

Use And Perception Of Generative AI In Higher Education

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Use and Perception of Generative AI in Higher Education: Insights from the ERASMUS+ Project 'Teaching and Learning with Artificial Intelligence' (TaLAI)

Topics: AI Literacy; Next Generation Teaching and Learning Environments

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Use and Perception of Generative AI in Higher Education: Insights from the ERASMUS+ Project 'Teaching and Learning with Artificial Intelligence' (TaLAI)

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Keywords: Generative AI, Higher Education, Perception, Survey Results.

Abstract: The integration of Generative Artificial Intelligence (GenAI) in higher education offers transformative opportunities alongside significant challenges for both educators and students. This study, part of the ERASMUS+ project Teaching and Learning with Artificial Intelligence (TaLAI), aims to explore the familiarity, usage patterns, and perceptions of GenAI in academic settings. A survey of 152 students (mainly from Germany, Belgium, and the Netherlands) and 118 educators (81 professors, 37 trainers) reveals widespread GenAI use, with ChatGPT being the most common tool. Findings indicate both enthusiasm for GenAI's potential benefits and concerns regarding ethical implications, academic integrity, and its impact on learning processes. While students and educators recognize GenAI's ability to enhance learning and productivity, uncertainties persist regarding assessment practices and its potential short and long-term effects on various aspect such as decision making, creativity, and memory performance. The study also highlights gaps in institutional support and policy, emphasizing the need for direct communication to create responsible AI adoption. This paper contributes to the ongoing discussion on GenAI in higher education and is aimed at educators, policymakers, and researchers concerned with its responsible use. By addressing students' and educators' both perspectives and concerns, institutions and policy-makers can develop well-informed strategies and guidelines that promote responsible and effective use of GenAI, ultimately enhancing the overall teaching and learning experience in academic environments.

1 INTRODUCTION

The rapid advancement of Generative Artificial Intelligence (GenAI) has the potential to revolutionize higher education by offering tools that enhance teaching and learning experiences. Unlike traditional AI models that rely on predefined rules and statistical predictions, GenAI refers to models that generate novel, previously unseen content based

on the data they have been trained on. These models produce human-like material that can be interacted with and consumed, rather than merely analyzing existing data patterns (Garcia-Palacio & Vázquez-Higueras, 2025). GenAI-powered tools have demonstrated capabilities in generating content, aiding in problem-solving, summarizing texts and providing personalized feedback, making them invaluable in educational contexts (Dale & Viehman,

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TaLAI (Teaching and Learning with Artificial Intelligence in Higher Education)

