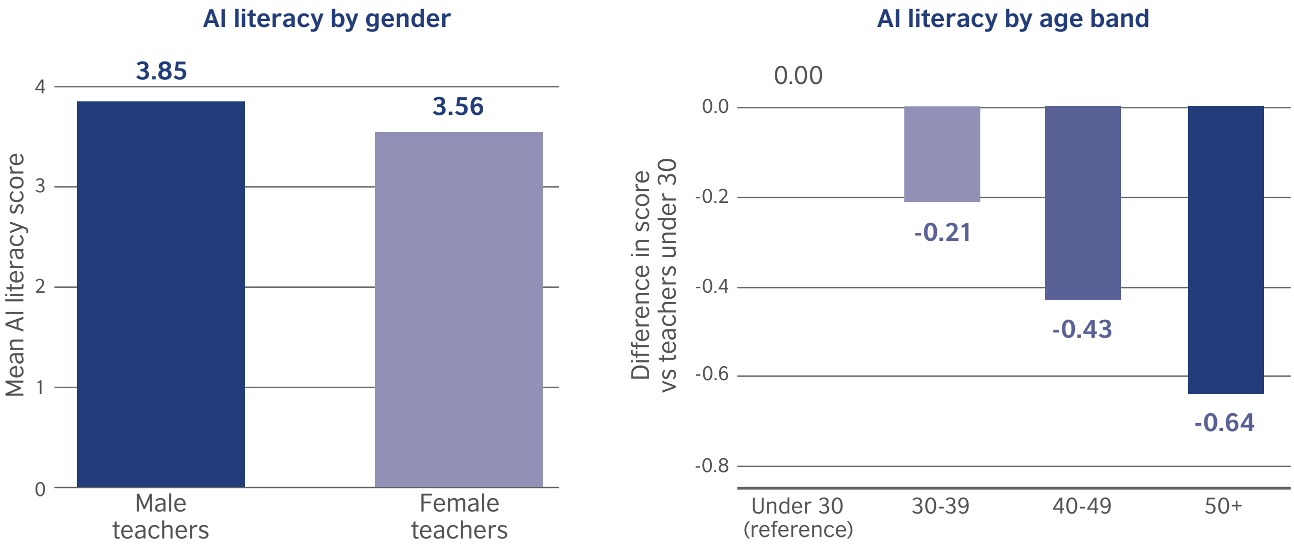


Figure 2. AI literacy by gender and by age band. Left: mean score on the AI Literacy Scale for male and female teachers. Right: difference in score for each age band relative to teachers under 30. Source: Phase 1 teacher survey (N = 815); see footnotes 21 and 22.

Just as important is what does not divide teachers. Once gender and age are taken into account, the literacy gap is not significantly patterned by caste or ethnicity, by province or by school type.[23] This matters for how future initiatives might target support: the salient fault lines in AI literacy are gender and age, and framing provision primarily around geography or school category would miss where these gaps lie.

A third pattern is subtler but consequential: for many teachers, interest runs ahead of practice. A distinct group are aware of AI and keen to learn but have not yet put it to use. The interviews reflect this readiness, with teachers describing themselves as interested but not yet users and framing the gap as a professional risk rather than a personal preference. Several spoke of the exposure of being asked about AI by a student and having no answer. The appetite is real; what is missing is the bridge from interest to confident use. One teacher described the concern directly:

> **I am eager to learn. Because if I don't know, what could be in it? What if I go home or a student themselves asks me 'Ma'am, what is in AI?' And if I don't know at that time, what will the students think? How will they perceive it? That's why I am curious to know.**
>
> — ***Teacher (interview)***

One part of AI literacy stands out as less developed than the rest. The scale used here treats critical judgement and ethical awareness as part of being AI literate, and it was the ethical component that teachers answered least consistently, the only one of the four that could not be reported as a reliable combined score. Teachers' working knowledge of AI is therefore running ahead of their grounding in its risks, a pattern taken up in Theme 5.

Finally, a minority view worth highlighting is that not every teacher reads the gender gap in gendered terms. At least one female teacher rejected the idea that gender itself explains the difference, attributing her own difficulty to her level of knowledge and skill rather than to being a woman: 'Just because someone is a woman or a man … I'm weak, but not because I'm a woman. Weak due to my own knowledge, intelligence and skills.' The gap measured by the survey is real, but teachers' own perspectives on what causes it differ. The implication is not that women lack capability. It is that support should address the structural constraints the evidence does identify (time, domestic workload and access to devices (Themes 1 and 4)), rather than treat women teachers as a group in deficit.

22 In a regression predicting AI literacy, scores decline steadily with age relative to teachers under 30 (approximate coefficients −0.21 for ages 30–39, −0.43 for 40–49, −0.64 for 50+). Years of teaching experience, entered separately, showed little independent association with literacy. It is age, not length of service, that tracks with literacy.

23 The literacy gap is patterned by gender and age but not, to a detectable degree, by other equity axes. In a two-way analysis, gender was significant ($p < 0.001$; partial $\eta^2 = 0.043$), while caste/ethnicity was not ($p = 0.845$), and the gender × caste interaction was non-significant ($p = 0.332$). Differences across provinces were also non-significant (Welch's ANOVA $p = 0.520$; Kruskal-Wallis $p = 0.778$), as were differences by school type once other factors were held constant.

A teacher's starting point – action research

This example speaks directly to the 'interested non-users' described above: it shows what changes when a teacher who is curious about AI is given structured support to try it. A teacher researcher shared her growing interest and motivation to use AI in her teaching. The motivation grew as she became familiar with AI during the action research and saw the benefits: 'I am so motivated to use AI because it supports our teaching method, strategies, activities, lesson plan, evaluation and time management'. Other teacher researchers have also reported that AI could be a support in their teaching and also a time-saver tool for their busy life.

Implications for future initiatives

The AI literacy gap is about time and opportunity, and not talent. Offering the same training to everyone will not produce equal take-up. Female teachers described unpaid domestic work as the binding constraint on continuing professional development, so provision has to fit the timing, location and format of their lives and not assume that an open invitation is an accessible one.

As the findings suggest that age, more than experience, is associated with AI literacy, older teachers are the group most at risk of being left behind, and may need differently paced support rather than the same workshop as early-career peers.

A ready, motivated group of 'interested non-users' already exists. They are a natural early audience for any future initiatives where the task is to convert readiness into confident practice.

Theme 2. Current use: what is already happening

AI is no longer a future prospect in Nepal's classrooms. Various AI tools, particularly generative AI, are already in use, but adoption remains largely self-taught, improvised and shaped by the same gender and age inequalities seen in AI literacy.

Adoption is already widespread: roughly three-quarters of surveyed teachers say they have used generative AI.[24] However, adoption is uneven in a revealing way. Female teachers adopt at a lower rate than male teachers, and, strikingly, that gap does not close when access to devices and the internet is taken into account. Instead, it widens. Giving a female and a male teacher the same equipment does not equalise its use,[25] which points the explanation away from hardware and towards the time and social-role constraints teachers described under Theme 1. Age shapes AI use as sharply as it shapes literacy. The older the teacher, the less likely they are to have adopted AI, with the steepest drop among teachers over 50.[26] The picture is consistent across both themes: the youngest teachers are the workforce's AI pioneers.

And as with literacy, the divides that did not hold are as instructive as those that did. Neither the urban–rural divide nor community- versus institutional-school type predicted adoption once other factors were controlled. What separated teachers was not where they taught but whether they had a reliable internet connection at home, as those without home internet were markedly less likely to have used AI at all.[27]

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24 Of 815 teachers surveyed, 619 (about three in four) reported having used AI. Adoption by gender: based on the 803 teachers who reported gender as male or female: 71.3% of female teachers (258 of 362) and 80.5% of male teachers (355 of 441), 613 adopters in total; the difference is significant ($x^2 = 8.869$, $p = 0.003$; unadjusted odds ratio 0.601, 95% CI [0.432, 0.833]). The remaining 12 teachers did not report gender as male or female and are included in the overall count of 619 but not in the gender comparison.

25 In a model holding age, school type, caste, device access and home internet constant, the gender gap in adoption does not narrow but widens (adjusted odds ratio for female teachers 0.436, 95% CI [0.29, 0.65], $p < 0.001$; model Nagelkerke $R^2 = 0.273$). Because equalising infrastructure does not close the gap, the evidence points away from hardware access as the main driver.

26 Adoption falls steeply with age: relative to teachers under 30, the adjusted odds of having used AI are roughly 0.27 (ages 30–39), 0.22 (40–49) and 0.10 (50+), all $p < 0.001$. Predicted probability of adoption falls from about 94% for the youngest teachers to about 59% for the oldest.

27 In the adjusted adoption model, neither the urban–rural divide (OR 1.27, $p = 0.243$) nor community- versus institutional-school type (OR 1.71, $p = 0.137$) was a significant predictor, whereas lacking home internet was associated with markedly lower adoption. Survey administration mode also mattered: teachers reached online scored lower on literacy (3.65 vs 3.85; $t = 4.162$, $p < 0.001$, $d = 0.29$) and were less likely to have adopted AI (OR 0.382, $p = 0.001$) than those reached face-to-face – a caution to bear in mind when reading the figures.

When teachers describe what they actually do with AI, a clear repertoire emerges. The most common tools are general-purpose assistants and translation aids, such as ChatGPT, Gemini, Google Lens and Google Translate, alongside presentation tools such as Gamma and, in better-resourced schools, smartboards.[28] The uses are practical and teacher-facing: preparing and simplifying lesson content, generating slides and worksheets, translating difficult terms, marking written work and drafting administrative letters. A minority go further and weave AI directly into the lesson:

> **While preparing the daily lesson plan … I find out such things through ChatGPT and Google Lens and try to write those specific words in simple words … I played the conversation for the students through AI, and then I put two students in that same scenario and made them act it out themselves. The children learned from the AI, and I found their learning achievement was good.**
>
> — *Teacher (interview)*

The dominant pattern is adoption without a system. Teachers experiment on their own initiative, learn from friends or online videos, and use AI mostly to prepare outside the classroom rather than within it. As one head teacher put it, teachers 'are talking among themselves; it hasn't really been used in the classroom itself … but it has been used to develop themselves'. This is momentum without scaffolding – there is no training, guidance or shared standards behind it, which is precisely why practice looks so different from one teacher to the next. Very few teachers reported any training on AI use, any guidance on when an AI output can be trusted, or any expectation about appropriate classroom use.

Implications for future initiatives

For most teachers, future initiatives do not need to introduce AI at all. About three in four have already used it, so the task is to organise a practice that already exists, turning scattered, self-taught experimentation into supported, consistent use. For the remaining quarter, who report no use so far, a first introduction to AI will still be needed.

The AI adoption gap for female and older teachers mirrors the AI literacy gap and is not solved by equipment alone. Inclusion must be designed into how support is delivered, not assumed to follow from access.

Because AI is used mostly to prepare for teaching rather than in the classroom, there is clear room to help teachers move from private preparation to confident, appropriate classroom use – where appropriate and when supported by relevant ethical frameworks and safeguarding guidelines.

28 Tools named by teachers include ChatGPT, Gemini, Gamma, Google Lens/Translate and smartboards. The approved survey output contains no dedicated 'tools' inventory, so tool use is evidenced qualitatively.

Theme 3. Perceived opportunities: what teachers see as possible

Teachers are optimistic about AI, and their optimism is concrete rather than abstract. They see the clearest promise in the everyday craft of teaching – making lessons more engaging, saving preparation time and helping students grasp difficult ideas. Bolder, more transformative hopes are real too, but they remain aspirational, and in places they run ahead of what the evidence or the infrastructure can yet support.

When asked where AI could help most, teachers consistently returned to one theme: improving classroom teaching. The benefit they mentioned most often was student engagement.[29] As one teacher explained:

> **students who are bored sitting in the classroom become more excited and happier when taught through AI ... when teaching with just a whiteboard and marker, the students don't show much interest, so when conducting the class using AI, I have found they get motivated and pay more attention.**

— *Teacher (interview)*

Teachers also saw AI as helping students understand difficult concepts more easily. Many described using visuals, examples and multimedia to make abstract ideas easier to grasp than through explanation alone. One teacher noted that instead of offering 'two or four' examples, AI could provide '10, 20, 25 examples', helping students understand concepts more fully. Others highlighted its value for language learning, where AI-generated audio could provide accurate pronunciation and support more confident teaching. Across these accounts, teachers valued AI less for generating new content than for helping them explain existing content more clearly, in more engaging and varied ways.

