

# Drawing the Line: University Students' Perspectives on Ethical and Unethical GenAI Use in Academic Work

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## Abstract

Despite generative artificial intelligence (GenAI) tools being widely used in higher education, ethical boundaries remain unclear. While existing research shows widespread GenAI adoption, less is known about how students define ethical and unethical use, and what criteria they use to distinguish acceptable assistance from authorship substitution. This study examined university students' perspectives on ethical GenAI use through a thematic analysis of 150 prompt-driven essays collected across three years (2024–2026) from participants at two Croatian universities. Participants demonstrated strong consensus in defining ethical use as functional support for understanding, organization, and technical refinement (brainstorming, clarifying concepts, grammar checking, summarizing materials, structuring essays), and unethical use as content generation that substitutes for student thinking (copying–pasting, exam cheating, submitting AI-generated work). Participants identified three overlapping criteria for authorship substitution: whether AI assists or replaces their work, whether they remain cognitively engaged, and whether they retain intellectual ownership. Participants also expressed concerns about learning loss, cognitive dependence, fairness, and authenticity, while also acknowledging efficiency benefits. Additionally, participants explicitly called for clearer institutional guidance and systematic AI literacy education rather than general prohibitions. Thus, the contribution of this study is the articulation of a student-generated framework for ethical use of GenAI and the translation of that framework into concrete principles for assessment and institutional policy.

**Keywords:** generative artificial intelligence, academic integrity, ChatGPT, ethical use.

## 1. Introduction

Generative artificial intelligence (GenAI) tools, that is, large language model (LLM) chatbots such as ChatGPT, Claude, Gemini, etc., have moved from novelty to everyday use in higher education in a short period, changing how students approach learning and assessment. Large-scale surveys and sector reports consistently show

rapid adoption and regular use. In the UK, nearly all surveyed undergraduates reported using AI in some form, and most reported using GenAI for assessments (Freeman, 2025). Earlier higher education pulse data similarly indicated that student adoption was already widespread by 2023 and likely to continue even under restrictive institutional responses (Tyton Partners, 2023). In addition, institutional stakeholders increasingly frame AI as a “thought partner” capable of supporting creativity, agency, and communication, and not just as a productivity tool (Microsoft, 2025).

In this context, ethical use has become a central concern that goes beyond a simple “cheating versus not cheating” dichotomy. Students frequently use GenAI for activities such as summarizing, clarifying concepts, brainstorming, rewriting, and drafting (Črček & Patekar, 2023; Farinosi & Melchior, 2025a; Jongkind et al., 2025). However, they also report uncertainty about acceptable boundaries, with perceived legitimacy varying by task type, assessment expectations, and institutional messaging (O’Dea et al., 2025). Faculty share these concerns: a recent survey of over one thousand US college teachers found that 78% reported increased cheating since GenAI became widely available, and 73% have personally confronted academic integrity issues involving student GenAI use (Watson & Rainie, 2026). Research shows a consistent pattern: students view low-stakes support, such as brainstorming or proofreading, as more acceptable than using AI to generate content that should demonstrate their learning (Črček & Patekar, 2023; Fudurić & Horvatić, 2025; O’Dea et al., 2025). Nonetheless, students sometimes engage in practices they consider unethical, especially when policies are unclear or inconsistently enforced (Črček & Patekar, 2023; Gonsalves, 2025).

Less is known about how students define what they consider ethical and unethical GenAI use and what criteria they use to distinguish acceptable assistance from authorship substitution (i.e., replacing the student’s work or thinking). Hence, the aim of the study is to explore how students conceptualize and justify ethical and unethical uses of GenAI tools for academic work, and how they determine the point at which GenAI shifts from legitimate support to replacing student authorship and thinking. In line with this, the study addresses the following research questions:

- RQ1. How do university students define ethical uses of GenAI tools for academic work?
- RQ2. How do university students define unethical uses of GenAI tools for academic work?
- RQ3. What criteria do students use to determine when GenAI shifts from acceptable support to authorship substitution in academic work?

## **2. Literature Review**

### **Student Uptake in Higher Education**

Across contexts, research shows that GenAI has become embedded in students’ study practices, but with variation in frequency and purpose. In Croatia, over half of surveyed students reported using ChatGPT for written assignments, most commonly for generating ideas, but also for summarizing, paraphrasing, proofreading, and – in

some cases – writing parts of assignments (Črček & Patekar, 2023). In Italy, evidence indicates that students often use ChatGPT for personal purposes and a minority for academic tasks such as summarization, clarification, and content generation (Farinosi & Melchior, 2025a). In discipline-specific settings, medical informatics students reported high rates of ChatGPT use (over 90%) and described educational use cases, including brainstorming, summarizing, rewriting, and coding assistance (Jongkind et al., 2025). Students conceptualize GenAI as multi-role support: writing assistant, tutor, and “digital peer” that offers process support, performance improvement, and affective benefits, while also introducing challenges related to the tool, user, and task (Kim et al., 2025).

Sector reports confirm these patterns. UK survey data indicate that GenAI use in assessments is now widespread, with common uses including explaining concepts, summarizing articles, and suggesting research ideas, while a smaller but consequential share report inserting AI-generated text directly into submitted work (Freeman, 2025). Earlier multi-institution pulse evidence similarly showed that student use was rapidly growing, with some daily users and a high likelihood of continued use even under bans (Tyton Partners, 2023). Together, these sources position GenAI not as a marginal tool but as an increasingly normalized element of student learning.

