CPRG

FUTURE OF SOCIETY

AI IN SCHOOL EDUCATION

2025-2026

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AI IN SCHOOL EDUCATION

ABOUT CPRG

The Center of Policy Research and Governance (CPRG) is a public policy think tank that aims to promote responsive and participatory policy- making. As an Indian Council of Social Science Research (ICSSR)- recognised institution, it has established itself as a leading voice in technology policy through its 'Future of Society' initiative launched in 2024. CPRG undertakes research and analysis across a wide range of policy domains, with a focus on understanding real-world challenges and informing effective policy design.

We adopt a holistic approach to the policy process, combining empirical research with policy dialogue and stakeholder engagement. By working closely with policymakers, scholars, and practitioners in India and internationally, we seek to contribute to more responsive governance while also investing in capacity building for young professionals entering the public policy space.

INTRODUCTION

Education systems worldwide are increasingly embracing AI-based tools and technologies, with their steady expansion underlining a significant transformative shift. The use of AI in education is associated with several potential benefits, including personalised learning, increased efficiency, and improved student engagement. At the same time, it raises serious concerns related to AI hallucinations, misinformation, and algorithmic bias.[1] As technology advances rapidly and digital literacy becomes a global priority, governments and other stakeholders have undertaken a range of initiatives to integrate AI into education systems.

Supporting this broader trend, UNESCO recognizes that AI can play a transformative role in education by addressing key learning challenges, encouraging innovation in teaching methods, and accelerating progress towards Sustainable Development Goal 4 (SDG 4), which aims to ensure inclusive and quality education for all.[2] In this context, AI is rapidly becoming an integral part of education systems worldwide. Reflecting this global shift, reports from different regions suggest that school students increasingly use AI tools in their day-to-day academic work. For instance, a Pew Research Center study reports that around one-fourth (26%) of U.S. teens (13–17 years) used ChatGPT for schoolwork in 2025, nearly double the proportion reported in 2023.[3]

These international trends provide a useful reference point for understanding the Indian context, particularly given the country's expanding digital infrastructure. India has experienced significant growth in mobile phone and internet access, especially among young people. Findings from the Comprehensive Modular Survey: Telecom (CMS:T), conducted during the 80th Round of the National Sample Survey (NSS) from January to March 2025, indicate near-universal digital access among individuals aged 15–29 years.[4] Additionally, the Annual Status of Education Report (ASER) 2024 notes that 82% of children aged 14–16 are proficient in using smartphones, primarily for educational and recreational purposes. Taken together, these trends point to widespread access to and familiarity with digital technologies among school-age populations.[5]

Building on this digital foundation, India's education landscape has undergone notable changes in recent years, particularly through the integration of technology in school education. Artificial intelligence is often compared to earlier technological shifts, such as the spread of mobile phones in communication, in its potential to expand access, enable personalisation, and reshape delivery mechanisms in education. Early trends suggest that AI may contribute to a gradual move away from rigid, one-size-fits-all instructional models towards more adaptive and interactive learning environments for students and teachers alike.

As India advances towards a future-oriented education system, AI is expectedto play an important role in supporting inclusive and multilingual learning, while also providing educators with data-driven tools and targeted academic support.[6]

This emerging transformation is being supported through a combination of national policy frameworks and implementation initiatives. To promote the responsible and effective adoption of AI in classrooms, national frameworks such as the National Education Policy (NEP) 2020 and the National Curriculum Framework (NCF) emphasise institutional preparedness, curriculum integration, and teacher capacity-building. These policy priorities are increasingly reflected in interventions that seek to embed AI within routine teaching and learning processes. For example, AI-enabled applications such as the Technology-Assisted Reading Application (TARA), developed at IIT Bombay, illustrate this shift. TARA employs speech processing and machine learning techniques to assess students' reading fluency and generate metrics for oral reading. Kendriya Vidyalaya Sangathan schools have implemented the TARA application for students in Grades 3–8.[7]

Against this backdrop, the present research by Center of Policy Research and Governance aims to assess the extent of artificial intelligence adoption for learning among secondary-level students (Grades 11–12) in Delhi. It examines how the use of AI tools influences students' academic practices, including academic performance, examination preparation, time management, and overall learning progress. In addition, the study analyses patterns of reliance on AI tools across different learning-related activities, with particular attention to variations in the intensity and purpose of use.

GOVERNMENT POLICIES FOR AI IN SCHOOLS

Given rapid global technological developments and the growing emphasis on digital literacy, examining the adoption of artificial intelligence in secondary school education has become increasingly important. In India, this shift has been acknowledged through a range of initiatives undertaken by both the government and other stakeholders to integrate AI into school education. The National Strategy for Artificial Intelligence, released by NITI Aayog, represents India's first comprehensive policy framework in this domain, identifying AI as a priority area and recognizing its potential role in education and skill development.[8]

This evolving policy landscape necessitates a shift from vision to implementation, particularly through curriculum design and pedagogical guidance. The National Education Policy 2020 emphasises that India should play a leading role in developing skilled professionals in AI and other emerging technologies. Building on this policy direction, the broader vision for AI integration is translated into actionable guidance for curriculum and teaching approaches through the National Curriculum Framework (NCF).[9]

The NCF emphasizes that teachers should go beyond simply using digital infrastructure platforms, such as the National Digital Education Architecture (NDEAR) and Digital Infrastructure for Knowledge Sharing (DIKSHA). Instead, they should actively integrate Artificial Intelligence and Machine Learning into their classroom practices. These technologies are viewed as tools to facilitate effective content discovery, personalize the delivery of learning materials, and address challenges related to content translation and accessibility. This integration aims to realize the broader vision for AI articulated in national education policies.[10]

In addition to teacher capacity-building, curriculum-level reforms have been introduced to support AI integration in schools. The Department of School Education and Literacy has announced a framework for AI and computational thinking from Class 3 onwards, aligned with the National Curriculum Framework for School Education 2023. This curriculum is scheduled to be launched in the 2026–27 academic year. To support implementation, teacher training modules on AI and computational thinking will be delivered through the National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA) portal.[11]

Alongside these national frameworks, the Central Board of Secondary Education (CBSE) has played an important role in promoting AI education in schools. From 2020 to 2026, CBSE gradually expanded AI learning across different levels. It began by introducing AI as an elective subject for Class 9 from 2019–20 onwards and has also been regularly conducting teacher training programmed to help educators use AI effectively in classroom teaching.[12]In 2021, the CBSE further introduced AI as an elective subject in Class 11, with more advanced modules. To support teachers and schools, the CBSE also launched an AI Curriculum Handbook and an AI Integration Manual, which, together, are meant to provide practical guidance for experiential and activity-based learning.[13]

The Youth for Unnati and Vikas with AI (YUVAi) initiative, launched by the National e-Governance Division under the Ministry of Electronics and Information Technology in September 2022, represents another effort to promote foundational AI learning at the school level. The program aims to encourage responsible AI adoption and build basic AI capabilities among young learners and citizens. The course is designed around six short modules, using real-life Indian examples to introduce learners to AI fundamentals, including key applications, responsible and ethical use, and future opportunities in AI. Upon successful completion, learners receive an official Government of India certificate. The initiative also aligns with broader national skilling goals and aims to train one crore citizens in foundational AI skills, thereby promoting ethical AI-adoption and strengthening workforce readiness.[14]

Several additional national programs support AI adoption in schools. The SOAR (Skilling for AI Readiness) program, initiated by the Ministry of Skill Development and Entrepreneurship, targets students in Classes 6–12 as well as educators. It offers modular training for students and a separate, more extensive module for teachers focused on ethical AI use and foundational machine learning concepts.[15] Similarly, AI for All 2.0, implemented by IIT Madras in collaboration with Swayam Plus, offers free AI training for school teachers and emphasizes alignment with the National Credit Framework.[16] The Union Budget for 2025–26 allocated ₹500 crore for the establishment of five Centres of Excellence for AI education. These centers aim to strengthen skills development, promote personalized learning, and support broader transformation within the education sector.[17]

At the sub-national level, state governments have increasingly recognized the importance of AI in education. Several states have launched dedicated initiatives to promote AI literacy, integrate AI tools into learning processes, and encourage digital innovation within school systems. AI initiatives for school students introduced by various state governments are listed in Table 1, with further details provided in Appendix I.

Table 1: Overview of AI Initiatives Across States

States	Initiative	Target	Policy Type
Andhra Pradesh	LEAP (Learning Excellence in Andhra Pradesh)	School students, Teachers, and Aanganwadi centres	AI for FLN
Assam	Shiksha Sethu Axom	School, Students, and School Administration	AI for School Administration & Governance
Bihar	Bihar AI initiatives	Class 6-12	AI & Digital Skills Education
Tamil Nadu	Tamil Nadu AI Mission	Class 6- 9	AI Curriculum
Delhi	Delhi AI Grind	Students of age 10- 25	AI for Innovation, Entrepreneurship & Exposure

States	Initiative	Target	Policy Type
Goa	Goa AI Mission	Government and Government-Aided Schools	AI Curriculum
Haryana	STEM Labs	Students and Teachers	AI Curriculum
Karnataka	Shiksha Co-Pilot	Educators	AI for Teaching Support & Classroom Pedagogy
Himachal Pradesh	Vidya Samiksha Kendra	Students and Teachers	AI-based Teaching, Learning, and Governance Policy
Maharashtra	Mission Bal Bharari – India's First AI Aanganwadi	Children aged 3-6	AI in Early Childhood Education
Odisha	Odisha AI Policy 2025	School Students, Teachers	Comprehensive AI Policy
Punjab	Punjab- AI integration in Government Schools (2025)	Class 6-12	AI Curriculum
Rajasthan	AI-Enabled Foundational Learning in Rajasthan(Shiksha App initiative)	Primary/Foundational Stage students	AI for FLN
Telangana & Karnataka	FLN-AI(AXL) Programme	Class 1-3	AI for FLN

METHODOLOGY

The study adopts a mixed-methods research design to examine patterns of artificial intelligence (AI) adoption among secondary-level (Grades 11–12) students. The National Capital Territory of Delhi was selected as the study area due to its large, diverse, and comparatively well-developed school education system, which provides a suitable setting for examining AI adoption across varied institutional contexts.

Delhi has 5,556 schools, including 2,637 private, 2,681 government, and 238 government-aided schools, with a total enrolment of approximately 44.9 lakh students across all stages of schooling. Of these, 4,07,644 students are enrolled at the secondary level, representing a substantial and heterogeneous population engaged in subject specialisation and preparation for higher education.[18] The diversity in school management types and student composition positions Delhi as a relevant and analytically robust context for studying AI adoption in secondary school education.

Building on this contextual rationale, the study employs a mixed-methods approach aligned with its objectives. It combines quantitative and qualitative techniques to assess the extent of AI adoption among secondary-level students and to examine variations in usage across academic streams

QUESTIONNAIRE DESIGN

This study is based on a structured field survey conducted among students in Grades 11 and 12 from various academic streams. It uses a validated questionnaire comprising multiple-choice and scale-based items to examine the adoption of AI in school education.

