

Generative AI and Students' Academic Writing Practices: A Cross-Sectional Study of Irish Technological Universities

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Abstract: The swift integration of large language models in universities has ignited debate regarding their influence on student writing and creative development. Most studies focus on efficiency and task completion, with limited examination of the lasting cognitive and innovative effects of repeated algorithmic assistance. Addressing this gap, this paper utilizes a quantitative survey of 180 undergraduate and postgraduate students across Munster Technological University, Technological University of the Shannon: Midlands Midwest, and Southeast Technological University. Stratification was performed by institution and field of study, including 61 female students (33.9%) and 119 male students (66.1%). The survey explored generative AI usage trends, perceptions of creative self-efficacy, and student reports of ideational similarity and originality. Results show ongoing tension: respondents favored ChatGPT for time-saving, idea generation, and clarification of complex concepts. However, many reported diminished trust in independent thought, reduced intellectual property, and growing concern that their work increasingly resembled that of peers using the same tools. Notably, 69.4% felt their ideas aligned more closely with other ChatGPT users, while 71.7% believed seemingly original ideas tended to mirror AI-generated suggestions. These findings suggest that while AI-assisted writing offers pedagogical benefits, it also brings anxieties surrounding cognitive dependence, standardization, and loss of intellectual distinctiveness, highlighting the need to protect independent judgment and disciplinary originality in AI-driven learning.

Key Words: ChatGPT, Large Language Models, Creative Cognition, Intellectual Homogenisation, Higher Education Policy, Generative Artificial Intelligence, Cognitive Delegation, Irish Technological Universities

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Introduction

Big language models integration into academic practice is one of the most obvious recent changes in the academic practice. ChatGPT and Gemini were the first tools to penetrate the work of ordinary students at an astounding rate and are currently employed to brainstorm, summarise, draft, revise, and clarify ideas. Their proliferation has been very high and, in most instances, effective. An emerging literature on the subject leads to actual educational returns. Such systems will be able to reduce the activation threshold to work on challenging tasks, assist second-language writers in writing more fluent prose, and assist the students to start doing the work that may typically stop at the initial planning phase (Doshi & Hauser, 2024; Fisher et al., 2025; Mei et al., 2025). Simultaneously, there are still serious issues. The constant utilization of these systems could lead to cognitive offloading, cognition bias towards common patterns in algorithms, and lack of diversity of thought between users (Moon et al., 2025; Zhou et al., 2026).

This contradiction between utility and need defines the current research. It can be seen not just in the experimental research, but also in the daily student life where any kind of algorithmic assistance can be

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easily obtained but the pedagogical issue of this phenomenon is still not addressed. Irrelevant policy at institutional level, staff and student imbalance in AI literacy, and the peculiar nature of the technological university sector, in which applied learning, industry internship, and transferable skills are highly valued, sharpen the issue in Irish higher education (Irfan et al., 2023a; Irfan et al., 2023; Higher Education Authority, 2025). The impact of the generative AI on innovation, novelty and intellectual confidence is not an abstract issue within that context. It now has turned into a learning and institutional reality.

The concept of creativity in educational research is normally interpreted as ability to generate or create something unique or suitable to the context (Sternberg & Lubart, 1999; Runco & Jaeger, 2012). That definition is made more complex when the production of text is influenced by a system which gives us plausible language produced on the basis of probabilistic patterning in place of reflective judgment. The componential theory of creativity proposed by Amabile (1982) comes in handy at this point since it differentiates between knowledge that is domain relevant, processes that are creativity relevant and task motivation. In writing with AI assistance, a tool might enhance fluency or structural coherence but not enhance the individual ability of the student to ideate, evaluate and think independently. The fact that acceptable prose can be generated so easily might therefore hide the degree to which cognitive labor has been socially dislocated between the system and the student.

The recent empirical research began to shed some light on this issue. According to the experimental studies, generative AI can enhance the level of performance of an individual in creative tasks as well as reduce dispersion between outputs. Doshi and Hauser (2024) discovered that AI-assisted stories ranked better in terms of rating compared to unaided stories but also showed resemblance to each other. Moon et al. (2025) also noted an equivalent clustering in an ideation task augmented by large language models. Zhou et al. (2026) further argued this argument by demonstrating that not all short-term benefits linked to the use of AI will persist when the tool is withdrawn, and the patterns of homogeneity could go on. Though these results are generally obtained in controlled environments, it has also suggested a possibility that short-term efficiencies can have a long term effect on the cognitive and creative development.

However, laboratory circumstances are unable to reflect the complexity of life in education. The majority of the interaction between students and generative AI occurs in routine task-based assignments, with time-based deadlines, disciplinary norms, and variations in digital confidence. In such environments, the balance between support and dependence, as well as efficiency and originality, becomes evident. This study focuses not on the manipulative aspect of experiments, but on daily student life. It is based on a quantitative survey of 180 undergraduate and postgraduate students in three Irish technological universities, examining how they use ChatGPT, interpret its effects on creative thinking and self-efficacy, and experience ideational convergence, including overlap in thinking with peers.

