



Generative AI in Education: A Study of Its Relationship with Students' Reading Habits, Homework Behaviour, and Classroom Attentiveness

• Madhumita • Yashashvi Suman • Prerna Choudhary • Vandana Kumari

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Corresponding Author : Madhumita

Abstract : *The widespread integration of generative AI in educational setting has highlighted critical questions about the influence of AI on the academic behaviour of students, particularly on their reading habits, homework behaviour and classroom attentiveness. This study situates itself at the juncture of investigation towards the extent and nature of generative AI usage among secondary and senior secondary students in Patna, Bihar. It aims to examine the relationship by employing a mixed-methods design. The quantitative data of 100 students were collected from five government and private schools using self-developed Likert-type scales whereas qualitative insights was gathered through semi-structured focus group discussions with 12 students. The findings indicate that all the students engage with generative AI. Correlation analysis presents a*

significant positive relationship between usage of generative AI and homework behaviour whereas reading habits and classroom attentiveness show weak but statistically insignificant associations. The comparative analysis highlights that students of government schools outperform the peers of private schools in reading, homework and attentiveness. Qualitative analysis provides the articulation that cautious-purpose driven usage of AI, ethical awareness and situational dependency among students. This study points out that AI should be used as a complementary tool that supports rather than substitutes independent learning process.

Keywords: *Generative AI, Reading Habits, Homework Behaviour, Classroom Attentiveness, Secondary Education.*

Madhumita

Assistant Professor, Department of Education,
Patna Women's College (Autonomous),
Bailey Road, Patna-800 001, Bihar, India
E-mail: 18.madhumitagmail.com

Yashashvi Suman

Department of Education,
Patna Women's College (Autonomous),
Patna University, Patna, Bihar, India

Prerna Choudhary

Department of Education,
Patna Women's College (Autonomous),
Patna University, Patna, Bihar, India

Vandana Kumari

Department of Education,
Patna Women's College (Autonomous),
Patna University, Patna, Bihar, India

Introduction:

The rapid permeation of Artificial Intelligence into the daily lives of individuals has reshaped the way in which they read, learn, create and interact with information that gives us the insight for an urgent inquiry about its deeper cognitive and cultural implications. Since time immemorial, human creativity, reading habits and linguistic skills developed within learning environments that were defined by books, slow reflective thinking, interpersonal communication along with lived ontologies. These learning environments have shaped diverse forms of imagination and critical cognition that has emerged from continuous interaction with texts, plurality of viewpoints and sensory reality. However, in recent years, with the blooming of digital technologies and most recently generative AI that have begun to transform the conditions under which individuals encounter words, ideas and images. The speed,

volume and automation of information now available have raised questions about how these shifts can influence human capacities that were once thought to be uniquely organic with budding creativity, comprehension, emotional expression and aesthetic judgement of one's own. The present research seeks to situate these concerns within a scholarly framework of academic inquiry by examining the role of reading practices, creative processes and their evolution historically as well as how likely are they to adapt as AI becomes a pervasive co-author, co-reader and cognitive partner.

The correlation between reading and creativity offers a significant revealing entry point into this inquiry. Historians, psychologists and education theorists have long argued that reading offers access not only to knowledge but to the cognitive flexibility required for innovation, empathy and imagination. Immersive reading in earlier print cultures encouraged deep focus and slow processing of information, allowing individuals to construct mental imagery, internal narratives and conceptual associations that enhance creative output. From the twentieth century, studies have consistently revealed that print based learning is supportive of memory integration, higher order reasoning and fluency. At the same time, cultural and artistic histories highlight the past trajectory of vibrant engagement with literature from the Renaissance to the nineteenth century that tend to correlate with creativity across disciplines. This highlights the longstanding interdependence that oscillate between reading modalities and creative expression, thereby suggesting that any disruption to one may effect the other.

Against this backdrop, it is right to credit generative AI for introducing both unprecedented opportunities and complex challenges. On the one hand, AI generated texts and ideas may provide expansion towards immediate generation of ideas, access to quick information and support learners who struggle with traditional literacy tasks. Tools that summarise, translate or transform written content can democratise knowledge and empower new forms of experimentation. Yet, on the other hand, scholars increasingly caution that heavy reliance on automated outputs may narrow cognitive engagement by reducing the need for independent interpretation, reflection or imagination. If reading becomes predominantly extractive—focused on outcomes rather than processes—the nuanced skills cultivated

through slow, sustained reading may gradually weaken. Similarly, creativity may shift from generative to curatorial, where individuals select from AI-produced possibilities rather than construct original ideas from lived experience, memory and introspection. These possibilities call for careful, evidence-based investigation rather than optimistic or alarmist assumptions.