The questionnaire aims to assess students' awareness of AI for academic purposes, their first exposure to AI, and their familiarity and frequency of use with different tools, including primary ones. The survey also seeks to understand how useful students find AI across different subjects, its applications for overcoming learning challenges, preparing for careers, developing life skills, and managing mental health. It compares the effectiveness of AI tools with traditional methods and evaluates potential time savings.

In addition, the study examines non-academic uses of AI, identifies barriers to adoption, and addresses concerns about AI accuracy. A pilot study was conducted to test the clarity, relevance, and reliability of the questionnaire. Feedback from this pilot was used to refine the wording of questions, response options, and the overall structure of the survey, ultimately enhancing the robustness of the data collection tool. The language was simplified to make it appropriate for the target age group, and additional AI-related aspects were incorporated into the questions.

FIELDWORK

The fieldwork for the study was conducted in selected CBSE-affiliated schools in the Delhi NCR during November and December 2025. Before beginning data collection, the survey team underwent structured training to familiarize themselves with the study's objectives, research instruments, and field protocols.

After this training, primary data was collected through direct visits to the participating schools. Questionnaires were administered to students in classroom settings during regular school hours. Students completed the printed questionnaires in the presence of trained research team members, who provided standardized instructions in each classroom to ensure uniform administration and consistent response conditions. All ethical protocols were followed during the school-based survey. Prior approval was obtained from school authorities to conduct the study on school premises. Student participation was voluntary. The questionnaire included an informed consent form and ensured anonymous participation, allowing students to opt out of the survey at any time

SAMPLE

The study adopted a purposive, non-probabilistic sampling to select schools and respondents. The study was conducted in 10 private, unaided schools in Delhi, spread across all city zones. All schools are affiliated with the Central Board of Secondary Education (CBSE) to ensure data comparability across schools. The schools were selected to diversify the city's private school landscape. The final sample comprised 910 students. The survey was conducted in a coeducational setting, resulting in almost equal representation of male and female respondents. The final sample comprised 910 students. The survey was conducted in a coeducational setting, resulting in almost equal representation of male and female respondents. The sample also captures students across three major streams, i.e. Science, Commerce and Humanities/Arts, which were further classified into their respective sub-streams. Understanding the academic profile and demographic characteristics is essential for subsequent analyses, as factors such as grade level, academic stream, and subject selection all have the potential to affect students' learning needs and their use of AI tools

Table 2: Composition of Sample

Gender	Percentage (%)
Female	49%
Male	50%

Class	Percentage (%)
Class 11	53%
Class 12	47%

As shown in Table 2, the sample is almost evenly divided by gender, with 50% male and 49% female respondents. This distribution indicates balanced gender representation and reduces the likelihood of gender-based bias in the findings. Regarding grade level, 53% of respondents were enrolled in Class XI and 47% in Class XII. This distribution ensures that perspectives from both classes are adequately represented, enabling meaningful comparisons across grade levels.

Table 3: Academic stream-wise distribution of respondents

Academic Stream	Percentage (%)
Commerce with Mathematics	19%
Commerce without Mathematics	15%
Humanities / Arts with Mathematics	4%
Humanities / Arts without Mathematics	24%
Physics, Chemistry, Biology	10%
Physics, Chemistry, Mathematics	27%

The academic streams (*as shown in Table 3*) across the sample reflect substantial diversity. The largest share of students comes from the PCM (Physics, Chemistry, Mathematics) stream (27%), followed by Humanities/Arts without Mathematics (24%) and Commerce with Mathematics (19%). Commerce without Mathematics represented 15%, while smaller proportions are enrolled in the PCB (Physics, Chemistry, Mathematics) stream (10%) and Humanities with Mathematics (4%). This broad representation across streams enables meaningful comparative analysis of AI tool usage across different curricula.

KEY FINDINGS AND DATA ANALYSIS:

The following analysis provides insights into the extent of AI integration and its role in students' academic workflows. As digital engagement and AI tools become increasingly embedded in educational practices, understanding how students spend their time online and for what purposes is essential. It is important to assess not only the current patterns of AI usage but also the timing of students' first exposure to such technologies.

The findings are organised into five thematic analytical sections to enable a systematic examination of AI integration across academic streams.

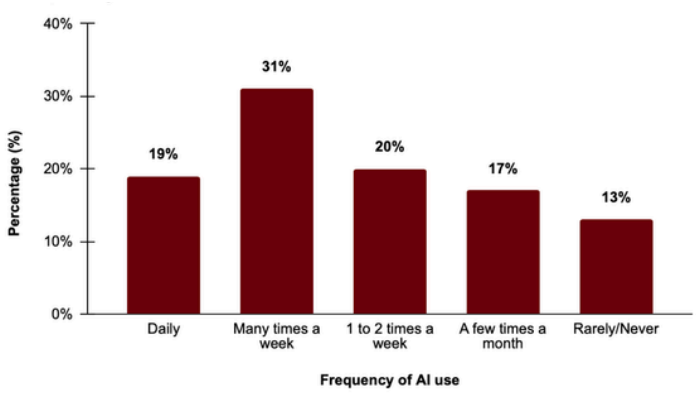
1. **Patterns of AI Usage:** Explores the frequency of AI use and specific academic purposes across different streams.
2. **Perceived Helpfulness of AI:** Assesses how beneficial students find AI compared to other resources, such as EdTech platforms, offline tuitions for school, and entrance exams.
3. **Benefits of AI:** Highlights the time-saving advantages of AI and its accuracy for various academic needs.
4. **Challenges Faced:** Examines difficulties faced by students, including difficulty in understanding AI responses and issues arising due to AI hallucinations.
5. **Balancing Human Interaction with AI**: Explores students' preferred modes of learning, the value they place on human interaction alongside AI-based academic support, and their reliance on AI tools for emotional reassurance and mental well-being.

PATTERNS OF AI USAGE:

As highlighted earlier, a wide range of government-led initiatives have been launched to promote the integration of artificial intelligence in education. These sustained efforts are likely to influence students' awareness and adoption of AI-based tools, thereby shaping usage patterns among learners. Students report varying levels of engagement with AI for academic work, with a clear concentration around regular usage (*See Figure 1*). Nearly one-third of students (31%) use AI multiple times per week, while close to one-fifth (19%) report daily use, suggesting that AI remains part of students' academic routines. A further 20% use AI once or twice a week, reinforcing the prevalence of frequent use. In contrast, 17% of students report using AI only a few times a month.

Occasional or non-use remains limited, with approximately 13% reporting that they rarely or never use AI for academic purposes. Overall, the data suggests that most students use AI for academic purposes regularly rather than occasionally.

Figure 1: Frequency of AI Use for Academic purpose



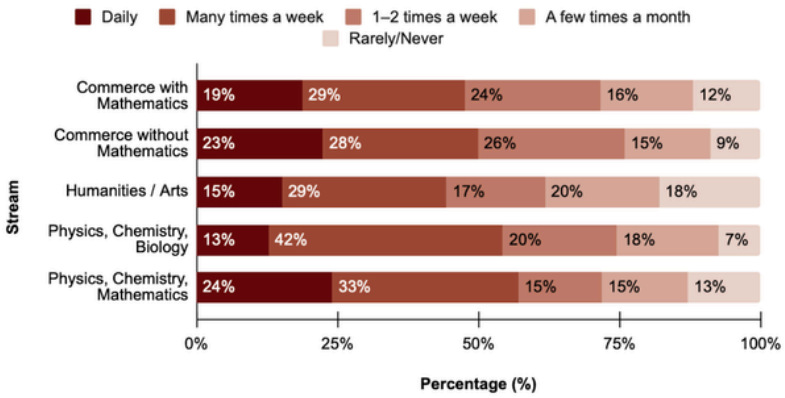
Question: How frequently do you use AI for your academic work?

These patterns align with international trends, indicating the rapid mainstreaming of AI in school education. For instance, a recent survey conducted by the Center for Democracy and Technology (CDT) in the United States found that AI usage among students and teachers in grades 9 to 12 has become nearly universal, with 86% of students and 85% of teachers reporting having used AI tools during the 2024–25 academic year.[19]

Additionally, our study finds that three out of five students (59%) reported first using an AI tool more than a year ago, suggesting that AI tools have been part of their learning experience for a sustained period. By contrast, approximately one-fifth (18%) began using AI tools in the past month, while 14% began using them in the past 6 to 12 months. Overall, these trends suggest rapid growth in the use of AI tools. As AI technology improves, its use is no longer confined to a narrow group of users or specialised applications; instead, it is becoming a common tool within the school education ecosystem.

As students increasingly use AI for educational purposes, their academic stream and subject choices influence how frequently, for what tasks, and to what extent they use AI tools. Different streams impose varying academic demands on students, which, in turn, shape their reliance on AI-supported tools. Thus, this study further explores whether the frequency of AI usage varies across students' academic streams.

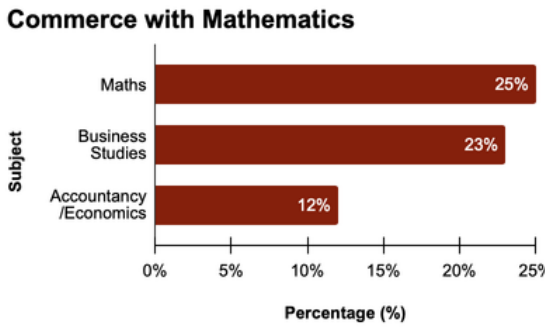
Figure 2: Frequency of AI Use by Academic Stream



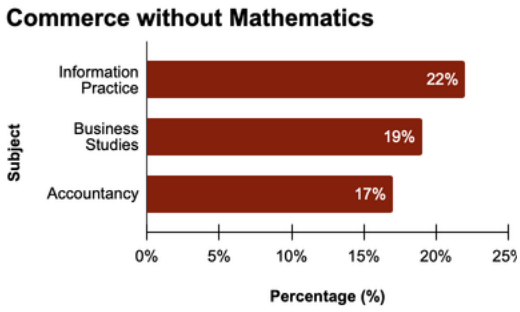
As shown in Figure 2, regular AI use is higher among students in science streams, with 57% of PCM students and 55% of PCB students reporting using AI at least multiple times a week. This pattern is linked to the nature of their subjects. Frequent use of AI is reported by approximately half of students in other streams: 51% in Commerce without Mathematics, 48% in Commerce with Mathematics, and 44% in Humanities. While AI adoption is considerable across all disciplines, the frequency of use is comparatively lower than in science streams, as these subjects tend to place greater emphasis on reading, interpretation, and discussion-based learning. Across all streams less than 20% of students reported rarely or never using AI.

Overall, the intensity of AI use varies across academic disciplines but AI tools are used regularly across subject areas, indicating their broad relevance to diverse learning needs.

