

## AI-Assisted Writing and the Originality Problem: Evidence from Universities in the United Kingdom and Irish Universities



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**Abstract:** *This study investigated how university students use ChatGPT and how they perceive its relationship with idea generation, originality and intellectual ownership. A cross-sectional online survey was completed by 120 undergraduate and postgraduate students from Ulster University and Queen's University Belfast. The non-probability quota sample included 60 students from each institution, 62 women and 58 men. Descriptive statistics were used to report patterns of use and responses to individual five-point Likert items. Exploratory t-tests and one-way analyses of variance were used for selected group comparisons, while short written responses were used to clarify the survey patterns. ChatGPT use was common: 116 participants (96.7 per cent) had used it at least once and 108 (90.0 per cent) had used it during the previous month. Participants valued time saving (91.7 per cent agreement), help with idea generation (86.7 per cent) and help with complex concepts (86.7 per cent). The results also showed reservations. 65% per cent reported greater difficulty generating ideas without ChatGPT after regular use, 43.3 per cent expressed a sense of ownership over AI-assisted work and 68.3 per cent felt that their ideas had become more similar to those of peers who used the tool. These results concern reported perceptions rather than observed changes in creativity or measured textual similarity. They show that practical gains can coexist with uncertainty about independence, authorship and distinctiveness. Teaching and assessment should therefore make room for unaided ideation, transparent use of AI and student explanation of how an argument or idea developed.*

**Keywords:** ChatGPT, Generative Artificial Intelligence, Academic Writing, Creative Confidence, Originality, Ideational Convergence, Higher Education, Northern Ireland

### Introduction

Large language models have entered university study quickly. Students use systems such as ChatGPT to explain concepts, generate starting points, condense readings, draft text, and revise language. These uses can reduce the time and effort needed to begin academic work. They also raise a different question from academic misconduct: what happens to students' confidence in their own ideas when algorithmic assistance becomes routine?

Creativity is commonly defined as the production of ideas or work that is both novel and suitable for its purpose (Sternberg & Lubart, 1999; Runco & Jaeger, 2012). This definition is harder to apply when a student develops an argument with a system that predicts plausible language from patterns in its training data. The finished work may be coherent and useful, yet the student may be uncertain about where the underlying idea came from or how far it reflects their own judgement. Amabile's componential account distinguishes domain knowledge, creativity-related processes and task motivation (Amabile, 1982). ChatGPT may help with knowledge access and early drafting, but those gains do not establish that it strengthens independent ideation, evaluation or ownership.

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Experimental research has reported this tension at both individual and group levels. AI assistance can improve ratings of a person's creative output while making outputs across users more alike (Doshi & Hauser, 2024). Related work reports higher fluency or performance alongside a weaker subjective creative experience (Mei et al., 2025), and reduced diversity in AI-assisted writing or ideation (Moon et al., 2025). Recent research also questions whether short-term performance gains persist once assistance is removed (Zhou et al., 2026). The distinction between individual performance and collective diversity is therefore important. A tool can help one student produce a stronger response while narrowing the range of responses produced by a class.

Most published experiments use controlled tasks. Student use in universities occurs under deadline pressure, assessment rules and disciplinary expectations. This study therefore considered reported everyday use rather than experimentally measured performance. It surveyed 120 students at Ulster University and Queen's University Belfast. The two institutions offer different academic profiles, but the study was not designed to estimate or test institutional cultures. Its scope was narrower: patterns of ChatGPT use, perceptions of creative confidence and ownership, and reported similarity between ideas produced by students who use the same system.

## **Research Questions**

The study answers three research questions:

1. What are the frequency, common purposes and perceived benefits of ChatGPT use among the students surveyed?
2. How do participants describe the relationship between ChatGPT use, idea generation, originality, ownership and confidence in unaided creativity?
3. To what extent do participants report similarity or convergence in ideas and academic work associated with ChatGPT use?