“According to a EY-Parthenon & FICCI report, over 56% of Indian higher-education institutions (HEIs) have already implemented AI-related policies; about 60% of HEIs permit student use of AI tools” (EY-Parthenon & FICCI Report, 2025)

Data reveals that generative AI has permeated boundaries for institutional usage and functions in the higher-education system in India. This reflects that AI is no longer peripheral but mainstream in education. Instead, this institutional shift provides broader legitimacy to studying AI's impact on learning behaviour. Within this emerging and immersing landscape, the present study addresses a central question: how are human reading habits and creative behaviours changing in an era when AI can produce ideas, stories, analyses and imagery with increasing sophistication? Rather than treating AI either as a threat or a solution, this research adopts a balanced perspective grounded in empirical studies, theoretical insights by aligning with the ground realities through data. The aim is to evaluate the extent to which AI influences the cognitive processes associated with reading, the motivational and emotional dimensions of literary engagement and the generative mechanisms underlying creative work. This includes exploring whether AI supplements or supersedes human capacities, how different demographics experience these shifts and what conditions enable AI to function as a creative collaborator rather than a substitute for reflective thought focusing on school educational setup.

The broader objective of this research is both analytical and anticipatory, it is to understand the present moment while contributing to debates about how educational institutions, creative industries and cultural communities should navigate the future. As societies increasingly rely on AI-mediated communication and information consumption, understanding its impact on the foundational human activities of school children in their reading habits, homework behaviour and classroom attentiveness becomes essential. This paper argues that with the

emergence of Generative AI, a fundamental shift from the effort-based learning to assistance driven learning is needed, which raises critical pedagogical questions over the core indicators of cognitive engagement, namely reading habits, homework behaviour and classroom attentiveness. It highlights that scholarly inquiry must now shift from questions of adoption of a critical examination of AI to its impact on learning outcomes, pedagogical frameworks, and academic integrity. This study situates itself at the intersection of educational psychology, digital pedagogy and AI literacy, aiming to move beyond assumptions and provide data driven insights into whether generative AI functions as a learning scaffold or as a cognitive shortcut.

Definitions:

In the present study, *Generative Artificial Intelligence* refers to AI-based digital systems capable of generating human-like textual content in response to user prompts. These systems include tools that provide explanations, summaries, paraphrased content, and complete academic responses. Operationally, generative artificial intelligence is defined as the extent to which secondary and senior secondary school students use AI-based tools for academic purposes, such as reading support, homework completion, and conceptual clarification. The variable is measured using a self-developed *Generative AI Usage Scale*, which assesses the frequency, purpose, and degree of reliance on generative AI tools in students' academic activities.

Reading habits refer to the pattern, regularity, and depth of students' engagement with academic reading materials, including textbooks and other learning resources. Operationally, reading habits are defined as students' frequency of reading, interest in reading complete texts, and preference for original learning materials over AI-generated summaries. This variable is measured using a *Reading Habit Scale*.

Homework behaviour refers to students' approach toward completing academic assignments, including their level of responsibility, independence, consistency, and effort. Operationally, homework behaviour is defined as the manner in which students' complete homework tasks, with or without reliance on generative AI tools. The variable is measured using a *Homework Behaviour Scale*.

Classroom attentiveness refers to the degree of students' focus, engagement, and participation during classroom instruction. Operationally, it is defined as

students' ability to maintain attention, respond appropriately, and actively participate in classroom learning activities. This variable is measured using a *Classroom Attentiveness Scale*.

Type of school refers to the institutional category of the school in which the student is enrolled. Operationally, it is classified into two groups: government schools and private schools. This variable is used for comparative analysis in the study.

Statement of the Problem:

The growing availability of generative artificial intelligence tools has changed how secondary and senior secondary school students approach their academic work. A lot of students use AI-based applications to understand textbook content, complete homework, and support exam preparation, which have a direct influence on their regular study practices. At the level of the school, reading habits, homework behaviour and classroom attentiveness are important for the development of selflearning, discipline and active participation in classroom lessons. However, the increasing dependence on generative AI may either support or reduce the students engagement if used without guidance. Though, research on artificial intelligence in education is expanding, focused study on students of India, particularly in the context of Bihar remain limited. Therefore, there is a need to examine the relationship between generative AI usage and its impact on students' reading habits, homework behaviour and classroom attentiveness among the secondary and senior secondary students of Bihar.

Objectives:

1. To find out the extent in which secondary and senior secondary students in Bihar use generative AI tools for academic purposes.
2. To examine the level of students' reading habits, homework behaviour and classroom attentiveness.
3. To explore the relationship between generative AI usage and student's reading habits, homework behaviour and classroom attentiveness.
4. To explore student's perceptions of the impact of generative AI tools on their academic behaviour.
5. To compare government and private school students in terms of generative AI usage, reading habits, homework behaviour, and classroom attentiveness.