### **Boundary Work and Acceptable Assistance**

A central finding across studies is that students draw ethical boundaries based on the function of GenAI support and its relationship to learning and authorship. Croatian students judged idea generation as the most ethically acceptable use; other uses were more frequently seen as unethical, yet some students still reported engaging in those practices (Črček & Patekar, 2023). In a UK study, students described active “boundary work”: they wanted to use GenAI to support learning but worried about the line between legitimate support and cheating. They also expressed concern that some uses could limit their learning or expose them to misconduct accusations (O’Dea et al., 2025). Similarly, an Italian survey across 24 institutions found that many students considered using GenAI to assist assignment completion ethically questionable and worried about impacts on critical thinking, nevertheless preferring regulation over bans (Farinosi & Melchior, 2025b). Another study at an Italian university reported that many students were aware of ethical concerns and supported regulated use for specific learning activities (Farinosi & Melchior, 2025a).

Ethical perceptions also depend on task type. In a Croatian study of marketing professors and students, proofreading with ChatGPT was perceived as more acceptable than fully automating thesis writing (Fudurić & Horvatić, 2025). In applied professional programs, undergraduate nursing students described ethical considerations intertwined with authenticity of work, trust in GenAI information, and the need for clearer guidance to ensure GenAI augments rather than replaces student work (Siah et al., 2026). These studies suggest that students’ ethical judgments are rarely purely rule-based. Instead, they are grounded in educational purpose (supporting versus substituting learning), fairness, and risk management.

### **Academic Integrity and Misconduct Risk**

Academic integrity concerns are the most immediate institutional concern. The capacity of GenAI to produce fluent text creates new opportunities for misconduct and complicates detection, challenging existing assessment and integrity systems (Cotton et al., 2024; Eke, 2023; Francis et al., 2025). Empirical evidence complements this by examining how student psychology relates to use patterns. A survey of higher education students found that students who perceived ChatGPT use as risky used it less frequently and were less likely to intend to use it (Ortiz-Bonnin & Blahopoulou, 2025). Qualitative work with students and faculty in Lebanon likewise documented mixed perceptions. AI tools were seen as beneficial for productivity and learning support while also raising significant concerns about academic integrity, reinforcing calls for clear ethical guidelines and training (Karkoulia et al., 2025).

Policy and assessment redesign are thus recurring recommendations. Practical guidance-oriented work urges the rethinking of exam design and assessment strategies to increase cognitive complexity and reduce susceptibility to AI-generated outputs, alongside developing institutional policies and AI literacy (Evangelista, 2025). Policy analysis across eight countries found responses ranging from bans to custom AI assistants, with substantial variation and frequent reliance on individual faculty discretion (Amigud & Pell, 2025). This inconsistency is interpreted as evidence of confusion and a lack of settled best practice. In parallel, reviews emphasize the need to balance innovation with integrity through AI literacy programs, revised assessment designs, and transparent institutional frameworks that address equity and accountability (Francis et al., 2025).

### **Access, Trust, and Equity**

Ethical use is also constrained by readiness and access. Cross-national survey data indicate differences in students' readiness to adopt GenAI and in ethical considerations across the UK, Germany, Poland, and Israel, alongside consistently low access to paid and institutional tools (Eisenhardt et al., 2025). In a Netherlands-based program, paid subscription use and daily use increased across cohorts, suggesting that access and experience can stratify competencies and practices over time (Jongkind et al., 2025). Systematic review evidence similarly cautions that GenAI can widen gaps between more and less competent learners if adoption is uneven (Korchak et al., 2025).

Trust and perceived risk further structure ethical engagement. In language learning contexts, students who trusted GenAI were more likely to rely on it, while those who distrusted it resisted using it; however, these patterns were shaped by how risky students perceived GenAI to be and by their preference for self-directed learning (Wang et al., 2025). Qualitative nursing student accounts also emphasized trust and credibility of GenAI information as intertwined with ethical considerations and academic integrity (Siah et al., 2026). These findings imply that ethics cannot be treated solely as a compliance matter; it is tied to students' epistemic judgments about reliability, their capacity to evaluate outputs, and their willingness to resist inappropriate reliance.

Equity concerns are particularly salient in writing-intensive and linguistically diverse contexts. An analysis of a hundred US university statements on GenAI and writing argues that institutional guidance often fails to sufficiently account for L2 students and the ethical risks of bias in both GenAI outputs and detection tools, motivating a call for critical AI literacy and socially just policy design (Dang & Wang, 2024). At the sector level, UK data point to a widening digital divide, including gender and socioeconomic differences in GenAI use and confidence, and gaps between students' demand for institutional support and provision of training or tools (Freeman, 2025).

### **Regulatory Challenges Beyond Integrity**

While integrity dominates immediate debates, ethical concerns extend to privacy, bias, and governance. A systematic review highlights recurring ethical risks: data privacy violations, algorithmic bias, educational inequality, loss of cognitive autonomy, and insufficient oversight (García-López & Trujillo-Liñán, 2025). However, the review also notes potential benefits, such as personalized feedback and improved accessibility, when GenAI use is bound by ethical, legal, and pedagogical safeguards. Qualitative research in South African universities similarly reports widespread but informal use amid limited institutional guidance, producing ethical ambiguities and inconsistent practices; the research argues for structured institutional frameworks to support responsible adoption (Muringa, 2025). Together with evidence of institutional variation (Amigud & Pell, 2025), these findings frame the current moment as one of governance transition: institutions are still stabilizing norms, while student practices continue to evolve.

### **Implications for the Present Study**

The literature establishes four key findings: widespread student engagement with GenAI, persistent uncertainty about ethical boundaries, strong links between ethical judgment and institutional context, and significant equity challenges that shape what "ethical use" means in practice. What remains under-described is how students explicitly define ethical and unethical uses and how they operationalize the boundary between acceptable assistance and authorship substitution when asked to justify positions in writing. This study thus extends existing research in several ways. Whereas much prior work relies on surveys, short open responses, interviews, or focus groups, we analyze longer prompt-driven essays in which students must justify their positions in writing, providing richer access to their ethical reasoning. Furthermore, we move beyond frequency-of-use patterns to explicate students' own criteria for when GenAI shifts from acceptable support to authorship substitution. Finally, by synthesizing student accounts into a structured set of principles (Table 1), we offer a transferable framework that links concrete practices to broader debates about academic integrity, learning agency, and governance.