Literature Review

Creativity, Originality, and the Problem of Algorithmic Mediation

The query as to whether something qualifies as creativity during the age of algorithmic help has brought new debates over the subject of psychology of creativity and the philosophy of authorship (Touiserkani, 2025). The classical definitions that have placed a focus on novelty and utility are useful (Sternberg & Lubart, 1999; Runco & Jaeger, 2012), though when the perceived creator is not the only one contributing to the ideas at hand, they become volatile. The difference between psychological creativity that is new to an individual and historical creativity, new to the larger culture by Owen (1998) is very apt. An AI-generated suggestion can seem new and promising to one student, but a very common one to a vast number of users and not very original in its disciplinary terms. This is important in higher education since academic writing is not only evaluated based on technical skills, but also independence, critical interaction, and input to academic discourse (Woodhouse & Wood 2022). This difference is significant as it can be used to justify the reason why students can claim to feel creative when they come up with work which can structurally or conceptually resemble the work of others when using the same systems. Stated otherwise, subjective newness and collective novelty are not necessarily congruent.

In educational contexts, creativity is also understood as a capacity that is developed through practice, feedback, and the gradual internalisation of disciplinary norms (Amabile, 1982). The componential theory



proposed by Amabile identifies three essential components: domain-relevant skills, creativity-relevant processes, and intrinsic task motivation. Generative AI can plausibly support the first of these by providing quick access to domain knowledge and reducing the cognitive load associated with early-stage ideation, thereby freeing up resources for higher-order thinking (Chandrasekera et al., 2025; Deep & Chen, 2025). But it may also undermine the second component, creativity-relevant processes, by reducing opportunities for students to engage in the messy, iterative work of generating, evaluating, and refining ideas themselves. And it may affect the third component, task motivation, by altering the conditions under which students feel a sense of ownership, curiosity, and intellectual investment in their work (Mei et al., 2025). This point is central to the present study because creativity is not treated here as a fixed trait or merely as the quality of a finished product. It is approached as a process tied to confidence, autonomy, and the perceived authorship of ideas.

The latest studies in Irish tertiary education have started tracing these tensions. Irfan et al. (2023a) determined that students appreciate AI tools due to their efficiency and accessibility coupled with the concern of dependency, less critical engagement, and lack of awareness on what is legitimate use of AI. As did Irfan et al. (2023) and Khalifa and Albadawy (2024) AI adoption is associated with both hope and fear, as students perceive that it can be effectively used, but have the fear that their intellectual growth will suffer. According to these studies, the education value of generative AI cannot be analyzed only based on the quality of the output. They must also be examined in process, perception terms and changing relationship between student and tool. This is how the current research focuses on the personal experiences of students in terms of creative confidence, originality, and ownership instead of the one that solely uses abstract provisions of what AI could do hypothetically.

Mechanisms of Influence: Cognitive Offloading, Anchoring, and Standardisation

There are a number of theoretical mechanisms that contribute to the explanation of how the generative AI can influence creative thinking. The former is cognitive offloading, which is seen as a transfer of cognitive load to the outside resources (Gerlich, 2025; Risko & Gilbert, 2016). To do so in a writing might prove advantageous since the process of planning, drafting or formulating in any given language can be left out and focus can be oriented on structuring the argument or the cohesive application of ideas. However, even ordinary delegation can render the process of creativity creation weak. When students send the ideation task to AI over and over again, there are fewer chances of practising on their own in generating, testing, and refining ideas. Thus, there is the likelihood of a drop in creative self-efficacy (Irfan et al., 2023b).

The second mechanism is anchoring. In the case where a language model provides an initial phrase, structure or argument, then such output can reduce the set of options that the user will ultimately consider. Instead of expanding a broader plane of opportunities, the AI can be a focus on a realistic starting point that is challenging to leave. This is germane in scholarly writing as initial construction can tend to define the course of the entire writing. Timely encouraging strategies that focus on critique, comparison, and selective adaptation can mitigate such an impact, but in the context of where outputs are interpreted without significant inquiry, anchoring can inhibit the ideational diversity (Irfan & Murray, 2023a; Irfan & Murray, 2023b). Anchoring thus applies to the content of student text as well as the perceived property of ideas where students will find it difficult to differentiate between their thought process and that of a previous machine generated prompt.

There is a third mechanism that happens at the collective level. When different numbers of students are on the same systems, they are being trained on the same corpora and they are being adjusted in such a way that they are producing very plausible consensus answers, the results they give could start converging. This is what is commonly called homogenisation or standardisation and has been found to occur in modern day experiments. Doshi and Hauser (2024) concluded that although rated individually more creative, AI-assisted stories were more similar to each other compared to stories written without the aid of AI. Similar results were found by Moon et al. (2025) in ideation tasks, where AI-aided responses were less diverse than their human counterparts. Zhou et al. (2026) also recommended that homogenising effects can be long-lived in contrast to immediate access to tools. Intellectual diversity in higher education matters for group discussion and knowledge building, as widespread AI use may lead students to produce similar arguments, expressions, and academic approaches.



