Gender in the Field of Education: The Impact of Gender Bias on the General Perception of Academic Integrity

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Abstract. This study aims to determine the impact of gender bias on the general perception of academic integrity in high school students. This study employed the experimental vignette methodology (EVM) to construct a two-versioned online survey that eliminates the issue of anonymity and to capture participants’ implicit mental processes and judgments for a sensitive topic regarding violation of academic integrity. This conjoint analysis study includes two fictional scenarios with the exact context except for the gender of the protagonist of the story, which is expressed through the name and pronouns used. The results suggest that the respondents have a slight tendency towards a lesser female involvement in violations of academic integrity and rationalization of their behaviors.

Keyword: Education, Gender, Academic Integrity.

1. Introduction

In recent years, violation of academic integrity has become increasingly prevalent as informational technology rapidly developed and spread across the globe. The impact of such violation of academic integrity has gradually become detrimental to the field of education and scientific research, disrupting the ecosystem of the scholarly environment that decreases the overall credibility of educational systems. Nevertheless, the issue of academic dishonesty in the field of education has been a topic of research ever since the early twentieth century, when various levels of plagiarism, cheating, fabrication, and falsification were reported (Davis, Grover, Becker, & McGregor, 1992). Since the 1990s, students’ academic dishonesty has shown a visible rise along with the increasing accessibility of intelligent technology and the internet. For instance, Dr. Donald McCabe, one of the founders of the International Center for Academic Integrity (ICAI), conducted original research into cheating at the college and university began in 1990 that continues until today, spearheaded by ICAI and its members. According to the research and subsequent follow-up studies, over 60 percent of university students admit to participating in certain forms of cheating behaviors. Moreover, McCabe also conducted surveys of over 70,000 high school students at over 24 high schools in the United States that demonstrated that 64 percent of students admitted to cheating on a test, 58 percent admitted to plagiarism, and 95 percent said they participated in some form of cheating. These overwhelming statistics clearly illustrate the increasing severity of the problem, especially in the younger generations.

To fully understand the core and severity of the issue, it is essential to clarify the meaning of “Academic Integrity.” Academic integrity, defined by ICAI, is behaving with honesty and being trustworthy concerning one’s academic work and “a commitment, even in the face of adversity, to six fundamental values: honesty, trust, fairness, respect, responsibility, and Courage” (ICAI, 2014). When any of these six values are violated, the issue of academic dishonesty has arisen, which leads to an overall disturbance of the framework for professional work. More specifically, when post-secondary institutions fail to maintain an ethical academic environment, the dependability of the academic records, such as transcripts and degrees, given by such institutions decreases accordingly, which fails to demonstrate the professional ability of the holders of such degrees. Ultimately, it decreases the knowledge and skills of the potential labor force available for the job market, which impairs the productivity of the workforce and society overall (Holden, O., Kuhlmeier, V. A., & Norris, M. 2020).
Sociodemographic variables may produce various effects to the phenomenon of violation of academic integrity (VAI), including gender, race, and seniority in communities. For instance, according to previous research, the male gender, regardless of age (Blau and Eshet-Alkalai 2014), has shown more tendency to conduct VAI actions. However, the study’s primary focus emphasizes the difference between these groups’ action tendencies and statistics of committed misconduct behaviors. However, does the public’s perception and understanding of different sociodemographic groups’ tendency to conduct such unethical behavior play a role in this problem?

While sociodemographic factors tend only to play a partial role in the reasons behind VAI, it usually holds an implicit effect within the general public’s perception, which potentially affects the formation and enforcement of policies and the intensity of societal pressure. For instance, if the disciplinary committee of the institution believes that one gender is more likely to engage in academic dishonesty, it might affect their judgments and the resulting consequences. Thus, it is essential to explore if biases exist in the public’s understanding of academic integrity to alleviate the core problem of increasing academic dishonesty. If so, does that affect and invoke persistent unethical behaviors from specific sociodemographic groups? With the question in mind, this study is conducted with an aim to determine if the public has a different perception regarding the two genders on the aspect of academic integrity [1-11].

2. Literature review

While it is difficult to find past literature on whether the public perceives a gender difference regarding unethical behaviors in the academic field, numerous studies focus on how society believes the two genders claimed different moral qualities. For the past century, two of the most prominent yet conflicting theories are from Lawrence Kohlberg and Carol Gilligan, which analyzed moral orientations between the two sexes. For instance, Kohlberg’s model of moral development evaluates and explains that through a series of six stages, children gain the ability to make decisions through abstract principles of justice, duty, reason, and logic. However, as Gilligan noted, Kohlberg’s research was done exclusively on young males, which lacks an accurate understanding of the moral development of females. Thus, after conducting her own research, Gilligan suggests that girls’ moral development more strongly emphasizes relationships and responsibilities to others. As the heated “Care-Justice” debate continues, a more general topic of whether women are more ethical than men have gained attention.

