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The Influence of Artificial Intelligence on Students' Creativity: Perspectives and Perceptions

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Abstract

Artificial Intelligence is emerging as an essential tool in shaping creativity among young people. Current research largely focuses on AI's influence on adult professionals, but it is equally important to understand its effects on young, evolving minds. This study explores the way AI is perceived and its influence on students' creativity. This study is important as it examines whether AI enhances innovation or restricts originality among young people. This study seeks to evaluate the popularity of GenAI tool usage, their intended purposes, and, most importantly, the extent to which the younger generation should depend on these tools for creative work. For this purpose, survey was conducted among college students, parents and teachers. Two different questionnaires were floated for students and parents/teachers respectively. Analysis shows that there is a generational divide in AI usage, with parents and teachers using these tools considerably less than students, who engage with them frequently. The study categorizes student responses into four groups based on statistical measures (mean and standard deviation), highlighting varying degrees of reliance on AI and its perceived impact on creativity. The findings indicate that increased dependence on these tools may affect students' creativity. These results highlight the importance of using AI in education in a balanced way, making sure that it is a tool for growth.

Keywords: Artificial intelligence, Creativity, Education, Generative AI, ChatGPT.

1. INTRODUCTION

"Artificial intelligence is the new electricity." – Andrew Ng, Co-founder of Google Brain

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The growth of Artificial Intelligence (AI) technology has brought changes in different sectors, especially in education. Most popular is the usage of generative AI tools like ChatGPT, which help students in activities like programming, creative writing, and problem-solving. These tools increase logical reasoning skill and boost programming confidence. But there are also some concerns about its effect on students' creativity, motivation, and critical thinking.

According to Merriam-Webster, intelligence is the capability to learn, understand or deal with new or challenging situations; it is also the ability to apply knowledge by making change in one's environment or thinking differently. Sheikh et al. [1], further defined AI as "Systems that display intelligent gestures by analysing their environment and taking actions—with some degree of autonomy – to achieve specific goals." "Artificial General Intelligence (AGI) is the intelligence of a machine that has the capacity to understand or learn any intellectual task that a human can understand or learn" [2].

Generative AI tools, like ChatGPT, use machine learning models to generate human-like responses based on the data on which they are trained. These tools can be used to help students in their field of study, but has influence on cognitive development, specifically creativity, critical thinking, and motivation, which requires careful examination.

Creativity is often considered a unique human trait. Humans are good at the subjective standpoint [2]. Authors have defined creativity as the generation of new, useful ideas that can be implemented in problem solving, procedures, processes, and products [3–5]. Margaret A. Boden [6], distinguished that there are two types of creativity namely Exploratory and Transformational creativity. Exploratory creativity consists of searching a predefined abstract space whereas Transformational creativity is done by transforming or transcending an abstract space. Simulation of transformational creativity in artificial systems is a demanding task in AI systems.

TABLE 1 illustrates the usage of AI in academic studies and primary operations performed by the students, as reported in the Digital Education Council Global AI Student Survey 2024 [7].

Table 1: AI Usage in Studies [7].

AI Usage in Studies	**Percentage (%)**
Students using AI in studies	86%
Students using AI daily	24%
Students using AI daily or weekly	54%
Primary Operations	**Percentage (%)**
Information hunt	69%
Grammar checking	42%
Document summarization	33%
Rephrasing	28%
Creating the first draft	24%

Moreover, AI's increasing role in academia has raised ethical concerns. A survey conducted by Best-Colleges.com [8], is shown in TABLE 2.

Table 2: Survey Conducted by BestColleges.com [8].

Survey Findings	Percentage (%)
Students who believe using AI tools on practice or examinations counts as cheating or plagiarism.	54%
Students who reported that their coursework requires them to use AI as part of an assignment.	53%
Students whose instructors discuss AI ethics in the classroom.	79%

As AI becomes increasingly integrated into education, it is essential to assess its impact on students' academic experiences. This exploration aims to analyse students' usage patterns of AI tools like Chat-GPT, including how constantly they use these tools, the purposes they serve, and how they reflect on their creative processes when exercising AI. Also, the study explores how AI tools impact students' understanding of originality in creative work, whether they calculate on AI's suggestions or adapt them, and the extent to which AI tools impact confidence in their creative capacities.

The rest of the paper is structured into the following sections. Section 2 covers related work. Section 3 contains the methodology implemented in this study, which includes elaborative explanation of description of questions and their possible values in the questionnaires. Detailed analysis of the outcome of surveys is presented in section 4. Discussion on analysis using statistical measures is presented in Section 5. Section 6 concludes the paper.

2. LITERATURE REVIEW

Kaufman and Beghetto [9], have viewed creativity and AI in an educational context as a framework through a 4C model consisting of mini-c, little-c, pro-c, and big-c. Mini-c covers the personal and developmental aspect of creativity. Little-c is also called 'everyday creativity,' which is acknowledged by everyone. Pro-c is called 'professional creativity' achieved through expertise in a particular field. Big-C is called 'legendary creativity' that is eminent and remembered for centuries.

Generative Artificial Intelligence (GenAI) defined by Magnani et al. [10], is "the science which studies the (fully) automated construction of intelligence." It is further described as a set of models designed to "learn the hidden underlying structure of a dataset" and to "generate new data points that plausibly could be part of the original dataset" [11].

Generative Artificial Intelligence is an artificial intelligence system which has the capability to create text, images, or other forms of media by using generative models. These models find an understanding of patterns and structures in their training data, then generate data with similar characteristics [12].

Transformers, diffusion models, and Generative Adversarial Networks (GANs) are some advanced models used in Generative Artificial Intelligence. Its applications include language models like GPT-3 [13], and text-to-image tools such as DALL-E [14]. While generative AI holds high potential, it also raises ethical challenges, including data privacy concerns and the risk of misuse through deepfake or biased content. To address these issues, governance and best practices must ensure responsible use [15].

Several studies have explored the relationship between AI and creativity. Marrone et al. [16], examined this connection through four key factors: social, affective, technological, and learning. It concluded that while AI cannot replicate human creativity, it can enhance it. Another study assessed 544 participants' knowledge of generative AI and found a generally positive perception of AI as a valuable tool for learning

and writing, though limitations such as inaccuracies were noted [17]. Habib et al. [18], emphasized the need for a balanced, symbiotic relationship between human creativity and AI in education.

3. METHODOLOGY

Our study aims to give a better perception of GenAI from the viewpoint of college students, teachers, and parents. It is aimed to reflect the interaction of GenAI tools like ChatGPT on the creativity of an individual.

The research questions raised are:

- RQ1: How popular is the usage of GenAI tools like ChatGPT among students, teachers, and parents?
- RQ2: For what purposes do these tools serve them?
- RQ3: How much do they rely on these tools for any creative work, like creative writing, arts, etc.?