Hypothesis:

H₁: There is a significant relationship between the use of generative AI tools and student's reading habits.

H₂: There is a significant relationship between the use of generative AI tools and student's homework behaviour.

H₃: There is a significant relationship between the use of generative AI tools and student's classroom attentiveness.

H₄: There is a significant difference between government and private school students in terms of generative AI usage, reading habits, homework behaviour, and classroom attentiveness.

Literature Review:

Xiao, Huang & Li (2023), conducted an experimental classroom study at a Chinese university investigating the impact of Chat GPT- generated reading-comprehension questions on students' reading performance. In this study, one group of learners practiced with AI-generated questions, while another group worked with questions prepared by their teacher. The findings revealed that students who used the AI-based questions engaged in practice more frequently and demonstrated higher levels of confidence during reading tasks. This group also recorded noticeable improvement in their comprehension scores. Rashid (2024), conducted a comparative study to evaluate the readability of AI-generated science passages in comparison to teacher-written texts for students in Grades 8–10. Using readability formulas such as Flesch– Kincaid and SMOG, both types of passages were analysed and tested with students. Lin, Zhang, and Wang (2025), conducted a large-scale survey involving 612 Chinese high-school students to examine the frequency of generative AI use for reading support and its impact on reading depth. Using a structured questionnaire and regression analysis, the researchers found that frequent AI use helped students read faster and better understand factual information. Mehta and Banerjee (2025), conducted an action research project in an Indian secondary school, where students used AI tools to simplify textbook paragraphs and compare them with the original texts. The study highlighted that while AI can improve clarity, it may also reduce students' motivation to engage in independent reading. Gupta and Kumari (2024) investigated how high school

students in India use AI tools to complete homework in science and language subjects. Using a mixed-method approach that combined classroom observations with structured questionnaires, they found that AI helped students' complete homework more efficiently and manage their time better. However, students frequently relied on AI-generated solutions rather than attempting tasks independently. The study highlighted that while AI supports homework management, it may also diminish students' self-directed effort. Jauhiainen & Garagorry Guerra (2024), In their follow-up study, they implemented AI personalized learning materials for 110 pupils in grades 4–6 and measured learning outcomes, engagement, and motivation. The study combined quantitative tests with qualitative interviews and surveys.

The reviewed studies suggest that generative AI can enhance high-school students' classroom attentiveness when used thoughtfully. AI-supported lessons, personalized materials, and preparatory use before class increase student motivation, engagement, and willingness to participate in discussions. Teacher guidance and structured implementation further strengthen these positive effects. At the same time, excessive or unguided reliance on AI can reduce real time attentiveness, lower participation, and lead to a form of "metacognitive laziness." Overall, the evidence indicates that generative AI can support classroom attentiveness and engagement, provided it is used with proper guidance and supervision.

Methodology"

Design of the Study: The study employed a mixed-method design by integrating quantitative and qualitative approaches. Quantitative data were collected using self-developed Likert scales and analysed with descriptive and inferential statistics. Qualitative insights were gathered through focus group discussions and interpreted using thematic analysis, providing a comprehensive understanding of the research problem.

Setting of the Study: The study was carried out among students of Classes 9 to 12 studying in both government and private schools in Patna. The students were selected from different schools located in urban and suburban areas in order to include varied types of educational environments in the study.

Variables of the Study: Independent Variable: The independent variable is Generative AI Usage,

which refers to how students use generative AI tools in learning, such as for reading, completing homework or participating in class activities.

Dependent Variables:

1. Reading Habits: The frequency, interest, and regularity with which students read textbooks, stories, or other educational material.
2. Homework Behaviour: The consistent and effectiveness with which students complete their homework, including accuracy and time management.
3. Classroom Attentiveness: The level of focus, participation and engagement shown by students during classroom lessons.

Population of the study: The population of this study are inclusive of all the students studying in Classes 9 to 12 in both government and private schools of Patna.

Sample of the Study: For the quantitative study, sample of 100 students from Classes 9 to 12 studying government and private schools were chosen through random stratified sampling method. For the qualitative sample, 12 students were chosen to take part in semi-structured focus group discussions.