Empirical Evidence: Gains, Losses, and the Student Experience

Empirical work has grown very fast in the generative AI in education field, yet it is still dispersed. Certain works underline profits. In their randomised control trial, Fisher et al. (2025) discovered that ChatGPT boosted the creative performance of business students with more significant findings in less confident writers. Mei et al. (2025) found that AI assistance enhanced the fluency and perceived quality of generated creative writing, as well as reduced the feeling of creative experience and ownership among the students. Doshi and Hauser (2024) also found out benefits in personal creativity and losses in group diversity. The research indicates that generative AI can enhance the quality or fluency of the output at that moment without always enhancing the deeper abilities related to autonomous creativity.

Other research have been more directed to student experience. Polling students in the University of Limerick, Irfan et al. (2023b) discovered that students were appreciative of the concept of AI in terms of efficiency but also expressed concerns regarding reliance and erosion of critical thinking. These were the same issues of originality and ownership, which were reported by Irfan et al. (2023) In an article about AI literacy in journalism education, Bacha et al. (2026) stated that the lack of balanced knowledge about AI tools can be used to promote the uncritical adoption of generic outputs. Thus, the literature is directed at a mixed pattern and not a one-way direction of effect. AI could be used as both an enabling support and the source of intellectual flattening, depending on the use context.

This study examines generative AI use in Irish technological universities, highlighting differences in institutional culture and priorities that shape how students and faculty adopt, perceive, and normalize AI in academic settings.

Pedagogy, Policy, and Conditions of Creative Development.

One of the themes in the literature is that the technology does not have any effects on education, but it is the contexts under which the technology is applied. According to Irfan et al. (2023c) institutional policy must not be confined to only misconduct and integrity, but they must also deal with pedagogy, staff development and conditions that must be in place in order to engage in critical engagement. Pedagogically, it implies the shift to a less constricting perspective on AI as a productivity helper and its consideration as an object of critical thinking (Pratiwi et al. 2025). Irfan and Murray (2023a, 2023b) recommend prescriptive writing and engineering regarding intentionality, evaluation, and adaptation. Central to these are the ways that students would utilize AI in a manner that they facilitate and not substitute their intellectual capability. The similar argument is presented by Irfan (2025) who states that the concept of AI literacy cannot be defined as a technical skill but as the possibility to evaluate and critically incorporate the products of machines into personal thought. This stance aligns with the ideas of Bacha et al. (2026) who recommend the systematic teaching of the field of AI literacy to decrease blind adoption and enhance critical academic practice. Institutions should focus on developing students' critical skills to interpret, challenge, and improve AI-generated content for creativity.

This paper falls within this general discussion. It is not intended to unprove AI as good or bad but rather analyzes the way, in which students themselves explain the conflicts that AI inflicts their academic activity. Through foregrounding student perceptions, the paper intends to relate the pedagogical and policy response based on the reality of learning in Irish technological higher education. This focus on the practice of study can be used to relate policy discourse to the daily reality of writing, evaluation, and idea generation.

Disparities in the Literature and Research Question

Though there is a fast expansion in the literature, there are a number of gaps. To start with, the abundance of literature discusses the general attitude, usability, or ethical issues instead of creativity and ideational convergence as an independent research problem (Irfan et al., 2023a; Irfan et al., 2023b). Second, although information, experimental studies of homogenisation are often based on short-term tasks, which are not related to daily AI usage in real academic contexts (Irfan et al., 2026). Third, the body of research on the technological sector of universities is still restricted despite the fact that the number of its students and their pedagogical concerns do not match those of conventional ones. Another gap is related to the correlation between perceived creativity and perceived authorship. Whereas others report a decrease in



ownership or diminished creative confidence, there is less research that looks at how these experiences overlap with the emerging perception that students using the same systems can be coming to the same thoughts (Mazhar & Arseven, 2025).

This paper fills those gaps by three related sets of questions: the trends in the use of ChatGPT among students in Irish technical universities, the perceived impact on creative thinking and creative self-efficacy, and signs of ideational convergence reported. These questions are analytically linked. Patterns of use offer the behavioural context, creativity and self-efficacy conceptualize the personal experience of thinking with AI, and ideational convergence answers the broader question of whether or not the use of AI help is converging the range of student work.

RQ1: How frequently university students in Munster Technological University, Technological University of the Shannon: Midlands Midwest, and Southeast Technological University use ChatGPT, what are the general applications of ChatGPT, and how do students perceive these benefits?

RQ2: What are the perceived effects of ChatGPT on students regarding its impact on their creative thinking process, including its impact on generating, original, and creative self-efficacy?

RQ3: Are there any signs of perceived homogenisation in the ideational patterns of students such as perceived similarity to ideas of their peers and the inability to construct their own ideas without assistance?

Methodology

Research Design

The chosen study design was the cross-sectional survey design whereby research was conducted on the prevalence of using ChatGPT in academic tasks among students, the perceived impacts of creativity thinking and creative self-efficacy, and whether they can show evidence of similarities and convergence in ideas and written work. The reason a survey design was chosen was that the need was to portray the normal practice of students in their normal university settings and not behaviour in a controlled experimental setting. The research, thus, was on self-reported experiences and perceptions as opposed to explicit measurement of creative performance.