Figure 3: Which Subject Do Students Use AI for Most? (by Stream)



3a



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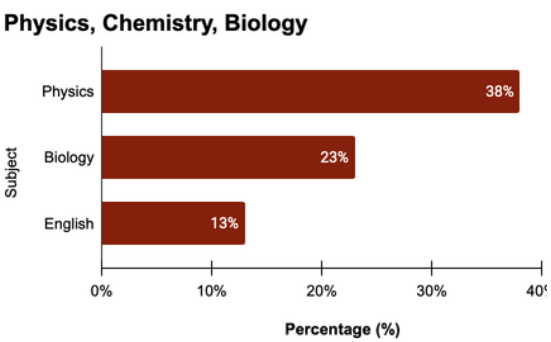

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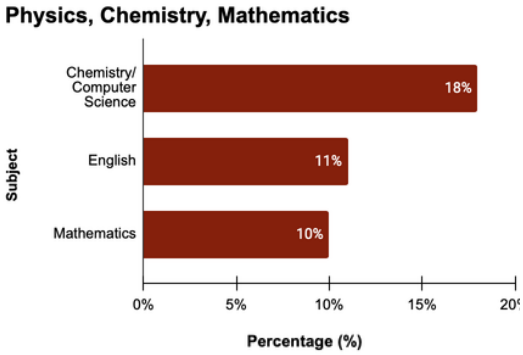

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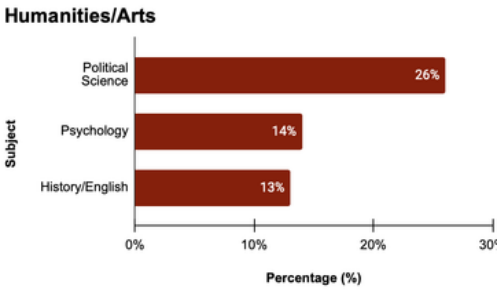


3e

Within each stream, when students were asked which subject they most deployed AI for, their usage was largely concentrated in a limited set of core subjects.

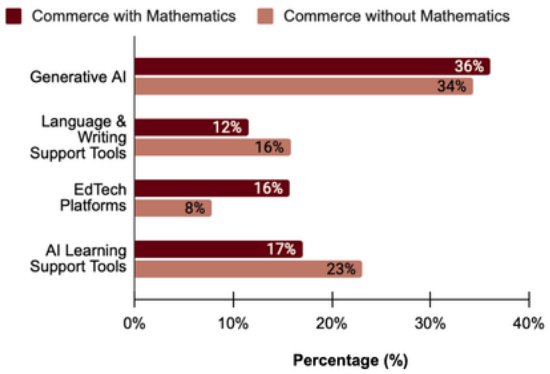
In the medical stream (*see Figure 3c*), students most frequently reported using AI for Physics (38%), followed by Biology (23%), while usage for English was comparatively low (13%). This pattern indicates that AI support in the PCB stream is primarily sought for concept-heavy and application-oriented subjects, particularly those requiring preparation for complex problem-solving. In contrast, among students in the PCM stream (*see Figure 3d*), the highest AI usage is reported in Chemistry/Computer Science (18%), followed by English (11%) and Mathematics (10%).

Among Commerce students with Mathematics (*see Figure 3a*), AI usage is highest for Mathematics (25%) and Business Studies (23%), followed by Accountancy/Economics (12%). This suggests that students in this stream predominantly seek AI support for quantitative and analytical reasoning. For Commerce students without Mathematics (*see Figure 3b*), the highest AI usage is reported for Information Practices (22%), followed by Business Studies (19%) and Accountancy (17%).

In the Humanities/Arts stream (*see Figure 3e)*, AI use is most prominent for Political Science (26%), followed by Psychology (14%), and History and English (13%).

Although the specific subjects in which students use AI most frequently differ across fields of study, a consistent trend emerges: AI is most commonly used for academically demanding subjects within each stream. In addition to subject-wise usage patterns, it is important to examine how frequently students engage with different categories of AI-enabled tools and EdTech applications. Accordingly, the following analysis focuses on students' use of generative AI tools (e.g. ChatGPT, Gemini etc.), language and writing support tools (e.g. Grammarly), EdTech platforms, and other AI-based learning support tools (e.g. Brainly). This stream-wise comparison highlights differences in tool preferences and usage intensity.

Figure 4: Regular use of various AI-based tools by academic stream



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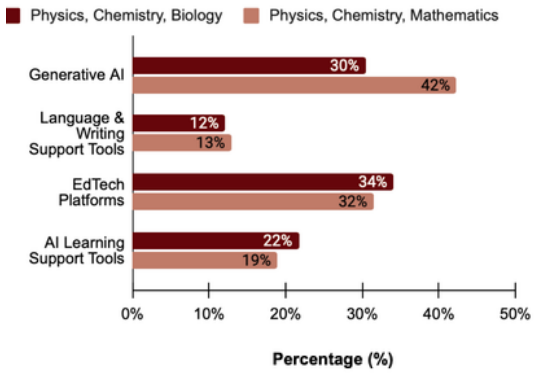

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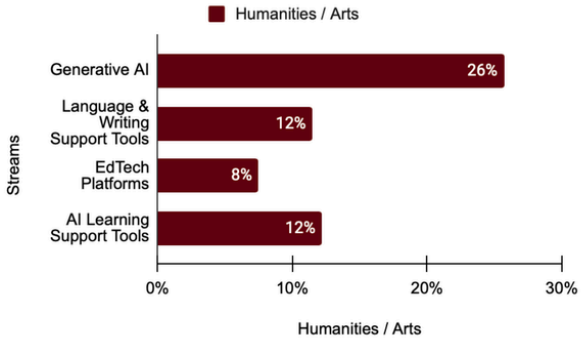


4c

Generative AI

Generative AI tools are used regularly across all academic streams (*see Figures 4a-4c*). Regular use is highest among students in the PCM stream (42%), followed by more than one-third of students in Commerce with Mathematics (36%) and Commerce without Mathematics (34%). Among medical stream students, of whom three out of ten (30%) reported regular use. In comparison, only around one-fourth of Humanities/Arts students (26%) reported regular use.

These differences may be linked to variations in academic demands across streams, as discussed earlier. While generative AI has achieved widespread acceptance across all disciplines, its more frequent use among students of certain streams suggests that patterns of adoption are shaped by subject-specific learning requirements and study practices.

Language and Writing Support Tool Use

Across academic streams, regular use of language and writing support AI tools remains relatively low and fairly uniform, indicating that these tools play a supplementary rather than central role in students' academic routines. Approximately one in eight students in each stream reported regular use.

AI Learning Support Tool Use

A substantial proportion of students across all academic streams reported using AI-based learning support tools at least occasionally. However, regular use varies by stream. Regular usage is lowest among Humanities/Arts students (12%) and higher among Commerce students (23%), compared with 19% of PCM students and 22% of PCB students.

EdTech Platforms

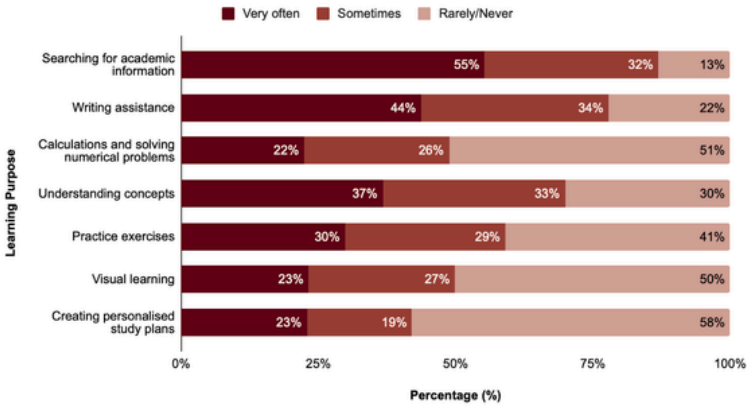
Turning to EdTech platforms, which operate as online alternatives to in-person exam coaching or tuition centres, the survey finds that regular use is highest among science students. Around one-third of students in the PCB stream (32%) and in the PCM stream (34%) reported regular use of EdTech platforms (*see Figure 4a*). In contrast, regular usage is considerably lower in other streams, ranging from 16% among Commerce students with Mathematics to 8% among both Commerce students without Mathematics and Humanities/Arts students (*see Figure 4b and Figure 4c*).

Overall, EdTech platforms appear to be both more widely adopted and perceived as more beneficial by students in science streams. This pattern may be explained by the greater availability of science-focused EdTech platforms, which often emphasise video-based explanations, conceptual clarity, and targeted examination preparation. By comparison, digital resources for Commerce and Humanities subjects are relatively fewer and are often less structured or exam-oriented, which may limit their perceived usefulness and reduce adoption in these streams.

The findings indicate that students across all academic streams, except PCB/Medicine, use generative AI tools more frequently and more regularly than other digital learning tools. Unlike EdTech platforms, whose use is concentrated largely among science students, generative AI tools are incorporated into everyday study practices across disciplines. This suggests that students increasingly rely on generative AI due to its flexibility in supporting a wide range of academic needs.

Having outlined patterns and frequencies of AI use across streams, the analysis now turns to the specific academic purposes for which students depend on AI tools, moving beyond usage intensity to examine functional reliance.

Figure 5: Frequency of using AI tools for various Academic Purposes



Question: How often do you use AI tools for the following academic purposes?

In response to the question on how often students use AI for specific academic purposes, the data indicate that AI tools are used primarily for information retrieval and academically oriented tasks (*see Figure 5*). More than half of the students (55%) reported using AI very often to search for academic information such as definitions and dates, making this the most frequent use case. Writing assistance also emerges as a high-use activity: 44% of students reported using AI very often for this purpose, while just over one-third (34%) reported using it sometimes.

This pattern can be partly understood in relation to the CBSE Class XII assessment framework, under which each subject carries 100 marks distributed across theory examinations and, where applicable, project work, practicals, and internal assessments, with a minimum passing requirement of 33%. For subjects with practical components, students must secure at least 33% separately in theory and practical examinations, in addition to an overall aggregate of 33%. As no overall division or distinction is awarded, the evaluation structure places relatively greater emphasis on project work and documentation quality. This may help explain students' increased reliance on generative AI tools for drafting, structuring, and editing project submissions.

The use of AI for conceptual understanding and practice-based activities is more mixed. Approximately four out of ten (37%) of students reported using AI very often to understand concepts, while three out of ten (30%) reported very frequent use for practice exercises such as mock papers and quizzes. When the analysis is restricted to science and commerce streams, nearly half of the students (48%) reported using AI at least sometimes for calculation and numerical problem-solving, with around one-fourth indicating very frequent use. This pattern is consistent with earlier findings on subject-wise AI usage. As shown in Figure 3, Mathematics, Physics, and Chemistry are the subjects for which AI is most frequently used.

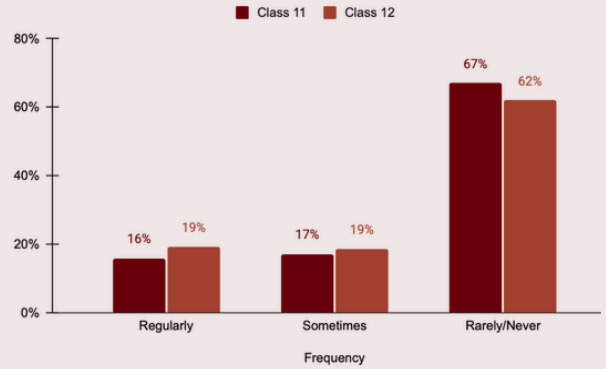
By contrast, the lowest levels of usage are observed in personalised study planning, with close to three out of five students (58%) reporting that they rarely use AI to create study plans or timetables. Engagement with visual learning tools is also relatively limited, with half of the students (50%) reporting low usage. Overall, frequent AI use is concentrated on information search and writing support, while its application to personalised, visual, or more deeply applied learning tasks remains limited.