To answer these questions, a survey was conducted among 92 college students enrolled at the University of Delhi and 65 parents/teachers. The goal was to get diverse viewpoints about Artificial intelligence and creativity from students, teachers, and parents.In our study, students participated from a diverse range of academic disciplines, including Applied Sciences (Electronics, Instrumentation, Biomedical Sciences), Computer Science, Humanities (Psychology, Sociology), and Commerce. This academic diversity was crucial to understanding how familiarity with AI tools may differ across fields of study. Two different Google forms were floated using convenience sampling to both groups: students and teachers/parents. The participation was completely voluntary and anonymous. Participants were aware of the research objective and the need for their involvement. TABLE 3 gives an overview of the type of questions asked in the questionnaire. TABLE 4 and TABLE 5, gives an insight on the description of questions asked by students and teachers/parents and their possible values.

Table 3: Overview of the Survey Components and Question Types

Survey Component	**Details**
Students' Questions	10 closed-ended questions
Teachers' & Parents' Questions	10 closed-ended questions
Opinion Measurement	5-point Likert scale on AI's impact on creativity

Table 4: Survey Questions for Students Along with Response Categories

Question Description	Possible Values
Age	17-20 yrs
Does the student use AI tools?	Yes, No
Which AI tool does the student use the most?	ChatGPT, Gemini, Claude, Copilot, Other
Frequency of using AI tools	Rarely, Sometimes, Very Often, Mostly
Purpose of using AI tools	Assignments, Writing Essays, Creating Media, Learning, Others
How often do students reflect on their creative process using AI?	Always, Frequently, Occasionally, Rarely, Never
To what extent do AI tools help students evaluate originality?	Very Much, Somewhat, Neutral, Little, Not at All
Reliance of students on AI's suggestions	Always Adapt, Usually Adapt, Sometimes Modify, Rarely Change, Rely Without Change
Explanation by AI tools for certain decisions working/not working?	Yes, Somewhat, Neutral, Little, Not at all
How AI influences confidence of students in their creative ability	Enhances, Boosts, Neutral, Slightly Reduces, Reduces

Table 5: Survey Questions for Parents and Teachers Along with Response Categories

Question Description	Possible Values
Designation	Occupation/Housemaker
Do they use AI tools	Yes, No
Which AI tool do they use the most	ChatGPT, Gemini, Claude, Copilot, Other
Frequency of using AI tools	Rarely, Sometimes, Very Often, Mostly
Purpose of using AI tools	Assignments, Writing, Media Creation, Learning, Do Not Use
Observed creative process reflection by students	Always, Frequently, Occasionally, Rarely, Never
Do AI tools help students become self-aware of creative decisions?	Yes, Minor Help, Little Help, No
AI's effect on students' originality evaluation	Improves, Assists, Neutral, Slightly Reduces, Heavily Reduces
AI's impact on students' creative independence	More Independent, Neutral, Less Independent
Does AI foster critical thinking or over-reliance?	Fosters, Helps, Slightly Hinders, Neutral, Discourages

4. OBSERVATION

The responses of google forms filled by the students and teachers/parents are visualised using graphs.

4.1 Analysis of Student Survey Responses

Our survey results indicate a clear preference among students for ChatGPT over other generative AI tools such as Gemini (formerly Bard), Claude, and Copilot. A majority of students (88.6%) selected ChatGPT as their most-used AI tool. Despite the availability of other capable AI tools, ChatGPT continues to dominate students' creative workflows. Additionally, ChatGPT's popularity makes it the default AI tool for many students when engaging in creative processes and mundane tasks.

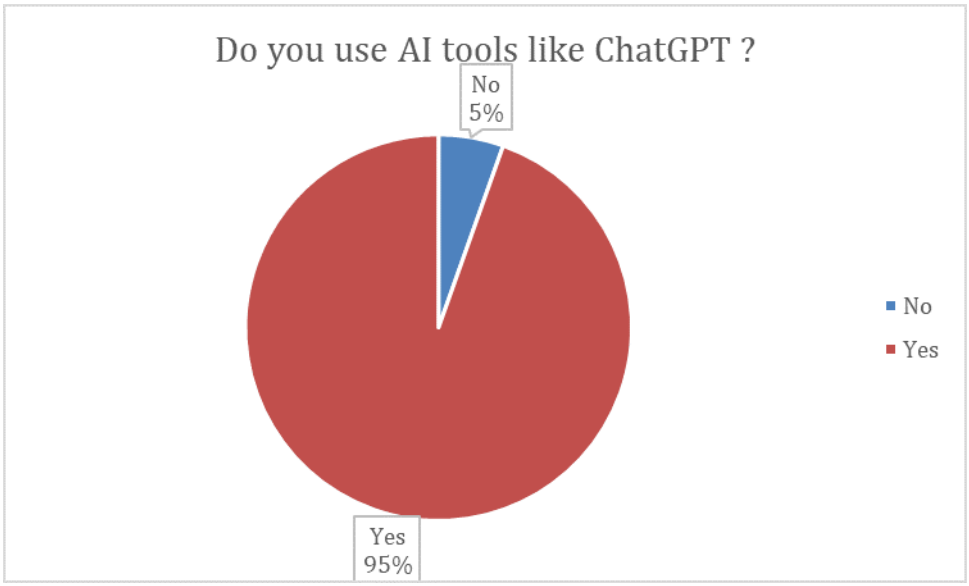


Figure 1: Extent of students' usage of AI tools like ChatGPT.

As illustrated in FIGURE 1, a substantial majority of respondents—95%—indicated that they actively use AI tools, while only 5% stated otherwise. This finding underscores the prevalence of AI technology usage among the surveyed students, reflecting its pervasive influence on their routines.

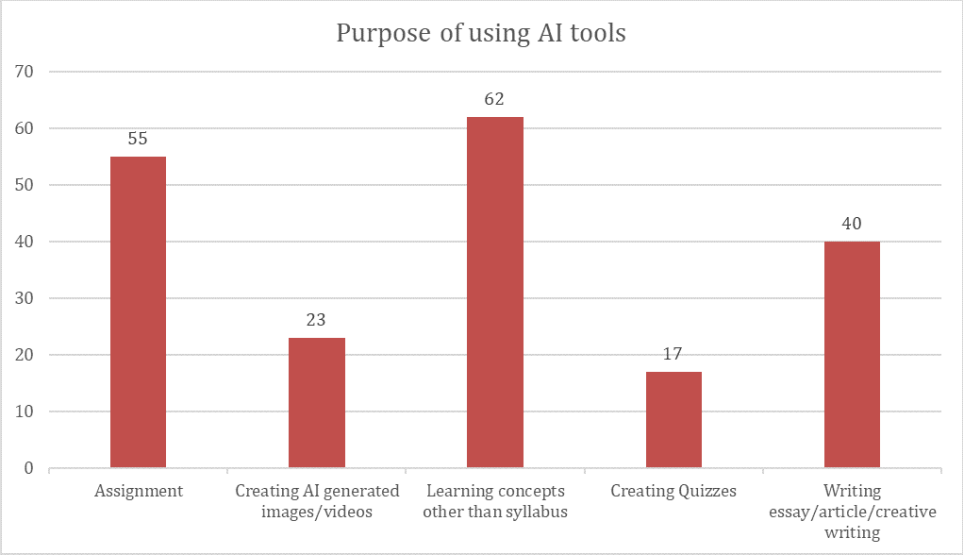


Figure 2: Various purposes for which students use AI tools.