A second, consistent cluster of hopes concerns teachers' own work rather than students' learning: reducing the time spent on lesson preparation, marking and routine administration so that more of the day can go to teaching. For many, the appeal of AI lay as much in relieving this administrative burden as in improving instruction itself.

It is worth separating the opportunities teachers feel are already within reach from those they see as longer term. The immediate benefits – like engagement, clearer explanations, less time on marking and preparation, and translation – align closely with current practice and reflect experiences many teachers have already had. The more ambitious hopes extend well beyond incremental gains. Some envisage AI taking on a far larger instructional role. One head teacher imagined 'setting up a smartboard and using AI to complete everything, feed it, and keep it for the kids. Let that AI teach and instruct.' Views of this kind were not widely shared, and they sat alongside the opposite concern: in more than half the focus groups, teachers worried that AI could displace them or weaken their standing with students (Theme 5). Others looked beyond the classroom, hoping AI might narrow long-standing inequalities between rural and urban schools, and even between countries:

> **In today's education, it would bring a lot of uniformity between our rural education, urban education and the education of developed, advanced countries in the world ... It would enable us to compete at a national level.**

— ***Participant, mixed-gender teacher focus group***

Some of these hopes are legitimate ambitions – narrowing the gap between rural and urban schools among them – but realising them depends on the infrastructure, access and capacity constraints documented in Theme 4. Others describe something this study does not support: AI taking over the teaching itself. The evidence here points to AI assisting teachers' judgement rather than replacing it (Theme 5). On the evidence, teachers' optimism is well founded where it rests on what they have already tried, and more fragile where it depends on conditions that do not yet exist.

One pattern is defined as much by silence as by emphasis. Teachers' hopes cluster overwhelmingly around engagement, explanation and efficiency. More transformative applications, including personalised learning, assessment and teachers' own professional development, appeared far less often, and explicit mention of equity and inclusion was rare. Where teachers did name inclusive uses, they pointed

29 Perceived opportunities are evidenced through the interviews and focus groups; the approved survey output contains no dedicated 'perceived opportunities' measure, so no survey statistics are reported for this theme.

to support for students with disabilities or access to learning that would otherwise be out of reach. Education officers, by contrast, viewed AI through a system lens, emphasising its potential to ease teacher shortages and sustain provision in under-resourced schools. This difference in perspective is important. Teachers focus on the immediate challenges and opportunities of classroom practice, while education officers are more likely to see AI as a way to strengthen the education system as a whole. The near silence on equity matters in its own right. Teachers appear to see AI mainly as a way of improving lessons they already teach, rather than as a means of reaching learners who are currently underserved. Since this study finds AI literacy and use to be unevenly spread by gender, age and home internet access, the benefits of AI are unlikely to reach those groups unless equity is made an explicit aim rather than an assumed by-product.

A teacher's opportunity in practice – action research

Teachers who experimented with AI tools also see opportunities in the use of AI in the classroom. One teacher researcher reflected 'I used ChatGPT and it helped me prepare lesson plans, create flashcards, design differentiated activities, prepare assessments, organise weekly reflections and think of different ways to solve the listening problems in my classroom'. Almost all the teacher researchers reported that there are immense opportunities to use AI in education and that AI supports teachers in many ways.

Implications For Future Initiatives

Teachers' optimism is a foundation to build on, but it is concentrated on engagement and time saving. Future initiatives, while meeting teachers' enthusiasm for AI adoption, could also focus on widening their understanding of other educational uses of AI, such as steering them towards assessment, differentiated instruction and their own professional growth, which they currently under-imagine.

Some hopes run ahead of what is currently realistic, such as the expectation that technology will erase rural–urban inequality. Others describe something the study does not support at all: replacing teachers with AI. Teachers themselves raised displacement as a risk (Theme 5), and the value of AI in this evidence lies in supporting their work, not substituting for it. Clear guidance on what AI can and cannot do, and on what it is not for, will help teachers form expectations that are ambitious, ethical and sound.

Equity and inclusion were the least perceived opportunity, even though this study documents equity gaps. Future initiatives may need to demonstrate AI's inclusion potential for rural schools, for learners with additional needs and for students without devices at home, rather than assume teachers will arrive at it unprompted.

Theme 4. Barriers to integration: what stands in the way

Teachers see clear opportunities in AI, but they face persistent barriers that make adoption difficult. Infrastructure is the most immediate challenge in many schools, compounded by gaps in training, confidence and institutional support. These barriers are not experienced equally, falling most heavily on rural schools and, in specific ways, on women.

In the interviews and focus groups, the most commonly reported barrier was inadequate infrastructure. Teachers repeatedly described the same problems: too few devices, unreliable electricity, and internet connections that were too weak to support classroom use. In many schools, a single computer or smartboard had to be shared across multiple classes. 'We only have one desktop and one smartboard,' one teacher explained, 'so … only one class gets to use it for one period on a given day … even teachers who know how to use it are deprived of using it due to a lack of sufficient equipment.' A head teacher's account was starker still:

> **A smart board had arrived … With that money, a smart board was bought and is locked away there. But it hasn't been used until now … to use AI, there must definitely be electricity.**
>
> — ***Head teacher (interview)***

The problem compounds in rural schools, where, as one focus group put it, 'there is no internet, no mobiles, and knowledge is also lacking' – widening the gulf between rural and urban teachers before AI even enters the picture. (It is worth noting the survey nuance here: once other factors are controlled, it is home internet, more than rural location as such, that separates adopters from non-adopters. This is a reminder that rural disadvantage operates largely through connectivity.)

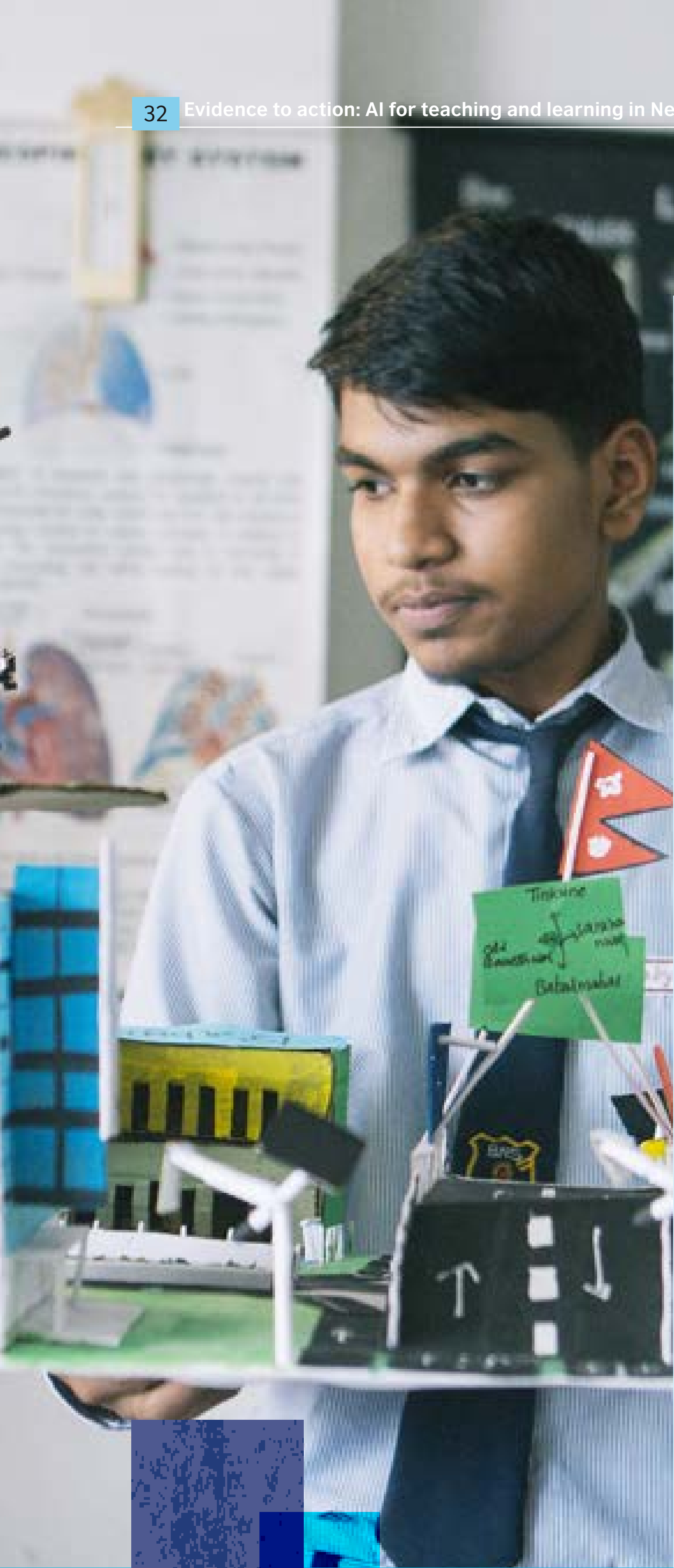
Where equipment exists, a second barrier appears: not knowing how to use it and not feeling safe admitting so. Training is the request teachers and head teachers make most insistently. 'Training is the very first need,' as one head teacher put it, and in its absence, teachers are 'learning from each other among ourselves'. The survey underscores this ranking: not one of the five highest-rated barriers was a school-level infrastructure item. Lack of training or professional development on AI tools ranked first at 3.86 on a five-point scale, followed by students not having devices or internet at home (3.60), student data privacy and security concerns (3.56), the risk of AI giving incorrect or culturally inappropriate information to students (3.47), and AI tools not being available in students' home languages (3.00). Every school-level infrastructure item, including reliable internet and electricity at school and access to devices for teaching, fell below the scale midpoint (see Figure 2). The two readings are not in conflict: infrastructure is the most immediate constraint in many schools, while the barriers teachers rate highest are capability, their students' home circumstances, and trust in the tool. Beyond technical skills, teachers also described a less visible barrier: confidence. For some, the fear was not of the technology itself but of being exposed in front of their students:

> **I feel scared, like, how to do it. I don't really know right now … the children might think 'Oh, maybe Ma'am doesn't know, that's why she is looking at it.**
>
> — ***Teacher (interview)***

Limited confidence means that many teachers choose not to use AI, even when they are interested in it. Without training or support, trying something new can feel risky, particularly in front of students. Time is another major barrier. Teachers repeatedly described struggling to find time to learn and experiment with AI alongside their existing responsibilities. As one teacher observed, 'One person cannot handle the home, family and their profession all at once', a pressure that, as Theme 1 showed, falls disproportionately on women.

Beyond these individual challenges lies a broader systems issue. Education officers were almost unanimous that institutional support for AI has yet to emerge. They described a lack of municipal investment, training, guidance and, in some cases, even discussion about AI in schools.[30]

30 System-readiness evidence comes mainly from head teacher and education officer interviews. Per the study's participant-source rules, officials' and head teachers' views about teachers are treated as stakeholder perceptions and a system-level view, not as direct evidence of teachers' own literacy or practice.