## **3. Method**

### **Participants**

Data were collected from students enrolled at two Croatian universities: one private university in Zagreb and one public university in Rijeka. Students represented a range of year levels (Years 1–5) across business, design, information technology, and

language programs. The students were between 18 and 25 years old. No other demographic data were collected in order to ensure a high level of anonymity.

### **Instrument**

The study used a prompt-driven essay task designed to elicit participants' perspectives on ethical and unethical GenAI use and their criteria for distinguishing acceptable assistance from authorship substitution. The essay prompt was:

- GenAI tools (such as ChatGPT) are here to stay. What do you consider ethical uses of such tools for your college assignments? What do you consider unethical? At which point does it stop being a helpful tool and starts being the author of your work? Use around 300 words.

### **Procedure**

Data were collected across three years (2024–2026) through an in-class, handwritten essay task, completed by different participants each year. Collecting essays across three consecutive years allowed us to capture student perspectives as GenAI tools moved from early novelty to more normalized elements of study practice within the same institutional contexts. The task was administered in a classroom setting during regular class time, and participants were given one hour to complete the task. Participants were informed that participation was voluntary and that they could opt out at any time without consequences. All handwritten essays were subsequently compiled into a single corpus for analysis. Of 167 essays collected, 17 were excluded because they were substantially shorter than the required length. The final analytic sample consisted of 150 essays. Essays were written in English (77), Croatian (64), and German (9). Essays written in Croatian and German were coded in the original language and translated into English only for reporting excerpts.

### **Data Analysis**

The dataset was analyzed using thematic analysis. Data analysis was guided by the study's research questions, with coding focused on (a) students' descriptions of ethical GenAI uses, (b) students' descriptions of unethical GenAI uses, and (c) the criteria students used to articulate the boundary between acceptable assistance and authorship substitution. Hence, coding was primarily inductive. After independent coding of an initial subset (20 essays), two researchers compared codes and refined the coding scheme before coding the full corpus. In case of discrepancies, a discussion was initiated until an agreement was reached. Analysis proceeded through iterative phases: (1) familiarization with the corpus through repeated reading; (2) generation of initial codes capturing segments relevant to ethical uses, unethical uses, rationales, and boundary markers; (3) clustering of codes into candidate themes; (4) reviewing and refining themes for internal coherence and distinctiveness; and (5) defining and naming themes with representative excerpts selected to illustrate each theme. Perplexity was used for organizational support; the researchers were responsible for all coding decisions and theme definitions. Throughout the analysis, attention was paid to capturing both commonly expressed positions and less frequent but conceptually important perspectives. Although essays were collected across three

cohorts (2024–2026), time was not used as a formal analytic category; any apparent shifts over time were therefore treated as tentative.

#### **4. Results**

The analysis produced 13 themes reflecting students' reasoning about ethical and unethical GenAI use and the criteria they apply when determining the boundary of authorship substitution. A thematic map, including themes, descriptions, and representative quotes for all 13 themes, is provided in the appendix (Table A).

##### **AI as Assistant vs AI as Replacement**

The strongest theme was the distinction between AI as assistant versus AI as replacement. Participants repeatedly stated that AI use is ethical when it supports understanding, planning, or polishing work, and unethical when it generates substantive content that is then submitted as the student's own writing. Participant 007 articulated this distinction clearly: *"I personally think that AI should be used to assist and aid you in your everyday work, rather than living your life for you and solving your problems. For me, that is the ethical way of using AI."* The idea of AI as a tool that should help rather than replace appeared consistently. Participant 020 explained: *"Typically, when I use AI tools, I use it for brainstorming ideas related to my assignment. But, I don't believe AI should be used for actually writing the content word for word of an assignment. This is when it becomes unethical."*

##### **Copy-Paste and Plagiarism**

A closely related theme was a strong condemnation of direct copy-paste from AI outputs. Verbatim use of AI-generated text in assignments without substantial transformation or attribution was almost unanimously described as plagiarism or cheating. Participant 006 stated: *"Using AI tools such as ChatGPT to write an essay for you or a project and then copy-pasting it in your own document would be considered unethical."* Participant 104 explained: *"When we just enter a prompt and 'copy-paste' the whole text, we are no longer the author of it."* Participant 029 drew an analogy to stealing: *"Would you steal somebody else's work? Hopefully, the answer is no. So, why would you steal AI's work?"* The copy-paste prohibition was often framed as both ethically and practically problematic. Participant 028 called it *"just disappointing. It is really noticeable when the text was written by AI and you cannot allow yourself to be so lazy and non-empathic. I view it as an insult to the professor, colleagues, and yourself."*

##### **Learning Loss and Cognitive Dependence**

Many participants expressed concern that heavy AI reliance undermines the educational purpose of assignments. Participants argued that when AI performs core tasks such as idea generation, argument development, or drafting, the student loses opportunities to practice critical thinking, problem-solving, and writing skills. The metaphor of cognitive decline appeared repeatedly. Participant 027 warned: *"It can get to the point where people are unable to think by themselves and are relying always on AI, in every situation."* Several participants reported personal experiences of dependency. Participant 016 reflected: *"Even though it helps, I started noticing that I am losing concentration if I have to read the text on my own, knowing that ChatGPT can do it instead of me."* Participant 055 noted more explicitly: *"I started to see signs where I cannot write one*

*paragraph without AI helping me; that's where I have a problem, and that AI is no longer helping me but making me stupid and not using my brain anymore."*

### **Acceptable AI Uses**

Despite variability in detail, participants showed strong agreement on a core set of ethically acceptable practices. These included:

- Brainstorming and generating ideas or potential topics.
- Clarifying difficult concepts or course material.
- Checking grammar, spelling, and phrase-level style.
- Summarizing existing notes or lecture materials for study.
- Suggesting structures or outlines for essays and presentations.
- Producing practice questions or quizzes for exam preparation.
- Helping with citation formatting (e.g., APA style).