FIGURE 2 depicts the different purposes for which students utilize AI tools. The most common use is for learning concepts beyond the syllabus (62 students), followed by completing assignments (55 students). 40 students use AI for writing essays, articles, or creative content, while 23 students rely on it for creating AI-generated images or videos. The least common purpose is creating quizzes, with only 17 students using AI for this task.

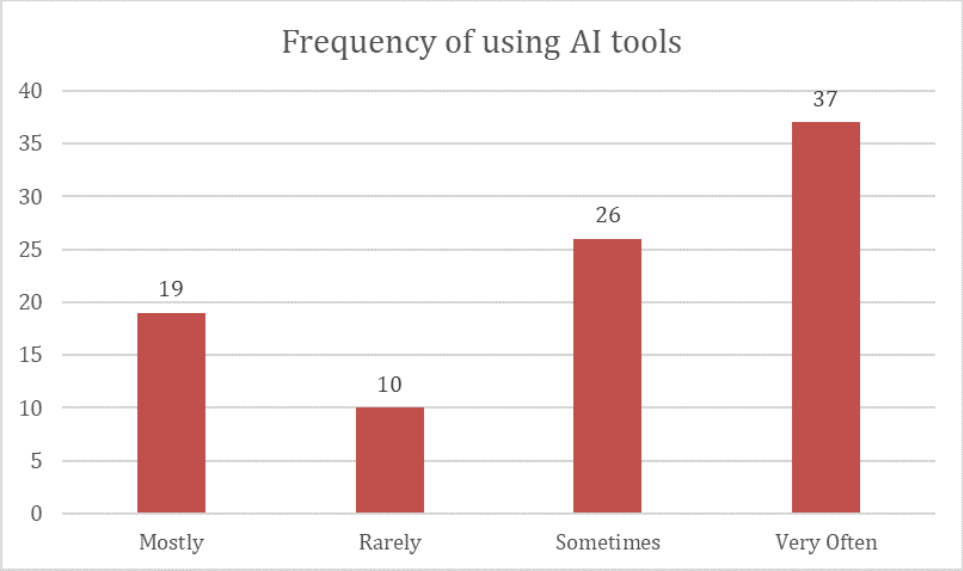


Figure 3: Frequency of students' usage of AI tools.

FIGURE 3 illustrates the frequency of AI tool usage among the surveyed student population. The data reveals a significant tendency towards regular use, with the highest responses recorded for 'Very Often' (37 respondents) and 'Sometimes' (26 respondents). This indicates that a substantial portion of students are integrating AI tools into their routines on a recurring basis. In contrast, fewer students reported using these tools 'Mostly' (19 respondents) or 'Rarely' (10 respondents), suggesting that occasional or infrequent use is less prevalent. This data, when combined with the data from FIGURE 1, shows that not only are a large number of students using AI tools, but that they are using them regularly.

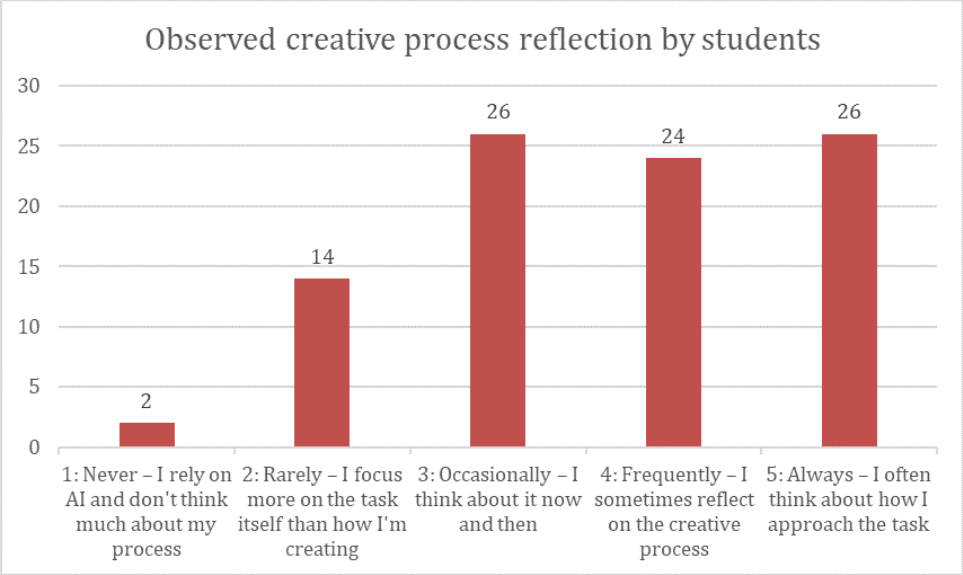


Figure 4: Students' reflection on their creative process when using AI.

FIGURE 4 presents the distribution of student responses regarding their reflection on the creative process when utilizing AI tools. The data reveals a bimodal distribution, with the highest concentration of responses at '5: Always' (26 respondents) and '3: Occasionally' (26 respondents). This suggests that while a significant portion of students actively reflect on their creative approach when using AI, many others engage in occasional reflection. Notably, only two respondents indicated '1: Never,' highlighting that most students engage in some level of cognitive processing regarding their creative methodology. The relatively high number of students at level 5 implies that even when using AI, a large number of students are still actively engaged in thinking about their creative process.

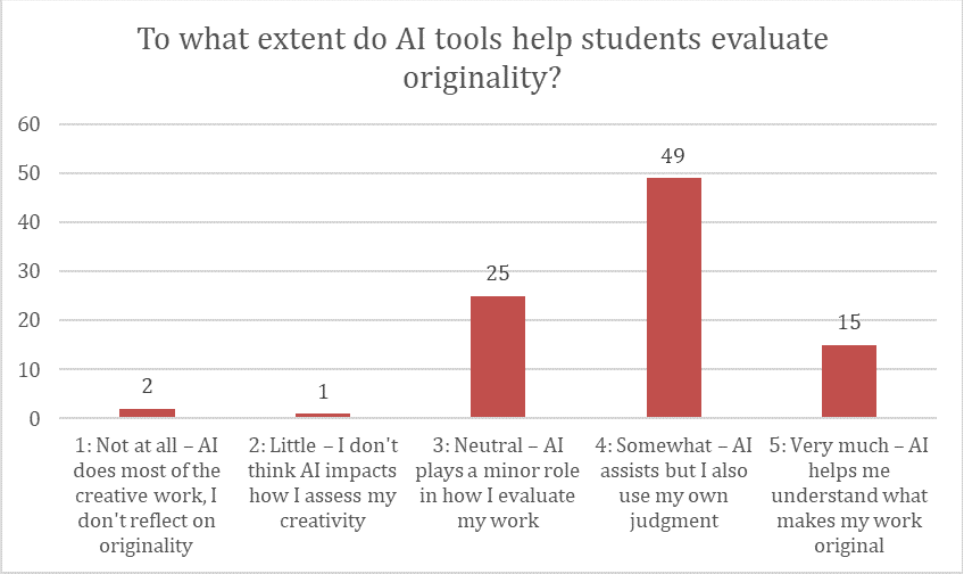


Figure 5: Extent to which AI tools help students evaluate originality.