> **There has been no discussion regarding that so far ... There are no AI-based and AI-supportive activities in the municipality. The municipality has not provided any such devices, nor has it provided training on that subject.**
>
> — ***Education officer (interview)***

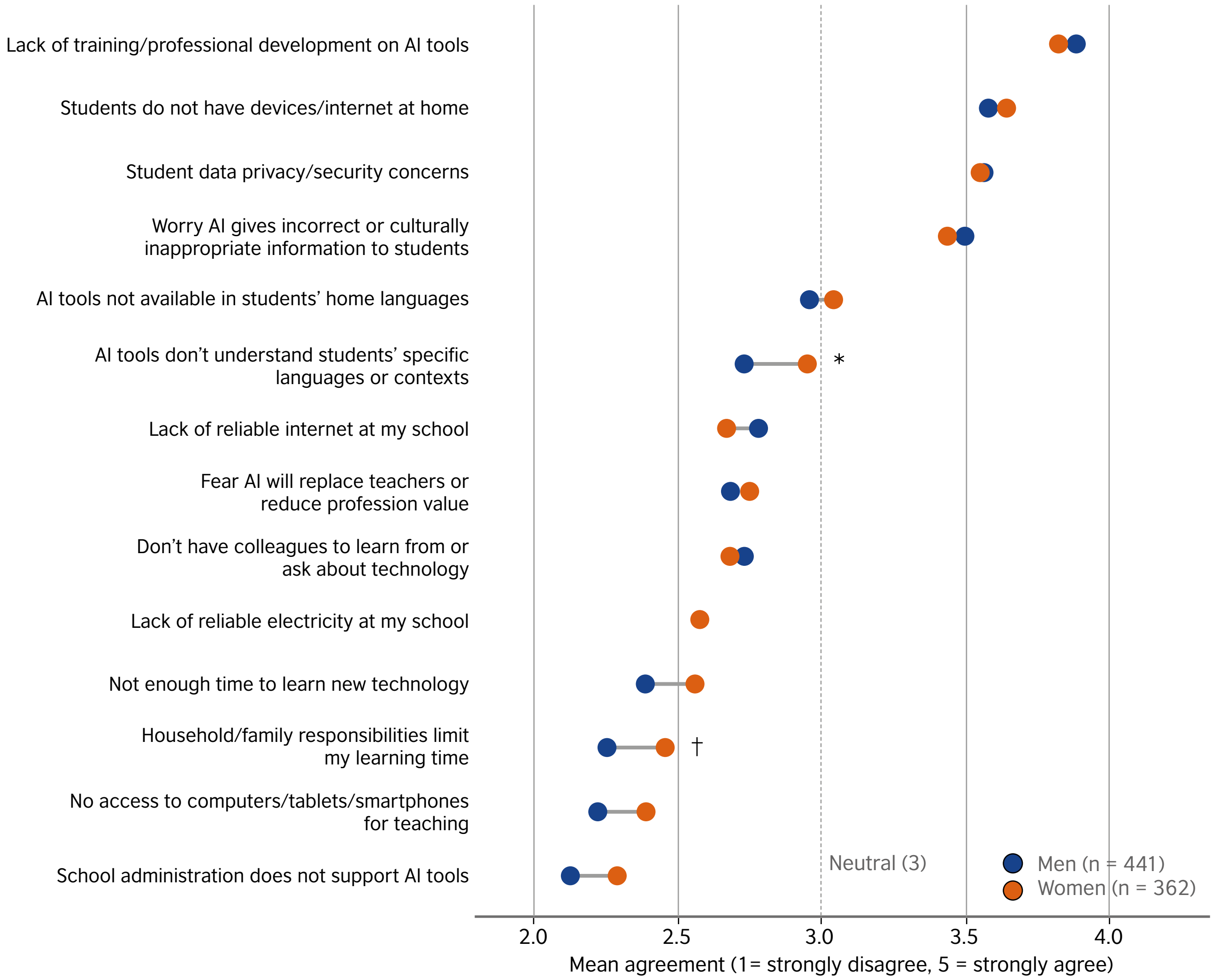
Others described intentions that never became commitments – 'we haven't minuted it or documented it' – and named 'a lack of political willpower ... a lack of administrative willpower' as the real blockers. Taken together, these findings suggest that AI adoption is being sustained by individual initiative rather than by enabling policies, resources or institutional support.

Finally, the survey and interviews converge on an uncomfortable finding: some barriers are distinctly gendered. On the survey's battery of barrier items, men and women rated most obstacles similarly, but two were rated higher by women: AI tools not understanding students' specific languages or contexts (significant after correction for multiple comparisons), and household and family responsibilities limiting time to learn (marginally significant; see Figure 3).[31] The qualitative evidence supplies what time and domestic load mean in daily life: women learn AI, one head teacher noted, only 'whenever she has free time' after cooking and childcare. The interviews also point to a third barrier, access to the device itself, which women rated higher on the survey only before correction for multiple comparisons. With no 'one teacher, one laptop' policy, shared machines end up 'mostly in the hands' of the (usually male) head teacher. Social norms also shaped teachers' experiences. One participant described women being 'teased' for using a computer, suggesting that technology use by women is not always socially accepted. Others pointed to the ways training opportunities can unintentionally exclude women. As one head teacher recalled, a colleague with a young child 'couldn't participate in 5–6 trainings'. These barriers may appear small in isolation, but together they make it harder for some teachers to develop AI skills and participate in professional learning. Unless they are addressed, future initiatives risk reinforcing the same inequalities identified in this study.

31 Infrastructure is the most frequently raised barrier across the interviews. The survey's barrier battery corroborates the gendered pattern: men and women rated most barrier items similarly, but a small number were rated significantly higher by women after correction for multiple comparisons (the largest such gap $d \approx 0.21$, Holm-adjusted $p = 0.040$, with one further item borderline at $p = 0.054$). The two items are named in the main text and shown in Figure 3.

Barriers to AI integration reported by teachers, by gender

Survey items ranked by overall mean. * rated significantly higher by women (Holm-corrected p = .040); † p = .054



Source: AI4Ed Nepal teacher survey, 2026 (N = 815). Gender comparison based on teachers reporting gender as male or female.

Figure 3. Teacher-reported barriers to AI integration, by gender. Survey items (five-point scale, 1 = strongly disagree to 5 = strongly agree) ranked by overall mean; N = 815 teachers, with the gender comparison based on 441 men and 362 women. Two items were rated significantly or near significantly higher by women after Holm correction: AI tools not understanding students' specific languages or contexts (p = 0.040) and household/family responsibilities limiting learning time (p = 0.054). Source: AI4Ed Nepal teacher survey, 2026.

Implications for future initiatives

Infrastructure is the most immediate barrier to AI integration. Without reliable electricity, internet connectivity and access to devices, teachers cannot put AI into practice, regardless of their interest or training. Future initiatives should therefore treat these as foundational requirements rather than complementary investments.

Teachers are also working with very little institutional support. Education officers described an absence of municipal guidance, dedicated resources and formal plans for AI in schools. This creates an opportunity for future initiatives to help establish the policies, guidance and local ownership needed to support AI adoption at scale.

The barriers identified in this study are not experienced equally. Rural schools face greater infrastructural constraints, while women teachers described additional challenges related to time, access to devices, social expectations and participation in training. Future initiatives should therefore embed equity into design, ensuring that training, resources and support are delivered in ways that reflect these different realities rather than assuming a one-size-fits-all approach.

Theme 5. Ethics and risk awareness: what teachers understand, and what they don't

Teachers show a growing awareness of AI's risks, but that awareness is strongest for immediate classroom concerns. Less visible issues, including bias, data privacy and the quality of AI-generated information, are much less well understood.

The risk teachers name first and most forcefully is what AI might do to their students' minds. Over-dependence – the fear that children will stop thinking for themselves – dominates the interviews. A focus group put it bluntly: '[AI] makes humans dependent without using their own brains ... Before, without AI, they used to think.' They worried that students were relying on AI to complete homework rather than thinking for themselves: 'For an essay, they search for it on AI and just write it down. They don't use their own brains.' They also raised concerns about misuse, including deepfakes, reputational harm and cybercrime:

> **AI makes videos. They cut other people's heads and put them on, they post it. Now, people file cases regarding cybercrimes. Such risks can also occur if one doesn't know how to use it carefully.**
>
> — ***Head teacher (interview)***

Teachers also recognised that AI-generated information can be inaccurate. Several emphasised the importance of checking AI outputs before using them in teaching: 'We should know how to distinguish whether it is correct or not ... if it is wrong, and if we just pass that on to the student ...'. Their responses suggest an awareness of the need for critical judgement, alongside a desire for greater confidence in evaluating AI-generated content.

A further set of concerns is about teachers themselves. Raised in more than half the focus groups, these ranged from outright displacement – 'AI might even replace teachers. Such a condition could arise', as one group put it – to a subtler worry about standing in the classroom. One teacher explained that if 'we teachers who teach them fall behind these modern kids, then our own significance, you know, our respect, dignity, might get somewhat eroded'. Others worried about their own dependence on the tools 'since it tells me, my habit of searching went away. The teacher's creativity decreases.' These concerns bear on adoption as well as on morale, because, as Theme 4 shows, teachers who feel professionally exposed are less likely to experiment.

Equally important are the risks that teachers mentioned less often. Discussions of ethical issues such as bias, discrimination and culturally inappropriate outputs were relatively rare. Similarly, when teachers spoke about privacy, they tended to focus on highly visible harms such as deepfakes and reputational damage rather than the everyday challenges of protecting student data, obtaining consent or using AI securely.

This pattern is reflected in the survey findings. Of the four components of the AI Literacy Scale, ethics was the only one that could not be measured reliably because responses were too inconsistent. In addition, a small proportion of AI-using teachers reported concerns captured by the survey's risk indicator, with women slightly more likely than men to do so. Taken together, the qualitative and quantitative findings suggest that teachers are generally aware of the risks they encounter most directly, while broader ethical issues receive much less attention. This points to an important area for future professional learning.

A teacher and an ethical dilemma – action research

A teacher carrying out action research realised the role of teacher agency on the use of AI. He said 'We should think about our dependency on AI tools. If we rely too heavily on AI tools, we may forget human values and emotions. We may even lose our own identity.'

Another teacher shares 'I realised that AI is most effective when it supports my teaching decisions rather than replacing them. My role in adapting the resources remained essential.' Highlighting the role of ethics, another teacher shares 'AI helps me write, summarise and organise data faster … But I must keep my own thinking and ethics strong. If I use AI as a helper, not a boss, it helps me grow.' This indicates that teachers are aware of the potential risks of AI and importance of their role(s) in AI integration.

Implications for future initiatives

Teachers already recognise many of the immediate risks associated with AI, particularly student over-reliance and impact on academic integrity. Future initiatives should build on this awareness while strengthening understanding of less familiar issues such as bias, fairness, cultural appropriateness and data privacy.

Ethics emerged as the least developed dimension of AI literacy in both the qualitative and quantitative findings. This points to the need for structured professional learning that addresses responsible AI use explicitly, rather than assuming these issues will be picked up through experience alone.

Teachers also expressed a clear need for guidance on the responsible use of AI in schools. Future initiatives could provide an opportunity to work with stakeholders to develop practical, shared standards for classroom use, helping ensure that guidance is both relevant to classroom realities and widely adopted. Education officers made the same case at system level, calling for shared national standards and clearer guidance on the roles of teachers, students and the wider system (Theme 6). Classroom-level standards and national guidance should therefore be developed together rather than separately.

Theme 6. System readiness: beyond the classroom

While many teachers are already experimenting with AI, the systems needed to support them are not yet in place. Education officers consistently pointed to limited decision-making authority, a lack of policies and training mechanisms, and restricted access to funding. The challenge, therefore, is no longer simply teacher readiness but institutional readiness.

Education officers were, if anything, even more convinced than teachers that AI will become part of the future of education. As one officer observed, 'more than good or bad, it has become inevitable', warning that the digital divide 'will keep increasing' if schools fail to adapt. At the same time, they consistently described the absence of the policies, resources and institutional arrangements needed to respond. The recurring admission was that nothing formal yet exists:

> **How to include AI in the policies being made, or how to promote AI in policy or in the budget … has become a matter of concern to think about. But until now, no formal mechanism, formal modality has been prepared.**
>
> — *Education officer (interview)*

Education officers identified funding as one of the biggest barriers to implementation. Local governments have limited revenue of their own, while the federal funds they receive are earmarked for specific purposes and cannot easily be redirected to emerging priorities such as AI.

> **Our rural municipality's own income is very little. For all programmes, we are entirely dependent on federal conditional programmes, on federal grants … The federal money cannot be reallocated; it comes earmarked.**
>
> — *Education officer (interview)*

This finding has important implications for any future initiatives. Education officers described the main barrier to system-level action not as a lack of interest but as a lack of financial flexibility. Any effort to scale AI in education will therefore need to address not only policy and capacity but also the financing arrangements that enable implementation.

When asked what would be needed to scale AI in education, education officers offered a consistent set of priorities. They emphasised integrating AI into the curriculum and teacher capacity-building programmes, strengthening government policy and ensuring it was backed by adequate resources, and providing clear guidance on the roles of teachers, students and the wider education system. They also highlighted the need for shared national standards, local resource teachers (colleagues with stronger AI skills who train and support others in their area) or hub models, meaning a shared local facility or online platform serving several schools, to spread expertise, and partnerships beyond government to supplement limited local capacity. Throughout these discussions, officials acknowledged that AI implementation is still at an early stage, but expressed a clear willingness to build the systems needed to support it.