Participant 020 explained: *"When I use AI tools, I use it for brainstorming ideas related to my assignment. For example, if I have a group essay for a certain topic and my group and I can't figure out how to organize the layout of the paper, we use AI to help us determine how to divide the paper."* Participant 100 similarly noted that *"ChatGPT can greatly help with guidelines for a seminar paper or essay if a student no longer has ideas about what to write"*. Participant 060 wrote: *"Personally, I used ChatGPT for my philosophy course. When I couldn't understand intricate language, I asked ChatGPT to explain it to me in simple words and give me examples if needed."* These uses were framed as ethically acceptable because they were seen as scaffolding for student learning rather than substitutes for it. Participants frequently contrasted these activities with content-generation uses (e.g., *"write my essay"*), which they defined as unethical.

### **Exam Cheating**

Use of AI in quizzes, tests, and exams was identified as a clear and non-negotiable boundary. Across the student essays, using AI to solve exam questions, generate quiz answers, or complete time-limited assessments was described as unequivocally unethical and incompatible with the purpose of assessment. Participant 026 described the capacity of AI for exam-solving: *"ChatGPT is a very powerful tool that is able to solve the whole quiz for you, usually with hundred percent of correct answers."* Participant 115 stated directly: *"Unethical use is when ChatGPT is used during an exam and its answers are copied down as ours."* Participant 044 reflected on the behavior of peers: *"In some instances, I've seen students get through a whole exam with AI, and that doesn't stand with me."* The severity of this violation was highlighted by Participant 033: *"Even if those students somehow finish all the courses without [the instructor] catching them, is that degree actually worth it? I know I wouldn't want to hire someone who cheated their way through university."*

### **Blurred Boundaries**

Although participants could name clear extremes, many of them grappled with the difficulty of drawing precise boundaries for intermediate cases. The metaphor of a "thin line" or "blurred line" between ethical and unethical use appeared frequently. Participant 007 wrote: *"There is a very fine line between ethical and unethical use of AI, and that line is becoming more and more blurred every day."* Participant 146 echoed this

concern: *"The line between ethical help and theft is narrow."* Gray areas participants identified included the extent of AI-generated outlines, the degree of paraphrasing required to make AI text "your own", and whether asking AI for sources constitutes doing research.

### **Perceived Benefits of AI**

A large proportion of essays highlighted time-saving as a major advantage of AI tools. Participants reported that AI can provide quick overviews, summaries, and clarifications that would otherwise require lengthy searches through textbooks or online resources. Participant 059 described the speed advantage: *"ChatGPT gives you the answer to question of any type in less than 10 seconds."* Participant 068 contrasted AI with traditional search: *"For a topic that I don't really understand or a situation that happened, asking a quick question and getting the response fast is much more efficient than doing a 20–30 minute Google search, and looking for a trustworthy site."*

### **Accuracy and Reliability Concerns**

Although most participants acknowledged the usefulness of AI for information retrieval and explanation, a substantial subset expressed skepticism about its accuracy. Several participants recounted experiences where AI provided incorrect calculations, misleading explanations, or fabricated information. Participant 013 reported a negative experience: *"I had some concerns about assignment that I needed to calculate and create some spread sheets. It turned out that AI gave me a wrong answer, which of course I didn't use. I consulted with my professor and that's how I found out it was the wrong answer."*

### **Loss of Personal Voice and Authenticity**

Participants also expressed concerns about the stylistic uniformity of AI-generated text. AI writing was frequently described as "robotic", "generic", or easily recognizable, and several participants noted that overuse risks eroding their own writing style and voice. Participant 046 stated: *"When it comes to writing, I would much rather present my own tone of writing, use of words, imagery and other stylistic devices that are unique to me as a person than having it sound robotic."* Participant 067 expressed a similar sentiment: *"AI does not have a soul and it's highly recognizable when you read its text. I find comfort in reading words written by a sentient being rather than a robot."*

### **Fairness and Integrity**

Unethical use of AI was widely seen as creating unfair advantages. Participants argued that peers who outsource significant portions of their work to AI are rewarded with similar grades despite investing less effort or acquiring less knowledge. Participant 047 expressed frustration: *"It is really unfair that some are working hard on every assignment, and then some are passing it without moving a finger."* Participant 133 highlighted the injustice: *"It is not fair [that students who work independently] get lower grades than those who use AI."* Participant 048 took pride in authentic work: *"I love to be proud of something I created or wrote, and it bothers me when I see people get better grades or congratulations from the professors on their good work, which isn't theirs."*

### **Contextual and Institutional Factors**

Many participants explicitly criticized the lack of clear, consistent guidance from instructors and institutions. Participants reported uncertainty about what was permitted in specific courses and assignments. Participant 043 advocated for adaptation: *"Using AI in courses should, in my opinion, be allowed, and courses should rather be tailored to that. Assignments should consist of essay questions that are specific and require a good grasp of the specific course material."* Participant 057 emphasized professors' responsibility: *"To determine the ethical problem, I believe that should be the professor's choice. Students will use AI as much as they can, without it being counted as cheating. So, the professor should determine how much we can use it."*