FIGURE 5 illustrates the extent to which students perceive AI tools as helpful in evaluating the originality of their creative work. The data reveals a significant concentration of responses at '4: Somewhat' (49 respondents), indicating that the majority of students believe AI assists them in this process, while also emphasizing the importance of their own judgment. The 'Neutral' category (3: 25 respondents) suggests

that a considerable portion of students see AI playing a minor role in their evaluation. Furthermore, 15 respondents indicated that AI 'Very much' helps them understand the originality of their work. Notably, very few respondents selected '1: Not at all' (2) or '2: Little' (1), demonstrating that most students acknowledge some degree of AI influence on their assessment of creative originality. This data shows that students are using AI to help with originality, but that they are still using their own judgement in the process.

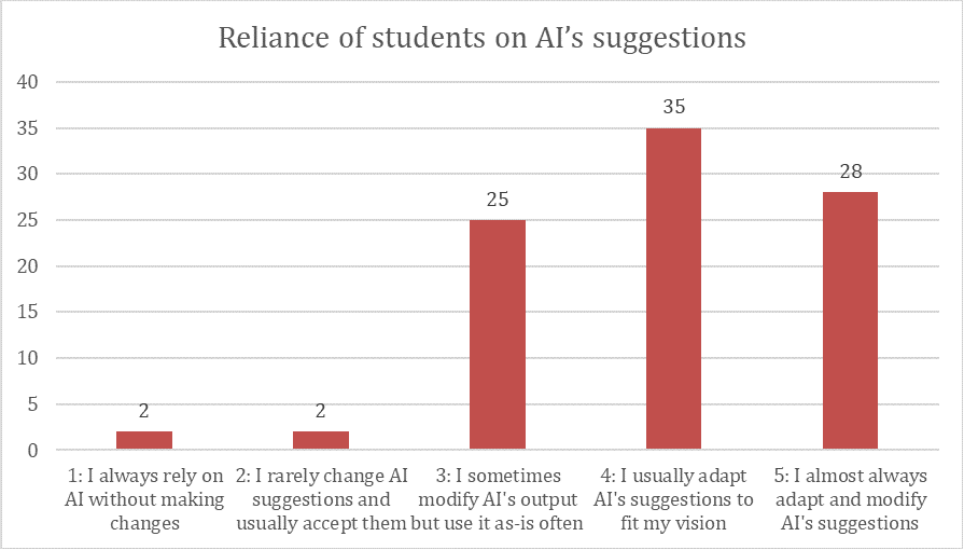


Figure 6: Tendency of students to rely on or adapt AI-generated suggestions.

FIGURE 6 illustrates the students' approach to utilizing AI suggestions in creative tasks. The data reveals a clear preference for adaptation, with the highest response recorded for '4: I usually adapt AI's suggestions to fit my vision' (35 respondents). This indicates that a significant majority of students actively engage with AI-generated content, customizing it to align with their own creative vision. Furthermore, the responses for '3: I sometimes modify AI's output but use it as-is often' and '5: I almost always adapt and modify AI's suggestions,' both with 25 and 28 respondents respectively, reinforce the trend of active modification. In contrast, very few respondents indicated '1: I always rely on AI without making changes' (2) or '2: I rarely change AI suggestions and usually accept them' (2), demonstrating a general tendency to personalize and refine AI-generated outputs. This data shows that students are not just using AI to create works, but that they are using AI as a tool to help create their own works. This indicates that AI is being used as an augmentative tool rather than a replacement for original thought.

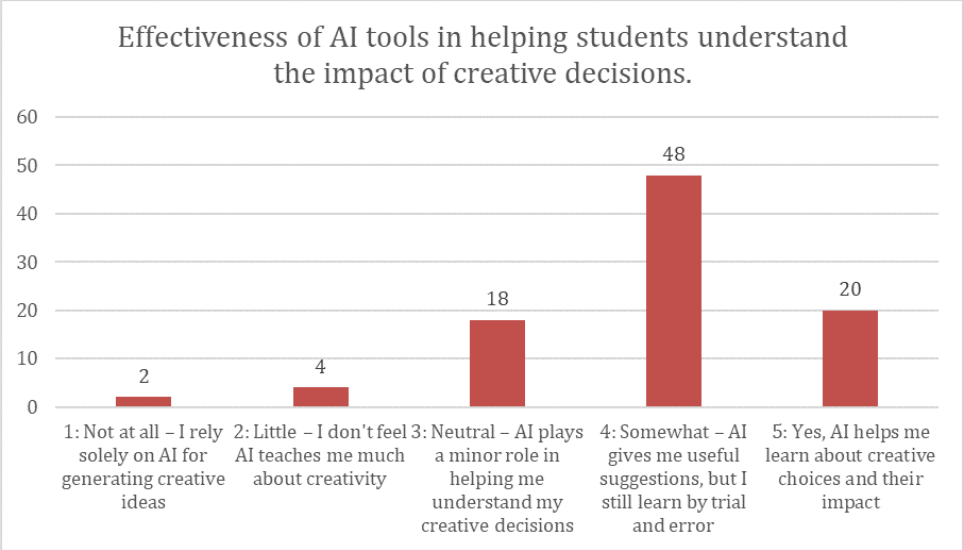


Figure 7: Effectiveness of AI tools in helping students understand creative decisions.

The survey investigated the extent to which students believe AI tools contribute to their understanding of why certain creative decisions succeed or fail. As shown in FIGURE 7, the majority of respondents (48 students) reported that AI tools are 'Somewhat' helpful, providing useful suggestions but still requiring them to learn through trial and error. Additionally, 20 respondents agreed that AI tools significantly help them learn about creative choices and their impact. In contrast, 18 respondents felt neutral about AI's role, stating that AI only plays a minor part in aiding their creative understanding. Few students expressed scepticism, with 4 respondents indicating that AI teaches them little about creativity and 2 respondents admitting to relying solely on AI for generating ideas without gaining much insight into the reasoning behind creative decisions. This distribution highlights a general trend of students valuing AI as a supportive tool for creativity while recognizing the need for their own critical engagement.