The study also surveyed 48 head teachers, using a 39-item instrument. Every item asks head teachers to rate their teaching staff rather than to describe their own practice, so the results are read here as school leadership's perception of its teachers, consistent with the participant-source rules noted above. Read that way, the survey adds a school-level view of readiness that sits between the classroom and the municipality.[32]

Two items mark the range. The highest-rated of the 39 is teachers' willingness to experiment, at 4.15. The lowest is teachers' ability to design assignments that require students to evaluate AI outputs critically, at 2.54. That gap is the one teachers describe in Themes 1 and 5, approached from the opposite direction: school leaders see appetite in abundance and critical, evaluative skill in short supply. Where teachers report ethics as the least developed dimension of their own AI literacy, their head teachers independently identify critical evaluation of AI outputs as the weakest thing they observe.

The composition of the head teacher sample sharpens the point. Its median age is 54, and 30 of the 48

32 AI4Ed Nepal head teacher survey (N = 48), 39 items, analysed under the same locked analytical plan as the teacher survey. Every item asks head teachers to rate their teaching staff, so results are reported as school leadership perception rather than as head teachers' own practice, consistent with the participant-source rules described above. Highest-rated item: teachers' willingness to experiment, mean 4.15. Lowest-rated item: teachers' ability to design assignments requiring students to evaluate AI outputs critically, mean 2.54. Sample composition: median age 54, with 30 of the 48 respondents aged 50 or over. [QUERY FOR RONDA: please confirm the response scale so it can be stated here, as the teacher survey items are on a five-point scale.]

respondents are aged 50 or over. Set against the survey finding that the adjusted odds of having used AI fall to roughly a tenth among teachers aged 50 and over compared with those under 30, this locates a readiness gap precisely where school-level leadership sits. The people expected to authorise, model and supervise responsible AI use are drawn overwhelmingly from the age band least likely to have used it. This is not a criticism of individuals but a design consideration: guidance, training and mentoring aimed only at classroom teachers would ask head teachers to lead practice they have not themselves experienced.

Implications for future initiatives

Any future interventions should invest in system capacity alongside teacher capacity. Strengthening teachers' AI skills alone will not be enough unless local governments also have the policies, guidance, implementation arrangements and institutional support needed to sustain AI integration over time.

Financing should be treated as a design consideration from the outset. Education officers described limited flexibility to invest in new priorities because federal funding is largely earmarked for predetermined purposes. Scaling AI will therefore require implementation approaches and partnerships that work within, or help address, these financing constraints. Guidance and standards should also be in place before AI use is scaled up. Education officers themselves called for shared national standards and clear guidance on roles; extending AI more widely without them would leave schools to improvise, which is what Themes 2 and 4 show is happening now.

The building blocks for future initiatives have already been identified by education officials. Rather than introducing isolated measures, any future initiatives should align support around a coherent system that links teacher education, professional development, national guidance, shared standards, local support structures and adequate resourcing. Strengthening these elements together is more likely to produce sustainable change than investing in any single intervention in isolation.

From findings to future initiatives: the connected picture

Taken together, the six themes present a clear picture of AI readiness in Nepal's education system. Many teachers have already begun using AI and see clear value in it, particularly for improving classroom teaching. At the same time, their experiences reveal important gaps in access, support and institutional readiness that will shape what any future initiatives need to address. Three cross-cutting patterns stand out.

First, the same equity patterns appear across multiple themes. Gender and age are consistently associated with differences in AI literacy, use and the barriers teachers experience, whereas province, school type and caste are not, once other factors are taken into account. This suggests that future initiatives should prioritise support for the groups facing the greatest constraints, particularly women and older teachers, rather than relying on broad demographic targeting.

Second, teachers' willingness to engage with AI is outpacing the systems designed to support them. Much of the current adoption has been self-directed, while opportunities for structured professional learning, guidance and institutional support remain limited. Education officers similarly described the absence of clear policies, implementation mechanisms and financing arrangements. Sustaining and expanding AI use will therefore depend on strengthening these enabling conditions alongside teachers' own capabilities.

Third, the evidence points to a clear sequence for action. Reliable infrastructure and connectivity are foundational for meaningful AI use. This does not mean that everything must wait until conditions are ideal. Teachers are already using AI, mostly to prepare lessons outside the classroom rather than during teaching, which depends less on a reliable connection at the point of use. Progress is therefore possible now, alongside investment in connectivity and equipment, provided support is designed for the conditions teachers actually work in. Professional learning needs to address not only technical skills but also ethics and responsible use. At the same time, wider adoption will require financing, governance and support systems that allow local governments and schools to move from individual experimentation to sustained implementation.

Together, these findings suggest that the next phase should focus not simply on expanding teachers' use of AI but on creating the conditions that enable responsible, equitable and sustainable adoption across the education system.

Section 4: Teachers' action research with AI

How the action research worked

Alongside the national mixed-methods study, this research engaged 21 teacher researchers in teacher-led innovation, using the British Council's established Action Research Mentoring Scheme (ARMS). These teacher researchers are from Lumbini Province, Madhesh Province, Kathmandu Valley and Kavre district, representing both rural/urban and community/institutional schools. Out of 21 teacher researchers, 13 of them are female teachers. These teachers were selected by the mentors in consultation with the research team based on their willingness to carry out action research in using AI in teaching and learning.

Where the national study offered breadth – through surveys, interviews, focus groups and observations across diverse schools – the action research offered depth: sustained, systematic inquiry carried out by teachers in their own classrooms. It was designed to generate practice-based evidence, letting teachers investigate real classroom problems, experiment with AI-supported teaching and reflect on the effects on their own practice and on student learning. It also surfaced the practical challenges of integrating AI in Nepal's varied school contexts.

Teachers worked through an eight-week action research cycle: identifying a day-to-day pedagogical challenge, gathering evidence from their own classrooms, selecting appropriate AI tools, developing and trialling teaching strategies, reflecting on the results and refining their practice. Seven mentors provided regular support, helping teachers sharpen their inquiry questions, plan lessons, choose tools, run reflective sessions and interpret emerging evidence, while a Super Mentor coordinated the mentors and documented the experience. With teachers at the centre, the scheme treated experimentation and revision as normal parts of professional learning rather than signs of failure.

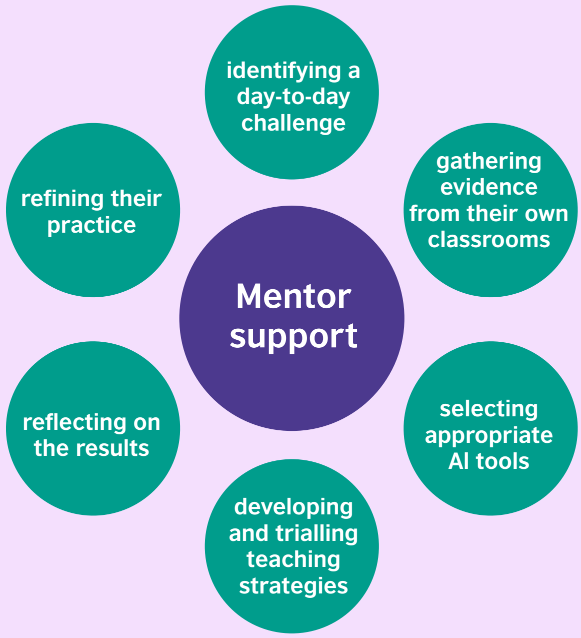


Figure 4: Stages of the action research (ARMS) process

What research questions teachers investigated

The teachers worked in different provinces, in community and institutional schools, and across a range of subjects and grades, so the evidence reflects varied educational contexts rather than a single model of AI use. They investigated challenges that arose directly from their own classrooms, including low student engagement, pronunciation difficulties, conceptual misunderstanding in mathematics, multilingual classrooms, weak reading comprehension, limited vocabulary, low participation and the need for differentiated learning. At this stage, the teachers were guided to make use of AI for their teaching/lessons preparation and using outputs in class, but not directly giving learners access to AI tools for safeguarding reasons. Their projects spanned English, mathematics, science, Nepali and social studies from Grade 2 to Grade 10, addressing topics such as writing, reading, vocabulary, pronunciation, concept simplification, scaffolding and peer teaching. The AI tools they drew on are summarised in Table 2.

Table 2. The AI tools drawn on by teachers during action research

AI tools	Tool Category	Main pedagogical purpose	Subjects	Grade(s)
ChatGPT	Generative AI / Conversational AI	Lesson planning, activity generation, questioning, worksheets, assessment, explanations	English, mathematics, science, Nepali, social studies	2–10
Gemini	Generative AI / Conversational AI	Lesson planning, differentiated instruction, classroom examples, multilingual support	Mathematics, science, English, Nepali	2–10
NotebookLM	AI research and knowledge retrieval	Organising teaching materials, summarising content, lesson preparation	Science, social studies	5–10
MagicSchool AI	Education-specific teaching assistant	Teaching resources, assessment design, lesson adaptation	English, social studies	6–10
Diffit AI	Education-specific teaching assistant	Differentiated reading materials and comprehension activities	English	4–9
Claude	Generative AI / Conversational AI	Instructional planning and content development	English	Secondary
Perplexity AI	AI research and knowledge retrieval	Research support and information verification	Science, social studies	Secondary
Gauthmath	AI-powered mathematics support	Stepwise mathematical explanations and solution verification	Mathematics	7–10
Photomath	AI-Powered Mathematics Support	Visual mathematical demonstrations and checking solutions	Mathematics	7–10
Duolingo	AI-powered language learning	Vocabulary development and pronunciation practice	English	3–8
Voicemaker	AI speech and audio generation	Audio pronunciation and listening practice	English	Primary
Grammarly	AI grammar checker / writing support	Writing improvement and language editing	English	Secondary
Quillbot	AI grammar checker / writing support	Paraphrasing and writing support	English	Secondary
Pictory AI	AI video generator	Creating instructional videos and visual resources	Science, English	Upper primary
AI translation tools	AI translation & multilingual communication	Multilingual teaching and vocabulary support	Nepali, English	Primary

With their mentors, teachers evaluated, modified and contextualised AI-generated resources to fit their curriculum and textbooks, and many combined several tools within a single lesson. A teacher from Lumbini Province described this layering:

> **'I used Perplexity AI to simplify difficult English passages into language that Grade 3 students could understand easily ... I used NotebookLM to convert the listening passages into engaging audio and video materials ... I also used ChatGPT as my planning partner throughout the research'.**

From the outset, teachers framed AI as an aid to their judgement rather than a substitute for it, a theme that ran through every project.

What AI contributed to teaching and learning

Teachers documented their practice throughout the cycle, talked with their students and gathered evidence of what changed. Their accounts point to several consistent contributions.

Planning lessons and designing better tasks

Lesson planning was the most common use of AI. Teachers used tools such as ChatGPT and Gemini to draft lesson plans with learning outcomes, activities, multilingual resources and worksheets, which reduced preparation time and freed them to adapt materials to their textbooks and contexts. As one science teacher put it,

> **'AI helped me prepare lesson plans, classroom discussions and quizzes much faster, allowing me to spend more time thinking about students rather than preparing materials'.**

A recurring insight was that AI mattered most when it improved the design of learning tasks. A science teacher struggling to teach solid waste management in Grade 7 used an AI-designed questionnaire to send students door to door to collect data on household waste practices. The discussion that followed was animated, and she concluded that engagement had been a task-design problem as much as a student one: 'When the task was real, active and connected to the community around them, students completed it willingly'. A Grade 8 English teacher similarly moved from a product-focused to a process-writing approach with AI support, reflecting

> **'At first I thought the problem was with the students, but now I realise that there was also a problem in my teaching methods, how I taught writing to my students'.**

Engagement, interaction and motivation

Across subjects, teachers used AI to create activities that encouraged interaction, collaboration and active participation, including role plays, vocabulary games, mathematical puzzles, problem-solving tasks, quizzes and locally grounded examples. A Grade 3 mathematics teacher generated story problems set in village markets and festivals and found that students who had thought mathematics difficult were quickly motivated because the problems reflected familiar surroundings. An English teacher used locally relevant passages about village life and environmental issues and found that students began not only to read more willingly but to reflect on the issues themselves.

Engagement gains were often striking. Describing a reading-comprehension class built around AI-generated level-wise texts and differentiated questions, one teacher recalled that

'weaker learners participated with greater confidence, while average and advanced learners remained skilled and motivated', and that one child said 'I wish your period hadn't ended so soon'.

33 In a three-stage controlled-to-free writing sequence, teachers provide a structured writing task in phase one, guided writing practice with prompts in phase two and free writing practice in phase three. According to the teacher, this task could be used to teach writing in a large class.