Sample and Sampling Strategy

The study population comprised undergraduate and postgraduate students enrolled at three Irish technological universities: Munster Technological University, Technological University of the Shannon: Midlands Midwest, and Southeast Technological University. A stratified quota sampling approach was used to ensure variation across institutions, fields of study, and levels of study.

The final sample included 180 students, with 60 participants drawn from each university. Of the total sample, 61 identified as female and 119 as male. This corresponds to 33.9 per cent female and 66.1 per cent male participation. Therefore, rounded reporting throughout the paper reflects an approximate split of 34 per cent to 66 per cent.

Participants were recruited during October and November 2025 through institutional email circulation, student society social media channels, and campus recruitment stands. A small participation incentive was offered in recognition of the time required to complete the survey.

Instrument Development

The structured online questionnaire created to conduct research was used to gather data. The tool was developed based on the current studies regarding the utilisation of generative AI by students, AI-related literacy, creative self-efficacy, and worries regarding originality, dependency, and similarity of AI-assisted work. The item pool was driven by the literature reviewed in the previous sections and the specific objectives of the current study that were centered around perceptions of creative thinking, independent ideation, and convergence in student work.

To enhance the content validity, four academic colleagues who are knowledgeable on the subject of educational technology, creativity research, survey design, and higher education policy reviewed the draft questionnaire. Their comments resulted in a change of diction, order and coherence of the items. The



revised one was further pilot tested by the 18 university students who did not form the final sample. Feedback on wording was also done by pilots to make the wording more refined and responses better.

Survey Structure and Measures

The final questionnaire was split into six sections. The primary questionnaire covered the demographic data, such as age, gender, institution, discipline and level of study. The second looked at the patterns of use of ChatGPT such as frequency, common tasks, and estimated weekly use. The third was perceived benefits and these were, support in idea generation, time saving, understanding complex material and confidence in getting down to academic tasks. The fourth was on creative thinking and creative self-efficacy, such as perceived originality, belief in generating ideas on their own and ideas on intellectual ownership. The fifth under consideration related to perceived convergence, the participants were asked to answer whether they believed that their ideas or written works were becoming closer to the ones of other learners who were using ChatGPT. The last section was a reflection of short-term, open-ended questions of perceived impacts of ChatGPT on participant thoughts and writing.

Attitudinal items were mostly measured on five-point Likert scales with strongly disagree as the lowest and strongly agree as the highest point. Categories based on ordered responses were frequency items, whereas task-use questions permitted more than one choice where it was appropriate.

Data Collection Procedures

Data collection was conducted in November and December 2025 using Qualtrics. The participants were directed to the questionnaire via a study link deployed on the process of recruitment. The individual participants were given an information sheet before the survey explaining that the study was a voluntary project whose purpose was to report back on the use of aggregated and anonymised data and the benefits of participation. Participation was done by means of electronic consent.

Measures were undertaken to minimize the chances of getting duplications by dispensation of the survey in the controlled access ways. The participating institutions through the appropriate research ethics committees gave a positive response to ethical approval.

Data Analysis

Analysis of quantitative data was done using SPSS 29. The characteristics of the participants, trends of using ChatGPT, and the degree of agreeing with survey questions were summarised with the help of descriptive statistics. Likert-scale items where suitable were the means and standard deviations of such items were calculated, and percentage distribution provided to aid the interpretation. The response categories were grouped in larger agreement categories in selected items to bring out the findings in a clearer manner.

The inferential analysis was exploratory. The differences based on gender were analyzed with independent-samples *t*-tests, and one-way analysis of variance was applied to respondent differences in terms of different institutions and disciplinary groups. In cases where statistically significant disciplinary differences were detected, Tukey post hoc tests were to be applied to test pairwise differences.

Thematic interpretation of the responses to the open-ended items was done in order to give interpretive context to the findings of the survey. The analysis was conducted using the steps outlined by Braun and Clarke (2006) which were familiarisation, first coding, theme formulation, review, and refinement. These qualitative responses did not represent a discrete qualitative set of responses. On the contrary, they served to put the identified survey patterns into perspective and to explain them.

Methodological Limitations

A number of shortcomings must be mentioned. To begin with, cross-sectional design does not allow one to make causal inference. The study only describes the reported experiences and perceptions at one point in time and is unable to indicate whether the creative use of ChatGPT results in the fact that creativity and originality change. Second, the research is based on self-reported information. The perceptions of participants towards creativity, dependency, or ideational similarity do not necessarily tie up to



performance that can be observed. Third, despite the fact that the sample comprises of students in three technological universities with variety of disciplinary backgrounds, the sample was not intended to be a statistically representative of the bigger student population in Ireland. Fourth, the answers could have been affected by the recall bias or the social desirability bias, particularly when it comes to independent thinking, originality, and dependence on AI tools.

This is to say that the results must be viewed as a description of student perceptions and the reported practices, and not a direct test of measurable cognitive change.