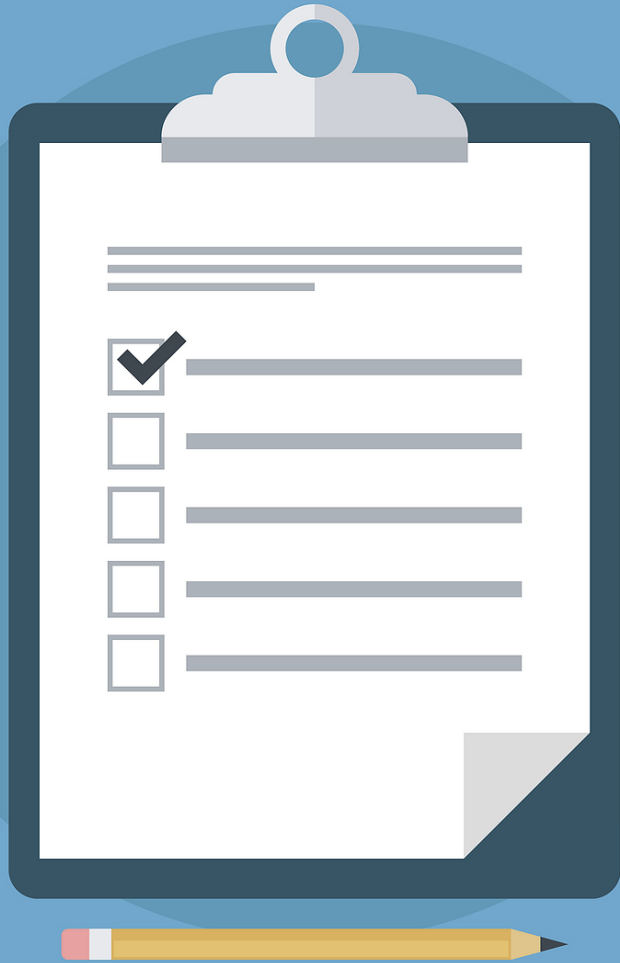


- **Objective:** introduce innovative pedagogical approaches that ethically integrate AI in higher education.
- **Partners:**
 - ✓ FAU-Institute for Learning-Innovation (FAU-ILI) (Germany)
 - ✓ South Westphalia University of Applied Sciences (FH-SWF) (Germany)
 - ✓ University of Amsterdam (UvA) (Netherlands)
 - ✓ Media & Learning Association (Belgium)
- **Timeline:** November 2023- October 2026
- If you are interested to learn more about the project please visit www.talaiproject.eu

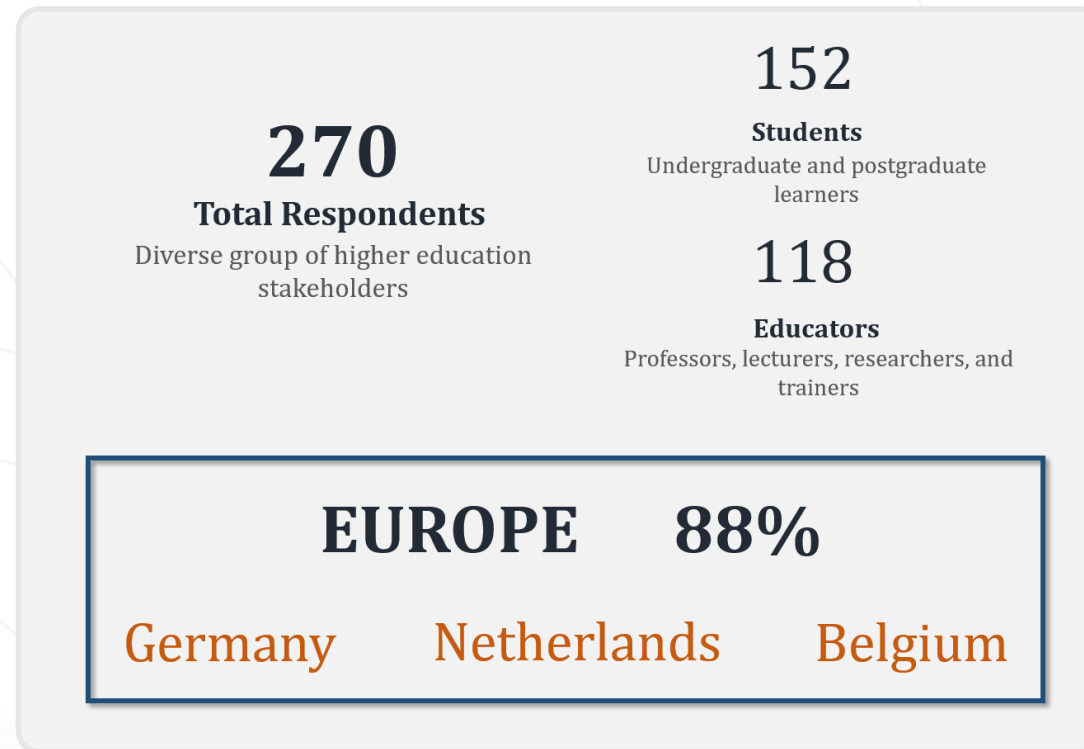
Survey

A survey of educators and students assessed the current status of GenAI use, perception, and acceptance within higher education institutions