34 A controlled-to-free writing sequence moves learners in stages from tightly guided writing (for example, copying and gap-fill exercises), through guided writing with prompts and models, to free, independent writing.

Equity, inclusion and multilingual teaching

Some of the strongest evidence concerned reaching learners who had previously been left behind. In a Grade 8 class of over a hundred students (a class size well above the recommended teacher–pupil ratio, reflecting overcrowding the school already faced) in Madhesh Province, an English teacher built a three-stage[33] controlled-to-free writing sequence,[34] using several AI tools across three textbook units. Average free-writing scores rose from about half a mark to two out of five, a fourfold improvement from a genuinely difficult base, managed through bench-group leaders and differentiated worksheets.

Multilingual, and in some cases multigrade, classrooms featured prominently. A teacher taking Grade 4 and Grade 5 together in one room used ChatGPT and Gemini to generate English, Nepali and Maithili vocabulary tables, games and phonics scaffolds, grouping students by level. She described a previously silent Grade 5 student who 'has transformed from a silent student to a successful group leader in the project works in class'. A Grade 2 Nepali teacher in Kapilvastu used bilingual vocabulary and culturally familiar stories to reach Awadhi-speaking children, and a mentor who observed the class noted that 'students were speaking more and found it easier to understand language vocabulary'. Rather than treating a home language as an obstacle, these teachers used multilingualism as a resource for learning.

Teachers also used AI to make classrooms more inclusive: pair work gave hesitant students who would otherwise hesitate to speak a safer space to contribute, and some deliberately removed gender stereotypes from materials, with one teacher from Gandaki noting

> **'I used AI to find gender-neutral terms in my class and I also changed some terminologies that consisted [sic] gender stereotypes'. Mentors saw the clearest gains among the least visible learners. As one reflected, 'AI-generated materials reached students who had previously been invisible in the classroom ... These are not anecdotes; they are documented case evidence.'**

Assessment for learning

Teachers increasingly used AI to support formative assessment, generating quizzes, diagnostic questions, exit tickets and graded practice that let them track progress and adjust their teaching, treating assessment as an ongoing process rather than an end-of-term event. In Bagmati Province, a mathematics teacher used ChatGPT, Gemini and Gauthmath to build graded sequences for teaching fractions and measured the effect with pre and post tests: average achievement rose from about 43 per cent to 77 per cent. He went on to run a one-day AI workshop for 24 fellow teachers in his school, so the learning extended well beyond his own classroom.

Teacher agency and professional growth

A central finding was that AI strengthened teachers' professional agency rather than diminishing it. Teachers had to identify suitable tools, judge their outputs, and adapt and humanise resources for their own context, work that demanded critical decision making. As one teacher said, 'I realised that AI should support my teaching, not replace my professional judgement. Every lesson became more effective when I adapted AI-generated ideas to meet my students' learning needs.'

Many teachers described a shift in how they saw their own practice. A teacher from Lalitpur reflected that 'the biggest change was not only in my students but also in myself as a teacher', concluding that good teaching 'is about observing students carefully, reflecting on their needs and continuously improving my practice'. Teachers also built practical skills, above all in prompting. Several learned that 'the better the prompt, the better the information, activities and resources AI provides', and began specifying grade level, curricular objectives, activity type and local context in their prompts. The appetite grew as teachers saw results for themselves. Some now use AI across additional grades, others have run workshops for colleagues and in one school a head teacher, pleased by improved post-test results, is considering investing in a smartboard.

The role of sustained mentoring

The scheme's structured mentoring emerged as decisive. Because AI in education is still new in Nepal, many teachers were initially reluctant, not from unwillingness but from limited confidence and awareness. Regular mentoring gave them a space to discuss difficulties, receive feedback and revise their strategies, and mentors worked through collaborative reflection rather than prescription, encouraging teachers to analyse classroom evidence and reconsider what had not worked. One teacher explained that mentoring reassured her that 'experimentation and revision are normal components of professional learning rather than indicators of failure'. Mentors also prompted teachers to think about ethical and responsible use, so the process built not only digital competence but reflective professional judgement.

Challenges, limitations and concerns

Working in very different conditions, teachers were candid about the difficulties. AI integration, they stressed, is more than using a tool. It requires finding the right technology, judging whether it is reliable, adapting it to the curriculum and textbook, and using it ethically and responsibly.

The most widely shared challenge was limited familiarity with AI. Teachers had used AI casually, but not in a structured way for teaching, and at first struggled to identify appropriate, trustworthy tools amid the mixed messages circulating on social media. Mentors reported that the early stages needed considerable discussion and orientation before confidence grew. Prompting was a related hurdle, as general questions produced vague results until teachers learned to be specific. Adapting AI-generated content was harder still, since materials often carried unfamiliar cultural contexts, difficult vocabulary or examples pitched beyond students' level, and required sustained work with mentors. As one mentor observed, 'All the AI-supported ideas are not directly useful to the classroom. Many times adaptation is needed on examples and activities.'

Infrastructure was a second major constraint. Internet connectivity was poor, uneven and unstable, and often confined to school offices rather than classrooms, with remote schools worst affected. Teachers responded by using personal mobile data or preparing printed materials in advance. As a Grade 8 English teacher put it, 'Instead of relying on continuous online access, I prepared printed reading passages and pronunciation materials in advance so that classroom activities could continue without interruption'. Many teachers also lacked laptops, computers and projectors, and relied on their personal phones.

Finally, teachers raised ethical concerns. They were conscious of the risks of inappropriate use and over-dependence, unsure how far reliance on AI-generated resources might affect students' independent thinking and creativity, and worried about verifying the accuracy of AI outputs, since inaccurate material could harm both student learning and their own professional standing. How to check accuracy, and whom to ask, remained open questions for many.

These cases also show what AI cannot do. It helped individual teachers cope within difficult conditions such as oversized classes, but it is not a substitute for adequate teacher numbers or for meeting recommended teacher–pupil ratios, and the examples here should not be read as endorsing class sizes above national norms.

Implications for AI in education in Nepal

Taken together, these projects provide a substantial body of practice-based evidence on using AI in Nepal's schools. They show that AI integration is feasible across very different contexts – rural and urban, community and institutional, primary and secondary, including schools with limited technology – and that it can make teaching more interactive, engaging and inclusive, while improving student learning.

Several implications follow for policy and practice. Teachers should be actively encouraged to experiment with AI, supported by the sustained, structured mentoring that proved so important here. Local governments could lead this, working with local teacher-education campuses as a practical starting point. Integration should begin now rather than waiting for full infrastructure, because teachers showed that careful planning, offline preparation and thoughtful adaptation allow meaningful AI-supported teaching even where connectivity is limited. At the same time, local governments should invest in infrastructure and adopt connectivity-resilient approaches. Above all, because effective integration depends more on teachers' ability to adapt AI-generated content than on the technology itself, building teachers' capacity for ethical and responsible use should be a core part of local-government policy and programmes. For this, government should establish safeguards that will facilitate ethical and responsible use of AI in education.

Section 5: What broader education sector stakeholders say

Stakeholder consultations

A central aim of this research was to bring the wider education community together to review its emerging evidence and turn that evidence into practical direction. Six roundtable discussions – four thematic and two provincial – were convened by British Council Nepal with the Ministry of Education and Sports (MoES) in June 2026. Each discussion had four purposes: to review the emerging evidence from the mixed-methods research and the teacher-led innovations on using AI in teaching and learning; to validate the findings; to examine the realities of implementation from the national level down to the school; and to generate policy-relevant recommendations.

Participants were drawn from across the education system, including senior policymakers, teacher educators, head teachers, teachers, local government representatives, education officials, education technology experts, private sector AI practitioners and development partners. Each dialogue opened with a presentation of the study's preliminary findings, so that the views recorded here are grounded in evidence rather than general impression. The four thematic roundtables addressed AI capacity; teacher professional development and assessment; access and inclusion; and national standards. The two provincial roundtables, held in Madhesh and Lumbini, tested these national themes against local realities. This section first sets out what stakeholders said, theme by theme, and then draws their recommendations together into a single, prioritised agenda for action.

What stakeholders said

Theme 1: AI capacity in education

The first roundtable examined teachers' readiness for AI, the literacy standards and competencies they need, the gender and geographical gaps in AI literacy, and the roles of the federal, provincial and local governments in building capacity at school level. There was strong consensus on five points.

First, teachers are interested in AI but not yet ready to use it systematically. Awareness of AI tools is rising, but most teachers cannot yet integrate AI into lesson planning, teaching, assessment or their own learning, and what knowledge exists is fragmented and driven by individual initiative rather than structured support.

Second, effective use depends on foundational AI literacy combined with critical professional judgement. Teachers need to understand what AI is, how it works, its limits and its ethical implications, and to evaluate, verify and adapt AI-generated content before using it with students, rather than simply operating the tools.

Third, AI competencies should be embedded within existing teacher education and continuing professional development (CPD) systems rather than delivered through separate, one-off programmes. Participants favoured a fast-track approach built on continuous learning, mentoring and peer support.

Fourth, gender, geographical and infrastructure inequalities directly shape teachers' opportunities to build AI capacity.

Fifth, and most emphatically, Nepal lacks a coherent AI-in-education framework, and participants called for national guidance that sets out expectations, standards, ethical principles and implementation pathways.

Implication. Nepal needs national guidance and standards for AI in education, and teacher capacity built through existing systems rather than parallel ones.

Theme 2: AI for teacher professional development and assessment

This roundtable considered AI for teacher mentoring and classroom support, for formative and summative assessment and feedback, and for teachers' own professional learning, together with the risks, fairness concerns and safeguards that responsible use would require.

Participants agreed that AI can reduce teachers' preparation time by helping to generate lesson plans, materials, worksheets, assessments and classroom activities, and can open access to educational resources developed by teachers worldwide. They saw particular promise in AI as a vehicle for professional development (personalised learning, virtual mentoring and content creation) and called for a dedicated space or platform where teachers can learn together. On assessment, participants noted that AI could support both formative and summative work through automated feedback, item design, rubric development and analysis of student work, while raising clear concerns about privacy, data security, algorithmic bias, misuse, over-dependence on technology, and student safety. Views diverged most sharply on teacher agency. Some participants feared that AI could displace teachers, while others insisted that it must remain a support tool, with teachers retaining professional judgement, contextual adaptation, ethical oversight and human interaction. There was consensus that AI integration must be monitored and evaluated through a strong, sustainable system built on existing structures (teacher training programmes, learning portals, teacher guides and professional development mechanisms) rather than parallel ones.

Implication. AI should augment rather than replace teachers, and its use in assessment and professional development must be matched by safeguards and monitoring built into existing systems.

Theme 3: Access and inclusion in AI

This roundtable focused on access, equity, infrastructure, connectivity, affordability and inclusion, drawing on preliminary findings about disparities across provinces, school types, genders, socio-economic and language groups, learners with disabilities and marginalised communities.

A common thread across every group was that equity must be built into AI policy from the outset, not added later. AI in education should be treated as a public educational resource rather than the preserve of privileged groups, and policy should recognise Nepal's many overlapping inequalities: rural and urban, girls and boys, women and men teachers, well-resourced and under-resourced schools, and differences of language, ability and teacher type. Participants stressed that benefit cannot be assumed to reach everyone. Learners and teachers at risk of being left behind (for example those facing unreliable electricity, connectivity or transport in rural areas; students whose first language is not the language of instruction; and women teachers balancing multiple responsibilities) must be identified and given additional support.

On disability, participants argued for reversing the usual sequence so that accessibility becomes a core design principle throughout AI development, applying the principles of Universal Design for Learning (UDL). They noted that, taken seriously, AI could substantially improve participation and independence for learners with disabilities through speech recognition, text-to-speech, automatic captioning, image description, adaptive learning and assistive communication technologies. On gender, the preliminary findings showed that women teachers often face added constraints (family responsibilities, less freedom to travel to training, restricted access to devices and lower confidence with new technology), so simply offering training does not guarantee equal participation. Participants called for gender-responsive capacity development combining local workshops, school-based mentoring, online learning, peer networks and modular courses. They also urged schools to widen girls' access to AI literacy through coding clubs, digital innovation programmes and STEM activities, noting that early exposure may narrow long-term gender gaps in technology fields.

Implication. Equity, inclusion and accessibility must be designed into AI policy from the start, not retrofitted.

