

FROM CLASSROOM TO CAREER

How generative AI tools affect student memory and job preparedness during their undergraduate studies

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BACKGROUND

- Guidelines surrounding generative artificial intelligence (GenAI) usage in universities are unclear and inconsistent.³
- There is no clear consensus on whether or not GenAI tools are beneficial in higher educational settings.^{1,2}
- Differing implementation of GenAI guidelines lead to differing outcomes in learning retention and memory impairment.^{4,5}

OBJECTIVE

Understanding how students' usage of GenAI tools in their studies can impact learning retention and career readiness.

METHODS

- Cross sectional study was conducted using an anonymous online questionnaire distributed through Qualtrics.
- Questionnaire distributed via email, social media and word of mouth.
- Participants (n=83) self-reported their demographics, frequency of GenAI usage, and perceived retention and readiness to graduate from UC San Diego.
- Data was cleaned and analyzed using Python.

RESULTS

Figure 1: Distribution of Survey Respondents by Major Department

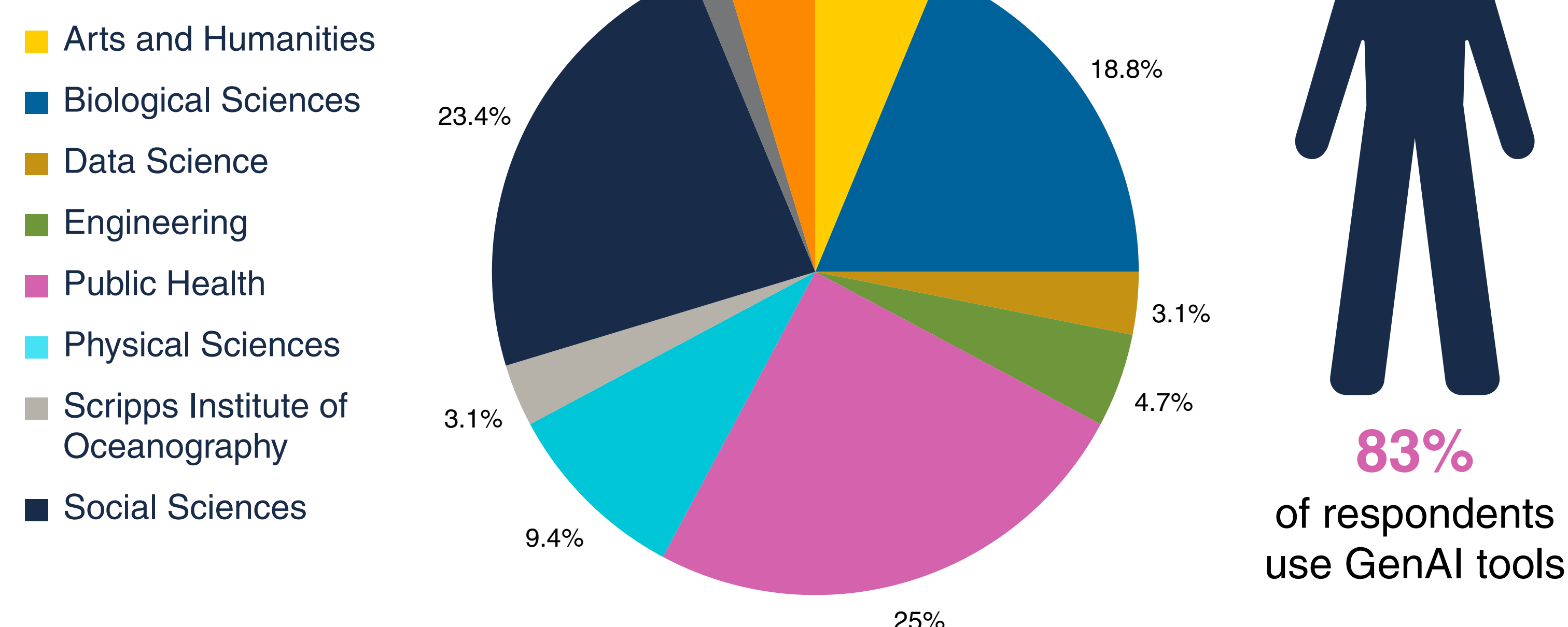


Figure 2: How Different Factors Impact the Decision to Use or Not Use Generative AI Tools