Because the design is cross-sectional and based on self-report, the findings cannot show that ChatGPT caused a change in creativity. Nor can they establish that students' texts became objectively more alike. The analysis concerns students' reported practices and perceptions.

## **Literature Review**

### **Creativity, Originality And Authorship**

Novelty and appropriateness remain useful criteria for judging creative work (Sternberg & Lubart, 1999; Runco & Jaeger, 2012). Boden's distinction between psychological and historical creativity adds another layer (Boden, 1998). An idea can be new to the person who encounters it without being new to a wider group. A suggestion produced by ChatGPT may therefore feel original to a student while also being a common response shown to many users.

This distinction matters in higher education because assessment concerns more than surface quality. Students are expected to develop arguments, select evidence and account for the reasoning behind their work. AI assistance may improve a draft while weakening the student's sense that the argument is theirs. The educational question is not whether a tool can produce fluent language. It is whether its use leaves sufficient room for students to practise generating, testing and revising ideas.

Amabile's framework treats creativity as an interaction between knowledge, creative processes and motivation (Amabile, 1982). ChatGPT can reduce the burden of finding a starting point or organising material. That can be helpful for a student facing a blank page. It can also remove part of the practice through which students learn to tolerate uncertainty, compare possibilities and reject weak ideas. The same act of assistance can therefore function as temporary scaffolding or as repeated substitution, depending on when the tool is used and what the student does with its output.

### **Cognitive Offloading, Anchoring and Convergence**

Cognitive offloading occurs when a person delegates mental work to an external aid. In academic writing, calculators, search engines, reference managers and spelling tools all redistribute effort. Offloading is not inherently harmful. It becomes educationally important when the delegated task is also the skill being learned. If the student routinely asks a language model to supply the first argument, examples or structure, the opportunity to practise unaided ideation is reduced.

Anchoring offers a related explanation. An initial suggestion can set the direction of later thinking. A plausible AI response may become difficult to move beyond, even when other interpretations are available. Prompting guidance that asks students to compare, challenge and revise outputs can reduce passive acceptance, but the first response can still shape the option set. Work on prompt writing and teaching with AI has therefore placed emphasis on purposeful use and evaluation rather than simple output generation (Irfan & Murray, 2023a; Irfan & Murray, 2023b).

Convergence operates at the group level. Language models are trained on overlapping bodies of text and tuned to return probable responses. Similar prompts can therefore yield recurring structures, arguments and examples. Doshi and Hauser (2024) found that AI-supported stories received higher individual ratings but were more similar to each other. Comparable concerns have been reported in creative writing and ideation research (Mei et al., 2025; Moon et al., 2025; Zhou et al., 2026). A recent study of students' reflections likewise described a creativity paradox in which assistance and perceived standardisation appeared together (Irfan et al., 2026a). These studies do not prove that every use of AI produces homogeneous work. They do justify testing whether students notice recurring ideas and forms in ordinary assessment contexts.

### **From Digital Media Use to Generative AI Literacy**

Earlier research on digital media provides a wider setting for this question. Studies of Facebook use, study habits and mobile-phone use considered how everyday media practices relate to academic performance and achievement (Khan et al., 2021a; Khan et al., 2021b; Khan et al., 2022). Work on stress and academic performance, and on social media use among university students, also shows that learning practices sit within personal and social pressures rather than being determined by a device alone (Youcefi et al., 2023; Shoukat et al., 2026).

Research on media effects and communication has examined how recurring frames, formats and channels can shape public accounts across subjects as varied as Black Lives Matter, conflict, environmental reporting, human rights, political socialisation, tourism and regional media use (Irfan et al., 2020; Gul et al., 2021; Ashfaq et al., 2021; Rauf et al., 2021; Khan et al., 2021c; Shakoor et al., 2022; Hassan et al., 2022; Irfan & Ali, 2022; Bajwa et al., 2022). Later work on political communication also addressed the convergence of legacy and digital media (Irfan et al., 2026b). These studies differ from research on generative AI, but they provide a reason to take patterned communication and audience interpretation seriously.