Theme 4: National standards for AI in basic education

This roundtable addressed the scope, governance, responsibilities, ethical safeguards and endorsement of national standards for AI in school education. Participants observed that AI is developing faster than policy, that schools, teachers and students are already using AI applications without clear guidance, and that the country should therefore act proactively to establish a coherent national framework that gives direction while allowing flexibility for diverse contexts.

Participants agreed that Nepal needs a comprehensive national AI-in-education framework specific to schools, and this was consistently emphasised in all the roundtables. The existing National AI Policy and Digital Nepal Framework offer only broad direction, so a dedicated framework is needed to translate national aspirations into practical guidance for schools, teachers, local governments, teacher-education institutions, curriculum developers and technology providers, which defines vision, objectives, governance, institutional responsibilities, ethical safeguards, monitoring and capacity development, and remains adaptive through periodic review. They also called for the teacher competency framework to be expanded so that teachers can critically evaluate AI outputs, design AI-supported learning, protect learner privacy, recognise algorithmic bias and maintain professional judgement. Ethics was the most frequently discussed issue. Participants stressed that AI must never compromise children's rights, privacy or well-being and expressed concern about how student data is collected, stored, shared and commercially used. They recommended comprehensive ethical standards covering informed consent, transparency, accountability, fairness, bias mitigation, explainability and human oversight, alongside stronger child-safeguarding provisions against inappropriate content, manipulation, misinformation and online harm. On sequencing, participants were clear that much can begin immediately using existing institutions and resources (starting with interim guidance and low-cost, high-impact steps) while the fuller framework is developed.

Implication. *Nepal should begin now with interim guidance and low-cost steps while developing a comprehensive, ethically grounded national framework.*

Provincial perspectives: Madhesh and Lumbini

The two provincial roundtables tested the national themes against local realities, infrastructure and implementation constraints, covering provincial opportunities and challenges, local-government capacity and roles, infrastructure and connectivity, language and culture, gender and equity, practical school-level pathways, and teacher support and mentoring.

Participants agreed that AI has real potential to strengthen teaching and learning, improve teacher productivity, support personalised learning and widen access to resources, but that success depends on careful, phased implementation rather than immediate large-scale adoption. Teacher readiness emerged as the decisive factor. Many teachers are already experimenting on their own with freely available tools such as ChatGPT (using them to prepare lesson plans, generate activities and assessment questions, translate materials and find resources), which shows real curiosity and willingness to innovate despite little formal support, but this was not true of all teachers. Schools are often less prepared than individual teachers, lacking clear AI policies, ICT infrastructure, connectivity and structured professional learning, so institutional capacity must be strengthened alongside individual competence, beginning with demonstration schools that represent different contexts.

Reliable digital infrastructure was seen as the foundation for AI in education, and it varied considerably across municipalities and schools in both provinces. Connectivity was reported to be more problematic in Lumbini, where some remote districts lack a reliable network even for mobile phones. Urban schools generally have relatively dependable electricity, connectivity, computer laboratories and devices, while many rural schools face intermittent internet, inadequate bandwidth, limited equipment and little technical maintenance. Introducing AI without addressing these gaps risks widening existing inequalities. Participants therefore wanted AI applications that are realistic and appropriate for local schools, focused initially on improving teachers' practice rather than replacing classroom teaching, mobile-friendly and low bandwidth because smartphones are far more common than computers, and supporting Nepali and other national languages rather than English alone.

Because Nepal's education system is decentralised, municipalities carry significant responsibility for school governance, teacher support, planning and resources. AI implementation should therefore be an integral part of municipal education planning rather than an externally driven initiative. Participants suggested that each municipality gradually develop its own AI-in-education plan, aligned with national standards but responsive to local realities. They also stressed that sustainable transformation requires collaboration among schools, parents, communities, municipalities, universities, civil-society organisations, development partners and the private sector, with private-sector involvement guided by national educational priorities and ethical standards rather than commercial interest, and with development partners especially important in the early stages.

Implication. National ambition must be matched by infrastructure, locally appropriate tools and municipal leadership if AI is not to widen existing inequalities.

From dialogue to action

Participants were clear that developing standards is only the first step. Nepal also needs an implementation roadmap that sets out responsibilities, timelines and milestones, beginning with a gap analysis of existing strengths, institutional capacities, policy gaps, infrastructure and teacher readiness, followed by broad consultation across the education community. The recommendations from all six roundtables are drawn together below under five cross-cutting priorities.

Where the discussions indicated timing, actions are marked as immediate (within about six months), short term or medium term; responsible actors are named where participants identified them.

1. A national framework and standards for AI in education

A coherent national framework was the single most consistent call across the roundtables.

- **Immediate:** Center for Education and Human Resource Development (CEHRD) and MoES issue interim guidance for schools and teachers on ethical use, classroom applications, data privacy and quality assurance.
- **Immediate:** Run public-awareness and sensitisation programmes on AI in education nationwide.
- **Short term:** Take low-cost, high-impact steps (introductory guidance, action research and pilot schools) through existing institutions such as CEHRD, Educational Training Centres, Community Learning Centres, universities and Teacher Professional Learning Communities.
- **Medium term:** Develop a comprehensive national AI-in-education framework specific to school education, aligned with existing education reforms and kept adaptive through periodic review.

2. Teacher capacity and competencies

Participants agreed that success depends on teachers, and that capacity is best built through existing systems.

- **Immediate:** MoES and provincial governments launch a nationwide AI-awareness campaign for teachers and school leaders.
- **Short term:** Introduce foundational AI-literacy modules in teacher-training institutions and create self-learning resources and online certification that build critical AI-evaluation skills.
- **Short term:** Establish a virtual mentoring and teacher-support system and a shared professional-learning space, and support teacher-led action research and peer networks.
- **Short term:** Create a multilingual national repository of AI teaching resources: lesson plans, assessment ideas and contextualised guidance.
- **Medium term:** Revise the national teacher competency framework to include AI competencies, develop a national AI-literacy framework and competency standards reflecting Nepal's equity concerns and diversity, and integrate AI literacy into pre-service and in-service teacher education and CPD.

3. Equity, inclusion and safeguarding

Equity and safeguarding were treated as foundations of AI policy rather than optional add-ons.

- **Immediate:** Build child-safeguarding and data-protection provisions into interim guidance, covering informed consent, transparency, accountability and human oversight.
- **Short to medium term:** Design gender-responsive professional development, decentralise training through provincial and local delivery, provide targeted digital-infrastructure support to women teachers in remote areas and widen girls' access to AI literacy through coding clubs and STEM activities.
- **Medium term:** Develop a national equity and inclusion framework embedding gender equality, disability and social inclusion (GEDSI) throughout AI policy and standards.
- **Medium term:** Adopt Universal Design for Learning across AI initiatives, set national accessibility standards for educational AI in collaboration with disability organisations, build accessibility into AI procurement and add disability-inclusive modules to teacher education.
- **Medium term:** Establish a comprehensive ethical AI-safeguarding framework, with stronger education data-privacy rules and ethical procurement standards.
- **Ongoing:** Prioritise low-resourced or poorly resourced schools and rural schools in early implementation with targeted funding, and identify vulnerable learner and teacher groups in national planning.

4. Infrastructure and local implementation

The provincial roundtables stressed that national ambition must rest on infrastructure and local delivery.

- **Short term:** Begin with demonstration and pilot schools representing diverse contexts, supported by school-level plans and provincial mentoring and technical support, and monitor pilots before scaling.
- Expand broadband and improve electricity in underserved areas; establish ICT laboratories and sustainable maintenance systems; fund infrastructure within municipal education budgets; use public–private partnerships; and prioritise underserved schools.

- Promote teacher-supporting, mobile-friendly, low-bandwidth and Nepali-language AI tools aligned with the national curriculum, with local resource repositories and practical training on adapting AI-generated materials.
- Prepare municipal AI-in-education plans with dedicated budgets, school-based professional development and municipal mentoring networks.

5. Governance, partnership and monitoring

Sustained implementation depends on clear roles, genuine partnership and evidence.

- Clearly define AI responsibilities across the federal, provincial and local levels, and strengthen coordination among them.
- Develop a national monitoring and evaluation framework for AI in education, with indicators; periodic national reviews; feedback from teachers, learners, parents and local governments; and digital monitoring systems.
- Promote evidence-informed decision making using both quantitative and qualitative data.
- Build partnerships among schools, communities, parents, universities, the private sector and development partners, guided by national priorities and ethical standards, and establish provincial knowledge-sharing networks that document and share effective practice.

A shared responsibility across government

Participants proposed a collaborative governance model in which each level of government plays a complementary role. The federal government holds primary responsibility for national policy, standards, financing, national digital infrastructure, ethical guidelines, coordinating research and alignment with wider education reforms. The provincial government acts as an intermediary between national policy and local implementation: contextualising policy, coordinating teacher professional development, supporting innovation, monitoring implementation, facilitating collaboration among municipalities and providing technical assistance. Local governments (Palikas) carry particular weight because they manage schools and support teachers directly. Participants recommended that municipalities become the primary implementing agencies, identifying local needs, strengthening infrastructure, supporting teachers, engaging communities, coordinating partnerships and monitoring progress. Schools themselves should create environments that encourage responsible experimentation, collaborative professional learning and ethical use, drawing on existing mechanisms (Teacher Professional Learning Communities, Sikai Chautari, Community Learning Centres and Educational Training Centres) rather than building new structures.

Section 6: The strategic case for future initiatives

This section sets out why the mixed-methods study evidence supports future initiatives, what that phase should prioritise and in what order.

The opportunity

The mixed-methods study sets out to establish where Nepal stands on AI in basic education. The answer is that the country is further ahead than often assumed, but also more fragile.

Four separate strands of evidence point the same way: a national survey of 815 teachers, 81 coded interviews and focus groups, teacher-led action research in 21 classrooms and six stakeholder roundtables. Together they show that AI is already being used by many teachers. About three in four report having used AI, they are measurably literate in it and they are optimistic about what it can do.[35]

The action research went further, showing under real classroom conditions that this optimism is warranted. Teachers who received structured mentoring in classroom AI use produced measurable learning gains: in one classroom, average mathematics achievement rose from about 43 per cent to 77 per cent; in another, average free-writing scores quadrupled from a very low base in a class of more than a hundred students. Mentors also described reaching learners who had previously been, in one mentor's words, 'invisible in the classroom'.[36]

But every strand also shows the same fragility. The progress is individual, not institutional: adoption is self-taught, with no training, standards or shared expectations behind it. It is also uneven enough to meet the study's equity-flag threshold. Women and older teachers are falling behind on both literacy and adoption, and the gender gap widens rather than closes when access to equipment is made equal, so better hardware alone will not fix it. Teachers showed stronger awareness of ethical issues they encountered directly than of broader concepts such as bias and data privacy, which were discussed much less frequently. The system above the classroom has, on its own account, barely begun. Education officers report no guidance, no training pipeline and federal funding that is earmarked in ways that leave no room for new priorities such as AI.

Nepal does not need to create momentum on AI in education; teachers have already provided it. It needs to organise, make fairer and safeguard the momentum that already exists, before the gaps within it become permanent.

The strategic case for action

The case for future initiatives does not rest on the general promise of AI. It rests on what the mixed-methods study shows about Nepal in particular: conditions here reward early, structured action and make delay costly.

Three findings make timing important. The first is the steep age gradient in AI adoption. Each new group of teachers arrives more fluent in AI than the last, so without action the divide within the workforce grows on its own, and the cost of helping mid- and late-career teachers catch up rises over time.

The second is unguided adoption. Three-quarters of teachers are already using a technology for which there is no guidance, no agreed way to check outputs and no safeguarding. Habits are forming now, including reliance on outputs that teachers say they cannot yet verify, and it is much harder to add standards to established practice than to shape practice while it is still new. Roundtable participants saw the same problem from the policy side: AI is moving faster than policy, and schools, teachers and students are already using it without direction.

35 Findings referenced in this section are evidenced in Sections 3–5, with survey statistics footnoted in Section 3. Headline figures: 619 of 815 surveyed teachers (about three in four) report having used AI; male teachers score higher than female teachers on the AI Literacy Scale (3.85 vs 3.56, Cohen's d = 0.43, meeting the study's pre-set equity-flag threshold); adjusted odds of adoption fall steeply with age, to roughly a tenth for teachers over 50 relative to those under 30; and the gender adoption gap widens, rather than narrows, when device and internet access are held constant (adjusted OR 0.436).