Table 1. Showing Break-up of the Sample

Sl. No.	Name of the School	Sample Size
1.	Carmel High School	20
2.	DAV B.S.E.B.	20
3.	Government Girls High School (Shashtrinagar)	20
4.	Government Boys High School (Shashtrinagar)	20
5.	Government Girls High School (Bankipore)	20

Tools for Data Collection:

1. Generative AI Usage Scale (Self-developed Likert-type Scale): It focused on three main areas: how frequently students use AI, the purposes for which they use it, and their attitude toward using AI in education.
2. Reading Habit Scale: The Reading Habit Scale is a standardized tool used to assess students' reading behaviour.

3. Homework Behaviour Scale: This scale examined students' approach to completing homework.
4. Classroom Attentiveness Scale: This scale was designed to assess students' attention, focus, and participation during classroom activities.
5. Semi-structured Interview Schedule: The semi-structured interview allowed the researcher to collect detailed qualitative information about students' experiences and opinions regarding Generative AI.

Statistical Tools Used:

Quantitative:

1. Mean: The mean is the arithmetic average of all scores and represents the central value of a distribution, indicating the point where most data points cluster.
2. Standard Deviation (SD): SD indicates the extent of variation or dispersion of data from the mean. A small SD shows that most data points are close to the mean, while a large SD indicates a wider spread.
3. Frequency: Frequency shows how often a particular response, value, or category occurs in the dataset, helping to identify trends and dominant patterns.
4. Pearson Correlation: This measures the strength and direction of a linear relationship between two continuous variables. A positive correlation indicates that the variables increase or decrease together, while a negative correlation means one increases as the other decreases (FasterCapital, 2025). In this study, Pearson correlation has been used to examine the relationships between key variables and their significance.
5. t-Test: The t-test is used to determine the scope of a statistically significant difference between the means of two groups. It helps to understand if the observed differences in the data are likely due to chance or reflect a true difference. In this study, the t-test was applied to compare group means and assess the significance of their differences.

Qualitative:

1. Coding: The raw textual data were carefully read and divided into smaller, meaningful

units. Each unit was then labelled with a code that represented its core idea.

2. **Categorisation:** Similar codes were grouped together to form broader categories. This step made it easier to organise the data and identify links between related ideas.
3. **Theme Development:** Major themes were derived by examining the categories to identify overarching ideas or experiences expressed by participants. These themes represented the key findings of the qualitative analysis.

Analysis and Interpretation

Objective 1: To find out the extent in which secondary and senior secondary students in Bihar use generative AI tools for academic purposes.

Table 2. Showing different levels of generative AI Usage

	Level	Percentage
Generative AI Usage	Low	0.00%
	Moderate	59.00%
	High	41.00%

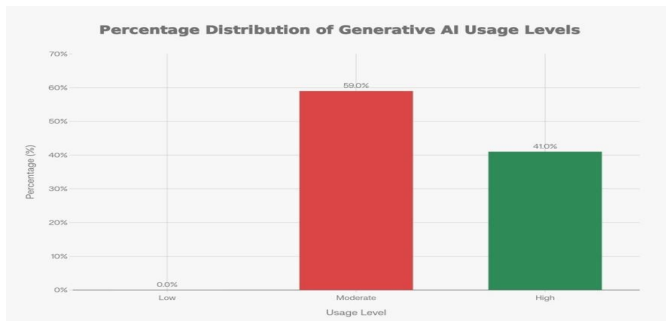


Fig. 1. Showing percentage distribution of Generative AI Usage levels

Result: The results indicate that none of the students fell into the low usage category, indicating that all students reported some level of engagement with generative AI tools. A majority of students, 59 (59.00%), were placed in the moderate category, indicating regular but controlled use of generative AI tools for activities. The remaining 41 students (41.00%) were classified at the high level, reflecting frequent and confident use of generative AI as part of their daily academic routine.

Interpretation: The results reflect that generative AI tools are widely accepted and actively used by

secondary and senior secondary students in Bihar for academic purposes.

The finding of this study points out that most students reported moderate to high usage of generative AI. This is supported through the revelations made by Gupta and Kumari (2024) who have revealed that school students are increasingly using AI tools to complete homework and handle academic tasks more efficiently. In a similar way, Lin et al. (2024) noted that students often rely on AI platforms for reading assistance and better understanding of concepts, showing that AI is becoming a regular part of academic work. However, much of the existing research has been carried out in higher education or under controlled study conditions. There is limited evidence from school settings, especially in regions like Bihar. By focusing on secondary and senior secondary students in Bihar, the present study adds context-specific insight and helps to fill the gap related to school-level AI usage in an underexplored regional setting.

Objective 2: To examine the level of students reading habits, homework behaviour and classroom attentiveness.

Table 3. Showing Level of students reading habits, homework behaviour and classroom attentiveness.