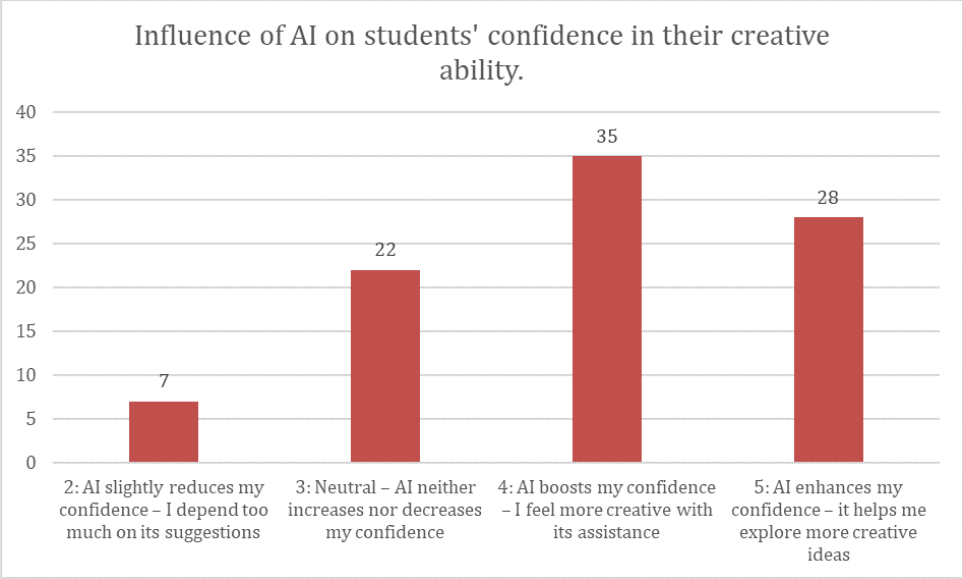


Figure 8: Influence of AI on students' confidence in their creativity.

As depicted in FIGURE 8, the majority of respondents reported a positive impact on their confidence. A notable 35 respondents indicated that AI boosts their confidence, making them feel more creative with its assistance. Similarly, 28 respondents stated that AI enhances their confidence further by helping them

explore more creative ideas. On the other hand, a smaller group of respondents displayed mixed or negative feelings. Twenty-Two students expressed neutrality, stating that AI neither increases nor decreases their confidence. Seven respondents noted that AI slightly reduces their confidence, potentially due to an over-reliance on AI-generated suggestions. These results highlight the dual nature of AI's influence, with most students perceiving it as a supportive tool for creativity while a minority view it as a source of dependence.

4.2 Analysis of Parent/Teacher Survey Responses

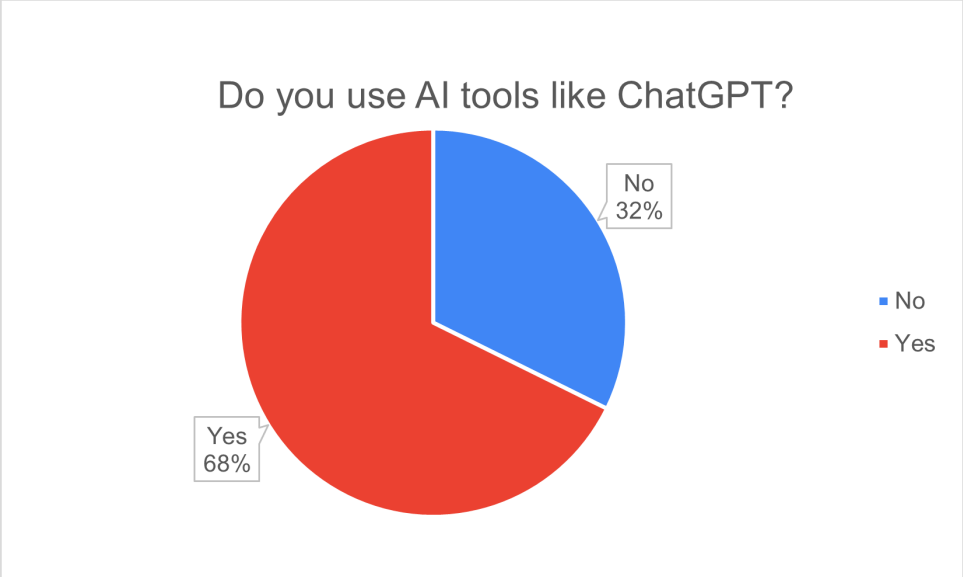


Figure 9: Extent of AI tool usage among parents and teachers.

FIGURE 9 highlights a significant disparity in AI tool usage between students and parents/teachers. While a majority of students (95%) reported frequent engagement with AI tools like ChatGPT for academic and creative purposes, a comparatively lower percentage of parents/teachers (68%) indicated that they use such tools. Conversely, 32% of parents/teachers reported not using AI tools, showcasing a gap in familiarity and adoption. This contrast suggests a generational and functional divide in AI engagement. Students have integrated these tools into their daily routines to enhance their learning and creativity, while parents and teachers may lack the awareness, accessibility, or perceived need for AI in their own contexts.

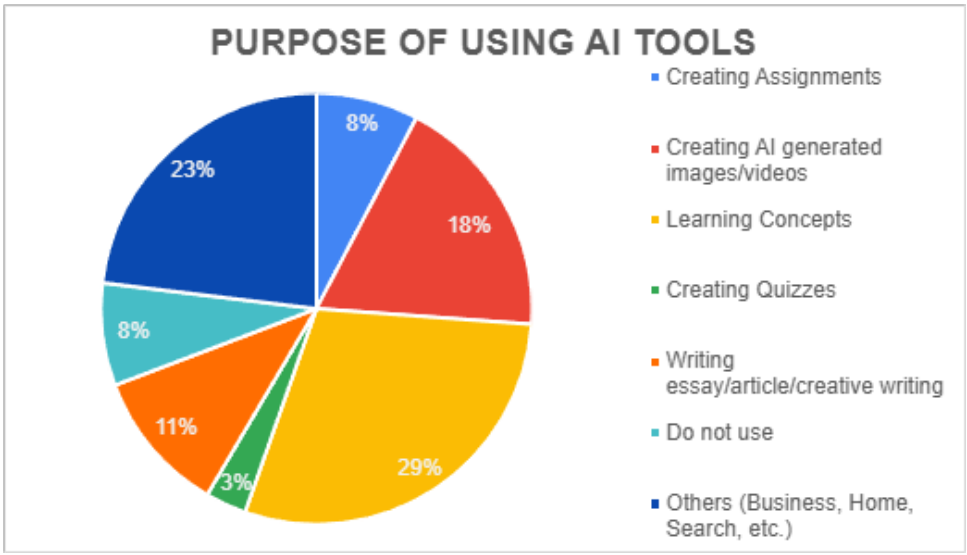


Figure 10: Purpose of AI tool usage by parents and teachers.

FIGURE 10 shows the various purposes for which parents and teachers use AI tools. The majority (29%) use AI for learning concepts, followed by 18% for creating AI-generated images or videos. 11% use AI for writing essays, articles, or creative content, while another 8% do not use AI at all. 8% utilize it for creating assignments, and only 3% for creating quizzes, making it the least common purpose.