36 Section 4. Twenty-one teacher researchers completed an eight-week ARMS action research cycle supported by seven mentors. Documented outcomes include average mathematics achievement rising from about 43 per cent to 77 per cent on pre/post tests of a graded fractions sequence, and a fourfold improvement in average free-writing scores (from about half a mark to two out of five) in a Grade 8 class of over one hundred students in Madhesh Province.

The third finding is the direction of the equity gap. The gender gap remains even when access is equal, and the barriers behind it – time, domestic load, control of devices and social norms – build up quietly. A rollout that ignores them will not just fail to close the gaps the study measured; on this evidence it will widen them.

The cost of waiting is therefore not a stable situation but a worsening one: a workforce that divides further by age and gender; fading goodwill, since the interviews are full of interested teachers waiting for a way into confident use, and of officials whose intentions have never become firm commitments; and a gap on ethics that is being filled by what circulates on social media rather than by professional standards. The mixed-methods study has also removed the two best reasons to wait. The action research showed that useful AI-supported teaching is possible now, including in poorly connected schools, through offline preparation and careful adaptation. The roundtables produced a ready, prioritised agenda, with named institutions and a governance model covering all three tiers of government. The evidence, the demand and the agreement on how to deliver are all in place. The remaining challenge is to bring these elements together through a coherent programme.

Strategic priorities

Five priorities follow from the evidence. They are ordered by dependency, since each creates the conditions the next depends on, and the first two could begin at once within existing institutions. Responsibilities are assigned only where the evidence supports them, mainly the roundtable recommendations and the project's terms of reference for future initiatives.

Priority 1: Interim guidance now, national standards next

What

Develop a two-stage framework for responsible AI in school education. Begin with interim guidance for schools and teachers covering ethical use, classroom applications, data privacy and verification of AI-generated content. This should be followed by a comprehensive national AI-in-education framework and school-specific standards aligned with the School Education Sector Plan and reviewed periodically as AI evolves.

Why

This was the strongest and most consistent recommendation across all six roundtables. It also responds directly to a key finding from the mixed-methods study: teachers are already using AI but lack clear guidance, while the existing National AI Policy and Digital Nepal Framework provide only broad direction. Establishing shared standards first creates a common foundation for teacher development, mentoring, procurement and local implementation.

Who

MoES and CEHRD should lead the development of the interim guidance, as recommended by roundtable participants. The comprehensive framework should be developed by MoES in consultation with provincial and local governments, with the British Council contributing the mixed-methods study evidence and convening support, and development partners supporting technical consultation.

Dependencies and sequencing

This can begin immediately. The roundtables judged interim guidance achievable within about six months, with the comprehensive framework a medium-term deliverable that future initiatives should inform.

Priority 2: An AI literacy pathway built into existing teacher development

What

Integrate foundational AI literacy into existing pre-service and in-service teacher development, including the TPD Framework 2080, Educational Training Centres and Teacher Professional Learning Communities. The pathway should cover what AI is, what it can and cannot do, how to evaluate and adapt AI-generated content and responsible AI use, with dedicated modules on bias, cultural appropriateness and data privacy.

Why

The mixed-methods study shows that the greatest differences in AI literacy are associated with gender and age rather than province, school type or caste. Professional learning should therefore be designed around the practical constraints experienced by women and older teachers, including timing, location, format and access to devices. Ethics also emerged as the least developed dimension of AI literacy, indicating the need for explicit teaching rather than assuming these concepts will develop through experience alone. Roundtable participants consistently recommended strengthening AI capacity through existing teacher development systems rather than creating parallel programmes.

Who

MoES and provincial governments should lead implementation through teacher education institutions and the continuing professional development (CPD) system, with provinces coordinating delivery as recommended in the roundtables. The British Council can support curriculum and resource development, drawing on the evidence generated through the mixed-methods study.

Dependencies and sequencing

Content should align with the interim guidance (Priority 1) but need not wait for the full framework. Short term: modules, self-learning resources and a multilingual repository. Medium term: AI competencies written into the national teacher competency framework.

Priority 3: Mentored classroom practice at scale

What

Expand the mentored action research model through structured cycles of classroom inquiry supported by regular mentoring. Use this as the primary approach for helping teachers translate AI literacy into confident, responsible classroom practice, including the use of AI for formative assessment.

Why

This is the only intervention tested directly in the mixed-methods study, and it produced measurable improvements in both teaching and learning. The action research documented stronger student outcomes, greater inclusion of multilingual and lower-attaining learners and enhanced teacher confidence and agency when mentoring was provided. It also responds to a key finding from the survey: many teachers are interested in using AI but need practical support to move from awareness to regular classroom use. The action research also demonstrated the potential for peer learning, with teachers voluntarily sharing their learning with colleagues, suggesting that mentoring can create wider professional diffusion.

Who

Local governments should lead implementation in partnership with local teacher education institutions, building on the delivery model tested through the British Council's ARMS approach. Head teachers should support responsible classroom experimentation and create opportunities for peer learning within schools, consistent with the roles identified during the roundtables.

Dependencies and sequencing

Depends on Priority 2 for foundational literacy and Priority 1 for the rules of responsible use. Short term: expand cohorts through demonstration schools representing diverse contexts, as the provincial roundtables proposed. Medium term: add assessment applications as guidance matures, given the fairness and over-dependence concerns raised in both roundtables and interviews.

Priority 4: Connectivity-resilient infrastructure, targeted where it changes outcomes

What

Prioritise investment in the infrastructure that the mixed-methods study identified as most critical for AI use: reliable internet connectivity, access to devices with equitable arrangements for their use and dependable electricity. Where possible, promote AI tools that are mobile-friendly, low bandwidth and available in Nepali and other relevant local languages.

Why

Infrastructure emerged as the most commonly reported barrier to AI integration. The survey further shows that home internet access, more than rural location itself, distinguishes teachers who use AI from those who do not. At the same time, the mixed-methods study demonstrated that meaningful AI-supported teaching is possible even in low-connectivity settings through offline preparation and careful adaptation. The evidence also shows that infrastructure alone is insufficient: devices that are inaccessible or shared inequitably, and investment in equipment without accompanying support, are unlikely to improve adoption or reduce existing gender disparities.

Who

Local governments should lead investment and maintenance of school infrastructure within municipal education budgets, supported where appropriate through public–private partnerships. The federal government should continue to strengthen national digital infrastructure, while MoES incorporates accessibility and usability criteria – including mobile compatibility, low-bandwidth operation and local-language support – into national AI guidance and standards.

Dependencies and sequencing

Runs in parallel with Priorities 2 and 3 rather than holding them up: start where conditions allow, while fixing conditions where they do not. Underserved schools first, as every roundtable urged.

Priority 5: Municipal capacity and the financing pathway

What

Strengthen the institutional foundations for AI in education by supporting municipal AI implementation plans, dedicated budget allocations where feasible, local resource teachers or hub models to share expertise, and financing arrangements that enable local governments to invest in AI-related priorities.

Why

The mixed-methods study found that the greatest barriers to scaling AI lie at the system level rather than in teacher willingness. Education officers consistently described limited local capacity, an absence of formal policies and implementation mechanisms, and little flexibility to fund new priorities because federal grants are largely earmarked. Roundtable participants also identified municipalities as the primary implementing agencies for AI in schools, highlighting the need to strengthen their planning, coordination and financing capacity.

Who

MoES should work with federal finance authorities to strengthen the policy and financing framework for AI in education, while local governments develop municipal implementation plans and coordinate delivery. Development partners, including the British Council, can support this process through technical assistance, evidence generation and cross-municipal learning networks.

Dependencies and sequencing

Municipal planning can begin in the short term, aligned to interim guidance. The financing pathway is a medium-term task – and it is the single dependency most likely to determine whether classroom gains scale up or stall.

Principles for responsible adoption

Five principles for implementation emerge consistently from the mixed-methods study evidence.

1. **Teachers lead; AI assists**
   The mixed-methods study consistently showed that AI works best when it supports, rather than replaces, teachers' professional judgement. While some roundtable participants expressed concern that AI could displace teachers, the classroom action research pointed the other way in practice: teachers used AI to strengthen lesson planning, adapt materials and reflect on their practice, with the technology supporting their judgement rather than substituting for it. This does not settle the longer-term question of AI's role, but on the current evidence the productive use is augmentation. Future initiatives should therefore position AI as a tool that enhances teachers' expertise and decision making.

2. **Equity by design**
   Equal access does not produce equal benefit. The gender gap in AI use persisted even where women and men had the same access to devices, because the barriers behind it, such as time, domestic responsibilities, who controls shared devices, and prevailing social norms are not solved by hardware. Equity was also the opportunity teachers themselves mentioned least, so it is unlikely to be prioritised without deliberate design. Support should therefore be built around the constraints facing those most at risk of being left out – above all, women and older teachers – while recognising that not every teacher reads the gap in gendered terms. The aim is to remove the constraint, not to label the group.

3. **Context before technology**
   The action research showed that effective AI use depends on adaptation, not simply adoption. Teachers achieved the strongest results when they adapted AI-generated content to the curriculum, local languages and students' learning needs. Future initiatives should therefore prioritise developing teachers' ability to adapt AI for their own classrooms, rather than focusing only on technical proficiency.

4. **Build inside existing systems**
   The mixed-methods study consistently showed that AI is more likely to be sustained when it is integrated into existing education systems rather than delivered through parallel structures. Roundtable participants repeatedly emphasised working through the TPD Framework, teacher training centres, professional learning communities and municipal planning processes. The project also demonstrated that teachers naturally shared learning through existing collegial networks, providing a strong foundation for wider scale-up.

5. **Led by evidence**
   Future initiatives should continue the evidence-led approach established in the mixed-methods study. This includes monitoring progress using both quantitative and qualitative data, embedding teacher-led action research as an ongoing source of learning, and adapting implementation as new evidence emerges. It also means communicating clearly about both the opportunities and the limits of AI, helping teachers develop realistic expectations about what AI can and cannot achieve in Nepali classrooms.

Risks and how to manage them

The findings point to five implementation risks that future initiatives should address from the outset.

1. **Widening existing inequalities**
   The mixed-methods study found that teachers do not benefit equally from the same support. Women and older teachers face barriers that go beyond access to technology, including time and workload, domestic responsibilities, unequal access to shared devices, social norms and training that is harder to attend. Providing the same training or equipment to everyone is therefore unlikely to close these gaps on its own.

   Mitigation: Design future initiatives with these differences in mind through flexible training formats, school-based mentoring, local delivery, equitable access to devices and monitoring participation and outcomes across different groups.

2. AI use without adequate guidance

Many teachers are already using AI, but they also reported concerns about students relying on AI for homework and acknowledged that they do not always feel confident evaluating AI-generated content. Without clear guidance, these practices are likely to become more established.

Mitigation: Make interim guidance an early priority and ensure that responsible AI use, critical evaluation of AI outputs and ethical considerations are core components of the AI literacy pathway, developed with teachers rather than for them.

3. Infrastructure limiting implementation

The mixed-methods study documented repeated challenges with unreliable internet, limited access to devices and inadequate maintenance. Investment in equipment alone is unlikely to improve classroom practice if these issues remain unresolved.

Mitigation: Prioritise solutions that work in low-connectivity environments, pilot approaches through demonstration schools before wider rollout and ensure that maintenance and ongoing support are built into implementation plans.

4. Limited institutional capacity

Teachers have shown a willingness to adopt AI, but local governments often lack the policies, implementation arrangements and financing needed to support wider adoption. Without stronger institutional capacity, successful classroom practice will be difficult to sustain or scale.

Mitigation: Support municipal planning from the outset, strengthen local implementation capacity and work with federal partners to address funding constraints as an early priority.

5. Unrealistic expectations

Some expectations raised during the mixed-methods study, such as AI replacing teachers or eliminating wider inequalities in education, go beyond what the current evidence and infrastructure can support. If expectations are not managed carefully, disappointment could reduce confidence in future initiatives.

Mitigation: Communicate clearly about both the demonstrated benefits and the current limitations of AI, drawing on the evidence from Phase 1 and the awareness-raising approaches recommended during the roundtables.

The mixed-methods study found that many teachers are ready to use AI, but the systems needed to support them are still developing. The next phase should therefore focus not only on strengthening teachers' practice but also on building the policies, capacity, infrastructure and financing needed to make AI integration equitable and sustainable.