### **Call for AI Literacy**

Across the corpus, AI was described as an inevitable feature of contemporary and future academic and professional life. Rather than advocating for general prohibitions, participants frequently argued for integrating AI literacy and ethical AI use into curricula. Participant 012 wrote: *"AI is our future and we need to get used to it; it can make a lot of things way easier than what it used to be, and I think we need to appreciate it a bit more."* Participant 061 argued for early education: *"I actually think that colleges should have a course for students to learn how to utilize AI and it should be mandatory. Many good things AI can do for our benefit, and earlier you start, you get better at it."* Participant 037 referenced historical precedent: *"Previously, the same kinds of questions were being raised when calculators were invented; however, today, the majority of academic institutions use it as a shortcut in certain types of mathematical problem. Finding a calculator to become a useful tool that makes our lives easier was done by establishing general academic rules when it can or cannot be used."*

### **The Threshold of Authorship**

Participants identified a clear point at which AI shifts from being a helpful tool to the author of their work. Participant 003 captured this precisely: *"It stops being a useful tool at the moment when it becomes the only tool that we are using to create something."* Many participants identified the copy-paste moment as the definitive line, with Participant 059 stating: *"The point where it stops being your work is when ChatGPT does the creative part and develops an idea for you. That is the moment when you don't use your brain and ChatGPT starts to do it for you."* Participant 071 provided the philosophical framework shared by many: *"AI use becomes unethical when it stops being used as a tool and starts being used as a replacement for human thinking."* The underlying test participants propose is whether they can defend and explain their work. Ultimately, Participant 050 summarized the consensus: *"As soon as any GenAI tool starts writing sentences instead of you, it stops being ethical, and the tool becomes the author of your work instead of you."*

### **Variation and Dissenting Views**

Although most essays converged on the support-versus-replacement distinction, several participants articulated more permissive or more skeptical positions that complicated this consensus. A small subset framed GenAI as largely unproblematic and emphasized inevitability or fairness rather than authorship, with one student arguing that using AI to write essays is *"not unethical but rather not fair"* and concluding

that “there are a lot of unmoral and unethical problems in the world, and in my opinion, AI is not it” (Participant 012). Others normalized extensive AI use, suggesting that “what is ethical and what is unethical will always be a question, and always a personal one” (Participant 065) and that the key issue is how prompts are written rather than whether AI generates text. At the opposite end, a smaller cluster of essays rejected GenAI altogether in academic work, stating that “any use of artificial intelligence is an insult to human reason” (Participant 102) and calling for such tools to be avoided despite recognizing their practical advantages. These dissenting voices show that students’ ethical boundaries are negotiated and sometimes internally conflicted, even when they use a similar language of tools, learning, and authorship.

### Summary of Patterns

The results indicate convergence in student reasoning about GenAI in academic work. Participants distinguished sharply between AI uses that support understanding, organization, and technical polishing, and uses that substitute for their own intellectual and creative efforts. Ethical use preserves student authorship and cognitive engagement, while unethical use involves content generation without substantive transformation. Participants recognized substantial benefits in terms of efficiency and conceptual support, but are equally attentive to risks related to learning loss, dependence, fairness, and authenticity. Across the corpus, participants consistently expressed a desire for clearer institutional guidance and for educational practices that acknowledge AI as a lasting feature of the academic landscape rather than a temporary anomaly to be ignored or simply prohibited. Table 1 synthesizes the core principles that distinguish ethical from unethical use, organized around six key dimensions of the support-versus-replacement boundary.

*Table 1: Student consensus on ethical and unethical uses of AI in academic work*

| Ethical use                                                                                                                           | Unethical use                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Using GenAI to <b>support learning</b> (explanations, examples, clarification, practice) while the student does the intellectual work | Using GenAI to <b>replace learning</b> or outsource the intellectual work that the assignment is meant to assess                                 |
| Using GenAI for <b>idea generation and planning</b> (brainstorming, outlining, structuring suggestions)                               | Having GenAI <b>generate the assignment’s content/argument</b> and presenting it as student thinking                                             |
| Using GenAI for <b>language support</b> (grammar/spell-check, vocabulary/synonyms, reformulation, translation) as polishing           | Using GenAI to <b>produce substantial text</b> that is submitted as the student’s writing (including copy-paste with minor edits)                |
| Using GenAI for <b>initial research orientation</b> (topic overviews, keyword suggestions, starting points) <b>with verification</b>  | Treating GenAI as a <b>reliable source</b> without checking; using <b>unknown-origin</b> information; accepting fabricated/incorrect information |
| Using GenAI in line with <b>course/instructor rules</b> , sometimes with <b>disclosure</b> where expected                             | <b>Non-disclosure</b> of material GenAI involvement; use that violates course rules; “gaming” unclear boundaries                                 |
| Using GenAI in ways that preserve <b>fairness</b> (no unfair advantage, effort still visible)                                         | Using GenAI to gain <b>unfair advantage</b> (grades not reflecting genuine effort/competence); using it in <b>tests/exams</b> where not allowed  |

## **5. Discussion**

In this section, we return to the three research questions and situate findings within the existing literature.

### **RQ1: How Do University Students Define Ethical Uses of GenAI Tools for Academic Work?**

Participants demonstrated strong consensus around a set of acceptable uses for GenAI tools: brainstorming ideas, clarifying difficult concepts, checking grammar and style, summarizing course materials, structuring essays, generating practice questions, and formatting citations. These uses align closely with empirical accounts of actual GenAI adoption patterns (Črček & Patekar, 2023; Farinosi & Melchior, 2025a; Jongkind et al., 2025) and mirror the low-stakes support tasks that prior studies have identified to be perceived as more legitimate (Črček & Patekar, 2023; O'Dea et al., 2025).