Media literacy research has moved from access and comprehension towards the ability to judge the operation and consequences of digital systems (Nisa et al., 2021). Studies of regulatory and technological change in journalism, news gathering, crisis communication, mental health information, deepfakes and professional readiness all point to uneven knowledge when new tools enter education or practice (Ali et al., 2023; Nawaz et al., 2025; Ali et al., 2025; Khan et al., 2025; Ayub et al., 2025; Bacha et al., 2026). In higher education, AI literacy must therefore include source checking, disclosure, ownership and the ability to reject a plausible output.

Research focused more closely on AI in higher education has addressed ethics and privacy, student usability, teaching practice, policy, public attitudes and disciplinary adoption (Irfan et al., 2023a; Irfan et al., 2023b; Irfan et al., 2023c; Irfan et al., 2023d; Irfan & Murray, 2023c; Irfan et al., 2023e; Irfan et al., 2023f). Work on AI in other fields, including counter-terrorism and online radicalisation, also illustrates how the consequences of adoption depend on setting and governance (Irfan et al., 2023g; Irfan & Firdous, 2024). Discussion of political discourse in higher education adds a further reminder that technology is used within

institutional and political conditions (Sohail et al., 2024). Evidence from Saudi higher education extends the empirical discussion to students' academic writing practices beyond Ireland and the United Kingdom (Alenazi et al., 2026).

Evidence from Students and Higher Education Policy

Studies of Irish higher education have recorded both positive attitudes towards AI tools and concerns about dependency, privacy and academic integrity (Irfan et al., 2023a; Irfan et al., 2023c; Irfan et al., 2023d). Policy writing has consequently moved away from a simple choice between prohibition and unrestricted use. It calls for clear expectations, human judgement and teaching that prepares students to work with generative systems without obscuring authorship (Higher Education Authority, 2025; Irfan et al., 2023b; Irfan et al., 2023e).

The published literature still leaves three gaps for the present study. First, much research concerns performance, usability or integrity rather than students' confidence in generating ideas without assistance. Second, experimental measures of output similarity do not show whether students notice similar patterns in ordinary coursework. Third, little evidence concerns students at Northern Irish universities. The present survey addresses these gaps at the level its design permits: perceived use, perceived ownership and perceived convergence.

Methodology

Design and Scope

The study used a cross-sectional online survey. It was designed to describe how students reported using ChatGPT, what benefits they associated with it and how they viewed its relationship with creativity, ownership and similarity in academic work. It did not measure creative performance, compare student texts or manipulate access to ChatGPT. Terms such as *creative confidence* and *perceived convergence* are therefore used descriptively and do not denote validated diagnostic scales or observed cognitive change.

Participants and Recruitment

The sample comprised 120 undergraduate and postgraduate students enrolled at Ulster University or Queen's University Belfast. Sixty participants came from each institution. The manuscript describes a stratified quota procedure across institution, field and level of study. Recruitment through institutional email, student society social media and campus stands means that this was a non-probability volunteer sample within those quotas, not a probability sample of the two student populations.

Recruitment took place in October and November 2025. A small incentive was offered, although its form and value were not recorded in the supplied manuscript. The number of people invited or opening the survey was not reported, so a response rate cannot be calculated. Participants ranged from 18 to 39 years of age, with a reported mean of 22.7 years (SD = 3.2). Table 1 gives the available sample profile.

Table 1

Participant Profile (N = 120)

| Characteristic | Category                   | n  | %    |
|----------------|----------------------------|----|------|
| Institution    | Ulster University          | 60 | 50.0 |
|                | Queen's University Belfast | 60 | 50.0 |
| Gender         | Female                     | 62 | 51.7 |
|                | Male                       | 58 | 48.3 |
| Discipline     | Business and Management    | 28 | 23.3 |
|                | Engineering and Computing  | 26 | 21.7 |
|                | Social Sciences            | 22 | 18.3 |
|                | Humanities and Arts        | 20 | 16.7 |
|                | Natural Sciences           | 14 | 11.7 |
|                | Health Sciences            | 10 | 8.3  |

Note: The questionnaire included level of study, but category counts were not reported in the supplied manuscript.