Findings

Patterns of ChatGPT Use

The use of ChatGPT among the sample was extensive. Out of the 180 participants, 175 mentioned that they used ChatGPT at least once, and 162 said they had used it within the last month. The frequency of reported academic use was different. The number of respondents who said that they used it daily was 46, those who took it more than once a week was 62, and those who took it once a week were 44 and those who took it infrequently or not at all were 28. Since the last group is a combination of infrequent and non-use, the category cannot be understood to mean that people only do not use these services.

Participants reported an average of 5.4 hours of ChatGPT use per week ($SD = 4.5$), with responses ranging from 0 to 24 hours. No statistically significant gender differences were found for usage frequency, $t(178) = 0.88$, $p = .38$, or weekly hours of use, $t(178) = 1.18$, $p = .24$. Differences across disciplinary groups were significant, $F(5,174) = 2.45$, $p < .05$, with Engineering and Computing students reporting the highest average weekly use ($M = 7.2$ hours) and Humanities and Arts students the lowest ($M = 3.8$ hours). No statistically significant differences were observed across institutions, $F(2,177) = 1.38$, $p = .26$.

Table 1

Reported uses of Chat GPT by Task Type (N = 180, Multiple Responses Allowed)

Task type	n	%
Academic uses		
Explaining concepts	142	78.9
Brainstorming ideas	138	76.7
Summarising readings	132	73.3
Drafting written assignments	126	70.0
Checking grammar and style	120	66.7
Generating research questions	108	60.0
Coding	84	46.7
Translating texts	76	42.2
Non-academic uses		
Learning personal interests	108	60.0
Planning and organisation	98	54.4
Creative projects	84	46.7
Personal writing	76	42.2
Entertainment	66	36.7

The most commonly reported uses were explaining concepts, brainstorming ideas, and summarising readings. This pattern indicates that students used ChatGPT primarily as a support tool for comprehension and task initiation, rather than solely for specialised or technical functions.

Perceived Benefits of ChatGPT

Participants reported strong practical benefits from ChatGPT use. Agreement was highest for time saving, support with idea generation, and help in understanding difficult concepts. Agreement was more cautious for the claim that ChatGPT itself provides original and creative ideas. Students may have valued the tool mainly as an aid to efficiency and early-stage development rather than as an autonomous source of originality.



Table 2*Perceived Benefits of Chat GPT (N = 180)*

Item	Mean	SD	Agree/Strongly agree n	Agree/Strongly agree %
Using ChatGPT helps me generate more ideas than I could on my own	4.4	0.7	160	88.9
Using ChatGPT improves the quality of my academic work	4.2	0.8	148	82.2
Using ChatGPT saves me time on academic tasks	4.6	0.6	168	93.3
Using ChatGPT helps me overcome writer's block or creative blocks	4.3	0.8	152	84.4
Using ChatGPT helps me understand complex concepts more easily	4.4	0.7	158	87.8
Using ChatGPT improves my confidence in tackling challenging assignments	4.0	1.0	132	73.3
The ideas ChatGPT provides are generally original and creative	3.9	1.1	118	65.6
I can usually improve upon ChatGPT's suggestions to make them my own	4.1	0.9	140	77.8

A statistically significant gender difference was found for perceptions of originality. Male participants rated ChatGPT's ideas as more original on average ($M = 4.1$, $SD = 0.9$) than female participants ($M = 3.6$, $SD = 1.1$), $t(178) = 3.27$, $p < .01$. This result concerns perceived originality rather than any direct assessment of originality in student work.

Creativity, Ownership, and Independent Thinking

Responses regarding creativity and independent thinking were more mixed than usefulness and efficiency. Slightly more than half reported feeling engaged in creative thinking when using ChatGPT. At the same time, sizeable proportions reported difficulty generating ideas without it, concern about reliance reducing creativity, and uncertainty about whether AI-assisted work felt fully their own, showing strained dependence.

Table 3*ChatGPT and Perceived Creative Processes (N = 180)*

Item	Mean	SD	Agree/Strongly agree n	Agree/Strongly agree %
When I use ChatGPT, I feel I am genuinely engaged in creative thinking	3.5	1.2	98	54.4
Since I started using ChatGPT regularly, I find it harder to generate ideas without it	3.9	1.1	118	65.6
I worry that relying on ChatGPT is making me less creative overall	3.7	1.2	110	61.1
When I try to be creative on my own, my ideas often resemble what ChatGPT would generate	3.6	1.1	106	58.9
I have noticed that my ideas are becoming more similar to those of my classmates who also use ChatGPT	4.0	1.0	125	69.4
Sometimes I think an idea is my own, then realise ChatGPT suggested something similar earlier	4.1	0.9	129	71.7
I feel a sense of ownership over work I produce with ChatGPT assistance	3.3	1.2	84	46.7
I am confident in my ability to be creative without using AI tools	3.5	1.1	100	55.6
Using ChatGPT has changed how I think about my own creativity	3.9	1.0	118	65.6
I would describe my relationship with ChatGPT as collaborative rather than dependent	3.6	1.1	104	57.8



These findings suggest respondents made a difference between using ChatGPT productively and feeling it as wholly creative and owned. Consent was most significant to the notion of comparable prior AI proposals and increased homogeneity. Less than half had strong ownership, indicating convenience and uncertainty co-evolving.