However, the truth of which gender is more ethical is not the center of focus for this research. Instead, the relevant focus of the study is that society, for the most part, does believe females hold a higher morality than males (Jackall 1988).

One of the primary reasons for this belief is the typical gender stereotypes resulting from the predominance of the patriarchal society. A study conducted by Nunner-Winkler, G., Meyer-Nikele, M., & Wohlrab, D. in 2007, which assessed 203 adolescents based on their open-ended responses to hypothetical moral conflicts, suggests that Male stereotypes comprise mostly negative and morally unfavorable traits, whereas female stereotypes mostly positive and morally favorable traits. A marginally significant relationship is found between high gender identification and low moral motivation in boys. Such gender stereotypes reinforced the idea of society bias regarding morality differences between the two sexes. In the century-long patriarchal society, women were expected to stay within the domestic sphere and prevented from entering professional fields and holding institutional positions. Thus, most of the reported unethical behaviors, such as drunk driving, fraud, tax invasion, and violent crimes, are conducted mainly by males. For instance, 95% of the documented DUls (driving under the influence of alcohol) are males (Stephenson 1992) and illegal institutional acts made by management teams that are exclusively men (Hoffman 1998). As these crime reports conducted by males dominate the public’s sight, women, underrepresented in these fields and thus show minimal engagement in these crimes, are perceived as more ethical than men.
If similar subconscious biases are present in the field of education, especially within faculty and administrators, it might intensify the issue of violation of academic integrity. For instance, a report of Friedman et al. (2016a) shows an observation that the disciplinary committee has been imposing more severe financial penalties and academic penalties when female students engage in academic dishonesty compared to male students. This phenomenon of the female gender receiving harsher penalties (Etgar et al. 2019) compared to males was found to be stable over time but difficult to explain by other variables (i.e., the type of offense, the reason for engagement, or the willingness to take responsibility). When the female students become aware of the publicly available disciplinary committee protocols and the punishing inequity, it might trigger a neutralizing effect that reduces the occurrences of VAI of the female gender.

One potential explanation could be the Shifting Standard Model (Biernat 2012). According to this model, people from stereotyped groups (e.g., women) are being judged in comparison to their own group’s standards and not to general standards. Accordingly, women are expected to hold higher moral standards (Reichel et al. 2010) compared to men, which corresponds to the common gender stereotype. Consequently, their engagement in VAI will be perceived as more problematic—by themselves and the disciplinary committee members (Etgar et al., 2019). For instance, the male students do seem to have been found to engage in VAI to a greater extent (for review see: Brimble 2016; De Lambert et al. 2016) in schools (Blau and Eshet-Alkalai 2016); female students tend to show more shame than males for behaving out of the moral prospect (Tibbetts 1999). Researchers have found significant gender differences in understanding the severity of plagiarism and fabrication. Female students perceived plagiarism and fabrication to be significantly more severe violations than male students. According to previous studies (Brimble 2016; Murdock and Anderman 2006), students’ perception of the severity of penalties for VAI may influence the likelihood of their engagement in such offenses. This finding seems to indicate that subconscious biases held by faculty and disciplinary committees could influence students’ behavior trigger more or less VAI. Thus, it is essential to further research and analyze the effect of gender-biased public perception regarding the issue of academic dishonesty [12-18].

3. Methods

To answer the research question of whether gender affects the general perception of academic integrity in High School Students, this study employed the experimental vignette methodology (EVM) to construct a two-versioned online survey. In addition to the advantages of the survey in general, such as high capability in representing a large population and no observer subjectivity, online data gathering makes it possible to ensure the participants’ anonymity, which is essential for such a sensitive topic as a violation of academic integrity. To further eliminate the issue of anonymity and to capture participants’ implicit mental processes and judgments, this conjoint analysis study includes two fictional scenarios with the exact context except for the gender of the protagonist of the story, which is expressed through the name and pronouns used.

With the collected data, analytical platforms such as Excel and Google Sheets were utilized to examine the data set. Unfortunately, due to the limited time and geographic constraints, the data collected were not enough to make up a representative sample for students outside of Jericho Senior High School. However, this study hopes to gain some preliminary insight into if the public holds biased perceptions towards two genders regarding the issue of academic dishonesty.