Box 1: AI for Mental Health Support

While a majority of students in both Class 11 (67%) and Class 12 (62%) reported that they rarely or never use AI tools for mental health assistance, a notable minority does engage with such tools (*see Figure 6*). Approximately 33% of Class 11 students and 38% of Class 12 students reported using AI for mental health assistance at least occasionally. Within this group, around 16% of Class 11 students and 19% of Class 12 students reported regular use of AI tools to support their mental well-being. At the same time, mental health assistance through AI platforms has raised regulatory concerns internationally. These patterns reflect broader global trends in which students are increasingly engaging with AI for companionship and emotional support.

Box 1: AI for Mental Health Support...(continued)

Figure 6: Frequency of using AI tools for Mental Health Support



Question: How often do you use AI tools for the following purposes – Mental Health assistance?

For instance, in the United States, adolescents aged 13–17 commonly engage with AI companions and seek assistance from artificial intelligence for emotional well-being.[20] Roughly one-third of adolescents rely on AI companions for role-play and conversational support. It has been found that AI technologies are influencing adolescents' communication practices, emotional development, and decision-making, with entertainment identified as the primary motivation for engagement, followed by curiosity.

Similar patterns are emerging in the Indian context. Teenagers are increasingly turning to AI chatbots, such as ChatGPT and Gemini, for emotional support, a trend that may be linked to academic pressure, family-related challenges, and experiences of loneliness. Student responses from the present study reflect comparable dynamics. When probed about the role of AI in their academic learning, several students described AI as a source of both academic and emotional support in the interviews. Students commonly characterized AI as a reliable companion that assists with assignments, last-minute examination preparation, and career-related guidance, while also offering reassurance during periods of stress or uncertainty.

Box 1: AI for Mental Health Support...(continued)

Some respondents explicitly highlighted the close relationship between mental well-being and academic performance, describing AI as “an angel” that supports them during high-pressure moments, particularly around examinations, while also functioning as a friend and guide across different aspects of their lives. Although the findings suggest that only a relatively small proportion of the overall student population relies on AI for such purposes, they nonetheless point to an emerging pattern that warrants closer attention

PERCEIVED HELPFULNESS OF AI:

The focus of this study now shifts from how frequently AI tools are used, to the analysis of why students rely on them and how conducive they find these tools to be for exam preparation. Looking at AI use in the exam context helps explain why students continue to use these tools and how exam pressure influences their study habits. This section examines how students perceive the usefulness of AI-based resources, particularly in the context of school/board examinations and entrance exams.

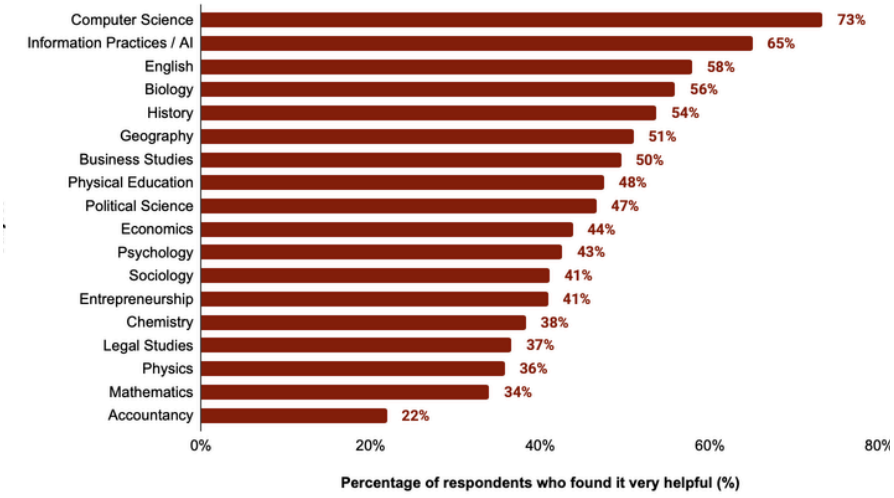
At the secondary level, students across all streams begin preparing for competitive examinations alongside their regular schoolwork. With the introduction of the Common University Entrance Test (CUET) at the national level, many students in Classes 11–12 now plan their learning to meet the requirements of both board examinations and university admissions. Science students typically prepare for examinations such as the Joint Entrance Examination (JEE) and the National Eligibility cum Entrance Test (NEET), while Commerce students focus on CUET, the CA Foundation examination, and other management- and finance-oriented entrance tests. Humanities students similarly prepare for CUET and other university-level entrance examinations in subjects such as political science, history, economics, psychology, and sociology, in addition to specialised assessments such as the National Institute of Fashion Technology (NIFT) entrance examination, the National Institute of Design – Design Aptitude Test (NID DAT), the Common Law Admission Test (CLAT), and admissions tests conducted by institutions such as Azim Premji University and FLAME University.

This parallel preparation across board and entrance examinations requires structured planning, for which AI tools may support conceptual clarity and recall, particularly in syllabi aligned with competitive examinations. To situate the role of AI within this broader ecosystem of academic support, the analysis also considers traditional forms of assistance, including private or offline tuition and EdTech platforms, enabling a comparative assessment of how students perceive different modes of learning support.

To capture subject-specific dynamics, students were asked to assess how helpful they find AI tools in the subjects they are currently studying (*see Figure 7*). Responses indicate clear variation in the perceived helpfulness of AI across subjects, with more pronounced positive assessments in language- and technology-oriented subjects. As many as seven out of ten (73%) of students enrolled in Computer Science and two-third (65%) of those studying Information Practices/AI reported that AI is very helpful in these subjects. This pattern may be partly explained by the relative effectiveness of generative AI models in these domains, which tend to produce more relevant and context-specific responses.

Overall, these findings suggest that AI functions as a targeted support tool, addressing stream- and subject-specific learning needs rather than being applied uniformly across the curriculum. Building on the observation that students rely on different AI tools for subjects they find most challenging, the analysis now turns to students' evaluations of the perceived helpfulness of these tools across specific subjects.

Figure 7: Subject-Wise Perceived Usefulness of AI Tools



Question: How helpful is AI for the following subjects?

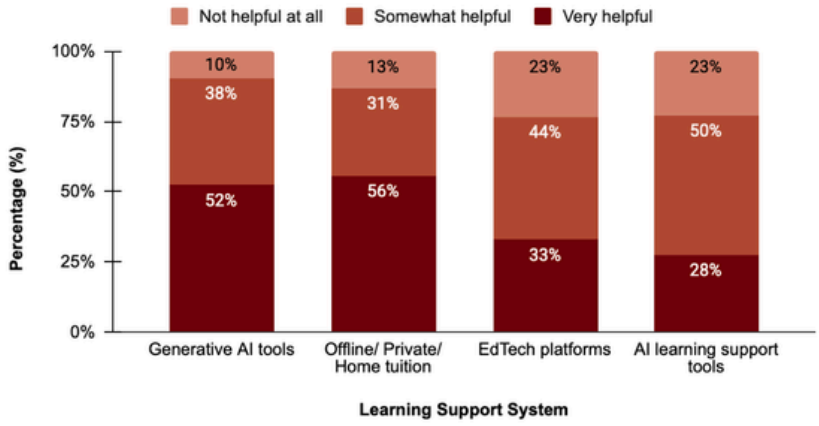
We asked respondents to report perceived helpfulness of AI for each of the five (or six) subjects that they studied. Across science subjects, Biology exhibits the highest perceived helpfulness of AI, with over half of the students (56%) reporting that AI is very helpful. Physics and Chemistry show similar patterns, with 36% and 38% of students, respectively, indicating that AI is helpful in these subjects.

Among Commerce subjects, the most favourable perceptions are observed in Business Studies, where half of the respondents (50%) reported that AI is very helpful. This pattern does not extend uniformly across the Commerce stream, as Accountancy stands out for its comparatively lower perceived usefulness, with only one-fifth of students (22%) reporting AI to be very helpful.

Within the Humanities, AI seems to be relatively more helpful for Political Science and Economics, with 44% and 47% of students, respectively, reporting that AI is very helpful for these subjects. Overall, these patterns suggest that students perceive AI as most useful in subjects that are language-intensive or closely linked to digital and conceptual skills.

The strongest acceptance is observed in English and technology-oriented subjects, while perceptions vary considerably across other disciplines. In this sense, AI appears to be viewed as a specialised support tool, valued for enhancing clarity, organisation, and correctness—particularly in language-related tasks—rather than as a general-purpose aid across all subject areas.

Figure 8: Perceived Helpfulness of Resources for School/Board Exams



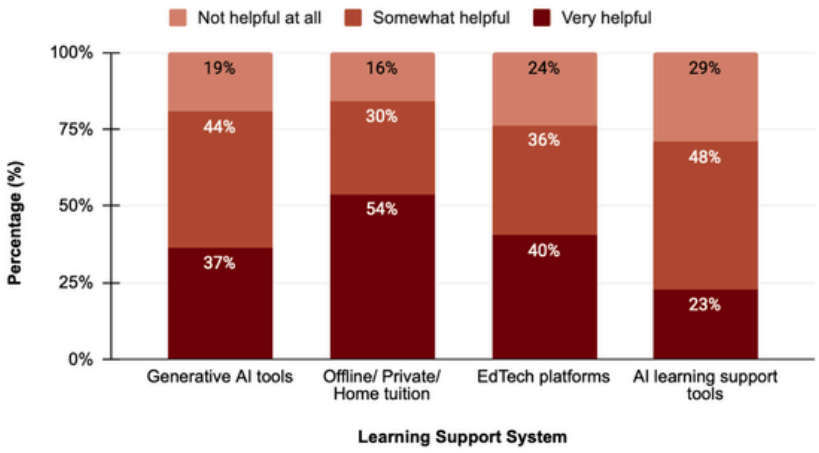
Question: How helpful are the following resources for School/Board exams?

This section extends the analysis to learning resources used for school or board examinations and examines students' perceptions of the helpfulness of different forms of academic support (see Figure 8 and Figure 9). Over half of the respondents (54%) reported that generative AI tools were extremely helpful, while 38% rated them as somewhat helpful; only around one in ten students (10%) indicated that these tools were not helpful at all.

Private or offline tuition was also perceived favourably, with more than half of the students (56%) reporting it to be very helpful, although 13% indicated that it was not helpful at all. In comparison, EdTech platforms were viewed as moderately effective: 44% of students rated them as somewhat helpful, and 33% rated them as very helpful. A similar pattern was observed for AI-based learning support tools, with half of the students (50%) reporting them as somewhat helpful and 28% rating them as very helpful.