Table 4

Gender Differences in Selected Creativity-related Perceptions

Item	Male M (SD)	Female M (SD)	t	p
I feel a sense of ownership over work I produce with ChatGPT assistance	3.5 (1.2)	3.0 (1.1)	2.72	< .01
I am confident in my ability to be creative without using AI tools	3.7 (1.1)	3.2 (1.0)	2.97	< .01
The ideas ChatGPT provides are generally original and creative	4.1 (0.9)	3.6 (1.1)	3.27	< .01

Male participants reported higher levels of perceived ownership, greater confidence in unaided creativity, and more positive evaluations of the originality of ChatGPT's ideas. These differences should be interpreted as perceptual rather than as direct evidence of superior creative performance.

Table 5

Confidence in Unaided Creativity by Disciplinary Area

Discipline	Mean	SD
Humanities and Arts	3.0	1.1
Social Sciences	3.3	1.1
Business and Management	3.4	1.0
Natural Sciences	3.6	1.1
Health Sciences	3.7	1.0
Engineering and Computing	3.8	1.1

ANOVA: $F(5,174) = 3.82$, $p < .01$

Post hoc Tukey comparisons indicated significant differences between Humanities and Arts and Engineering and Computing, and Humanities and Arts and Health Sciences. Humanities students reported lowest confidence, while Engineering students reported highest.

Perceived Similarity and Convergence

Participants reported ChatGPT tends to produce similar responses for different users and sustained use may increase similarity of ideas and written work, consistent with earlier reports of growing similarity among users.

Table 6

Reported Observations of Similarity and Convergence (N = 180)

Item	Most relevant response category	n	%
Have you ever noticed that ChatGPT tends to give similar responses to different people asking similar questions?	Often/Very often	136	75.6
Have you ever discussed ChatGPT use with classmates and discovered you received nearly identical suggestions?	Often/Very often	118	65.6
Do you feel that your ideas have become more similar to those of peers who also use ChatGPT?	Slightly/Much more similar	125	69.4
Have you ever realised that an idea you thought was original had already been suggested by ChatGPT or reflected a common AI-generated pattern?	Several times/Frequently	129	71.7
In your observation, do students who use ChatGPT heavily tend to produce work that looks similar to each other?	Slightly/Much more similar	132	73.3
Have you ever deliberately avoided using ChatGPT to make your work more original?	Often/Always	74	41.1



Table 7

Agreement with the Statement: "If Everyone Uses ChatnGPT, Everyone's Ideas will Start to Look the Same" (N = 180)

Response	n	%
Strongly disagree	6	3.3
Disagree	10	5.6
Neutral	24	13.3
Agree	74	41.1
Strongly agree	66	36.7

Overall, 140 participants (77.8 per cent) selected either agree or strongly agree with the statement that widespread use of ChatGPT would make students' ideas more similar. At the same time, only 74 participants (41.1 per cent) reported often or always avoiding ChatGPT to preserve originality. Thus, awareness of possible convergence did not consistently translate into withdrawal from the tool.

Open-Ended Responses

The open-ended questions were an addition of an interpretive value to the survey findings. There were four common themes that could be identified the conflict between efficiency and independent thought, AI recommendations having an impact on subsequent ideation, decreased belief in unaccompanied creativity, and being aware of duplicity among student work.

Many participants described ChatGPT as useful at the beginning of tasks, especially when they were unsure how to start or wanted clarification of a difficult idea. At the same time, several responses suggested that initial AI suggestions could shape the direction of later thinking. One participant noted: "It helps get started, but once I see ChatGPT's suggestion, it's hard to think of anything else, it kind of locks you in." Concerns about ownership also recurred, with some participants indicating that even substantial rewriting did not always yield a strong sense that the final idea was fully their own. Another participant remarked: "I feel like the idea isn't really mine, even after I've rewritten it. The seed came from the AI, and I can't get away from that."

Other responses focused on similarity across student work, with participants describing AI-assisted outputs as competent and useful, but also generic or flattened in tone. A third participant observed: "I've seen other students' work that I know was done with ChatGPT, and it all has the same feel, the same kind of sentences, the same structure. It's like we're all writing from the same template."

These comments do not constitute direct evidence of cognitive change. They nevertheless reinforce the quantitative findings by showing that many students understood their use of ChatGPT in mixed terms, recognising both its practical value and its possible implications for originality, ownership, and intellectual distinctiveness.

Discussion

Interpreting the Findings: A Story of Ambivalence

According to the findings, the trend of ambivalence is apparent. Students in the three technological universities viewed ChatGPT as a source of standardisation as well as an imperative aid. This two-sided role is important as the same system which can help students start working earlier might also influence their problem framing, choice of ideas and originality estimation.

Simultaneously, the validity of ChatGPT was expressed, but issues were raised related to higher education. Most claimed they struggled to create ideas without the tool, felt concerned about being less creative, and saw growing similarity with their own ideas and those of peers. Fewer than half reported a strong sense of ownership, and many acknowledged ideas resembled common AI suggestions, indicating a trade-off between convenience and distinctiveness.

