Virtually Honest? Exploring the Relationship between Remote Testing and Academic Integrity in College Students

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Author Note

We have no known conflict of interest to disclose. Correspondence concerning this study should be addressed to, Department of Psychology, Goucher College, 1021 Dulaney Valley Road, Baltimore, MD 21204.

Abstract

This study explored the relationship between remote testing/assignments and academic integrity in college students, specifically how students enrolled in in-person courses use outside sources during closed-note assignments and tests/quizzes. A self-reported survey collected data from students across multiple demographic groups, exploring their use of tools such as Google and AI. Results showed no significant differences in academic dishonesty based on class year, age, or gender, suggesting that these behaviors go beyond demographic factors. However, participants reported a greater preference of Google over AI when engaging in dishonest behaviors, reflecting the accessibility and familiarity of traditional technologies. Future research focused on controlling any limitations, addressing emerging technological challenges, and developing strategies to uphold academic integrity in remote learning environments was also discussed.

Keywords: academic integrity, remote testing/assignments, outside sources, survey, college students

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Academic integrity, defined as the ethical commitment to honesty, trust, fairness, respect, and responsibility in academic work, serves as a foundation of ethical academic conduct (Fishman, 2014). However, as virtual assignments become more common, maintaining these standards has proven difficult. The shift to virtual environments has created opportunities for students to engage in dishonest behaviors, such as using unauthorized resources during assessments, which may undermine the reliability of academic evaluations (Augusta & Henderson, 2021).

Research has shown that students are more likely to rely on outside sources when assessments are not directly monitored or proctored, a trend particularly evident in fully online courses (Buchanan & Heur, 2021; Smith & Clark, 2020). Despite this, little is known about the behaviors of students enrolled in in-person courses who still encounter remote or unsupervised assessments. These situations, which have become increasingly common due to administrative changes and institutional policies, diminish the distinction between traditional and online learning environments, highlighting the need for further investigation.

In addition to the impact of monitoring, motivational and contextual factors also play a role in academic dishonesty. Murdock and Anderman (2006) proposed that students are more likely to cheat when they prioritize performance goals over understanding the material and perceive minimal risk of detection. In the context of online learning, factors such as increased reliance on technological tools, isolation from peers, and the lack of proctored assessments may exacerbate these tendencies (Augusta & Henderson, 2021; Rane, Desai, & Paramesha, 2024).

Technological advancements, particularly artificial intelligence (AI), have further complicated the realm of academic integrity. Tools such as ChatGPT and other AI-based platforms provide students with quick access to answers and content generation, raising ethical concerns about their misuse in academic settings (Rane et al., 2024). While these tools hold potential for enhancing learning, they also present ethical dilemmas that institutions must address through effective strategies.

The current study aimed to build on existing research by examining the relationship between remote testing and academic integrity, with a specific focus on how students in in-person courses use outside sources during closed-note tests and assignments. It was hypothesized that students enrolled in in-person courses would report frequent use of unauthorized resources during unsupervised assessments. By exploring these behaviors and considering the role of technology, this research seeks to provide educators with critical insights for upholding academic standards in hybrid or remote learning environments.

Method

Participants

The participants included 68 undergraduate college students from a small liberal arts college in a Northeastern Metropolitan area. Participants were between the ages of 18 and 23, and their ages were categorized into two groups: group 1 (ages 18-20) and group 2 (ages 21-23). Group 1 made up 66.2% of the participants (n = 45), while group 2 made up 33.8% of the participants (n = 23). Participants came from a diverse range of racial backgrounds.

Materials and Procedure

Participants were recruited randomly for the survey through flyers distributed around campus, mass email invites, and SONA system. The survey, which consisted of 21 questions, was administered online and took approximately 10-15 minutes to complete. It was structured into three sections to collect targeted information. The first section gathered demographic information, including age, race, class-year, gender, major or minor, and residential status (on-campus or commuter). The second section focused on academic behaviors and experiences with virtual tests and assignments, covering topics such as typical completion times for assignments, participation in virtual tests or quizzes, engagement with virtual coursework, and the use of outside sources during closed-note tests and assignments. The closing section featured an open-ended question which encouraged participants to suggest institutional strategies for promoting academic integrity. Participants completed the survey anonymously. The survey questions can be found in the appendix.

Results

Descriptive statistics were calculated to summarize participants' use of outside sources on closed-note tests and assignments, the prevalence of cheating across demographic groups, and reliance on tools such as Google and AI.

To examine differences by class year (Freshman, Sophomore, Junior, Senior), a one-way between-subjects ANOVA test was conducted. Results showed no significant differences between class year and the use of outside sources, $p > .05$, with a minimal effect size ($R^2 = .032$), indicating that class year explained very little variance in the use of outside sources. This suggested that reliance on outside sources was consistent across all class years.

An independent samples *t*-test compared age groups (ages 18-20 vs. ages 21-23) to assess differences in use of outside sources. Results showed no significant differences between the two age groups, $p > .05$, with nearly identical means for the 18-20 age group ($M = 2.57$, $SD = .88$) and the 21-23 age group ($M = 2.55$, $SD = .82$). A minimal effect size (*Cohen's d* = .02) confirmed that age had little influence on participants' behaviors.

A one-way between-subjects ANOVA test was also conducted to explore differences in the use of outside sources among gender groups (Male, Female, Nonbinary). Mean usage scores were $M = 2.59$ ($SD = .88$) for males, $M = 2.59$ ($SD = .89$) for females, and $M = 2.24$ ($SD = .50$) for nonbinary participants. Results showed no significant differences between gender groups, $p > .05$, with a small effect size ($n^2 = .012$).