	Level	Percentage
Homework Behaviour	Moderate	76.77%
	High	23.23%
Reading Habits	Moderate	57.58%
	High	41.41%
	Low	1.01%
Classroom Attentiveness	Moderate	61.62%
	High	38.38%

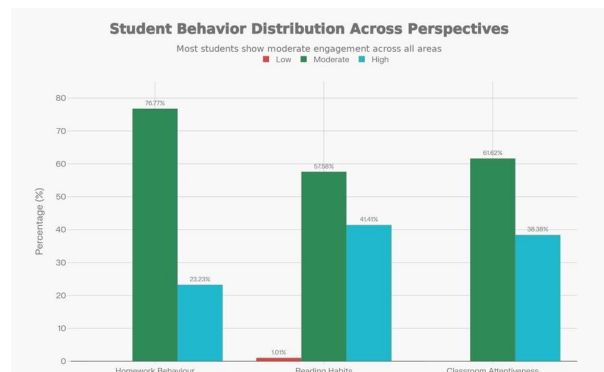


Fig. 2. Student's behaviour distribution across the three perspectives

Homework Behaviour, Reading Habits and Classroom Attentiveness

Result: In Homework Behaviour, 76 students (76.77%) were at the moderate level and 23 (23.23%) at the high level, with no low scores, indicating greater AI dependence in homework tasks. Reading Habits showed a more balanced pattern, with 57 students (57.58%) at the moderate level, 41 (41.41%) at the high level, and 1.01% at the low level, suggests better independent engagement. Classroom Attentiveness reflected relatively lower AI reliance, as 61 students (61.62%) were at the moderate level and 38 (38.38%) at the high level, with no low scores.

Interpretation: Based on tercile score ranges (Low: 20–33, Moderate: 34–66, High: 67–100), frequency and percentage, the results reveal that moderate levels predominated across all three perspectives.

The study reveals moderate level dependency on generative AI for reading habits, moderate to high level for homework behaviour, and moderate level for classroom attentiveness. The findings align with the empirical articulation of Mehta and Banerjee (2025) who argue that AI helps in understanding but not deep reading. Homework results support Gupta and Kumari (2024), who point out in their study that AI helps to complete assignments faster. Classroom attentiveness findings are reflective in the study of Jauhiainen and Garagorry Guerra (2023), who stated that AI improves engagement only when guided by teachers.

Most studies so far have been done in higher education and controlled settings; this study adds simple, real school-level evidence from secondary students in Bihar.

Objective 3: To explore the relationship between generative AI usage and student's reading habits, homework behaviour and classroom attentiveness.

The corresponding hypothesis was:

H1: There is a significant relationship between the use of generative AI tools and students' reading habits.

Table 4. Showing relationship between generative AI usage and student's reading habits

Statistics	AI Usage	Reading Habits
Mean	35.879	63.561
Pearson's	0.1732	-
p - value	>0.5	-
Decision	Rejected	-

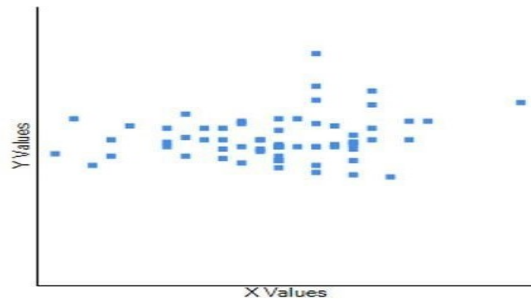


Fig. 3. Showing relationship between generative AI usage and student's reading habits

Result: The correlation of Pearson between generative AI usage and reading habits of students produced $r = 0.1732$ whereby $p > .05$, this indicates a weak and statistically insignificant positive relationship. The average mean of AI usage by the students was approximately 35.879 while the mean of the score of reading habit was around 63.561.

Interpretation: Since the p-value exceeds the significance threshold, at $p < .05$, the result is not significant leading to the rejection of H_1 . The result is representative of the weak correlation with $r = 0.17$, suggesting that AI has inconsequential association with the reading habits of students.

Studies show that the effect of generative AI on reading habits have a limited impact on deep or independent reading. Mehta and Banerjee (2025) empirically reveal that while AI tools simplify content, they have the tendency to reduce motivation for sustained reading. Similarly, Lin, Zhang, and Wang (2024) have pointed out that AI improves reading speed and surface understanding but does not significantly promote deep reading. These revelations align with the present findings of the study, which shows a weak and insignificant relationship between generative AI use and reading habits. While prior studies focused their lens on higher education, there were limitations on secondary and senior secondary students, particularly in Bihar. This indicates a clear school-level research gap, which the present study addresses through context-specific evidence.

H₂: There is a significant relationship between the use of generative AI tools and students' homework behaviour.