3.1 Participants and Characteristics

The population of the study consisted of 56 high school students who were attending Jericho Senior High School on Long Island, New York. Using a convenience (non-random) sampling method, students participated voluntarily in this study through social media platforms (i.e., Instagram) and private invitations. All responses are valid as all descriptive data questions are answered completely. However, due to a large Asian population in Jericho High School (50+%) and factors of convenience
sampling, the overall race demographic is also heavily Asian (80%). The overall sample incorporates 23 (41.1%) male participants and 33 (58.9%) female participants. The sample of the male version survey incorporates 27 responses, in which 15 (55.7%) of the participants are female, and 12 (44.4%) are male, which is closed on being gender-balanced. Out of these participants, 16 (59.3%) are rising seniors for the academic year 2021-2022, 10 (37%) are rising juniors, 1 (3.7%) is a rising sophomore, and no freshmen are present. The sample of the female version survey incorporates 29 responses, in which 18 (62.1%) of the participants are female, and 11 (37.9%) are male. Out of these participants, 22 (75.9%) are rising seniors for the academic year 2021-2022, 4 (13.8%) are rising juniors, 2 (6.9%) are rising sophomores, and 1 (3.4%) is a freshman.

Since there are no significant reports in the literature and no systematic differences in the data shown regarding the dependent variables such as the students’ interest in fields of study in college, race or ethnicity, language spoken, and employment status, these factors are not addressed as additional independent variables [19-21].

3.2 Research Questions/Hypothesis

Do participants have different implicit perceptions regarding whether both genders have equal involvement in actions that violate academic integrity?

According to previous literature, VAI was statistically more prevalent and perceived as more acceptable by male students than female students. The phenomenon of female students receiving harsher financial and academic penalties imposed by disciplinary committees signifies a potential implicit gender bias within the disciplinary committees that women should hold a high moral standard than men. This potential Shifting Standard Model might cause women’s engagement in VAI to be perceived as more problematic, as they are expected to maintain a high morality. Therefore, harsher punishments are conducted on female students. If such bias occurs within the general public, it is anticipated that the results should reflect a stronger implicit perception that the male gender has a more prevalent involvement in actions that violate academic integrity. In contrast, the female gender was more restrained by society’s shifting standards and moral barriers. The acknowledgment of these response differences might result in a neutralizing effect that reduces the opportunity for women to conduct VAI, in which there will be a higher risk for penalties.

Do participants have different implicit perceptions regarding whether both genders share the reasons (i.e., external pressure, distractions, seeking for opportunities.) to engage in academic dishonesty to a similar degree?

According to previous literature, there should not be a significant difference between the reasons for students of both genders to engage in academic integrity. It was shown that the kind of offense, the reason for engaging in it, or the willingness to take responsibility for actions of violation of academic integrity for both genders are similar with the three prerequisite factors of the ‘fraud triangle,’ 1) opportunity, 2) incentive, pressure, or need, and 3) rationalization or attitude that occur universally despite gender differences.

However, societal force and stereotype might lead to different emphasis within the three factors for the two genders. For instance, some parents might have higher expectations for their sons due to the traditional belief that males should have a successful career and education to carry on their responsibilities, thus giving their sons more pressure to achieve a higher grade. While other parents might believe girls need to put in extra effort to survive in a society that is not yet in equity, thus giving their daughters more pressure to succeed academically. According to the literature, since females are expected to have a higher moral standard than men, there should be less emphasis on their rationalization. The last prerequisite factor, opportunity, should be similar for both genders.

For this question, the results from the male and female versions should not produce significantly different data overall. However, variations between each category are expected to occur.
3.3 Measures

According to past literature and real-world experience, a two-versioned scenario and eight ordinal statements (Appendix A.) with a scale of 1 (Very Unlikely) to 6 (Very Likely) are designed to collect data on people’s implicit understanding of the effect of gender on people’s engagement in academic dishonesty.

Kevin/Kayley has cheated in the past.
Kevin/Kayley will continue to cheat in the future.

Question 1 and 2 are designed to gain knowledge on whether people believe that both genders have similar involvement in actions of VAI (research question 1). If statistically significant data differences were produced when comparing the answers from the male and female versions, it would signal that the participants implicitly believe that gender does affect people’s engagement in academic dishonesty.

Outside pressure (such as increasing expectations from parents and teachers) influenced Kevin’s/Kayley’s decision to cheat.

Question 3 refers to whether people implicitly believe that both genders receive a similar amount of outside pressure regarding their academic achievement. For instance, if parents put a different emphasis area on their female and male children, they might receive various degrees of academic pressure that leads them to violate their academic integrity. (research question 2). Thinking he/she saw his/her classmates cheat made Kevin/Kayley think cheating wasn’t such a bad thing to do.