Although generative AI tools and other learning resources are generally perceived as helpful for school or board examinations, students' evaluations differ when these same resources are considered in the context of entrance examination preparation.

Figure 9: Perceived Helpfulness of Resources for Entrance Exams



Question: How helpful are the following resources for Entrance exams?

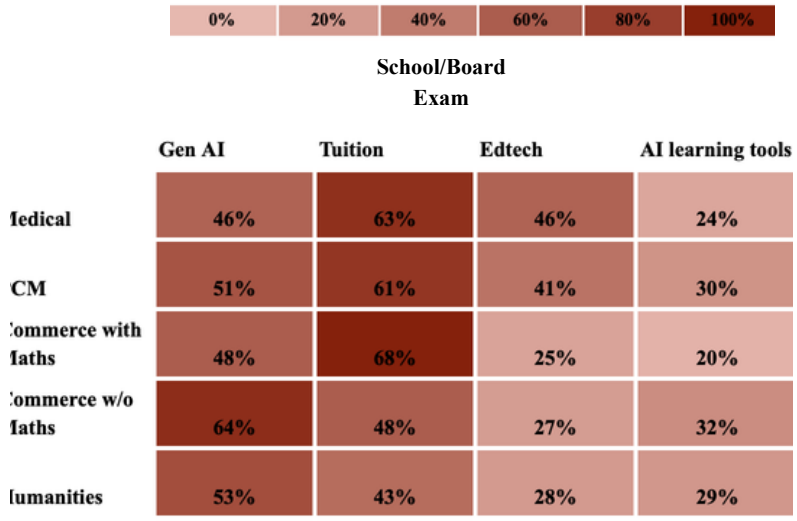
For generative AI tools, 37% of students reported that they were very helpful for entrance examination preparation, while 44% found them somewhat helpful; approximately one-fifth of respondents (20%) indicated that these tools were not helpful at all. Offline tuition continued to be perceived as the most effective form of support, with a majority of students (54%) reporting it to be very helpful and only 16% indicating that it was not helpful.

EdTech platforms were also viewed positively, with four out of ten (40%) of students finding them very helpful and over one-third (36%) reporting them as somewhat helpful. By contrast, perceptions of AI-based learning support tools were more divided: 23% of students rated them as very helpful, 48% as somewhat helpful, and nearly 30% as not helpful at all.

Taken together, these findings suggest that while students use AI to clarify doubts, revise work, and obtain conceptual support, they remain cautious about relying on it as a primary resource for entrance examination preparation.

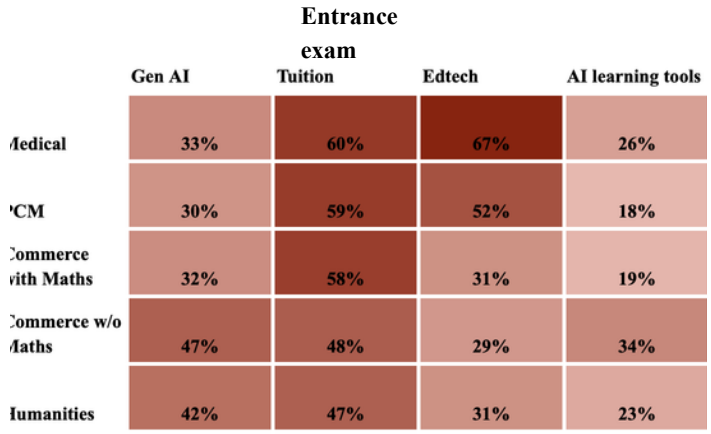
This section presents a stream-wise comparison of students' perceived helpfulness of AI tools for school/board and entrance examinations.

Figure 10a: Perceived Helpfulness of Learning Resources for school exams by academic stream



Description: Each cell indicates the percentage of students who found a particular tool 'very helpful' for school examinations. For example, 46% of students from the Medical stream reported Generative AI to be 'very helpful' for school examinations.

Figure 10b: Perceived Helpfulness of Learning Resources for entrance exams by academic stream



Description: Each cell indicates the percentage of students who found a particular tool 'very helpful' for entrance examinations. For example, 33% of students from the Medical stream reported Generative AI to be very helpful for entrance examinations.

Generative AI

For school (*see Figure 10a*) and board (*see Figure 10b*) exams, Generative AI is widely perceived as helpful across all academic streams: around half (50%) find it very helpful. Stream-wise differences remain limited, indicating the broad applicability of Generative AI for curriculum-based assessment and revision. Students' qualitative responses further underscore the perceived value of AI in academic learning. Many highlighted its constant availability, access to a wide range of information, and the flexibility to choose among different AI platforms based on individual learning needs. Students also emphasised the usefulness of AI for last-minute revision, particularly through features such as concise explanations and visual tools, such as mind maps.

By contrast, perceived usefulness declines sharply in the context of entrance examinations. Only a minority of students across streams rated generative AI as very helpful for entrance test preparation. The highest perceived usefulness was reported among Commerce students without Mathematics (47%), followed by Humanities students (42%). Substantially lower proportions were observed among science stream students (PCM: 30%; PCB: 33%) and Commerce students with Mathematics (32%).

Despite the increasing use of Generative AI among science students, its perceived effectiveness, particularly for entrance examinations, remains limited. In these streams, traditional learning modalities, particularly EdTech platforms and in-person tuition, continue to be rated as more helpful for both school and entrance exam preparation. While Generative AI is valued for tasks such as generating practice questions and mock tests, its effectiveness diminishes in contexts requiring intensive numerical problem-solving and exam-oriented drilling.

Overall, generative AI is perceived as substantially more useful for school and board examinations than for entrance test preparation across all academic streams. This pattern suggests that, at present, generative AI tools are better suited to curriculum-based learning, conceptual explanation, and coursework support than to high-stakes competitive entrance examinations that emphasise speed, sustained practice, and test-specific strategies. These findings point to the need for closer alignment between AI-enabled learning tools and examination formats, particularly in the case of competitive entrance assessments.

AI learning support tools

Across academic streams, the share of students who perceive AI learning support tools as very helpful remains moderate. For school and board examinations, roughly one-fifth of students across streams report that these tools are very helpful, with greater acceptance among science students. In the context of entrance examinations, perceptions are more restrained: around 20% of students across all streams report that AI tools are very helpful, though this proportion rises to over 30% among students in the commerce without mathematics stream. These patterns suggest that while a subset of students derives substantial benefit from AI learning support tools, particularly for general academic preparation, their effectiveness remains limited for high-stakes, exam-specific preparation

EdTech Platforms

For school and board examinations, the proportion of students who perceived EdTech platforms as very helpful varies considerably across academic streams. Fewer than three out of ten students in the Commerce (with and without Mathematics) and Humanities streams reported that these platforms were very helpful, compared with around four out of ten students in the science streams. Among science students (PCB and PCM), traditional learning modalities—particularly in-person tuition and EdTech platforms—continue to be perceived as the most helpful for both school and entrance examination preparation, indicating a closer alignment of these modes with the academic requirements of science subjects at the school and board level.

In the context of entrance examinations, stream-wise differences are even more pronounced. Only about 30% of students in the Commerce and Humanities streams reported that EdTech platforms were very helpful, whereas substantially higher proportions of science students expressed positive assessments - approximately two-third (67%) in the PCB stream and around half (52%) in the PCM stream. This pattern further reinforces the continued reliance of science students on structured, exam-oriented learning environments. Taken together, these findings suggest that EdTech platforms are perceived as most effective by science stream students for both board and entrance examinations. The higher perceived usefulness among science students likely reflects the closer compatibility of existing EdTech offerings with science subjects, which typically emphasise standardised syllabi, structured problem-solving, and intensive exam preparation. Conversely, the lower share of Commerce and Humanities students reporting EdTech platforms as very helpful points to a relative gap in tailored, exam-focused digital resources for these streams.

Alongside EdTech platforms, many students reported that AI-based tools support their academic learning, particularly through the generation of question papers and mock tests. Mock tests play a critical role in entrance examination preparation by assessing students' speed, accuracy, and analytical skills rather than rote memorisation. The ability of AI tools to generate mock papers aligned with board and entrance examination patterns represents a key advantage of these technologies. This functionality may be especially beneficial for students who are unable to afford coaching institutes, thereby contributing to greater accessibility and inclusivity in exam preparation.

More broadly, these findings reflect persistent trends in India's education system, in which families continue to invest heavily in private coaching and supplemental learning resources, including EdTech, particularly at the secondary and higher secondary stages, where exam-focused preparation becomes more intensive. However, Generative AI is gradually emerging as a relatively more affordable supplement to these.

In-person Tuition

For school and board examinations, a substantial proportion of students across all academic streams reported that in-person tuition–whether private or home tuition–was very helpful. The highest shares were observed among Commerce students with Mathematics (68%), followed by students in the PCB (63%) and PCM (61%) streams. Nearly half of Commerce students without Mathematics (48%) and over two-fifths of Humanities/Arts students (43%) also reported private tuition to be very helpful.

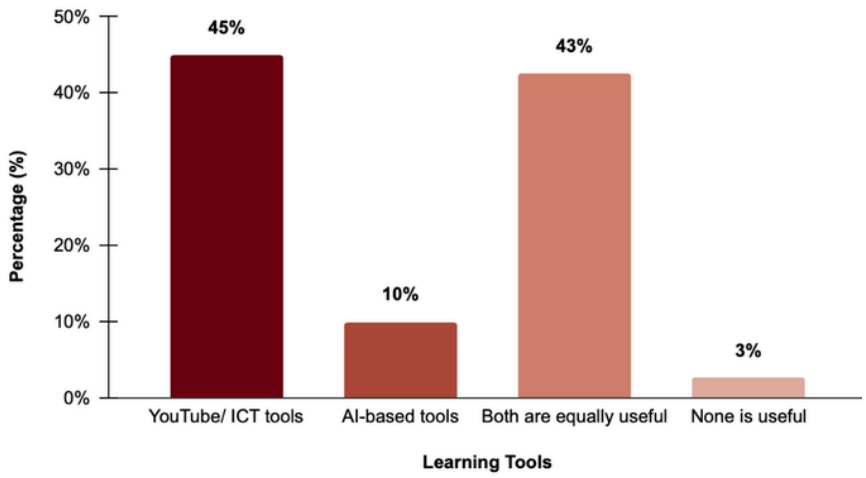
These findings indicate that traditional one-on-one and small-group tuition continues to be a highly valued form of academic support across streams.

A similar pattern is evident in the context of entrance examinations. At least half of the students across all streams reported that private tuition was very helpful for entrance exam preparation, with the proportion rising to around 60% among students in the PCB, PCM, and Commerce with Mathematics streams. This underscores the continued importance of structured, exam-oriented coaching in competitive examination settings.

Overall, in contrast to AI tools and EdTech platforms—whose perceived helpfulness varies considerably across streams and examination types—private tuition emerges as a consistently effective and trusted mode of academic support. For Commerce students with Mathematics, in-person tuition remains the most effective modality for entrance examination preparation. At the same time, while generative AI functions as a useful supplementary resource for explanation and revision, particularly in school contexts, its limited customisation appears to constrain its perceived effectiveness for more demanding, problem-intensive entrance examinations.