What is particularly significant is that participants justified these uses not merely as permissible but as educationally valuable. Participants framed AI as a “thought partner” (Microsoft, 2025) that scaffolds understanding, accelerates information retrieval, and supports organization – roles that Kim et al. (2025) characterized as writing assistant, tutor, and digital peer. This emphasis on time-saving aligns with evidence showing that students value GenAI primarily for shortening research time and providing quick clarification (Freeman, 2025; Jongkind et al., 2025).

Importantly, ethical acceptability was consistently tied to the preservation of student agency and authorship. Uses were deemed acceptable when they supported the student’s own thinking rather than replacing it. This criterion is consistent with the finding by O'Dea et al. (2025) that students engage in active “boundary work” to distinguish support from substitution. The present findings extend this by showing that students not only perform this boundary work but also articulate a coherent normative framework: AI should help students understand, organize, and refine their work, but it should not think, create, or write on their behalf.

### **RQ2: How Do University Students Define Unethical Uses of GenAI Tools for Academic Work?**

Unethical uses were characterized by content generation without substantive intellectual contribution, verbatim copying, exam cheating, and plagiarism. This classification closely parallels existing integrity frameworks that position AI-generated content submission as contract cheating or a form of plagiarism when not properly attributed (Cotton et al., 2024; Eke, 2023; Francis et al., 2025).

The near-universal condemnation of copy-paste practices confirms prior survey evidence showing that students recognize content generation as more ethically problematic than support tasks (Črček & Patekar, 2023; Fudurić & Horvatić, 2025). Many students conceptualize AI-generated text as intellectual property deserving attribution, even as debates continue about whether LLM outputs constitute original authorship (García-López & Trujillo-Liñán, 2025).

Exam and quiz use was identified as a categorical boundary violation. This finding aligns with nursing student accounts in Siah et al. (2026), which emphasized assessment authenticity as an ethical imperative, and with broader concerns that AI threatens the validity of summative assessments (Cotton et al., 2024; Evangelista, 2025; Francis et al., 2025). Participants' own statements suggest that they viewed assessment as a measure of individual learning rather than mere credential attainment.

These findings are distinctive because they reveal students' ethical reasoning. Participants condemned unethical use not only for rule violations but for its consequences: it undermines learning, creates unfair advantages, erodes authenticity, and violates trust. This multi-layered critique suggests that their judgments draw on virtue ethics (personal development and integrity), deontological ethics (fairness and honesty), and consequentialist ethics (harm to self and others) (Fudurić & Horvatić, 2025).

### **RQ3: What Criteria Do Students Use to Determine when GenAI Shifts from Acceptable Support to Authorship Substitution?**

Participants identified a threshold of authorship substitution based on three overlapping criteria: functional role (whether AI assists or replaces), cognitive engagement (whether the student continues to think critically), and creative contribution (whether the student retains intellectual ownership).

The most common criterion was the distinction between AI as assistant versus AI as author. Participant 071's synthesis – "*AI use becomes unethical when it stops being used as a tool and starts being used as a replacement for human thinking*" – captures the core principle that legitimacy depends on preserving the student's role as primary intellectual agent. This finding aligns with the observation of O'Dea et al. (2025) that students experience anxiety about where the line lies and actively negotiate boundaries to protect their learning while benefiting from AI support.

The copy-paste moment emerged as a concrete behavioral marker of this threshold. Participants described a progression: asking AI for help → asking AI to write → copying one sentence → copying more → submitting AI-generated work. This finding has practical implications for policy: rather than defining ethics solely in terms of final outputs, institutions might productively focus on process norms that encourage students to use AI interactively and iteratively while retaining control over content decisions.

A second criterion centered on cognitive engagement and learning outcomes. Participants perceived that AI crosses the line when it prevents them from practicing skills or developing knowledge. This finding aligns with systematic review evidence that over-reliance risks reducing cognitive autonomy and critical thinking capacity (García-López & Trujillo-Liñán, 2025; Korchak et al., 2025). Several participants reported personal experiences of dependency – the inability to write without AI, loss of concentration when reading unaided – which suggests that the ethical question "when does AI become the author?" has a phenomenological dimension: students

recognize the threshold when they lose confidence in their own ability to produce work independently, paralleling concerns in the literature about erosion of self-efficacy and learned helplessness (Korchak et al., 2025).

A third criterion involved creative ownership and authenticity. Participants valued the preservation of personal voice, style, and originality. AI-generated text was frequently described as “robotic” and lacking “soul”. This finding connects to Dang and Wang’s (2024) argument that institutional AI policies often fail to account for the relationship between language, identity, and authorship, particularly for linguistically diverse students. While Dang and Wang (2024) emphasized equity concerns, the present findings suggest that concerns about voice and authenticity may be shared across student populations, and that students see authentic self-expression as intrinsically valuable, not merely as a compliance requirement but as a marker of intellectual integrity and pride in one’s work.

This third criterion can be further interpreted in terms of epistemic or learning agency, that is, who is positioned as the knower and decision-maker in AI-mediated learning. Recent work conceptualizes generative AI as part of a “symbiotic learning partnership”, arguing that such systems can easily become surrogate knowers unless learners adopt active, questioning epistemic stances and retain responsibility for evaluating and justifying AI-supported answers (Jose et al., 2025; Wu et al., 2025). Participants’ insistence that AI use is only ethical when they still understand and can defend the text they submit can thus be read as an effort to preserve their epistemic agency within these human-AI arrangements, rather than relinquishing that agency to the system.