Finally, a related samples *t*-test compared participants' use of Google and AI when engaging in dishonest behaviors. Results showed a significantly higher reliance on Google ($M = 2.75$, $SD = 1.16$) compared to AI ($M = 2.03$, $SD = 1.21$), $t(64) = 4.106$, $p < .05$. The effect size was moderate (*Cohen's d* = .509), indicating a meaningful preference for Google. The mean difference of $M = .723$ ($SD = 1.42$) was statistically significant, with a 95% confidence interval of 0.371 to 1.075.

Discussion

This study explored the relationship between remote testing and academic integrity, focusing on how students in in-person courses use outside sources during closed-note tests and assignments. The results revealed no significant differences in the use of outside sources across class year, age group, or gender. However, a notable finding was the significant preference for Google over AI when engaging in dishonest behaviors. These results align with prior research

suggesting that the accessibility of familiar and trusted tools, often outweighs interest in newer technologies, such as AI, for academic dishonesty (Alessio, Malay, Maurer, Bailer, & Rubin, 2022).

The lack of significant differences across demographic groups highlights the universal nature of academic dishonesty, challenging assumptions that certain groups may be more prone to cheating. This finding mirrors results from Monahan and Shah (2023), who found minimal variance in cheating behaviors between traditional and non-traditional students when using proctoring software. This suggests the reliance on outside sources during remote assessments is not heavily influenced by individual characteristics and that the availability of resources and lack of supervision may be more critical factors behind academic dishonesty (Augusta & Henderson, 2021).

Additionally, this study's findings also align with broader theoretical perspectives. According to the Behavioral Engineering Model (Chiang, Jhangiani, & Price, 2022), academic dishonesty often results from a combination of personal motivation, external pressures, and environmental factors. The limited supervision in remote or hybrid learning environments provides opportunities for dishonesty, reiterating earlier concerns about the ethical dilemmas posed by unsupervised assessments (Augusta & Henderson, 2021). To address these issues, institutions may consider an approach which includes increasing assessment transparency and fostering a culture of integrity.

This study has several limitations that must be acknowledged. First, the use of a self-report survey introduced potential biases, such as social desirability or underreporting of dishonest behaviors. While anonymity was emphasized to reduce these biases, future studies could change the research design or include behavioral measures, such as tracking outside

software usage during assessments. Second, the sample was relatively small and came from a single institution, which limits the generalizability of the findings to other populations or educational contexts. Future research should aim to include larger, more diverse samples to ensure broader applicability. Finally, the study's focus on Google and AI tools may overlook other technological resources that students often use, such as group chats or even paid services for completing assignments. Expanding the range of technological tools studied could provide a deeper understanding of how students navigate ethical challenges in remote environments.

Future research should explore the comparative effects of monitoring and proctoring technologies across different assessment formats. Longitudinal studies examining students' ethical development in hybrid courses could also offer deeper insights into how academic integrity evolves over time. As the integration of online components in traditional coursework continues to grow, it is essential to develop proactive strategies that balance technological advancements with ethical accountability.

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Appendix

Survey Questions

1. How old are you?

a. 18-20

b. 21-23

c. 24+

2. What gender do you identify with?

a. Male

b. Female

c. Non-binary/third gender

d. Prefer not to say

3. What is your class year?

a. Freshman

b. Sophomore

c. Junior

d. Senior

4. What is your race?

a. Caucasian

b. African American

c. Asian

d. Hispanic/Latino

e. American Indian/Alaska Native

f. Native Hawaiian/Pacific Islander

g. Other

5. State your major and/or minor:

6. Are you a resident or a commuter?

a. Resident

b. Commuter

7. I complete assignments before deadlines:

a. Never

b. Rarely

c. Sometimes

d. Often

e. Always

8. I take virtual tests/quizzes as a part of my coursework:

a. Weekly

b. Biweekly

c. Monthly

d. A few times per semester

e. Rarely/never

9. I feel engaged during virtual lessons:

a. Never

b. Rarely

c. Sometimes

d. Often

e. Always

10. I have used my class textbook on closed-note virtual assignments and tests/quizzes:

a. Never

b. Rarely

c. Sometimes

d. Often

e. Always

11. I have used Google to help on closed-note virtual assignments and tests/quizzes:

a. Never

b. Rarely

c. Sometimes

d. Often

e. Always

12. I have used AI (i.e. ChatGPT) to help myself on closed-note virtual assignments and tests/quizzes:

a. Never

b. Rarely

c. Sometimes

d. Often

e. Always

13. I think I learn better when online tests/quizzes are open book:

a. Strongly agree

b. Agree

c. Neutral

d. Disagree

e. Strongly disagree

14. I think I learn better when online tests/quizzes are closed book:

a. Strongly agree

b. Agree

c. Neutral

d. Disagree

e. Strongly disagree

15. My academic performance is better:

a. In class

b. At home

16. When I have timed tests/quizzes online that are closed note, I tend to use outside sources:

a. Never

b. Rarely

c. Sometimes

d. Often

e. Always

17. When I have un-timed tests/quizzes online that are closed note, I tend to use outside sources:

a. Never

b. Rarely

c. Sometimes

d. Often

e. Always

18. In my opinion, cheating is prevalent in my remote learning environment:

a. Rarely

b. Somewhat rare

c. Neutral

d. Somewhat prevalent

e. Very prevalent

19. When I have closed-note tests/quizzes at home, I tend to use the internet or other students more as an outside source:

a. Internet

b. Other students

20. In terms of promoting academic integrity, I think my institution is:

a. Very ineffective

b. Somewhat ineffective

c. Neutral

d. Somewhat effective

e. Very effective

21. What strategies do you think could reduce academic dishonesty during online tests and quizzes? (open text option)