The analysis now turns to other learning resources that students find helpful, including YouTube and ICT tools.

Figure 11: Comparing YouTube/ICT tools and AI-based tools for learning



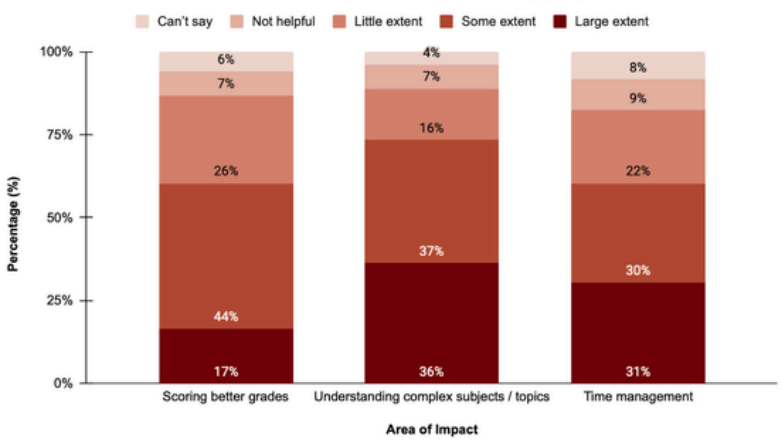
Question: Some people believe students learn in different ways. Which of the following do you find more helpful for your learning? 1. YouTube/ICT Resources 2. AI based tools

Nearly half of all students (45%) report that YouTube or ICT resources are more helpful for their learning, while 43% indicated that both resources are equally useful. This suggests that many students perceive AI as a supplementary tool rather than a replacement for existing learning resources. In contrast, only one out of ten students (10%) reports that AI-based tools are more helpful for their learning and, similarly, a very small proportion of students (3%) reported that neither option is useful. The findings suggest that, on average, traditional digital learning platforms such as YouTube continue to play a dominant role, while AI tools are more commonly seen as complementary to existing learning methods rather than as primary learning resources.

PERCEIVED HELPFULNESS OF AI:

Building on the analysis of perceived helpfulness of AI, including comparisons with other learning resources such as EdTech platforms, offline tuition, and exam preparation tools, this section shifts focus to the broader academic benefits of AI. It examines how AI tools support students' learning processes, academic performance, and study management.

Figure 12: Impact of AI on learning outcomes



Question: To what extent has AI been helpful for the following purposes?

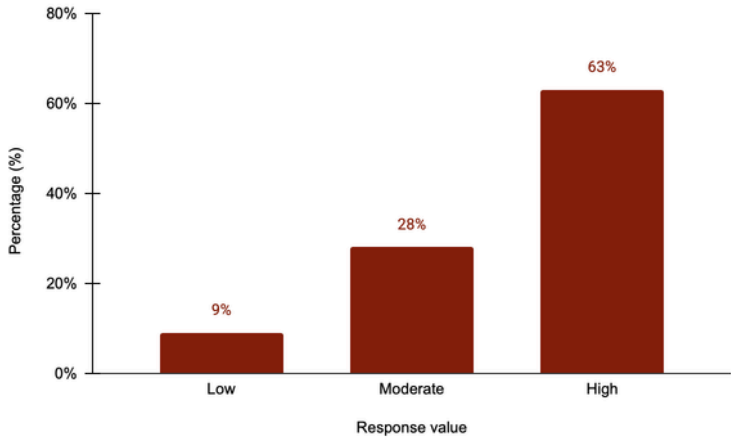
With respect to achieving higher grades (*see Figure 12*), around one-sixth of students (17%) reported that AI has been helpful to a large extent, while a substantial majority (70%) found it helpful to some or a limited extent. In relation to understanding complex subjects, a higher proportion of students (36%) reported that AI is helpful to a large extent, with a further 53% indicating limited or moderate helpfulness.

For time management, over three out of ten students (31%) reported that AI is helpful to a large extent, while around half (52%) found it helpful to some or a limited extent; the remaining 17% reported that it was not helpful or were uncertain about its utility for managing time.

Overall, these responses suggest that students find AI tools most helpful for understanding complex subjects. By contrast, in areas such as improving grades and managing time, AI is more often viewed as a complementary aid, supporting students' own efforts rather than serving as a primary driver of outcomes.

While the academic benefits and usefulness of AI have been examined across disciplines, a prominent perception among students is that AI enhances time efficiency. The following section therefore focuses specifically on students' views of AI as a tool for improving time efficiency.

Figure 13: Self-Reported Time Savings from use of AI tools



Question: According to you, how much time do AI tools help you save in your studies? Please rate on a scale of 1 to 5, where 1 means 'Does not save any time' and 5 means 'Saves a lot of time'.

When students were asked to assess the extent to which AI tools save time in their studies using a five-point scale (*see Figure 13*), responses were grouped into low (1–2), moderate (3), and high (4–5) levels of perceived time savings. The findings indicate that a clear majority of students (63%) reported high levels of time savings from using AI tools, suggesting strong perceived efficiency gains. A further 28% of students reported moderate time savings, while only 9% indicated low or minimal time savings.

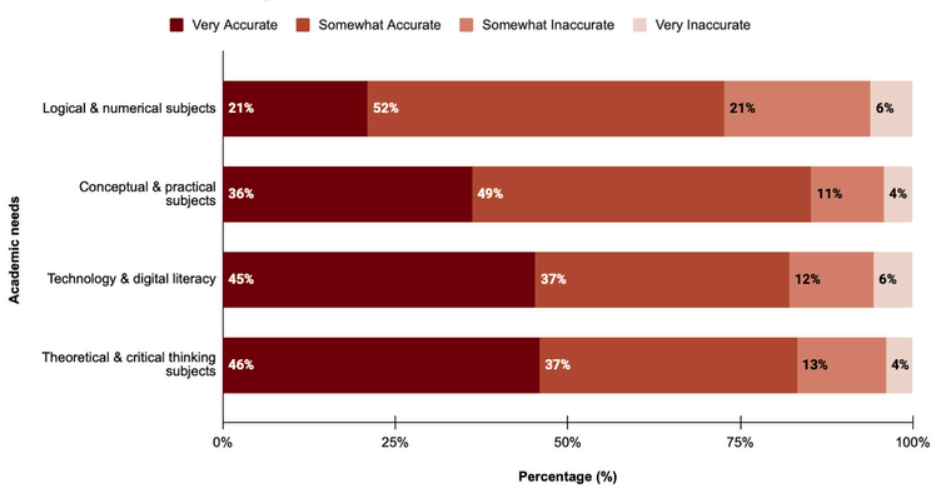
These responses point to a widespread perception of AI tools as effective time-saving aids that enhance study efficiency. Students' responses in interviews further reinforce this view, with many noting that AI tools help save time by generating concise summaries, condensing lengthy notes into key points, and providing additional information for projects. Several students also mentioned the convenience of AI-enabled search functions, which allow them to obtain quick and accurate responses without extensive online searching, thereby improving overall efficiency in learning.

While perceived time efficiency and associated benefits are substantial, the reliability of AI tools remains a critical concern. The following section therefore examines students' perceptions of the reliability of AI-enabled learning tools.

ASSESSING STUDENT'S TRUST AND EXPERIENCE WITH AI TOOLS

As observed throughout the report, AI tools offer several perceived benefits for students; however, it is equally important to examine the limitations and challenges associated with their use. Issues such as inaccuracies in AI-generated responses, including well-recorded instances of AI hallucinations and inaccurate responses, raise concerns about the reliability of these tools for academic purposes.

Figure 14: Perceived Accuracy of AI-Generated Results

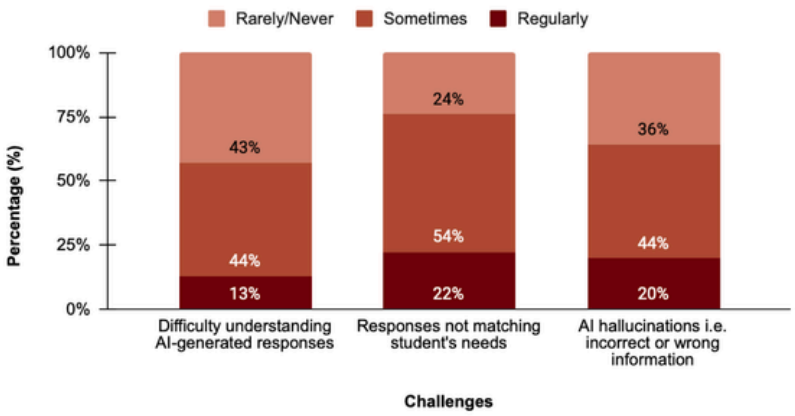


Question: According to you, how accurate are AI generated results for your academic needs for the following?

Students were asked to assess the accuracy of AI-generated responses across different subject areas (*see Figure 14)*. The data indicates that students perceive AI-generated results as more accurate in some subject areas than in others. Responses from students enrolled in technology and digital literacy subjects[21] indicated the highest perceived accuracy: 45% reported very accurate results, and an additional 37% reported somewhat accurate results. Subjects that involve critical thinking and theoretical rigor also show high accuracy, with 46% of students reporting very accurate results and 37% reporting somewhat accurate results. Conceptual and practical subjects [22] show moderate perceived accuracy, with nearly one-third (36%) of students reporting very accurate results and almost half (49%) reporting somewhat accurate.[23] Logical and numerical subjects showed relatively lower perceived accuracy. In logical and numerical subjects, showed relatively lower perceived accuracy. In logical and numerical subjects,[24] only 21% of respondents rated AI-generated results as very accurate, although a majority (52%) rated them somewhat accurate. Overall, students consider AI-generated results more reliable in digital, language, and conceptual subjects than in calculation-intensive or strictly numerical subjects. This suggests that while AI is a useful support tool, it often provides only somewhat accurate responses, indicating that it does not fully cater to individual learning needs.

While AI tools are widely used, concerns regarding clarity, relevance, and accuracy persist among a substantial share of students. Accuracy of information is crucial for students' academic progress, as incorrect answers can adversely affect both examination performance and conceptual clarity. Several students expressed concerns about the reliability of AI tools, particularly in numerical subjects such as Physics and Mathematics. While students acknowledged that AI has been transformative for understanding theoretical concepts, for coding and programming tasks, and for planning and generating concise summaries, they noted that these tools remain unreliable for numerical problem-solving. As a result, students emphasized the need to verify AI-generated outputs, particularly for calculations and factual accuracy, thereby limiting the usefulness of AI tools for calculation-intensive academic tasks. This limitation can be attributed to the comparatively low accuracy of AI models in handling complex numerical calculations and problem-solving tasks in these subjects.