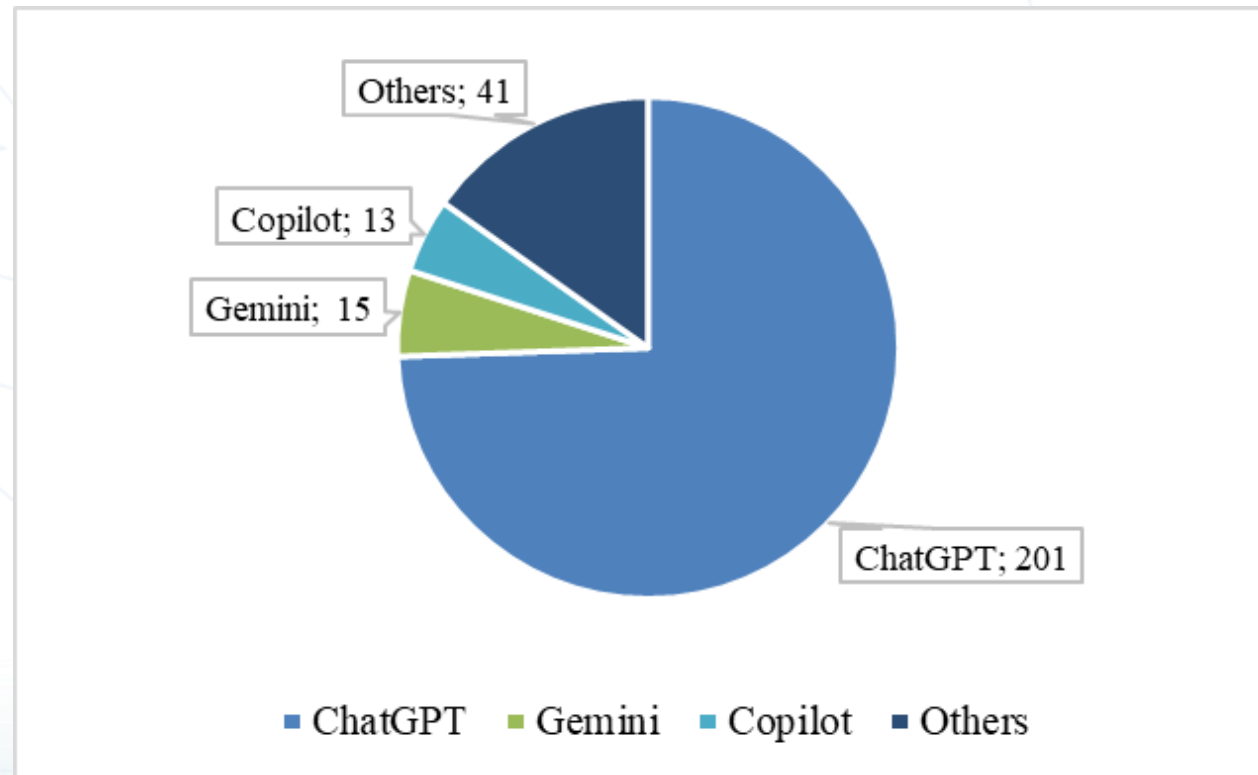
Timeline: 12 June 2024 - 2 September 2024