## Questionnaire

The questionnaire was developed for this study from literature on generative AI use, AI literacy, creative confidence, originality, dependence and similarity in AI-assisted work. Four academic colleagues with experience in educational technology, creativity research, survey design and higher education policy reviewed the draft. Fifteen students who were not included in the final sample then completed a pilot. The review and pilot led to changes in wording, sequence and clarity.

The final questionnaire contained six parts: participant characteristics; frequency and purposes of ChatGPT use; perceived benefits; items concerning creativity, unaided idea generation and ownership; perceived similarity across users; and short written reflections. Attitudinal items used five response points from strongly disagree to strongly agree. Frequency questions used ordered categories, and questions about uses permitted more than one response. The manuscript did not report a full item schedule, composite scale construction or reliability coefficients. The analysis therefore reports individual items rather than treating them as a single validated measure of creative self-efficacy.

## Data Collection and Ethics

Data were collected through Qualtrics in November and December 2025. Participants received an information sheet and gave electronic consent before entering the questionnaire. The information stated that participation was voluntary and that reports would use anonymised, aggregated data. Distribution through controlled routes was intended to reduce duplicate responses. The manuscript states that ethical approval was obtained from the relevant committees at both institutions. Approval reference numbers were not stated in the materials supplied for this revision.

## Analysis

SPSS version 29 was used for the quantitative analysis. Counts, percentages, means and standard deviations described the sample and questionnaire responses. Where the text combines categories, the combined percentage is accompanied by its numerator. Means for individual Likert items are retained as compact descriptions of response distributions, with the ordinal nature of the data kept in mind.

The manuscript reported exploratory independent-samples *t*-tests for gender and institutional comparisons, and one-way analysis of variance for disciplinary comparisons. Two-sided *p* values are reported. The tests were not described as pre-registered, and no adjustment for multiple comparisons was reported, so isolated subgroup findings should be read cautiously. Tukey comparisons were to be considered only after a statistically significant omnibus analysis of variance.

The reported disciplinary comparison for confidence in unaided creativity required correction. The stated group sizes, means, and standard deviations reconstruct to  $F(5, 114)$  approximately 1.53, *p* approximately .186, not the originally reported *F* of 3.56. Allowing for rounding of every reported mean and standard deviation does not produce an *F* value as large as 3.56. The corrected analysis is therefore non-significant, and the post hoc claims in the earlier draft have been removed.

Short written responses were read and coded for recurring ideas. The analysis used familiarisation, coding, theme development and review in line with thematic analysis (Braun & Clarke, 2006). These responses were used to interpret the survey items rather than as an independent qualitative study. The number of participants answering the open question, the distribution of codes and the number of coders were not reported. The quotations should therefore be read as illustrations, not estimates of theme prevalence.

## Findings

### Frequency and purposes of use

Of the 120 participants, 116 (96.7 per cent) had used ChatGPT at least once and 108 (90.0 per cent) had used it during the previous month. Thirty participants (25.0 per cent) reported daily academic use, 42 (35.0

per cent) used it several times a week, 30 (25.0 per cent) used it weekly and 18 (15.0 per cent) selected rare use or non-use. The last category combines two different patterns and cannot be read as non-use alone.

Reported weekly use averaged 5.2 hours ( $SD = 4.3$ ; range 0 to 23). The reported tests found no difference in weekly hours by gender,  $t(118) = 1.04$ ,  $p = .300$ , or institution,  $t(118) = 1.15$ ,  $p = .252$ . The omnibus disciplinary comparison was reported as  $F(5, 114) = 2.38$ ,  $p = .043$ . Engineering and Computing had the highest reported mean at 6.9 hours, while Humanities and Arts had the lowest at 3.5 hours. The article did not contain the remaining group means or post hoc results, so no pairwise disciplinary difference can be verified.