Table 5. Showing relationship between the use of generative AI tools and students' homework behaviour

Statistics	AI Usage	Homework Behaviour
Mean	35.879	65.515
Pearson's	0.2585	-
p - value	0.036	-
Decision	Accepted	-

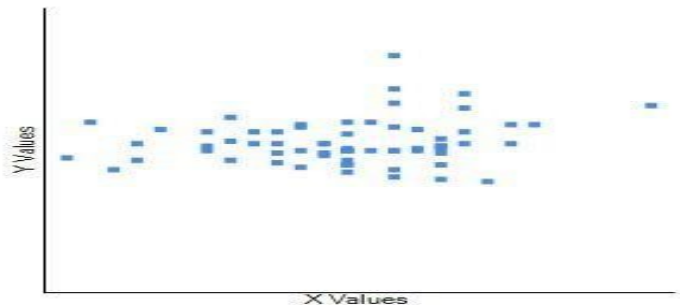


Fig. 4. Showing relationship between the use of generative AI tools and students' homework behaviour

Result: The correlation between generative AI usage and students' homework behaviour produced $r = 0.2585$, with $p = .036$, which is statistically significant at $p < .05$. The mean calculated for AI usage was 35.879, and that for the homework behaviour was 65.515.

Interpretation: This indicates a moderate and significant positive correlation which suggests that the higher the usage of generative AI tools, the better it is associated with homework completion patterns. Thus, H_2 is accepted.

Studies have emphasized the positive role of generative AI in supporting homework activities. The findings of Gupta and Kumari (2024) and Jauhiainen and Garagorry Guerra (2023) align to reveal that AI tools help students' complete homework faster, solve doubts, and improve time management. These findings are consistent with the present study, which shows a significant positive relationship between generative AI use and homework behaviour. Moreover, the present study fills the gap by examining the extent to which generative AI influences homework behaviour among the students of secondary and senior secondary levels in Bihar.

H₃: There is a significant relationship between the use of generative AI tools and students' classroom attentiveness.

Table 6. Showing relationship between the use of generative AI tools and students' classroom attentiveness

Statistic	AI Usage	Classroom Attentiveness
Mean	35.879	66.788
Pearson's	0.0793	-
p - value	>.05	-
Decision	Rejected	-

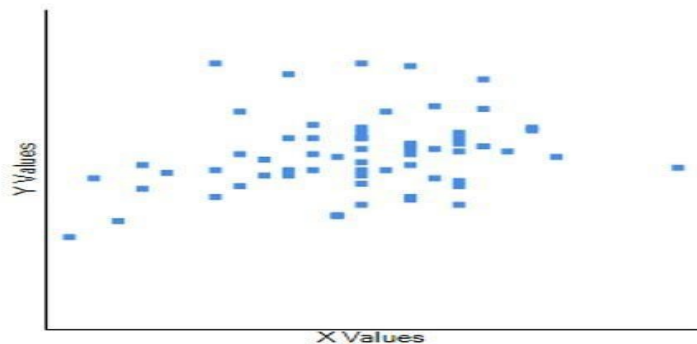


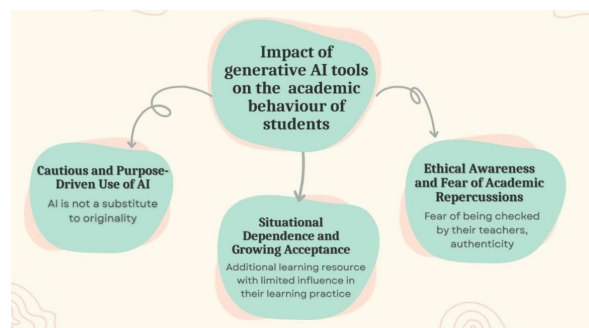
Fig. 5. Showing relationship between the use of generative AI tools and students' classroom attentiveness

Result: The link between using new AI tools and paying attention in class was about $r \approx 0.0793$, with p being more than .05, which means there was almost no real connection. The average score for paying attention was 66.788, and how often AI was used was about 35.879 again.

Interpretation: Since the p-value is more than .05, the result isn't important, so we don't accept H_3 . The very weak link ($r \approx 0.07-0.08$) shows that using AI hardly affects how well students pay attention in class.

Jauhiainen and Garagorry Guerra (2023) suggest that classroom attentiveness is shaped mainly by teaching strategies, classroom interaction, and the overall quality of instruction rather than by students' independent use of digital tools. The findings of this study are consistent with the research so far that indicate no significant relationship between generative AI usage and classroom attentiveness. Moreover, most existing studies have focused on AI integration within higher education but there is limited evidence at the school level, particularly among secondary and senior secondary students in Bihar. This reveals a research gap in understanding the extent of independent AI use which can influence in-class attentiveness. The present study addresses this gap by examining the issue within a school-level, context-specific setting.