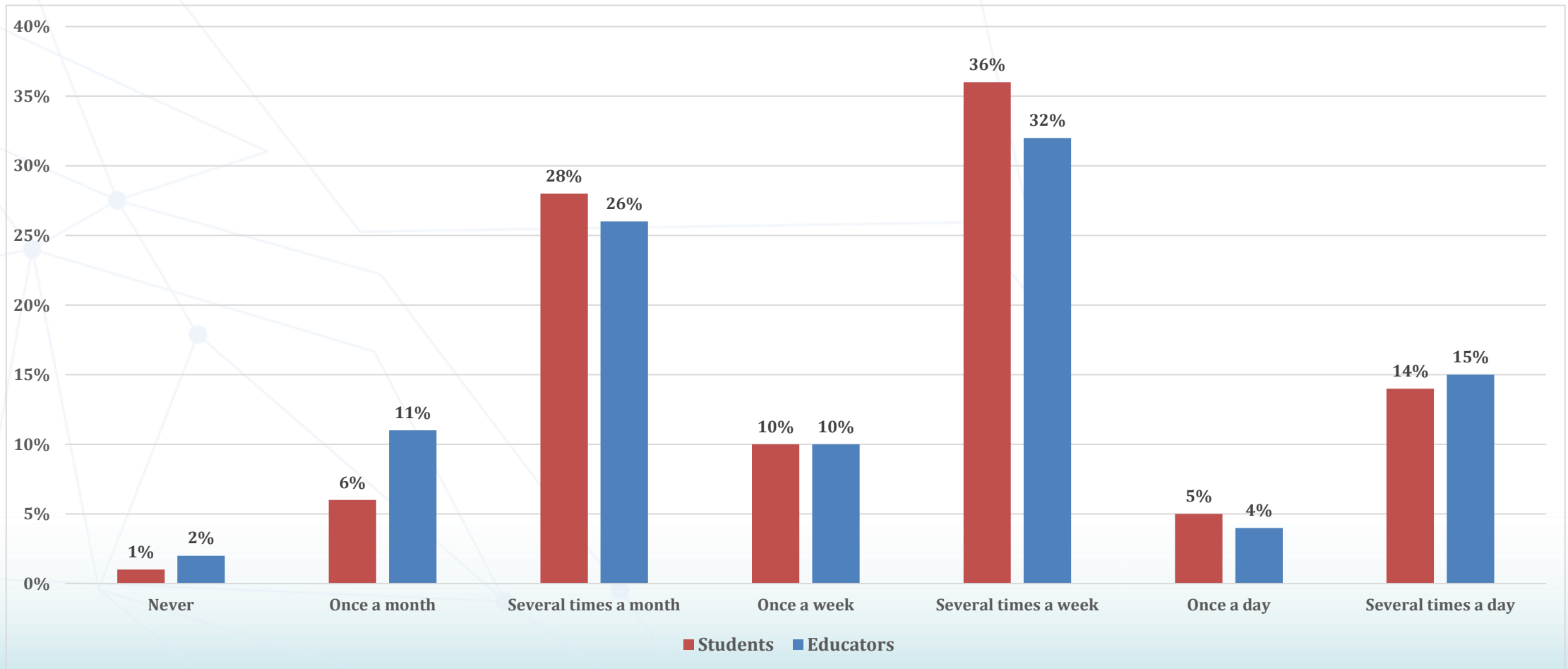
Survey Participants



Generative AI Tool Preference : 'Number One' Tool



Use Behavior: Students and Educators



How do you feel when using genAI tools in your (studies / teaching / academic work)?