The reported levels of similarity and convergence are especially important. More than two-thirds of participants stated that their ideas were becoming more similar to those of classmates who used ChatGPT, and more than 70 per cent reported the disquieting experience of discovering that an apparently original



idea was in fact a common AI output. These perceptions align with experimental work on homogenisation (Doshi & Hauser, 2024; Moon et al., 2025; Zhou et al., 2026) and extend it into everyday academic practice. They suggest that the standardising effects of generative AI are not only theoretical or laboratory-based concerns but are also recognised by students themselves.

Another point of concern is the disconnect that is displayed in the results. Despite the 77.8 per cent of respondents who admitted that the widespread use of ChatGPT will result in the student ideas becoming increasingly similar, only 41.1 per cent of people admitted that they avoid the tool often or always to ensure originality. Such a distance between awareness and action indicates that short term academic demands, such as time and the requirement of generating competent work, might have a greater concern than longer term issues such as individuality. It also mentions the necessity of pedagogic intervention to allow the students to cope with this tension without depending on just prohibition.

Group variations enhance the text. Male participants had more confidence in unaided creativity and stronger sense of ownership of AI-assisted work, possibly reflecting differences in academic self-efficacy. There was significant disciplinary variance: Humanities and Arts students were least confident without AI, while Engineering and Computing were highest. This may reflect differences in creativity, digital familiarity, or AI literacy, indicating context-sensitive responses rather than standard institutional reaction.

Relating Findings to Theory and Prior Research

These results are related to a number of theoretical approaches described above. It is the cognitive offloading in particular. Participants used ChatGPT to ideate, draft and clarify their concepts which is a kind of cognitive delegation that alleviates the direct requirements of the academic writing. Nevertheless, the list of challenges cited in the lack of the tool generating ideas and diminished self-efficacy in independent creativity makes it possible to believe that such delegation is not always economically free. The learning power of AI, as Irfan et al. (2023a) observe, does not directly relate to accessibility but the utilization patterns. When delegating becomes automatic and unthinking, supporting mechanisms of creative development are likely to falter.

The effect of anchoring can also be observed in findings. The open-ended descriptions given by participants about being stuck in the suggestions provided by ChatGPT at the beginning or finding it challenging to go beyond the first one demonstrate how the prompts offered by the algorithm can limit instead of expanding the range of potential concepts. It conforms to research on prompting that emphasizes intentionality and critical review (Irfan & Murray, 2023a; Irfan & Murray, 2023b). Where learners believe in taking outputs with little questioning, AI is not so much a support framework to autonomous thought but is instead a replacement of autonomous thought.

The results are also contributing to the fact that there is increased literature on homogenisation. Under controlled conditions, experimental research demonstrated that the outputs supported by AI converge (Doshi & Hauser, 2024; Moon et al., 2025). In the current research, the similar convergence is perceived and described by students themselves in their daily academic work. Their opinion that output with the help of AI is likely to become generic or flattened is not just an academic issue; it constitutes lived experience to a significant proportion of the sample. The fact that a good number of students can see the similarity of other work but still use the tool speaks of the collective action problem as well: one student can enjoy the benefits of AI assistance, but an overall increase in its use can lead to decreased intellectual diversity.

This conflict between personal gain and social loss reminds the work of Doshi and Hauser (2024) who concluded that AI could improve the creativity of individual individuals and decrease the diversity of the communities. It is proposed in the current study that students have knowledge of that trade-off, but they might not be provided with enough pedagogical guidance in order to negotiate it effectively. This makes the policy and teaching frameworks examined by Irfan et al. (2023c) and the Higher Education Authority (2025) more topical. Conducting efficient guidance should not only be about what is allowed to be done but rather should also be concerned with the utilization of AI in a manner that does not compromise the intellectual purpose of higher education.



Theoretical Implications: More than Output to Process and Perception

There are a number of theoretical implications of the study. The first one states that the correlation between AI and creativity cannot be perceived based on the output quality. There was a difference between generating competent text and the feeling of creatively thinking as one generated the text. The above difference is reminiscent of the focus on processes that are relevant to creativity and intrinsic motivation as Amabile (1982) focused. Product-based definitions are practical, although it can be missed that ownership, confidence, and intellectual agency changes that are core to creative development.

Second, the results facilitate the perception of AI as a socio-technical practice and not a neutral instrument. The impact of this was not homogenous. They differed in gender, field of discipline and most importantly in the way the tool was comprehended and utilized by students. This supports the idea of AI literacy that should not merely focus on technical ability, but also on critical thinking and a prudent change (Bacha et al., 2026, Irfan, 2025).

Third, the study recommends that perceived homogenisation can play an educational role even in the cases where objective similarity of text has not been explicitly quantified. The perceptions held by the students that they are losing the uniqueness of their work can influence their readiness to risk a lot intellectually, their belief in authorship and desire to create original arguments. The AI and creativity theory in future must also attend to more than just its outputs and focus more on the subjective experience of creativity, authorship, and uniqueness in learning settings.