**Table 2**

*Reported uses of ChatGPT (N = 120; Multiple Responses Permitted)*

| Task                              | n  | %    |
|-----------------------------------|----|------|
| Explaining concepts               | 94 | 78.3 |
| Brainstorming ideas               | 90 | 75.0 |
| Summarising readings              | 86 | 71.7 |
| Drafting written assignments      | 82 | 68.3 |
| Checking grammar and style        | 78 | 65.0 |
| Generating research questions     | 70 | 58.3 |
| Learning about personal interests | 70 | 58.3 |
| Planning and organisation         | 64 | 53.3 |
| Creative projects                 | 56 | 46.7 |
| Coding                            | 54 | 45.0 |
| Personal writing                  | 50 | 41.7 |
| Translating text                  | 48 | 40.0 |
| Entertainment                     | 44 | 36.7 |

The most common uses were explaining concepts, brainstorming and summarising readings. Drafting assignments was also common. These responses show that participants used ChatGPT both before and during writing, rather than only for proofreading.

### Perceived Benefits

Participants reported high agreement with practical benefits, led by time saving. Agreement was lower for the claim that ChatGPT's ideas were original and creative. Table 3 reports each item separately.

**Table 3**

*Perceived Benefits of ChatGPT (N = 120)*

| Item                                                               | Mean | SD  | Agree or strongly agree, n | %    |
|--------------------------------------------------------------------|------|-----|----------------------------|------|
| ChatGPT saves me time on academic tasks                            | 4.5  | 0.7 | 110                        | 91.7 |
| ChatGPT helps me generate more ideas than I could on my own        | 4.3  | 0.8 | 104                        | 86.7 |
| ChatGPT helps me understand complex concepts more easily           | 4.3  | 0.8 | 104                        | 86.7 |
| ChatGPT helps me overcome writer's block or creative blocks        | 4.2  | 0.9 | 100                        | 83.3 |
| ChatGPT improves the quality of my academic work                   | 4.1  | 0.9 | 94                         | 78.3 |
| I can usually improve ChatGPT's suggestions to make them my own    | 4.0  | 0.9 | 92                         | 76.7 |
| ChatGPT improves my confidence in tackling challenging assignments | 3.9  | 1.0 | 84                         | 70.0 |
| The ideas ChatGPT provides are generally original and creative     | 3.7  | 1.1 | 76                         | 63.3 |

Male participants gave higher ratings to the originality item ( $M = 4.0$ ,  $SD = 0.9$ ) than female participants ( $M = 3.5$ ,  $SD = 1.1$ ),  $t(118) = 2.88$ ,  $p = .005$ . This is a difference in perceived originality. It is not evidence that the ideas themselves were more or less original.

### Creative Confidence and Ownership

Responses about creative engagement were less positive than responses about efficiency. Sixty-five per cent agreed that, since using ChatGPT regularly, they found it harder to generate ideas without it. Sixty per cent worried that reliance on the tool was making them less creative. At the same time, 56.7 per cent described their relationship with ChatGPT as collaborative rather than dependent. The results therefore do not divide neatly into favourable and unfavourable attitudes.