Excited

58% of educators and 45% of students feel excited



Empowered

36% of educators and 40% of students feel empowered



Indifferent

16% of educators and 24% of students feel indifferent



Anxious

18% of educators and 11% of students feel anxious



Guilt

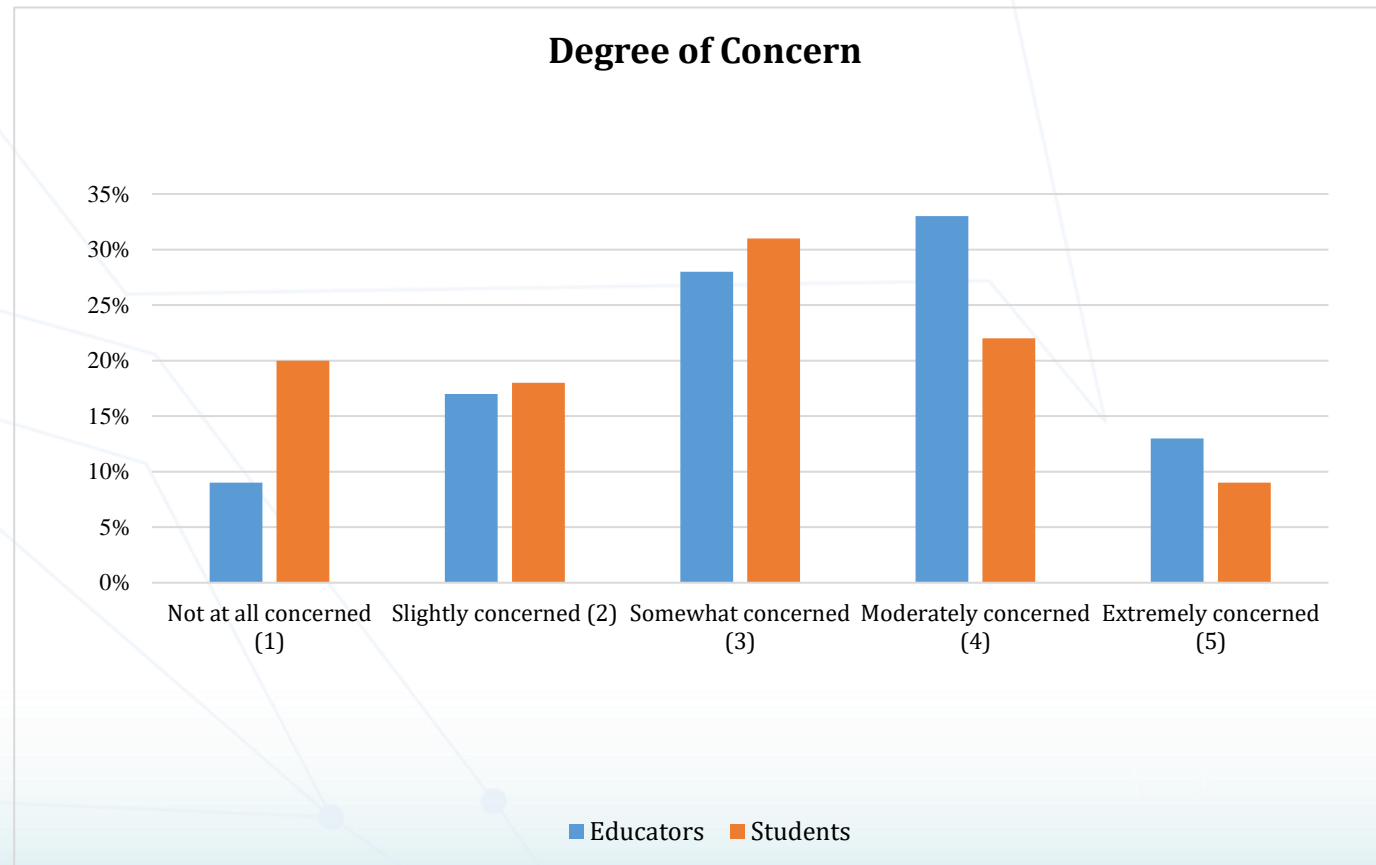
8% of educators and 14% of students feel guilty