Figure 15: Challenges in AI-tool use



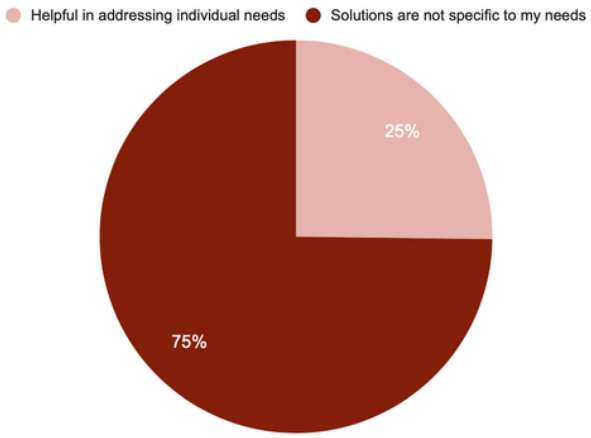
Question: How often do you encounter the following challenges while using AI tools?

When asked about the frequency of challenges encountered while using AI tools, more than half of respondents (57%) reported difficulty understanding AI-generated responses at least sometimes, including 13% who experience this issue regularly (*see Figure 15*). An even larger proportion of students (76%) indicated that AI responses do not always align with their learning needs, with nearly one in five (22%) reporting that this occurs regularly. Concerns about accuracy were also widespread: 64% of students reported that AI-generated responses are incorrect at least sometimes, and one-fifth (20%) encountered this issue on a regular basis.

In contrast, the proportion of students who reported facing these challenges only rarely or never remains comparatively low - 24% for responses not matching their needs, 36% for inaccurate or hallucinated responses, and 43% for difficulty understanding AI-generated outputs.

Beyond issues of accuracy and reliability, the analysis also examines students' perceptions of whether AI tools are capable of addressing individual learning needs and providing sufficiently customised support.

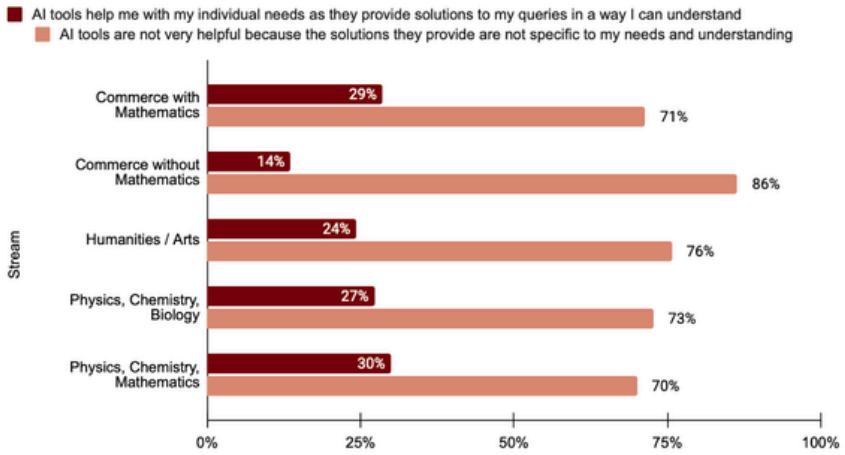
Figure 16: Evaluation of AI tools for individual learning needs



Question: From the below statements, which one do you agree with more when it comes to getting help from AI tools based on your individual needs.

Nearly three out of four students (75%) across academic streams reported that AI tools are not very helpful in addressing their specific learning needs (*see Figure 16*). This finding is consistent with earlier evidence highlighting recurring challenges, including difficulty in understanding AI-generated responses, inaccuracies arising from AI hallucinations, and outputs that do not adequately align with students' requirements. Overall, more than seven out of ten students indicated that AI tools are not very helpful for adaptive learning (*see Figure 17*).

Figure 17: Evaluation of AI tools by academic stream



This perception is broadly consistent across academic streams, with at least 70% of students in each stream expressing this view. The highest proportion is observed among Commerce students without Mathematics (86%). At the same time, a smaller but notable share of students—around 30% in the Commerce with Mathematics, PCB, and PCM streams—reported that they do find AI tools helpful for individual needs, indicating some perceived benefit despite these limitations.

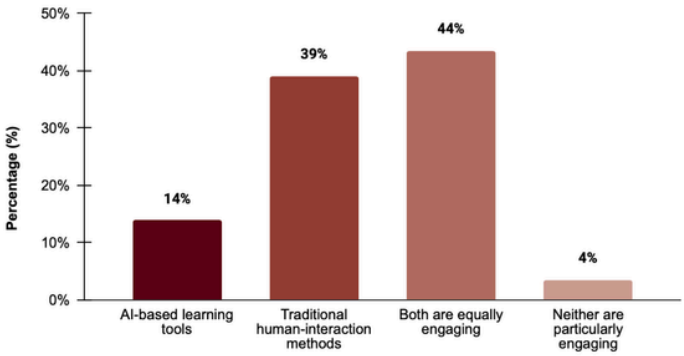
Taken together, these findings suggest that while AI tools are increasingly embedded in students' learning practices, students remain cautious about their capacity to provide personalised and adaptive learning support, particularly in addressing individual learning needs and supporting slower learners. This perceived limitation underscores the continued importance of human-mediated learning environments, where responsiveness, emotional support, and tailored guidance remain central.

BALANCING HUMAN INTERACTION WITH AI

In this context, it is important to examine how students negotiate the balance between AI-based tools and traditional modes of learning, and the extent to which human interaction continues to shape engagement and learning preferences. The findings indicate that although AI-based learning tools are perceived as helpful, students continue to find traditional, human-led modes of learning more engaging.

Nearly two out of five students (39%) reported that learning through teachers, coaching, or group study is more engaging, while only 14% identified AI-based tools as the most engaging mode of learning (see Figure 18). At the same time, a substantial share of students (44%) reported that both AI-based tools and traditional methods are equally engaging, suggesting a preference for blended learning

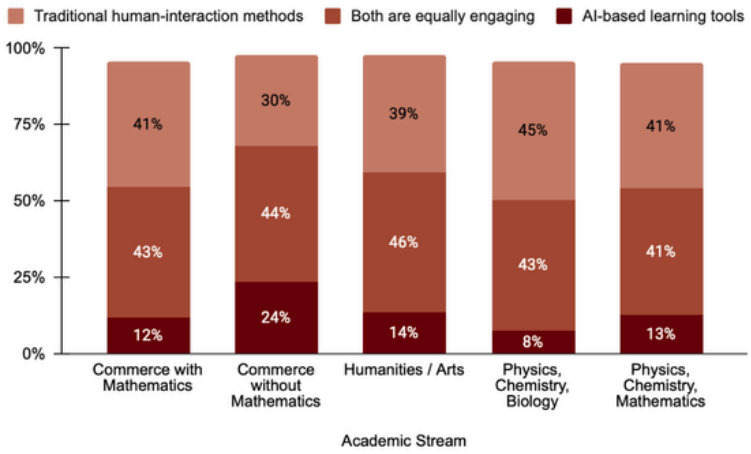
Figure 18: Comparing AI-based learning with human-interaction



Question: Students today learn through both AI-based tools and traditional human-interaction methods (like teachers, coaching, or group study). In your experience, which of these do you find more engaging?

environments that combine human interaction with technological support. Only a very small proportion of students (4%) indicated that neither approach was particularly engaging.

Figure 19: Comparing AI-based learning with human-interaction by academic stream



Note: The remaining responses reported "Neither are particularly engaging."

The stream-wise analysis (*see Figure 19*) indicates that students across disciplines largely perceive AI-based tools and traditional, human-interaction–based methods as equally engaging. At the same time, a substantial preference for traditional modes of learning persists, particularly among students in the Medical (45%), PCM (41%), and Humanities (39%) streams. This pattern points to the continued importance of teacher-led instruction and guided learning.

A strict preference for AI-based tools remains limited across streams, with the highest share reported among Commerce students without Mathematics (24%) and the lowest among Medical students (8%). Only a small proportion of students across streams reported that neither mode of learning was engaging.

Overall, these findings suggest that while AI is increasingly integrated into students' learning experiences, it functions primarily as a complement to, rather than a substitute for, traditional forms of human interaction in education.

CONCLUSION

The findings of the study indicate that generative AI tools have become closely embedded in students' academic routines, forming an integral component of their learning ecosystem. While patterns of AI use vary across academic streams, adoption is widespread, with students across disciplines engaging with AI in selective and differentiated ways. Generative AI tools clearly dominate students' AI use, whereas EdTech platforms remain largely concentrated among science stream students, reflecting their closer alignment with structured, problem-oriented curricula.

Students consistently perceive AI as a time-saving and convenient resource, particularly due to its round-the-clock availability. Its perceived usefulness is highest for language-based, digital, and conceptual learning tasks. At the same time, persistent concerns related to accuracy, relevance, and limited customisation suggest that AI, in its current form, cannot substitute for structured teaching or teacher-led guidance. These limitations reinforce the continued importance of traditional learning modes, such as classroom instruction and in-person tuition, which enable direct engagement with educators.

A critical policy-relevant insight emerging from the study is students' growing reliance on AI not only for academic assistance but also for emotional reassurance and mental health–related support. While this reflects the accessibility and immediacy of AI tools, it also points to gaps in institutional counselling, peer support, and teacher–student interaction within schools. Rather than positioning technology as a substitute for human care, this finding underscores the need to strengthen human support systems within educational institutions.

Taken together, the findings point to the need for a balanced and well-governed approach to AI integration in schooling. Policy frameworks should position AI as a supportive tool that complements and enhances teaching rather than replacing educators, while establishing clear guidelines on ethical use, accuracy, and age-appropriate deployment. At the same time, equal emphasis is required on strengthening teaching capacity, expanding school-based counselling services, and promoting digital literacy programmes that equip students to engage critically with AI-generated content.

APPENDIX I :

AI Initiatives by various states:

Andhra Pradesh

LEAP (Learning Excellence in Andhra Pradesh) - LEAP is being implemented by the Government of Andhra Pradesh and targets school students, teachers, and Aanganwadi centres. The LEAP model's long-term vision is to create a world-class education system by 2029 that equips students with technical, leadership, and real-life skills through AI and other cutting-edge technologies. The LEAP model uses AI-based assessments within the Foundational Literacy and Numeracy (FLN) programme to identify students' learning gaps and provide personalised instruction.[25]

Assam

Shiksha Sethu Axom - The Assam State School Education Board has implemented the Shiksha Setu Axom AI-based application for Assam schools. The application is designed to support multiple school-level functions, including tracking attendance for both teachers and students, sharing learning resources, managing assignments, and facilitating communication between parents and teachers. A key feature of the application is its offline attendance functionality, which allows data to be recorded in low-connectivity environments and synchronised with the central server once internet access becomes available, thereby ensuring continuity and reliability in data collection.[26]

Bihar

Bihar AI initiatives - The Bihar Government has launched an artificial intelligence and digital skills education initiative for over one crore students in Classes 6–12, aligned with the National Education Policy 2020. As part of this initiative, the state has entered into a Memorandum of Understanding (MoU) with Adobe to implement Adobe's Digital Education Program, which focuses on strengthening interactive, AI-enabled, multimedia-based learning in schools. The programme aims to enhance students' digital creativity, AI awareness, and technology-driven learning experiences through structured curriculum support and digital tools.[27]

Delhi

Delhi AI Grind - The initiative launched under the New Era of Entrepreneurial Ecosystem and Vision (NEEEV) framework represents a structured effort by the Government of Delhi to promote artificial intelligence learning and innovation among young people.