**Table 4**

*ChatGPT, Creative Confidence and Ownership (N = 120)*

| Item                                                                                           | Mean | SD  | Agree or strongly agree, n | %    |
|------------------------------------------------------------------------------------------------|------|-----|----------------------------|------|
| I feel genuinely engaged in creative thinking when I use ChatGPT                               | 3.4  | 1.2 | 64                         | 53.3 |
| Since I started using ChatGPT regularly, I find it harder to generate ideas without it         | 3.8  | 1.1 | 78                         | 65.0 |
| I worry that relying on ChatGPT is making me less creative                                     | 3.6  | 1.2 | 72                         | 60.0 |
| When I try to be creative on my own, my ideas often resemble what ChatGPT would generate       | 3.5  | 1.1 | 70                         | 58.3 |
| My ideas are becoming more similar to those of classmates who use ChatGPT                      | 3.9  | 1.0 | 82                         | 68.3 |
| I sometimes think an idea is my own and later realise that ChatGPT suggested something similar | 4.0  | 0.9 | 85                         | 70.8 |
| I feel a sense of ownership over work produced with ChatGPT assistance                         | 3.2  | 1.2 | 52                         | 43.3 |
| I am confident in my ability to be creative without AI tools                                   | 3.4  | 1.1 | 64                         | 53.3 |
| ChatGPT has changed how I think about my own creativity                                        | 3.8  | 1.0 | 78                         | 65.0 |
| My relationship with ChatGPT is collaborative rather than dependent                            | 3.5  | 1.1 | 68                         | 56.7 |

The reported exploratory gender comparisons are shown in Table 5. Their *p* values are consistent with the reported *t* statistics. The subgroup tests were selected from a larger set of survey items and were not adjusted for multiple comparisons.

**Table 5**

*Exploratory Gender Comparisons*

| Item                                | Male M (SD), n = 58 | Female M (SD), n = 62 | <i>t</i> (118) | <i>p</i> |
|-------------------------------------|---------------------|-----------------------|----------------|----------|
| Ownership of AI-assisted work       | 3.4 (1.2)           | 3.0 (1.1)             | 2.45           | .016     |
| Confidence in creativity without AI | 3.6 (1.1)           | 3.2 (1.0)             | 2.68           | .008     |
| Originality of ChatGPT's ideas      | 4.0 (0.9)           | 3.5 (1.1)             | 2.88           | .005     |

The direction of these comparisons indicates higher male mean ratings on the three items. The design cannot explain why the differences occurred, and they should not be interpreted as stable gender traits. The reported disciplinary means for confidence without AI ranged from 2.9 in Humanities and Arts to 3.7 in Engineering and Computing. Recalculation from the reported group summaries did not find a statistically significant omnibus difference,  $F(5, 114)$  approximately 1.53, *p* approximately .186. The earlier claim of significant pairwise differences is therefore not retained.

**Table 6**

*Confidence in Creativity without AI by Discipline*

| Discipline                | n  | Mean | SD  |
|---------------------------|----|------|-----|
| Humanities and Arts       | 20 | 2.9  | 1.1 |
| Social Sciences           | 22 | 3.2  | 1.1 |
| Business and Management   | 28 | 3.3  | 1.0 |
| Natural Sciences          | 14 | 3.5  | 1.1 |
| Health Sciences           | 10 | 3.6  | 1.0 |
| Engineering and Computing | 26 | 3.7  | 1.1 |

### Reported Similarity and Convergence

Participants often reported seeing similar ChatGPT responses across users. These are observations and perceptions. The survey did not collect matched prompts and outputs, and no similarity metric was calculated.

**Table 7**

*Reported Observations of Similarity (N = 120)*

| Question                                                                                      | Combined response category    | n  | %    |
|-----------------------------------------------------------------------------------------------|-------------------------------|----|------|
| ChatGPT gives similar responses to different people asking similar questions                  | Often or very often           | 88 | 73.3 |
| Classmates received nearly identical suggestions                                              | Often or very often           | 76 | 63.3 |
| My ideas have become more similar to those of peers who use ChatGPT                           | Slightly or much more similar | 82 | 68.3 |
| I submitted an idea I thought was original and later found it was a common ChatGPT suggestion | Several times or frequently   | 68 | 56.7 |
| Heavy ChatGPT users tend to produce work that looks similar                                   | Slightly or much more similar | 86 | 71.7 |
| I avoided ChatGPT to keep my work more original                                               | Often or always               | 46 | 38.3 |

**Table 8**

*Responses to 'If Everyone Uses ChatGPT, Everyone's Ideas will start to Look The Same' (N = 120)*

| Response                   | n          | %            |
|----------------------------|------------|--------------|
| Strongly disagree          | 4          | 3.3          |
| Disagree                   | 8          | 6.7          |
| Neither agree nor disagree | 16         | 13.3         |
| Agree                      | 50         | 41.7         |
| Strongly agree             | 42         | 35.0         |
| <b>Total</b>               | <b>120</b> | <b>100.0</b> |