While the three criteria for authorship substitution were widely shared, they did not operate as a single, uniform boundary. A minority of participants treated GenAI as an essentially neutral or inevitable resource. They located ethical concern mainly in issues of fairness or institutional response, rather than in authorship itself. Others explicitly normalized broad AI assistance. In contrast, a smaller group rejected GenAI in academic work almost entirely, worrying that reliance on such tools would erode cognitive development and the value of academic credentials. Collectively, these divergent positions suggest that students appropriate the same language of tools, learning, and authorship to justify quite different practices, indicating that the student-generated framework might function as a contested ethical repertoire rather than a fixed norm.

### **Broader Concerns**

Despite convergence on core principles, participants consistently acknowledged gray areas where ethical judgments are uncertain. The recurring “thin line” metaphor reflects the lived experience of norm ambiguity, aligning with evidence of uncertainty about acceptable boundaries and non-compliance due to unclear guidance (Gonsalves, 2025; O’Dea et al., 2025). Students are acutely aware that AI policies vary substantially across institutions and often rely on individual instructor discretion (Amigud & Pell, 2025), and explicitly call for clearer, more consistently applied

guidelines. This demand for clarity aligns with arguments that trust-based, well-communicated policies are essential for ethical governance (Francis et al., 2025; Gonsalves, 2025).

Strikingly, concerns about learning loss come from students themselves, suggesting the internalization of learning-centered values. If students recognize that AI can undermine learning but still use it for efficiency, the problem may be misaligned incentives rather than ethics alone, supporting recommendations for assessment redesign emphasizing process and cognitive demand (Cotton et al., 2024; Evangelista, 2025). This also connects to research on cognitive offloading (Gerlich, 2025; Lodge & Loble, 2026), which shows that delegating thinking to external tools can reduce mental effort, impair metacognitive monitoring, and weaken new skill formation.

Finally, participants reported both efficiency benefits and reliability skepticism. Accounts of incorrect outputs align with known risks of LLM hallucination (García-López & Trujillo-Liñán, 2025; Siah et al., 2026), yet many continue using AI despite these concerns, reinforcing the need for AI literacy that emphasizes critical evaluation and epistemic humility (Wang et al., 2025). Rather than advocating prohibition, participants called for curricular integration, echoing recommendations across the literature (Francis et al., 2025; García-López & Trujillo-Liñán, 2025). Their calculator analogy suggests that productive governance requires distinguishing AI-appropriate support from tasks where AI undermines learning objectives, necessitating both policy and pedagogical redesign (Amigud & Pell, 2025; Evangelista, 2025).

### **Limitations of the Study**

Several limitations should be acknowledged. First, the study relied on a single prompt-driven essay task, which may not fully capture the complexity or variability of students' ethical reasoning across different contexts and stakes. Participants' stated ethics may also differ from their actual behavior, particularly when institutional enforcement is weak or policies are unclear (Črček & Patekar, 2023; Gonsalves, 2025). Second, the sample was drawn from two Croatian universities and may not generalize to other national or institutional contexts where AI adoption, policy environments, and cultural norms around academic integrity differ. Third, essays were written by students who were aware their responses might be read by instructors, which may have introduced social desirability bias. Finally, no demographic data were collected, which supported anonymity but constrained our ability to examine intersections with exposure, age, gender, socioeconomic status, etc. As a result, the findings should be understood as analytically rather than statistically generalizable; ethical boundaries around GenAI use may differ in other cultural, institutional, or disciplinary contexts, and future work should examine how this framework transfers. Despite these limitations, the study provides valuable insights into how students conceptualize ethical boundaries in GenAI use and offers empirical evidence for patterns previously documented only through surveys or brief responses.

### **Implications for Practice and Policy**

The findings have several implications for educational practice and institutional governance. First, institutions should recognize that students possess sophisticated ethical frameworks and are capable partners in norm development, rather than merely subjects of top-down regulation. Involving students in co-creating AI policies may result in more legitimate, contextually responsive, and practically enforceable guidelines.

Second, institutions should move beyond binary prohibitions and develop nuanced, task-specific guidance that distinguishes acceptable from unacceptable AI uses. As participants in the present study demonstrated, the relevant ethical question is rarely “AI or no AI?” but rather “which uses, for which purposes, in which contexts?” Policies that specify acceptable scaffolding uses while prohibiting authorship substitution may better align with students’ own reasoning and reduce ambiguity. Such guidance can include short, assignment-specific AI use statements that clarify when students may consult GenAI, when they must disclose its use, and which processes remain under student control.

Third, assessment redesign is essential (cf. Corbin et al., 2025). If students use AI for efficiency gains but recognize that doing so undermines learning, the solution is not only to prohibit AI but to redesign assessments so that learning and performance are better aligned. Process-oriented assessment, metacognitive reflection, oral defenses, and discipline-specific problem-solving tasks may reduce AI susceptibility while reinforcing educational purpose. For example, instructors can require students to submit prompts and selected AI outputs alongside drafts, include brief reflections on how GenAI shaped their decisions, or defend key arguments in short viva-style components. These formats keep cognitive engagement and intellectual ownership with the student, even when GenAI is present in their workflow.

Fourth, AI literacy should be integrated systematically across curricula, not treated as an optional add-on. Literacy programs should address not only technical competencies (how to prompt effectively) but also epistemic competencies (how to evaluate outputs), ethical competencies (how to distinguish support from substitution), and reflective competencies (how to monitor one’s own dependence and preserve cognitive autonomy). Concrete activities might involve asking students to compare GenAI explanations with course materials, identify and correct hallucinated content, or revise flawed AI drafts using the three authorship-substitution criteria as a checklist, thereby turning GenAI into an object of critical inquiry rather than a hidden shortcut.

Finally, institutions should attend to equity not only in access to tools but in access to literacy, guidance, and supportive environments. The finding that students value AI primarily for time-saving suggests that workload pressures may drive ethically ambiguous use. Addressing these pressures through realistic assignment expectations, adequate support services, and equitable access to paid AI tools may reduce incentives for over-reliance and misconduct.