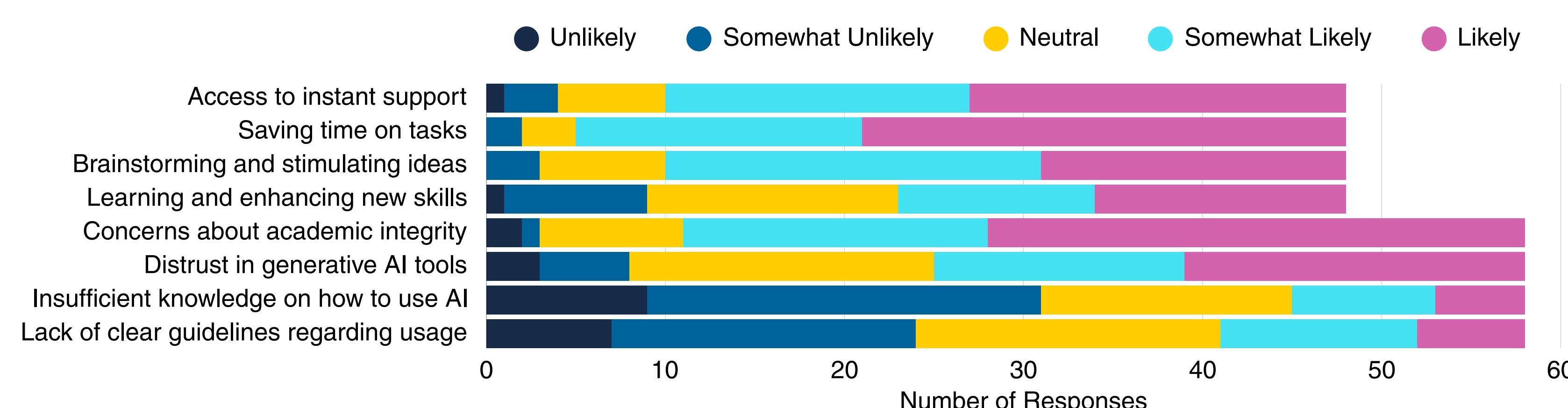


Figure 3: Most Common Uses for GenAI Tools Among Undergraduate Students

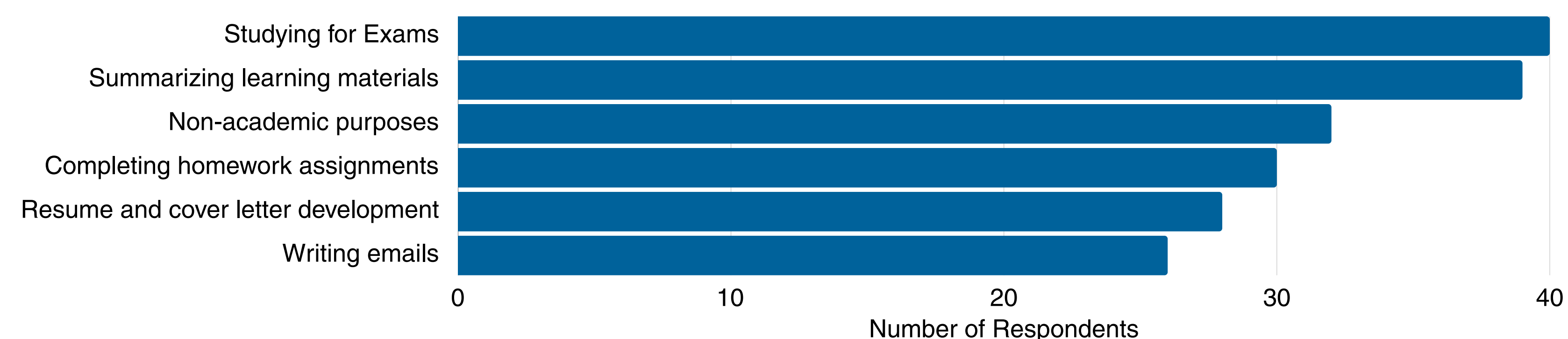
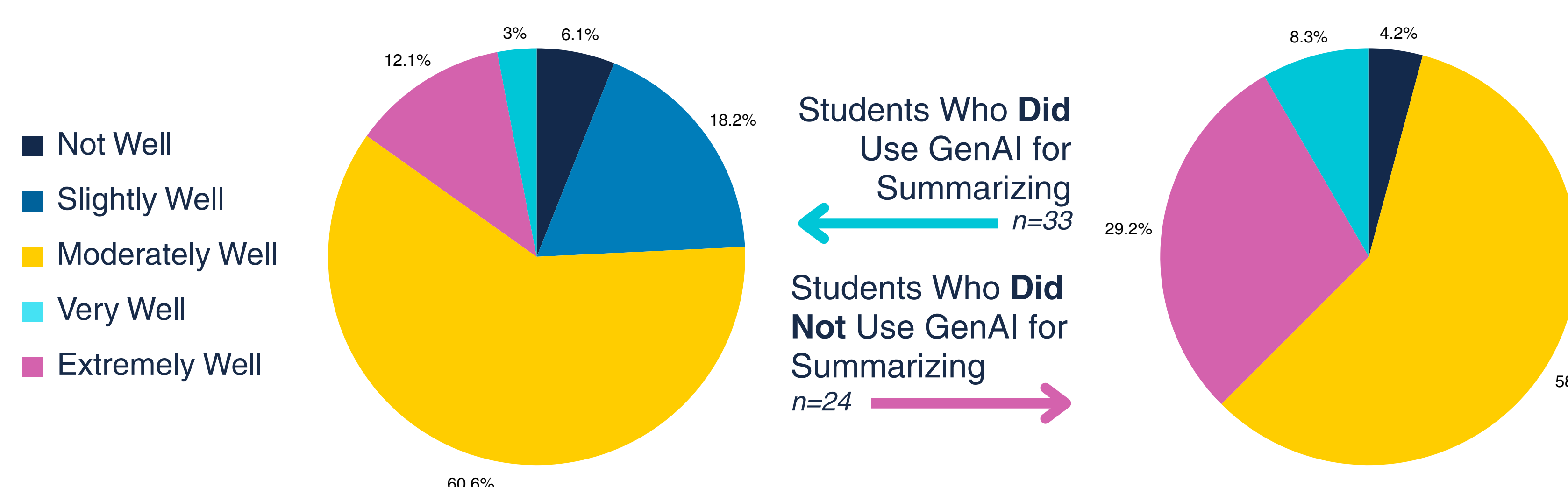


Figure 4: Self-Perceived Learning Retention Among Students Who Used and Did Not Use GenAI for Summarizing Learning Materials



DISCUSSION

- Students' decisions to use GenAI tools is most highly influenced by saving time on tasks and concerns surrounding academic integrity guidelines.
- There is no statistically significant change in self-perceived career readiness between those who use GenAI tools and those who do not.
- Students who used GenAI tools to summarize learning materials, such as lecture notes, at higher rates have lower self-perceived learning retention than those who did not use GenAI tools for this purpose ($p = 0.016$)



89%
Saving Time
on Tasks



79%
Access to
Instant Support



53%
Insufficient Knowledge
on GenAI Tools



41%
Lack of Clear
Guidelines on Usage

IMPLICATIONS

- Understanding student attitudes enable instructors to develop curriculum that responsibly implements GenAI tools while enhancing student learning, retention and readiness to graduate.
- Clear guidelines that address appropriate and ethical usage of GenAI tools would alleviate concerns regarding academic integrity, while also turning this tool into an ally for personalizing learning and academic growth.

REFERENCES
AND
RECOGNITIONS