Practical Implications: Teaching, Assessment, and Institutional Response

The results have implications on teaching, assessment and institutional policy. More than prompt proficiency should be found in the teaching AI literacy. Students would require coaching about the moments when to apply AI, the situations when to postpone its application, and the way they can leave some space to creative thought. Teaching: designs that divide brainstorming, drafting, revision, and reflection could be used to assist students in determining what aspect of a task is being aided by AI, and what aspect relies on their judgment. Formalized experiences to contrast AI-generated output with self-generated concepts, trace the development of a concept, and describe the process behind writing choices may help make the process more reflective. These strategies align with the recommendations that have been created by Irfan and Murray (2023a, 2023b).

To evaluate the findings, the results raise questions about what is being tested when students submit work with AI assistance. If students are unsure of ownership and originality, assessment plans based only on finished products may be inadequate. Process-oriented formats, such as reflective commentaries, annotated drafts, or oral defences, can provide a more accurate description of students' intellectual engagement and retain the value of independent thought. This does not reject AI-assisted work but demands evaluation types where AI use is clear and learners show critical interaction with the text they produce.

In the case of institutions, the results indicate that the policy should not be limited to misconduct or permissibility only. Students require real-life instructions that should take into account the usefulness as well as limitations of ChatGPT. Policies, which integrate academic honesty with encouragement of critical action and authorship, as well as independent thought, will probably prove more successful than both prohibition and detection based ones. The policy framework presented by the Higher Education Authority (2025) makes an excellent place to start since it focuses on human supervision, the ability to use AI in teaching and learning in a manner that safeguards intellectual growth. The technological university sector can still need specific approaches that represent student populations and pedagogical focus of the technological sector.

Conclusions and Future Research Suggestions

The results can be viewed within the context of a number of limitations. The cross-sectional type is not able to make a causal inference. The research takes into account documented experiences at one single moment in the study and does not provide evidence that the use of ChatGPT can lead to creativity or originality changes. Since the data is self-reported, the perception of creativity, dependency, or similarity



can be unrelated to performance that can be observed. The sample, which covers three institutions as well as a number of disciplines, was not meant to be a statistically representative sample of the entire Irish student population. Responses can also have been compromised by social desirability bias or recall bias particularly in independent thinking and originality.

These shortcomings can be overcome in future studies in a number of ways. Longitudinal designs would have the benefit of tracking the changes in the perception, practice and creative capacity of students with time and differentiating short and long term developmental impacts. Survey evidence used with textual analysis may also be experimentally tested to determine whether perceived convergence is related to similarity in written output, which can be measured. Survey on disciplinary culture, former digital acquaintance and timely prompts ability, would also provide clarification on why the use of AI have varied patterns in different groups. Relative research between systems and institutional types might decide whether the trends presented here are unique to ChatGPT or to larger characteristics of the use of large language models in education.

It is also important to research how pedagogical and policy interventions may be used to allow students to use AI to support their intellectual growth but not to substitute it in the future. What kinds of guidance, scaffolding or institutional support increase the likelihood of reflective use? What can be done to balance the worth of independent thinking and acknowledge the truth of AI-aided work? Such questions need empirical research and factual experimentation.

Conclusion

This paper has discussed the use of ChatGPT and the perception of its impact on idea generation, originality, ownership, and similarity in academic work among the student population in three Irish technological universities, namely, Munster Technological University, Technological University of the Shannon: Midlands Midwest, and Southeast Technological University. The results demonstrate that ChatGPT is popular and highly appreciated due to utilitarian reasons. The participants stated that it saved time, assisted the idea development, and enabled them to struggle with challenging concepts. These are just some of the reasons why the tool is now part of everyday academic life.

Simultaneously, the findings are indicative of a more complex trend. Many of the participants stated that they were uncertain about the originality of ideas generated with the assistance of AI, less confident about the idea generation when not aided, and that they felt that the output generated using ChatGPT is becoming similar in users. Less than half said they had a strong sense of ownership of work done under the aid of ChatGPT. These results do not indicate that ChatGPT will automatically and permanently decrease the level of creativity. They do report that students sense of constant strain between the short-run utility and wish to remain independent, unique and authors of their own academic writings. The trend aligns with broader discourse in the higher education field which frames AI as a facilitator and disruptions to established beliefs concerning creativity, authorship and learning (Irfan et al., 2023a; Irfan et al., 2023b; Irfan et al., 2023).

The greatest input of the study is the demonstration of the fact that this tension can be observed not only in theoretical discussion or even in experimental research, but also in personal descriptions of students regarding common practice in the university. The major challenge of higher education is, then not whether to use generative AI or not. How such tools can be incorporated in such a manner that allows learning without removing learning chances to think and make original judgments.

Generative AI should not be met with enthusiasm or prohibition, as a thoughtful response demands more than these two. It requires pedagogical practices, assessment culture, and institutional leadership that recognize the value and constraints of algorithmic support. It is not about eliminating AI in higher education, but ensuring its use does not displace students' thinking and their belief in ideas they can call their own. This issue is urgent in technological universities where applied learning and transferable skills are central. Students perform where AI is both resource and danger, and responses will determine learning quality and the type of thinkers produced.



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