## 6. Conclusion

To conclude, university students possess nuanced, coherent, and educationally grounded frameworks for distinguishing ethical from unethical GenAI use in academic work. Ethical use is defined by functional support for understanding, organization, and refinement, while unethical use is characterized by content generation that substitutes for student thinking, creativity, and authorship. The threshold of authorship substitution is determined by whether AI assists or replaces, whether cognitive engagement is preserved, and whether students retain intellectual ownership. Students' ethical reasoning integrates concerns about learning outcomes, fairness, authenticity, and personal development, and they consistently call for clearer institutional guidance and systematic AI literacy education.

Overall, the findings offer the following contributions. At the conceptual level, the study articulates a student-generated framework for distinguishing support from substitution that centers on functional role, cognitive engagement, and intellectual ownership. At the empirical level, it provides an essay-based account of how students justify ethical and unethical GenAI uses in their own words across three cohorts at two universities. Finally, at the practical level, it translates these patterns into concrete principles and examples that can inform assessment design, institutional policy, and AI literacy initiatives in higher education.

## 7. AI Use Disclosure

Perplexity was used to support thematic analysis by helping organize and refine provisional codes/themes and to assist with language editing.

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## Appendix

*Table A: Overview of themes from thematic analysis*

| Theme                                  | Description                                                                                                                                                                                                       | Representative quote                                                                                                                                                                                      |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AI as assistant vs replacement         | Dominant theme: AI is ethical when it supports and scaffolds student thinking, and unethical when it generates substantive content that is submitted as the student's own work.                                   | <i>"AI should be used to assist and aid you in your everyday work, rather than living your life for you and solving your problems. For me, that is the ethical way of using AI."</i> (P007)               |
| Acceptable AI uses                     | Participants agreed on a core set of ethically acceptable practices: brainstorming, clarifying concepts, grammar checking, summarizing notes, outlining, generating practice questions, and formatting citations. | <i>"Personally, I used Chat GPT for my philosophy course. When I couldn't understand intricate language, I asked Chat GPT to explain it to me in simple words and give me examples if needed."</i> (P060) |
| Copy-paste and plagiarism              | Verbatim use of AI-generated text in assignments without substantial transformation or attribution was almost unanimously described as plagiarism or cheating.                                                    | <i>"When we just enter a prompt and 'copy-paste' the whole text, we are no longer the author of it."</i> (P104)                                                                                           |
| Exam cheating                          | Using AI during quizzes, tests, and timed exams was identified as a categorical, non-negotiable ethical violation, incompatible with the purpose of assessment.                                                   | <i>"Unethical use is when ChatGPT is used during an exam and its answers are copied down as ours."</i> (P115)                                                                                             |
| Learning loss and cognitive dependence | Heavy AI reliance was framed as undermining educational purpose. Participants worried about losing critical thinking, writing skills, and cognitive autonomy over time.                                           | <i>"I started to see signs where I cannot write one paragraph without AI helping me; that's where AI is no longer helping me but making me stupid and not using my brain anymore."</i> (P055)             |
| The threshold of authorship            | Participants identified the point at which AI becomes the author as when it replaces student thinking rather than supporting it, with cognitive engagement and intellectual ownership as the key tests.           | <i>"AI use becomes unethical when it stops being used as a tool and starts being used as a replacement for human thinking."</i> (P071)                                                                    |
| Blurred boundaries                     | While participants could identify clear extremes, many struggled with gray areas: how much AI-generated outline is acceptable,                                                                                    | <i>"There is a very fine line between ethical and unethical use of AI, and that line is becoming more and more blurred every day."</i> (P007)                                                             |

| Theme                                   | Description                                                                                                                                                                           | Representative quote                                                                                                                                                          |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         | how much paraphrasing is needed, whether AI-retrieved sources count as doing research.                                                                                                |                                                                                                                                                                               |
| Fairness and integrity                  | Unethical AI use was widely framed as creating unfair academic advantages: peers who outsource to AI receive comparable grades despite less effort, undermining collective integrity. | <i>"It is really unfair that some are working hard on every assignment, and then some are passing it without moving a finger." (P047)</i>                                     |
| Loss of personal voice and authenticity | AI writing was described as robotic and generic. Participants valued their own stylistic identity and expressed concern that heavy AI use erodes authentic expression.                | <i>"AI does not have a soul and it's highly recognizable when you read its text. I find comfort in reading words written by a sentient being rather than a robot." (P067)</i> |
| Perceived benefits of AI                | A large proportion of essays highlighted efficiency and time-saving as major advantages, framing AI as a faster alternative to lengthy searches or re-reading material.               | <i>"Asking a quick question and getting the response fast is much more efficient than doing a 20–30 minute Google search, and looking for a trustworthy site." (P068)</i>     |
| Accuracy and reliability concerns       | A substantial subset expressed skepticism about AI accuracy, recounting experiences of incorrect outputs, misleading explanations, and fabricated information.                        | <i>"It turned out that AI gave me a wrong answer, which of course I didn't use. I consulted with my professor and that's how I found out it was the wrong answer." (P013)</i> |
| Contextual and institutional factors    | Participants criticized the lack of clear, consistent institutional guidance and called for course-specific AI policies, arguing that ambiguity drives ethically uncertain behavior.  | <i>"Students will use AI as much as they can, without it being counted as cheating. So, the professor should determine how much we can use it." (P057)</i>                    |
| Call for AI literacy                    | Rather than advocating bans, participants consistently called for integrating AI literacy and ethical use into curricula, referencing the calculator precedent as a governance model. | <i>"I actually think that colleges should have a course for students to learn how to utilize AI and it should be mandatory." (P061)</i>                                       |