Objective 4: To explore students' perceptions of the impact of generative AI tools on their academic behaviour



Mind Map: Impact of generative AI tools on the academic behaviour of students

Firstly, “Cautious and Purpose-Driven Use of AI” has emerged as an important theme through the discussion. Most of the students mentioned that their use of generative AI is not habitual but limited. Descriptions of students’ use of AI include AI for “explanations or summaries or translation purposes when they feel overwhelmed, yet still completing the work themselves.” A second emergent theme was: “Ethical Awareness and Fear of Academic Repercussions.”

Finally, “Situational Dependence and Growing Acceptance” unfolds as a third theme. Identifying such themes encapsulates the students’ perceptions which are characterized by guarded interactions, moral sensitivities, and situational reliance on Artificial Intelligence. Despite the growing technological advancements, the results are an evident realization of academic undertakings and personal accountability, such that the integration is balanced with selectivity in their academic behaviour. The recurring concepts, relationships, and structures of the causality between academic behaviour and use of artificial intelligence reveal the underlying context and significance of the

participants’ discussions which provide a coherent narrative that captures the complexities and nuances of the focus group data in relation with the research objective.

These qualitative findings of the study support earlier quantitative studies by showing students’ ethical understanding and careful use of AI in different situations. Since, very little school-level qualitative research is available in the Indian context, the present study adds practical and experience-based evidence to the growing discussion on the responsible usage of generative AI in education.

Objective 5: To compare government and private school students in terms of generative AI usage, reading habits, homework behaviour, and classroom attentiveness.

The corresponding hypothesis was

H₄: There is a significant difference between government and private school students in terms of generative AI usage, reading habits, homework behaviour, and classroom attentiveness.

Table 7. Comparing the government and private school students in terms of generative AI usage, reading habits, homework behaviour, and classroom attentiveness

Variable	School Type	N	Mean	SD	t-value	Df	p-value
Reading Habits	Government	51	67.61	12.81	2.87	98	.004
	Private	49	59.24	16.15			
Classroom Attentiveness	Government	21	67.38	9.66	2.95	78	.004
	Private	59	60.97	8.16			
Homework Behaviour	Government	33	71.76	12.54	3.74	98	.00018
	Private	67	62.67	10.86			
Generative AI Usage	Government	21	34.81	38.56	-0.22	64	.826
	Private	45	36.31	16.72			

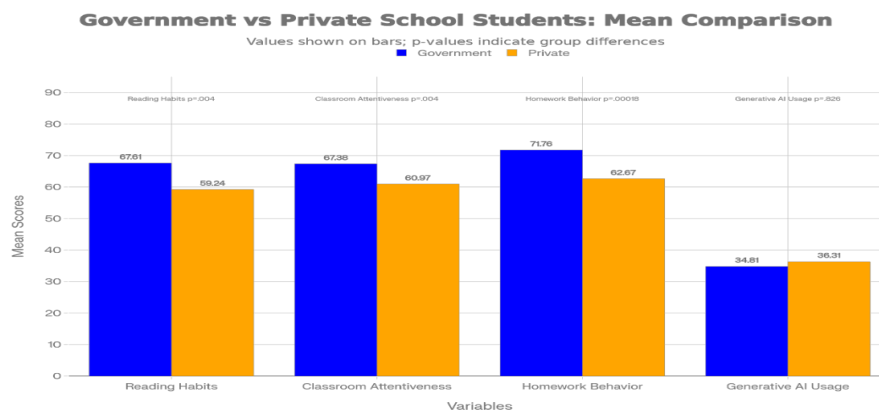


Fig. 6. Compares the government and private school students in terms of generative AI usage, reading habits, homework behaviour, and classroom attentiveness

Result:

Government school students exhibited higher means in reading habits ($M = 67.61$, $SD = 12.81$, $n = 51$) compared to private schools ($M = 59.24$, $SD = 16.15$, $n = 49$), with $t(98) = 2.87$, $p = .004$. For classroom attentiveness, government students scored higher ($M = 67.38$, $SD = 9.66$, $n = 21$) than private students ($M = 60.97$, $SD = 8.16$, $n = 59$), $t(78) = 2.95$, $p = .004$. Homework behaviour followed suit, with government means ($M = 71.76$, $SD = 12.54$, $n = 33$) exceeding private ($M = 62.67$, $SD = 10.86$, $n = 67$), $t(98) = 3.74$, $p < .001$. Generative AI usage showed no difference (government: $M = 34.81$, $SD = 38.56$, $n = 21$; private: $M = 36.31$, $SD = 16.72$, $n = 45$), $t(64) = -0.22$, $p = .826$.