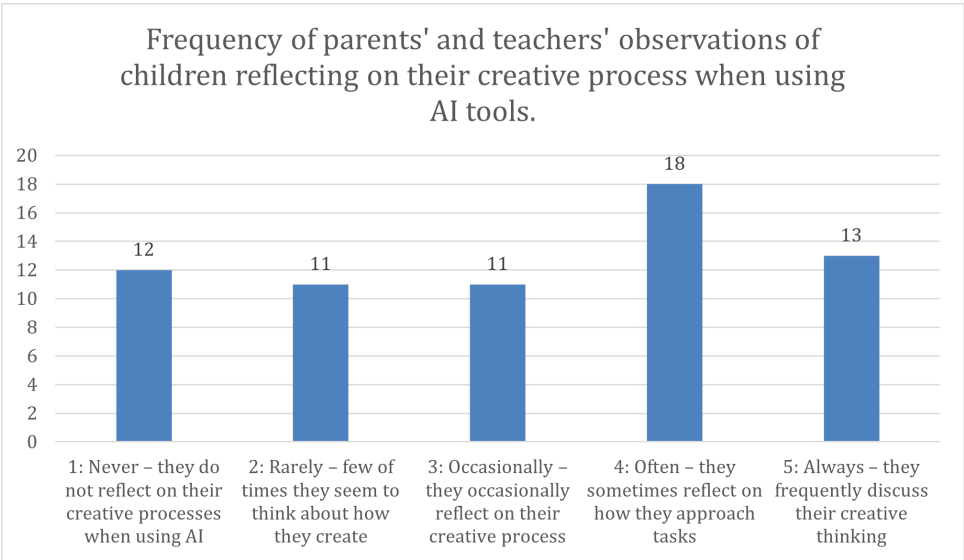


Figure 11: Frequency of parents' and teachers' observations of children reflecting on their creative process when using AI tools.

The survey also explored parents' and teachers' observations regarding children's metacognitive activities—specifically, how often children reflect on their creative process while using AI tools. As illustrated in FIGURE 11, 12 respondents stated that children 'Never' engage in such reflection. 11 respondents indicated that children 'Rarely' reflect on their creative process, suggesting minimal engagement with their thought processes. And, 13 respondents reported that children 'Always' reflect on their creative decision-making when using AI tools.This finding implies that while there are instances of limited reflection, a significant number of children demonstrate metacognitive engagement, using AI tools to deepen their understanding of creativity and the rationale behind their decisions.

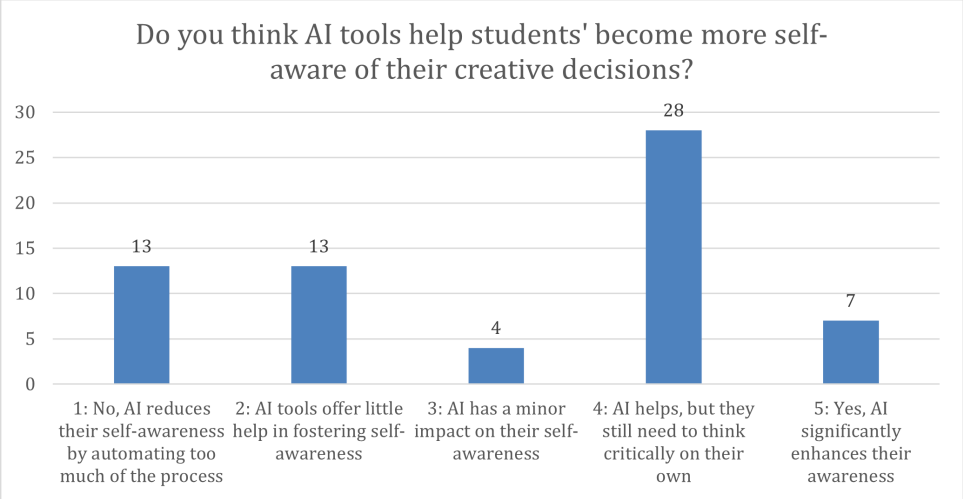


Figure 12: Perception of parents and teachers on whether AI tools help children become more self-aware of their creative decisions.

FIGURE 12 explores the extent to which parents and teachers believe AI tools foster children's self-awareness regarding their creative decisions. The responses reveal a varied perspective. The majority of respondents (28 individuals) indicated that AI helps children but still requires them to think critically on their own. This response suggests a balanced view, where AI is seen as a supportive tool rather than a replacement for independent thought. Meanwhile, 13 respondents stated that AI tools offer little help in fostering self-awareness, pointing to scepticism about the effectiveness of AI in encouraging reflective thinking. In contrast, 7 respondents expressed that AI significantly enhances children's awareness of their creative decisions. Overall, the responses underscore a nuanced understanding of AI's role, where it is acknowledged as a helpful, yet supplementary, resource for fostering self-awareness in creative tasks.

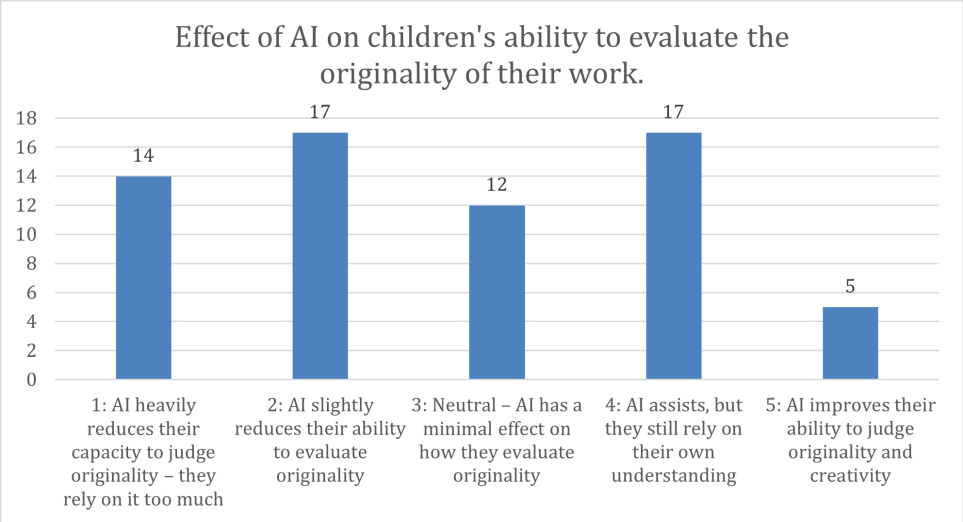


Figure 13: Effect of AI on children's ability to evaluate the originality of their work.

FIGURE 13 examines the impact of AI on children's ability to assess the originality of their creative work. The responses reflect a range of perspectives. The most common responses, each selected by 17 participants, were "AI slightly reduces their ability to evaluate originality" and "AI assists, but children still rely on their own understanding." This suggests that many parents and teachers perceive varying degrees of AI influence on children's ability to judge originality. 14 respondents stated that "AI

heavily reduces their capacity to judge originality – they rely on it too much," while 12 respondents indicated "Neutral — AI has a minimal effect on how they evaluate originality." Fewer respondents expressed strong positive opinions about AI's impact. Only 5 participants stated that "AI improves their ability to judge originality and creativity," suggesting that AI may serve as a useful learning tool in certain contexts. Overall, these findings indicate that AI's role in shaping children's self-assessment of originality is complex, with perceptions varying based on individual experiences and usage patterns.