Ninety-two participants (76.7 per cent) agreed or strongly agreed that widespread use would make ideas look more alike. Forty-six (38.3 per cent) often or always avoided ChatGPT to protect originality. The difference between these percentages shows that concern about similarity was not usually accompanied by frequent avoidance. The survey did not ask participants to rank the reasons for continuing to use the tool, so explanations based on time pressure or assessment demands remain interpretations rather than tested findings.

### Written Responses

The short written responses contained four recurring ideas: efficiency versus independent thinking; the influence of an early AI suggestion on later thought; reduced confidence without AI; and similarity across student work. One participant wrote: “It helps to get the ball rolling, but once I see ChatGPT’s suggestion, I find it hard to think of anything else—it narrows the options.” A second commented: “I feel like the core concept came from the AI, and even after I rewrite it, I’m not sure if it’s really mine.” A third described visible similarity: “I’ve seen essays from classmates that clearly used ChatGPT, and they all have a similar structure and language. It’s like we’re all writing from the same template.”

These comments are consistent with several closed items. They do not show how common each experience was because the response count and coding frequencies were unavailable. Nor do they establish whether the essays described were produced with ChatGPT or were objectively similar.

## Discussion

### Practical Value and Perceived Dependence

The clearest result is the coexistence of use and reservation. Almost all participants had tried ChatGPT, and nine in ten had used it in the previous month. More than four-fifths agreed that it saved time, helped with ideas or helped them understand complex material. These functions explain continued use without requiring an assumption that students are indifferent to originality.

The reservations concern process rather than polished output. Sixty-five per cent reported more difficulty generating ideas without ChatGPT after regular use, while only 43.3 per cent expressed a sense of ownership over AI-assisted work. These items do not measure loss of ability. They record how participants understood their own practice at one point in time. Even so, perceived difficulty matters educationally. A student who expects not to begin without AI may take fewer opportunities to practise unaided thought.

Cognitive offloading provides one plausible reading, but it is not the only one. Students who already lacked confidence may have been more likely to use ChatGPT frequently. Assignment difficulty, language background, prior writing experience and time pressure could influence both use and self-reported dependence. The cross-sectional data cannot separate these explanations. The article therefore refers to an association in participants' accounts, not deterioration caused by the tool.

### Perceived Convergence and the Limits of the Evidence

The similarity items are consistent with experimental evidence that AI assistance can raise individual performance while reducing diversity across outputs (Doshi & Hauser, 2024; Mei et al., 2025; Moon et al., 2025). Nearly three-quarters of participants often noticed similar responses to similar questions. More than two-thirds felt their own ideas had become more similar to those of peers using ChatGPT, and 76.7 per cent agreed that widespread use would make ideas look alike.

These findings extend the literature by showing that students notice and discuss recurring outputs in ordinary university work. They do not establish cognitive homogenisation. Perceptions may be influenced by familiarity with recognisable ChatGPT phrasing, discussion among classmates or heightened concern about AI. Objective convergence would require matched assignments, disclosure of tool use and formal comparison of ideas or texts. The term *perceived convergence* is therefore more accurate than *homogenisation* for this dataset.

The written comments also fit an anchoring account. Participants described an early suggestion narrowing what they considered later. This is plausible, but the questionnaire did not experimentally vary whether students saw an AI suggestion first. Anchoring remains an interpretation consistent with the responses, not a tested mechanism.

### Subgroup Findings

Male participants reported higher mean ratings for ownership, confidence without AI and the originality of ChatGPT's ideas. The differences were exploratory and drawn from several possible comparisons. No correction for multiple testing was reported, and the study did not measure prior confidence, frequency of AI-assisted drafting or other variables that might account for the pattern. The results warrant further study but do not justify claims about inherent gender differences.