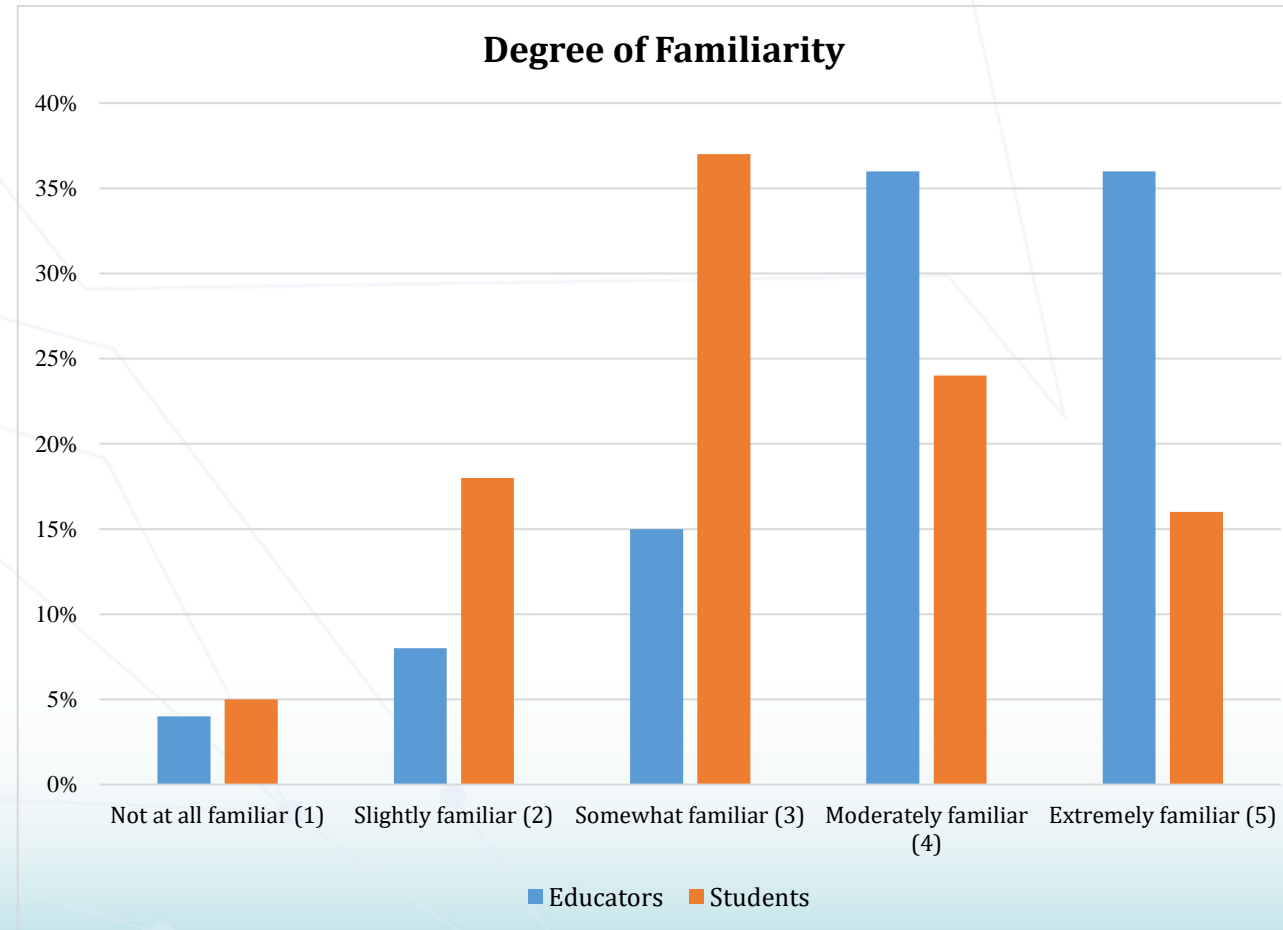
Others

19% of educators feel others (curiosity, caution, frustration etc.)

Do you have concerns while using GenAI in higher education?



How familiar are you with the ethical implications of integrating GenAI technologies in higher education?



Educators' Perspectives:

Do you encourage students to use generative AI tools responsibly and ethically for academic purposes?

77%



Encourage Use

Educators actively support GenAI usage in academic settings

13%



Uncertain

Educators unsure about encouraging GenAI use

10%



Discourage Use

Educators do not endorse GenAI use in academia

Students' Perceptions:

Do your lecturers/professors encourage you for responsible and ethical use of generative AI tools regarding academic purpose?

56%



Encourage Use

of students receive encouragement
for responsible GenAI use

24%



Uncertain

are unsure about receiving guidance on
ethical GenAI use

20%



No Encouragement

report no encouragement from
educators

Classroom Practices: How do you handle the use of generative AI in graded assignments?