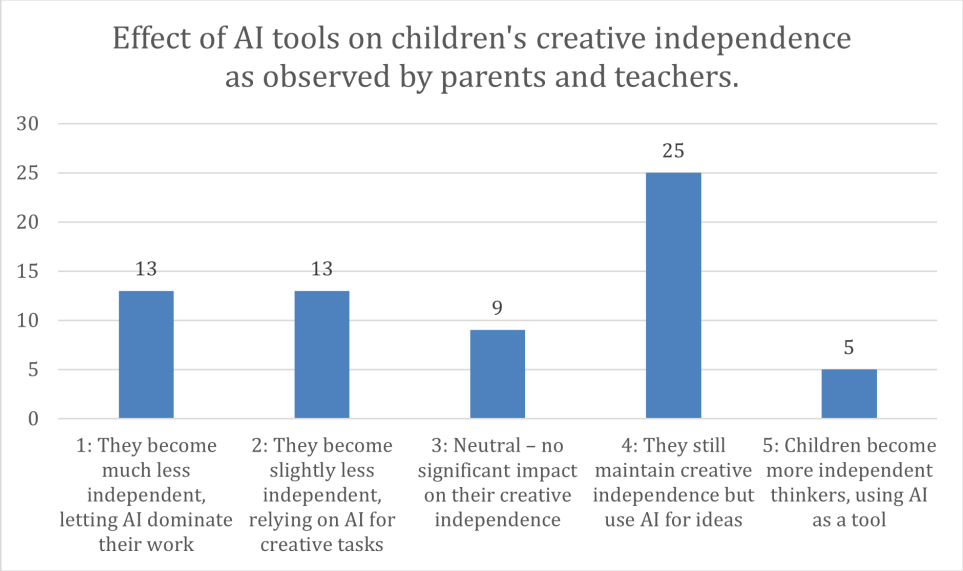


Figure 14: Effect of AI tools on children's creative independence as observed by parents and teachers.

FIGURE 14 presents the perspectives of parents and teachers on how AI tools influence children's creative independence. The majority of respondents (25 individuals) believe that while AI tools provide support, children must still engage in critical thinking independently. This suggests that AI is viewed as an aid rather than a replacement for independent thought. Thirteen respondents indicated that AI tools have minimal impact on fostering creative independence, reflecting scepticism about AI's role in enhancing self-directed creativity. In contrast, five respondents stated that AI significantly improves creative independence, representing a minority viewpoint that highlights AI's potential in encouraging autonomous creativity. Overall, the findings suggest that AI is generally seen as a supportive tool that assists creativity while underscoring the need for children to engage critically with the technology

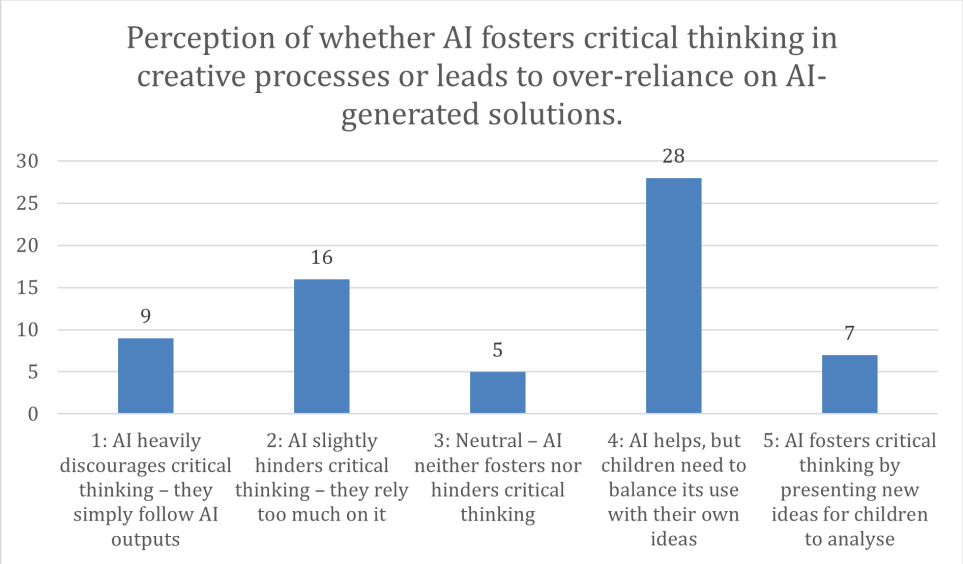


Figure 15: Perception of whether AI fosters critical thinking in creative processes or leads to over-reliance on AI-generated solutions.

Finally, FIGURE 15 explores how parents and teachers perceive AI's impact on children's critical thinking in creative tasks. The responses show a mix of opinions. Most participants (28 individuals) believe that AI can be helpful, but children still need to balance its use with their own ideas. This suggests that while AI offers support, independent thinking remains essential. The respondents had contrasting views. One group felt that AI encourages critical thinking by introducing new ideas for children to analyse, while the other believed that AI slightly hinders critical thinking, making children too dependent on it. These differing perspectives highlight AI's dual nature—it can either inspire deeper reflection or lead to over-reliance, depending on how it is used. Five respondents remained neutral, stating that AI neither helps nor hinders critical thinking. Overall, the findings suggest that AI has the potential to enhance critical thinking, but its impact depends on how children engage with it. Proper guidance is key to ensuring they use AI as a tool rather than a shortcut.

5. DISCUSSION

Our study analysed the perception of using AI and how it impacts students' creativity from the perspective of students and parents/teachers. We have used statistical measures—mean and standard deviation (std)—to divide our responses into four categories, as discussed below:

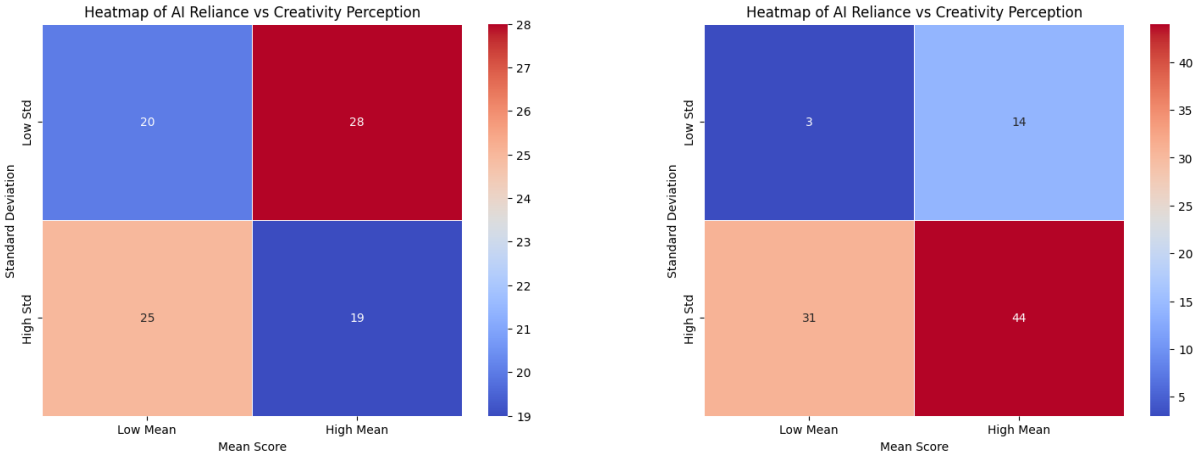
1. **Students who do not rely on AI but believe that AI enhances their creative capability (High Mean, Low Std)**
   This group of students perceives AI as a tool to enhance and improve their creative skills rather than a tool to be fully dependent on. They modify AI suggestions according to their ideas and needs instead of blindly copying the content provided by it. They also believe that using such tools will help them explore more ideas.