Section 7: Future initiatives design brief

This section translates the mixed-methods study evidence into an evidence-informed design brief for future initiatives. It outlines the objectives, priorities and implementation considerations that emerge from the findings, providing a practical starting point for programme design.

Future initiatives should build directly on the evidence generated during the mixed-methods study. The findings point to a programme that strengthens existing teacher practice, addresses the barriers that currently limit adoption and builds the institutional systems needed to support AI use over time. The following design brief translates these findings into practical programme components.

Objectives for future initiatives

Objective 1: Strengthen teachers' confident and responsible use of AI

Support teachers to move from self-directed experimentation to confident, effective classroom practice through structured professional learning, mentoring and opportunities for guided classroom inquiry.

Objective 2: Reduce inequities in AI literacy and use

Address the documented differences in AI literacy and adoption by designing support that responds to the specific barriers experienced by women, older teachers and schools with limited connectivity.

Objective 3: Promote responsible AI use in schools

Establish clear guidance, standards and professional learning on responsible AI use, including ethical decision making, bias, cultural appropriateness, data privacy and critical evaluation of AI-generated content.

Objective 4: Strengthen institutional capacity for sustainable implementation

Support MoES, provincial governments and local governments to develop the policies, financing, guidance and implementation systems needed to sustain and scale responsible AI use in basic education.

Target beneficiaries and geographies

Teachers are the primary beneficiaries of future initiatives, but support should be targeted rather than uniform. The mixed-methods study identified three priority groups. Women teachers require flexible training that responds to constraints such as time, access to devices and competing responsibilities. Mid- and late-career teachers need learning approaches that reflect their different starting points and pace of learning. A third priority group is teachers who are interested in using AI but have not yet begun, as they represent the greatest opportunity to translate readiness into confident practice.

Future initiatives should also strengthen the wider education system. Head teachers play an important role in creating the conditions for responsible AI use within schools, including decisions about access to shared devices. Teacher educators, Educational Training Centres and local teacher education campuses should be strengthened as the primary channels for professional learning. Local governments and education officers also require support to develop the planning, coordination and implementation capacity needed to sustain AI integration.

The programme should be national in scope, with provincial coordination and local implementation. National-level support should focus on guidance, standards and teacher-development resources. Provinces should coordinate professional learning, while municipalities lead implementation. Early implementation should prioritise demonstration municipalities that reflect Nepal's diverse contexts rather than the easiest locations. As the mixed-methods study found that connectivity, rather than province, is the stronger predictor of AI adoption, priority should be given to underserved schools with limited digital infrastructure. Madhesh and Lumbini also provide strong early implementation opportunities, building on existing provincial engagement and the action research undertaken during the mixed-methods study.

Indicative activities

Immediate (first six months):

- Support MoES and CEHRD to develop and issue interim guidance on responsible AI use in schools, covering classroom applications, data privacy, ethical use and verification of AI-generated content.
- Integrate foundational AI literacy modules into existing teacher professional development and training centre programmes, with flexible delivery formats accessible to women and older teachers.
- Identify demonstration municipalities and schools.
- Establish the first cohort of mentors using the ARMS model.
- Establish baseline measures using the validated AI Literacy Scale.

Medium term (six months to two years):

- Scale mentored classroom inquiry through local governments, teacher education institutions and professional learning communities, including support for AI-enabled formative assessment.
- Develop a multilingual repository of curriculum-aligned teaching resources adapted for Nepali classrooms.
- Support demonstration municipalities to prepare AI-in-education implementation plans, with dedicated budget allocations where feasible.
- Establish structured peer-learning opportunities that enable teachers to share effective practice across schools.

Longer term (system strengthening):

- Develop a comprehensive national AI-in-education framework and school-level standards, informed by implementation evidence from future initiatives.
- Integrate AI competencies into the national teacher competency framework.
- Establish local resource teacher or hub models to support ongoing professional learning.
- Work with federal and local governments to strengthen financing arrangements for sustainable implementation.

Success indicators

Outputs:

- Interim guidance developed and adopted by schools.
- AI literacy modules integrated into existing teacher professional development structures.
- Mentor cohorts trained to support classroom inquiry.
- Teachers completing mentored inquiry cycles.
- Municipal AI-in-education plans developed, with dedicated budget allocations where feasible.

Outcomes:

- Improved AI literacy among teachers, with narrower gender and age gaps.
- Increased confidence and appropriate classroom use among teachers who were previously non-users.
- Measurable improvements in teaching and student learning in mentored classrooms.
- Stronger understanding of responsible AI use, including ethics, data privacy and critical evaluation of AI-generated content.

System-level change:

- National AI guidance and standards adopted and reflected in provincial and municipal planning.
- Sustainable financing mechanisms established to support local implementation.
- AI integrated into routine pre-service and in-service teacher development.
- Active professional learning networks enabling teachers to share effective practice across schools.

Dependencies and assumptions

Within the programme's control

Design and delivery should be responsive to the needs of women and older teachers, rather than relying on uniform provision. Sufficient numbers of trained mentors will be needed to maintain the quality of mentored classroom inquiry as the programme expands. Demonstration sites should represent the range of contexts in which the future initiatives are expected to operate, including schools facing significant infrastructure and resource constraints. Monitoring and evaluation should use consistent measurement approaches over time to ensure that changes in outcomes can be interpreted reliably.

External dependencies

Successful implementation will depend on continued leadership from MoES and CEHRD, particularly in developing guidance and national standards. Progress will also depend on financing arrangements that enable local governments to invest in AI-related activities, as well as continued improvements in electricity and digital connectivity. Ongoing political and administrative commitment across all levels of government will be essential for sustained implementation.

Key assumptions to monitor

The programme assumes that teachers remain willing to engage with AI-supported professional learning, that commonly used AI tools continue to be accessible and affordable and that practical barriers, including teachers' workload and time constraints, do not prevent participation, particularly among women teachers.

Indicative resource implications

The mixed-methods study did not generate evidence on programme costs, so no budget is proposed here. It does, however, indicate where investment is likely to have the greatest effect. The strongest case is for investing in teacher development, mentoring, guidance and standards, and the capacity of local systems to support implementation. Infrastructure remains important where connectivity and device access are barriers, but the evidence suggests that the future initiatives will achieve more by strengthening existing systems than by creating new ones. Detailed costing should be developed as part of the future initiatives design.

Section 8: Conclusion

This research set out to answer a single strategic question: What would it take for AI to responsibly and effectively improve teaching quality in Nepal's basic education system? Its purpose was to build an evidence base from which future initiatives can be designed, rather than to deliver or test an intervention. What follows is grounded in what Nepal's teachers currently know about AI, how they are already using it, what they want from it and what stands in their way.

Four strands of evidence point the same way: a national survey of 815 teachers; coded interviews and focus group discussions with teachers, head teachers and education officers; teacher-led action research in 21 classrooms; and six stakeholder roundtables. Together they show that change is already under way, but that it rests on individual effort rather than on any system. About three in four surveyed teachers report having used AI, and most are positive about what it can do for their classrooms. Very little of that use is supported by training, guidance or shared expectations, and the institutions around the classroom, by the account of the education officers interviewed, have barely begun to respond.

As this research finds, teachers in Nepal have already created momentum on AI in education. The task now is to organise that momentum, make it fairer and safeguard it before the gaps within it harden. Three findings suggest those gaps will widen rather than hold steady if action is deferred. First, adoption falls sharply with age: the predicted probability of having used AI falls from about 94 per cent among teachers under 30 to about 59 per cent among those over 50, so each year of delay leaves a larger share of the workforce further behind. Second, use is running ahead of any guidance on it, which means habits around bias, data privacy and student over-dependence are being formed now, without support. Third, the gender gap in adoption widens rather than narrows once device access and home internet are held equal, so it will not close by itself as infrastructure improves. Waiting does not preserve the present position; it worsens it.

Key findings summarised

On AI literacy, the survey finds a real, measurable level of literacy, spread unevenly: the sharpest divides run along lines of gender and age, not geography, school type or caste. Age tracks literacy more closely than teaching experience does, and the interviews attribute the difference not to ability but to time, with female teachers describing unpaid domestic work and caring responsibilities as the binding constraint on professional learning.

On current use, AI is already present in Nepal's classrooms rather than something still to come. Adoption is widespread but self-taught and improvised: teachers use general-purpose assistants and translation aids mostly to prepare lessons outside the classroom, and very few report any training, guidance or shared expectations about appropriate use.

On perceived opportunities and risks, teachers are positive about AI and specific about why: better student engagement, clearer explanation of difficult concepts, and time saved on preparation, marking and administration. Their awareness of risk is strongest where they meet it directly – above all, students' over-dependence on AI – and much weaker on bias and data privacy. Ethics emerged as the least developed dimension of AI literacy. Equity and inclusion were rarely raised by teachers themselves, even though this research documents clear equity gaps.

On barriers and enablers, lack of training was the highest-rated barrier in the survey, and inadequate infrastructure the most immediate in many schools. Once other factors are controlled, home internet access, more than rural location, separates adopters from non-adopters. Education officers added an institutional layer: no municipal guidance, no training pipeline, and federal funding earmarked in ways that leave little room for new priorities.

On the action research, 21 teacher researchers showed that AI integration is feasible across very different contexts and can make teaching more interactive, engaging and inclusive, reaching learners who had previously been, in one mentor's words, 'invisible in the classroom'. The action research was designed to test feasibility rather than to measure impact at scale, so it produced documented classroom cases rather than an aggregate result. In one mathematics class, average achievement on a graded fractions sequence rose from about 43 per cent to 77 per cent between pre and post tests; in one Grade 8 English class of more than a hundred students, average free-writing scores quadrupled from a very low base. Sustained mentoring of the teachers themselves, by trained mentors under the Action Research and Mentoring Scheme, proved decisive. AI strengthened teachers' professional agency rather than diminishing it: effective use depended on adaptation, not simply adoption.

On how responsible integration can be supported, the roundtables and the strategic case converge on building inside existing systems rather than creating parallel ones, sequenced from interim guidance now to a comprehensive national framework next.

Future directions

The combined insights presented in this report indicate a direction for future activity, and much of the groundwork already exists. Five strategic priorities emerge, ordered by dependency, with the first two able to begin at once within existing institutions:

- interim guidance on responsible AI use now, with national standards to follow
- an AI literacy pathway built into existing teacher professional development, rather than delivered separately
- mentored classroom practice at scale, extending the approach the action research tested
- connectivity-resilient infrastructure, targeted where it changes outcomes rather than distributed evenly
- municipal capacity and a financing pathway, so that local governments can act on the mandate they already hold.

These priorities are translated into a design brief for future initiatives, covering objectives, priority groups, indicative activities, success indicators and the dependencies any programme would need to manage. The roundtables also produced a prioritised agenda and a collaborative governance model: the federal government leads on policy, standards and financing; provincial governments contextualise policy and coordinate teacher professional development; and municipalities act as the primary implementing agencies, working through existing mechanisms such as Teacher Professional Learning Communities and Educational Training Centres, rather than building new structures.

What this research is, and what it is not, is equally clear. It is a national evidence base on teachers' AI literacy, current use, perceptions and constraints, together with practice-based evidence from 21 classrooms and a policy agenda validated with stakeholders. It is not a pilot or an evaluation of AI tools at scale, a systematic assessment of student learning outcomes, an infrastructure investment or delivery plan, or a finalised set of AI-in-education standards.

The limitations of this research are also clear. The design is cross-sectional, so the relationships reported are associations rather than causal effects. The literacy measures are self-reported, and the ethics sub-scale fell below the study's reliability threshold and is therefore reported item by item rather than as a combined score. Some subgroups of policy interest, such as teachers with disabilities, were too small for inferential testing and are reported descriptively. The action research demonstrates feasibility and teacher agency in individual classrooms, not measured impact at scale. The research generated no evidence on programme costs, so no budget is proposed. Where this research identifies gaps it does not close, those gaps become explicit inputs to the design of future initiatives.

Final thoughts

The last word belongs to the teachers whose practice fills these pages. They did not wait for training, guidance or equipment. They experimented on their own initiative, often in difficult conditions, and documented the results. Head teachers opened their classrooms to observation, and education officers spoke candidly about the limits of the systems around them. One teacher researcher put it simply: 'If I use AI as a helper, not a boss, it helps me grow'. Sustaining what these teachers have started is now a shared responsibility across the federal, provincial and local levels of government, and this report is the evidence with which to begin.

Appendices

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