Approaches to Handling Generative AI in Graded Assignments

I do not allow the use of genAI in any graded assignments

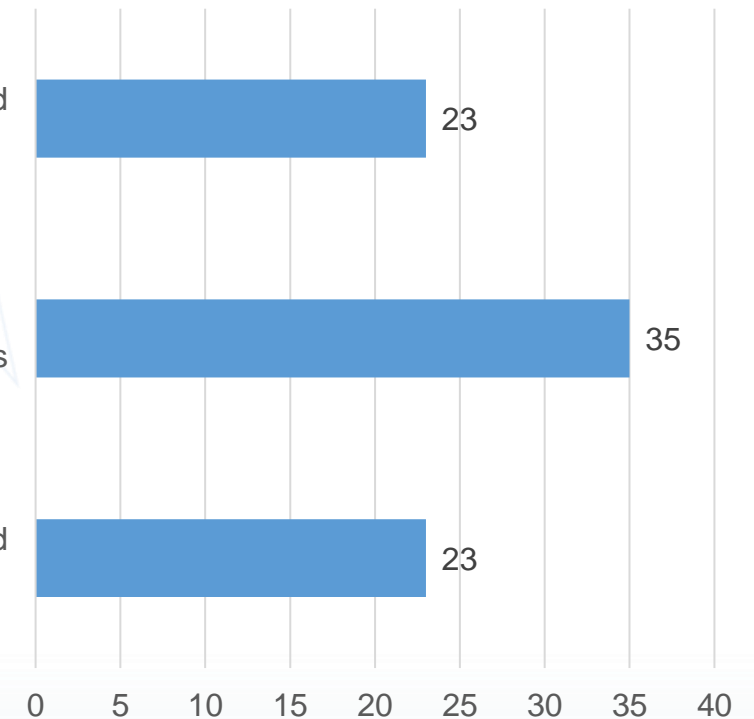
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I allow the use of genAI in graded assignments only for specific purposes

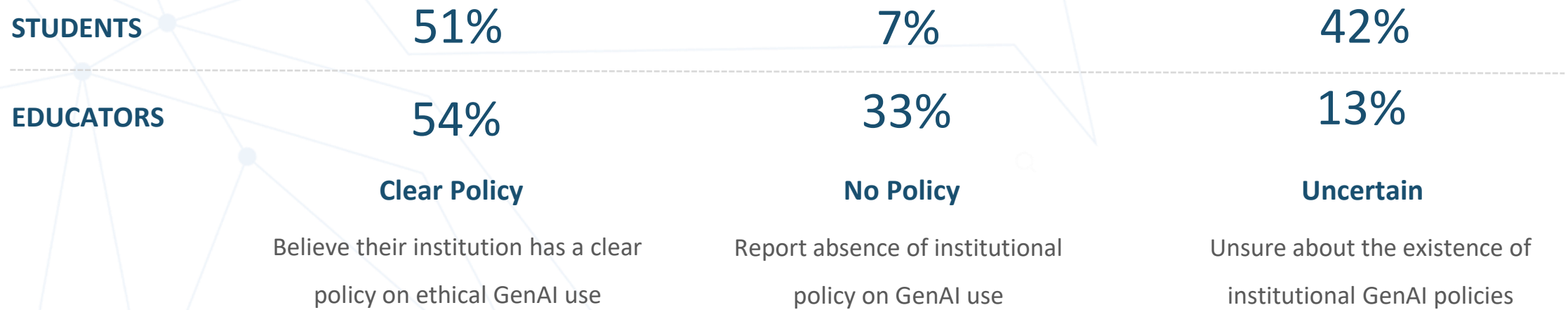
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I allow the use of genAI in graded assignments in general

23



Institutional Policy Awareness : Does your university/program have a policy on the ethical use of genAI tools?



Key Findings

- **Similarities between Students and Educators:** Intensity of use, emotions associated with it, and perceived impact on learning are surprisingly similar for both students and educators.
- **GenAI in Assignments:** Over 70% of instructors allow at least some use of generative AI in graded assignments.
- **Ethical Implications:** Teachers are more aware of ethical implications and express greater concern. Academic integrity remains the main issue.
- **Institutional Policy:** Only half of the students and educators perceive a clear institutional policy. Many students are uncertain about policies (42% compared to 13% of educators).
- **Institutional Support:** Clear guidelines, educator training, and student resources are needed for the responsible use of GenAI.