2. **Students who do not rely on AI but believe more reliance on AI will lead to reduced creativity (High Mean, High Std)**
   This group of students neither relies on AI-generated content nor believes that AI might help them enhance their critical thinking and creative capabilities. They believe that too much reliance on AI tools may restrict students from engaging in deep thinking and problem-solving areas. They also believe that using these tools may hinder their cognitive abilities.

3. **Students who rely on AI but believe that AI does improve their creative capability (Low Mean, Low Std)**
   These students are heavily dependent on AI-generated content but believe that using AI tools will enhance their creative capability and critical thinking skills. They use AI tools to complete their assignments, generate ideas, improve writing, and refine their work. It can be interpreted that they are not using AI tools to their full potential.

4. **Students who rely on AI and believe that using it too much may lead to reduced creative capability (Low Mean, High Std)**
   This group of students uses AI daily and believes that excessive AI tool usage may lead to reduced creativity. It is interpreted that they use AI tools as a shortcut to make their work easier. Also, they are not using such tools to learn something new. It is highly recommended for them to be aware of the potential these tools carry and use them constructively.

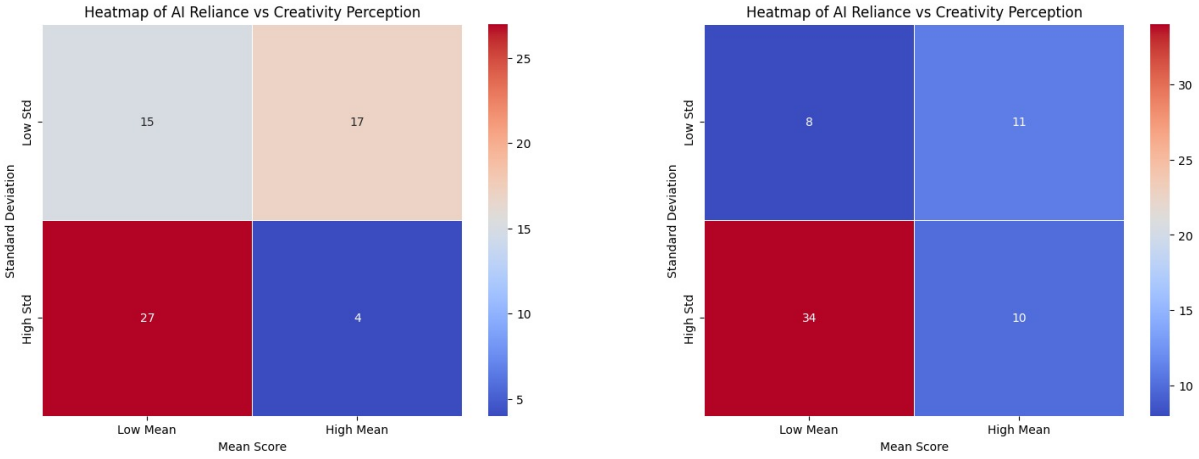
We calculated and visualized the number of students in each category using different combinations of mean and standard deviation threshold values using Heatmap. FIGURE 16a and FIGURE 16b, illustrate how students' reliance on AI shifts, based on statistical thresholds. FIGURE 16a depicts the heatmap for 92 students with Mean threshold value as 3.8 and Standard deviation threshold value as 0.67. We observed that there are nearly equal number of students in each category ranging from 19 to 28. We computed the number of students falling in all the 4 categories for different standard deviation threshold values. As we decreased the standard deviation threshold values to 0.45 (as shown in FIGURE 16b), we observed that the number of students who do not blindly rely on AI tools, usually adapt and believe that AI enhances students' creativity, decreased. This shows that most of the students usually use AI tools for learning concepts, doing their assignments and very few students use it for their creative growth or evolution.



(a) Mean Threshold=3.8, Standard Deviation Threshold=0.67

(b) Mean Threshold=3.8, Standard Deviation Threshold=0.45

Figure 16: Students' Perspective on AI Reliance vs. Creativity



(a) Mean Threshold=3.8, Standard Deviation Threshold=0.67

(b) Mean Threshold=3.8, Standard Deviation Threshold=0.45

Figure 17: Parents/Teachers Perspective on AI Reliance vs. Creativity

For parents/teachers responses, we repeated the same experiment as shown in FIGURE 17a, and FIGURE 17b. The results show that students and parents/teachers have a similar perspective. FIGURE 16a and FIGURE 17a, depicts that most of the students rely on AI tools to make their work easier. It was seen that very few percentage of students were using AI tools constructively (FIGURE 16b and FIGURE 17b).

AI tools can enhance and help creative process only when applied carefully. For example, during story or essay writing, they can be used to suggest fictional character names that define their traits, suggest unique plot points, or assist with vocabulary and grammar. In music composition, AI can offer suggestions for music beats that could be made into a unique tune. In digital art, these tools might help in deciding which color themes are most effective or offer suggestions for visual elements that connect with a message behind it. Through these interactions with AI, creators maintain control over their creations while receiving insightful direction.

6. CONCLUSION

The study discussed about the influence of AI tools on students' creativity from the viewpoint of teachers, parents, and students themselves. The results showed a generational gap in AI usage, with students using AI tools like ChatGPT on a daily basis to complete their academic and creative work, while parents and teachers use such technologies significantly less. Analysis revealed that AI serves both as a creative aid and a platform for self-reflection, allowing students to adapt AI suggestions and balance their own ideas. However, concerns were highlighted regarding excessive dependence on AI, which may affect originality and independent thought.

From the viewpoint of parents and teachers, there is a mixed understanding of AI's role. According to our survey results, 95% of students use AI regularly, while only 68% of parents/teachers engage with AI tools. Many believe that AI can enhance critical thinking and creativity, while others question its long-term impact on creative independence and originality. These varied viewpoints highlight the importance of raising awareness about the effective and balanced use of AI tools among students.

We also used statistical measures like mean and standard deviation to divide student responses into four groups. This classification provides deeper insight into the diverse ways students perceive and interact with AI, emphasizing the need for a balanced and mindful approach to its usage.

The research highlights the importance of combined efforts to incorporate the ethical and meaningful use of AI. By bridging the gap between students' usage and parents/teachers' understanding of AI, it is possible to utilize such tools for enhancing creativity and critical thinking. Future research should explore the long-term effects of AI-assisted creativity and how evolving AI technologies shape rational development. Additionally, teachers must emphasize AI literacy to ensure that students use these tools ethically and effectively, unlocking AI's full potential as a promoter of creativity rather than a replacement for human creativity.

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