Implemented across all education zones of Delhi from December 2025 to March 2026, the initiative is a time-bound, zone-wide programme that combines capacity building, mentorship, and hands-on exposure to AI applications. Through a series of training sessions, workshops, and innovation-oriented activities, it aims to help participants build both foundational and applied AI skills and to develop problem-solving and entrepreneurial thinking. The initiative aims to empower 5 lakh youth to learn AI and develop innovative AI-based solutions.[28]

Goa

Goa AI Mission - The Government of Goa, through the Directorate of Technical Education, and the Directorate of Education, has introduced the Coding and Robotics Education in Schools Scheme under the broader Goa AI Mission to integrate computational thinking, design thinking, and programming skills into school-level education across the state. The scheme provides structured exposure to coding and robotics through revised ICT curricula, with a strong emphasis on experiential and application-based learning. Students engage with hands-on tools and digital platforms, including coding environments and robotics kits, to develop problem-solving abilities, logical reasoning, and creativity. Overall, the initiative seeks to strengthen digital literacy and 21st-century skills among school students, in alignment with national education priorities.[29]

Haryana

Haryana's STEM Labs - The Haryana Government, in collaboration with Stempedia, has launched Haryana’s STEM Labs to promote AI- and robotics-based learning in schools, aligned with NEP 2020. The initiative integrates artificial intelligence, coding, and robotics into STEM education for students of Classes 6–12 through structured learning in AI and machine learning fundamentals, robotics kits, and coding projects. In parallel, the programme emphasises institutional capacity-building through extensive teacher training, including over 150 training programmes and continuous on-the-ground mentorship, enabling teachers to conduct lab-based, activity-driven learning and to effectively integrate technology into classroom pedagogy.[30]

Himachal Pradesh

Himachal Pradesh AI integration - The Himachal Pradesh Vidya Samiksha Kendra (VSK), inspired by the Rashtriya Vidya Samiksha Kendra (RVSK), was launched as a state-level initiative and is powered by SwiftChat, with implementation support from ConveGenius, as an AI-enabled digital platform integrating educational, instructional, and administrative functions.

Under this framework, multiple initiatives support teaching, learning, and governance in schools, including Abhyaas Himachal, which strengthens student learning beyond the classroom through weekly practice, performance-based feedback, and personalised video support; Smart Upasthiti, which ensures systematic monitoring of teacher and student attendance through an online chatbot-based system; Mulyankan, which streamlines the collection and management of formative and summative assessment data for Classes 3–8; and Shikshak Sahayak, which enhances classroom instruction and remedial support by providing teachers with digital learning materials and targeted instructional assistance.[31]

Karnataka

Shiksha Co-Pilot - Karnataka's School Education and Literacy Department has launched the Shiksha Co-pilot programme to strengthen the quality of education in government schools using Artificial Intelligence (AI), in association with the not-for-profit Shikshana Foundation and Microsoft Research India. The initiative aims to integrate AI-based support tools in government schools to improve classroom teaching and student learning outcomes, with teachers being supported and guided by AI-powered digital assistants (Copilot tools). Accordingly, these AI-powered digital assistants operationalise the programme by assisting teachers in core instructional tasks, enhancing teaching effectiveness and resource efficiency.[32]

Maharashtra

Mission Bal Bharari - India's First AI Aanganwadi – Target: children aged 3–6. Under this mission, the integration of AI and Virtual Reality (VR) was introduced in Anganwadi learning, aimed at strengthening early childhood education and making learning more engaging, immersive, and easier for children to understand. In Anganwadi centres, AI-integrated smart dashboards and interactive digital content were provided to children studying there. Anganwadi workers were also trained to use these digital tools effectively and manage AI-powered classroom environments.[33]

Odisha

AI Policy 2025 - Odisha AI policy 20205 is being implemented by the Government of Odisha and targets school students and teachers. The Odisha AI Policy 2025 has identified education as a core area to drive innovation and inclusive growth. Odisha aims to integrate Artificial Intelligence (AI) into the school education system to prepare students for a future-ready, technology-driven world.

The government will introduce AI-related courses and modules within the school curriculum across a significant number of state-run and affiliated schools. The policy aims to promote AI capacity-building and innovation in schools by establishing AI clubs and student innovation groups, conducting teacher training on AI fundamentals and digital pedagogy, and developing curriculum-aligned teaching-learning resources such as manuals and toolkits.[34]

Punjab

AI integration in government schools - Punjab has initiated an AI push in government schools by developing a grade-wise AI curriculum for Classes VI–XII, with the targeted audience being students of Classes 6–12, covering AI ethics, coding, robotics, and data literacy. The programme includes textbooks, workbooks, project-based learning, and interactive digital tools in English and Punjabi, as well as blended teacher training and certification. A three-year rollout is planned in selected schools of Punjab, supported by an LMS, AI projects, and innovation activities like hackathons.[35]

Rajasthan

Shiksha Co-Pilot Rajasthan - Shiksha CO-Pilot launched by the Government of Rajasthan, is an initiative aimed at addressing foundational gaps in numeracy and literacy among students. Developed in collaboration with the Michael and Susan Dell Foundation and BCG, the Shiksha App leverages artificial intelligence to digitise student assessments, provide data-driven recommendations to teachers, and significantly reduce administrative workload. By enabling real-time insights into student learning levels, the platform supports a shift from rote evaluation towards competency-based and holistic assessment practices in school education.[36]

Tamil Nadu

Tamil Nadu AI Mission - The TN Spark launched in the 2024–2025 academic year as a pilot in the Coimbatore district, with the target audience being students of Classes 6–9. The program focuses on students in classes 6–9, with a focus on foundational competencies in AI, coding, robotics, and interactive digital tools. Building on this pilot phase, the programme moved towards structured implementation, with the full syllabus rolled out after the October 2025 examinations. Schools allocated one to two instructional periods per week and deployed over 880 computers to support delivery. Within this structured instructional framework, students are encouraged to develop foundational AI competencies through engagement with practical components such as translation tools, basic animation, and text-to-speech applications.[37]

Telangana and Karnataka

FLN-AI (AXL) Programme - The FLN-AI (AXL) Programme is being implemented in collaboration with the EkStep Foundation, with the objective of strengthening foundational literacy and numeracy (FLN) through the strategic use of artificial intelligence. Under this initiative, AI-enabled platforms are used to personalise learning experiences by aligning digital content and instructional pathways with students' specific learning levels and outcomes. Students gain access to structured learning modules that adapt to their progress, enabling timely remediation and reinforcing core literacy and numeracy skills. Through this approach, the programme aims to improve foundational learning outcomes while supporting teachers with data-driven insights into student performance.[38]

END NOTES

1. Harry, A. (2023). Role of AI in education. Interdisciplinary Journal & Humanity (INJURITY), 2(3)
2. UNESCO. (2025, October 31). FutureProof education: Supporting schools in the AI evolution.
3. Sidoti, O., Park, E., & Gottfried, J. (2025, January 15). About a quarter of U.S. teens have used ChatGPT for schoolwork – double the share in 2023. Pew Research Center.
4. Ministry of Statistics & Programme Implementation. (2025, May 29). Results of Comprehensive Modular Survey: Telecom, 2025 (Release ID: 2132330).
5. ASER Centre. (2025). Annual Status of Education Report (ASER) 2024: National findings.
6. Tomar, A. (2025, October 8). Harnessing AI in higher education: Opportunities and the road ahead. EY India.
7. India Today Education Desk. (2024, November 29). IIT Bombay launches TARA app to boost students' reading fluency nationwide
8. NITI Aayog. (2018). National strategy for artificial intelligence.
9. Ministry of Education. (2020). National Education Policy 2020. Government of India.
10. Ministry of Education. (2023). National curriculum framework for school education: Pre-draft. Government of India
11. Press Information Bureau. (2025, 30 October). Curriculum on AI to be introduced in all schools from Class 3 onwards. Ministry of Education, Government of India.
12. Central Board of Secondary Education. (2019, 9 Maret). Introduction of Artificial Intelligence, Early Childhood Care Education and Yoga as new subjects in schools (Circular No. Acad-14/2019). Government of India.
13. Central Board of Secondary Education. (n.d.). Artificial intelligence curriculum handbook: Grade IX. Government of India.
14. Press Information Bureau. (2025, 18 November). Government of India launches 'YUVA AI for ALL' Ministry of Electronics & IT.
15. Press Information Bureau. (2025, 22 October). SOAR: Fostering AI-driven education and skill development. Ministry of Skill Development and Entrepreneurship, Government of India.
16. Indian Institute of Technology Madras. (2025, 9 September). 'AI for All' 2.0: IIT Madras
17. Press Information Bureau. (2025, October 22). SOAR fostering AI-driven education and skill development. Ministry of Skill Development and Entrepreneurship.
18. Ministry of Education. (n.d.). UDISE+ Dashboard. Government of India.
19. Center for Democracy & Technology. (2025, October). Hand-in-hand: How parents and teachers view the role of AI in education.
20. Common Sense Media. (2025). Talk, trust, and trade-offs: How parents and kids are navigating the era of generative AI
21. This includes subjects of Computer Science and Information Practices
22. This includes subjects of History, Political Science and English
23. This includes subjects of Biology, Chemistry, Economics, Business Studies and Psychology
24. This includes the subjects of Mathematics, Physics and Accountancy
25. Digital Learning Network (2025, 9 April). Andhra Pradesh unveils LEAP education model. Elects Digital Learning

26. The CSR Journal. (2025, February 11). Bihar CM Nitish Kumar to introduce AI-based education project; One crore students to benefit
27. Delhi AI Grind. (n.d.). Delhi AI Grind: India's largest AI community.
28. Directorate of Education, Government of Goa. (n.d.). About Coding and Robotics in Education Scheme (CARES)
29. Digital India. (n.d.). Shiksha Setu Axom. Ministry of Electronics & Information Technology, Government of India.
30. STEMpedia. (n.d.). STEM labs in Haryana schools: Empowering 20K students through hands-on learning.
31. Samagra Shiksha Himachal Pradesh. (n.d.). ICT and tele-education. State Project Office, Himachal Pradesh Council of School Education.
32. The Hindu. (2024, October 18). Karnataka launches AI-powered digital assistant for teachers.
33. The Times of India. (2025, February 13). Nagpur powers up India's first AI-driven Anganwadi.
34. https://dowr.odisha.gov.in/sites/default/files/2025-07/Odisha%20AI%20Policy-2025.pdf
35. The Times of India. (2025, March 18). Punjab sets ball rolling for AI debut in its schools.
36. Boston Consulting Group. (n.d.). How AI is leading to greater educational outcomes in India.
37. https://tnspark.tnschools.gov.in/pageland
38. Department of School Education, Government of Tamil Nadu. (n.d.). TN SPARK: Tamil Nadu Schools Programme for AI, Robotics & Knowledge of Online Tools.

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