Interpretation: The independent samples t-tests comparing government and private school students revealed significant differences favouring government schools in reading habits, classroom attentiveness, and homework behaviour, but no significant difference in generative AI usage.

Studies have shown the overall impact of generative AI on students but very few studies have provided a comparative perspective of their effect across different types of schools. The present finding helps to fill this gap by indicating that the school environment plays a stronger role in shaping academic behaviour of the students than AI usage alone.

Conclusion:

The present study explored how generative AI tools are influencing the learning behaviour of secondary and senior secondary students in Bihar, with a focus on reading habits, homework behaviour, and classroom attentiveness. The findings clearly show that AI's impact is uneven across these behaviours. At the same time, the study found a significant positive relationship between AI usage and homework behaviour. Overall, the results suggest that generative AI serves as an effective aid for task completion but does not automatically enhance deeper learning habits such as sustained reading or active engagement in the classroom. For the meaningful contribution of AI to students' overall academic development, its usage must be aligned with teacher guidance, structured activities and awareness about responsible use. When integrated thoughtfully, AI can complement traditional learning

practices rather than replace them, helping students develop balanced and independent study habits.

Limitations:

- The authenticity of generalization got limited owing to selection of educational institutions of only one city for study.
- Limited number of schools was selected for the study through incidental sampling which should have been extended to more institutions.
- The method adopted for collecting the data was survey method through questionnaire. But the validity of the respondents' responses still needs to be assessed.
 - Due to paucity of time, we were not able to collect sample from a large population.

Suggestions:

Future research on how students use generative AI in academic settings can go in several meaningful directions. First, longitudinal qualitative studies are important. They would examine how students' perceptions and behaviours change over time. Second, comparative studies across different educational levels and subjects would be valuable to identify if ethical concerns and fear of academic consequences are the same across contexts or if they differ by discipline. The cross-cultural studies would help us understand how cultural norms, educational values, and policy frameworks affect students' acceptance and restraint in using AI. Such research would help create context-sensitive guidelines for responsible and effective integration of generative AI in education.

Future Implications:

From the vantage point of educational-psychology, the findings of the study highlights potent implications for teaching, learning and students' self-regulation in generative AI-mediated academic environments. It provides insights that students are active in negotiating autonomy, ethical responsibility and performance expectations that lead to predominant usage of AI. The key implication is the ardent need of integrating literacy within existing pedagogical framework rather than viewing it as an external or prohibited activity. The role of teachers becomes a critical point in shaping the psychological boundaries of students in their AI usage.

Moreover, situational dependency on AI in conditions of stress, illness or time constraints suggest that AI tools can serve as coping mechanism in learning environments. The educational practices that seek to balance accountability provide settings that encourage reflective, responsible and psychologically adaptive uses of AI. This approach merges with the contemporary developmental goals of autonomy, competence and ethical reasoning in learners.

References:

- EY-Parthenon & FICCI. (2025, October). Future-ready campuses: Unlocking the power of AI in higher education [Report]. EY-Parthenon & Federation of Indian Chambers of Commerce and Industry. https://www.ey.com/en_in/newsroom/2025/10/over-half-of-indian-heis-adoptai-policies-as-gen-ai-transforms-teaching-and-learning
- FasterCapital. (2025, April 7). Pearson's chi-square: Pearson's perspective: Delving into chisquare tests. FasterCapital. <https://fastercapital.com/content/Pearson-s-Chi-Square--Pearson-s-Perspective--Delving-into-Chi-Square-Tests.html>
- Gupta, R., & Kumari, P. (2024). Generative AI and homework completion among Indian high school students. *International Journal of Secondary Education Research*, 9(1), 23–39.
- Jauhainen, J., & Garagorry Guerra, C. (2023). AI-generated lesson content and student engagement. *Computers in Education Journal*, 33(4), 101–118.
- Li, J., Huang, Y., & Xiao, C. (2023). ChatGPT-generated reading questions. *Journal of Educational Technology & Society*, 26(4), 90–104.
- Lin, W., Zhang, J., & Wang, T. (2025). AI-enabled reading platforms. *Journal of Modern Educational Studies*, 14(2), 66–82.
- Mehta, R., & Banerjee, S. (2025). Simplifying textbook texts. *Indian Journal of Educational Technology*, 12(1), 77–95.
- Perplexity AI. (2024). Perplexity AI (Version 1.0) [Large language model]. <https://www.perplexity.ai>
- Rashid, A. (2024). Readability of AI-generated science texts. *Journal of Science Education and Technology*, 33(1), 45–59.