The disciplinary comparison required a more substantial correction. Although the descriptive means ranged from 2.9 to 3.7, the group sizes and standard deviations yield an omnibus  $F$  of about 1.53 rather than 3.56. The difference is not statistically significant at the 5 per cent level. Claims that Humanities and Arts differed from Engineering and Computing or Health Sciences are therefore unsupported by the statistics in the article. The descriptive ordering can be reported, but disciplinary explanations should not be built on it.

## **Teaching, Assessment and Policy**

The findings favour teaching that separates assistance from substitution. One practical option is to require a short period of unaided brainstorming before students consult a language model. Students can then compare their own starting points with AI suggestions, record what they accepted or rejected and explain why. This makes the development of an idea visible without assuming that all AI use is misconduct.

Assessment based only on a polished final document gives limited information about authorship and reasoning. Annotated drafts, brief oral questioning, process notes and reflective accounts can show how a student selected evidence and revised an argument. These elements should be proportionate to the task and should not become surveillance. Their purpose is to assess judgement as well as prose.

Institutional guidance should distinguish permitted assistance, required disclosure and prohibited substitution. It should also give staff and students examples drawn from their disciplines. Policy on integrity alone will not answer the question raised by the survey: how students can use an efficient system while continuing to practise independent ideation. Guidance on analytical use, source checking and prompt evaluation is consistent with existing work on AI literacy and higher education policy (Irfan & Murray, 2023a; Irfan & Murray, 2023b; Irfan et al., 2023b; Irfan et al., 2023e; Higher Education Authority, 2025).

## **Limitations and Further Research**

The sampling method limits generalisation. Equal recruitment from two institutions and coverage of six disciplines do not make the sample representative of Northern Irish students. Volunteer recruitment may have attracted students with stronger views or greater experience of ChatGPT. A response rate could not be calculated.

All substantive outcomes were self-reported. The study did not assess creativity before and after AI use, compare aided and unaided performance or calculate similarity between texts. Some items used retrospective wording such as "since I started using ChatGPT", which can be affected by recall and current attitudes. Common-method bias may also inflate associations among perceptions collected in the same questionnaire.

The survey instrument was developed for the study. Expert review and a pilot may improve clarity, but no full questionnaire, construct validation or reliability evidence was reported. Means and parametric tests for individual five-point items offer a compact account of the data but should be interpreted with care. The exploratory subgroup analysis used multiple tests without an adjustment, and one reported ANOVA was internally inconsistent and had to be reconstructed from summary statistics.

The short written responses lacked a reported response count, coder information and theme frequencies. They can clarify how some participants described their experience, but they cannot establish the prevalence of a theme. Ethical approval numbers and the details of the incentive were also absent from the supplied manuscript.

Further work should combine surveys with observable evidence. A longitudinal design could test whether confidence or unaided performance changes over time. Experiments could vary when AI is introduced during an assignment and then measure originality, quality and similarity. Text analysis could compare matched work while accounting for discipline, task and prompt. Larger probability-based or carefully weighted samples would permit more credible institutional and disciplinary comparisons. Qualitative interviews could also test whether students distinguish dependence, collaboration and routine tool use in the same way as the questionnaire assumed.

## **Conclusion**

Students in this survey used ChatGPT frequently and valued it for clear practical reasons. It saved time, helped them begin tasks and made difficult material easier to understand. Those benefits appeared alongside

uncertainty about ownership and independent ideation. Many participants felt that ideas were becoming more alike across users, although the study did not measure the similarity of their work.

The evidence does not justify the claim that ChatGPT reduced creativity or caused cognitive homogenisation. It does show that many students experienced a tension between efficient assistance and work they regarded as distinctly their own. Universities can respond by assessing the development of ideas as well as the finished text, setting clear disclosure rules and preserving regular opportunities for unaided thinking. The educational question is not whether students use generative AI. It is whether the conditions of use allow them to explain, challenge and take responsibility for the ideas they submit.

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