Thinking he/she saw his/her classmates cheat made Kevin/Kayley think they had an unfair advantage over him/her.

Questions 4 and 5 focus on rationalization, which could be influenced by whether the two genders hold different moral qualities. Both questions focus on the part where the protagonist saw cheating behaviors from their classmates. However, question 4 focuses more specifically on the internal moral rationalization, and question 5 added a sense of being equal with other students (research question 2). Being increasingly distracted made Kevin/Kayley more likely to cheat.

Dating is the primary distractor for Kevin’s/Kayley’s academic studies, which made him/her more likely to cheat.

Both questions 6 and 7 are additional questions that focus on factors of distraction. The intention is to see if there is a difference in people’s perception of whether different gender is affected by various types of distractions. While question 6 states distraction in general, question 7 focuses on dating specifically, which is a scenario from which males and females often receive different responses. For instance, more parents accept their sons to date in high school compared to their daughters. Thus, girls might have to be extra anxious regarding their relationship to avoid their parents, while boys receive less pressure to hide from their parents.

The pressures of being in 11th grade impacted Kevin’s/Kayley’s decision to cheat.

Question 8 is an additional question that focuses on the factor of grade level, which is expected to produce interesting data for analysis.

3.4 Data analysis

The independent samples T-test was applied to evaluate the differences in scale scores between the two gender scenarios. A P-value of less than 0.05 was considered to be statistically significant. Google Forms software was used as the survey platform. Google Sheets software was used for recording and analyzing the data on the computer.
4. Findings

From July 18th to July 22nd, a total of 56 students from Jericho Senior High School participated in the vignette survey, which contains two separate fictional scenarios with the exact context with only gender differences. While the sample size of 56 was insufficient to produce statistically significant data with a p-value of below 0.05, the pattern of the distribution of answer choices does provide an interesting perspective to the analysis. Furthermore, by analyzing the graphs and data, it is possible to gain some preliminary insight into how the general perceives the role of gender in academic integrity. The statements not mentioned signals a lack of response in this particular study; it does not show any less significance in future studies.

4.1 Gender Demographics of Survey Respondents

The overall sample incorporates 23 (41.1%) male participants and 33 (58.9%) female participants. Despite the effort to balance the gender of the participants, the method of convenient sampling makes it challenging to reach a complete gender balance. The sample of the female version incorporates 29 responses, in which 18 (62.1%) of the participants are female, and 11 (37.9%) are male. The sample of the male version survey incorporates 27 responses, in which 15 (55.7%) of the participants are female, and 12 (44.4%) are male, which is closed on being gender-balanced.
4.2 Age and Race Demographics of Survey Respondents

**Figure 3.** Race or Ethnicity of the respondents; female version

**Figure 4.** Race or Ethnicity of the respondents; male version

**Figure 5.** Grade level of the respondents; female version
Due to the method of convenience sampling and the demographics of the school population, it is unsurprising that the survey respondents are not ethnically diverse, which resulted in very few responses from the Hispanic and Latino student population. In addition, a lack of participants in the 9th and 10th grades make it challenging to analyze another interesting sociodemographic factor of influence, grade level, on people’s perception of students’ engagement in academic dishonesty.

4.3 Hypothesis 1: Respondents hold a stronger perception that the male gender has a more prevalent involvement in actions that violate academic integrity.

Being one of the most significant results of this research, the respondents do seem to have a relatively different perception on whether or not male students and female students have engaged and/or will continue to engage in actions of VAI after being caught cheating.
As shown in the graphs, the response distribution of the female version of the scenario is shaped normally with a median, mean, and mode of approximately 3.1, which signals a general perception of “relatively unlikely” that Kayley has pursued in VAI prior to the scenario occurred. However, for the male version, although the mean is also relatively close to 3.2, the response distribution is much more random and incorporates more data on the sides of extreme. In fact, no participant chose 6, which signals “Very Likely” for the female protagonist, and 3 (11.1%) respondents selected 6 for the male protagonist.

Figure 9. Distribution of responses on whether or not the protagonist will cheat after the scenario; female

![Distribution of responses on whether or not the protagonist will cheat after the scenario; female](image)

Figure 10. Distribution of responses on whether or not the protagonist will cheat after the scenario; male

![Distribution of responses on whether or not the protagonist will cheat after the scenario; male](image)

Despite the immediate similarity shown in the distribution of responses on whether or not the protagonist will cheat after the scenario, this question produced the most statistically significant data difference in the entire survey; the female version has a mean of 4.34 while the male version has a mean of 4.7. Resulting in a p-value of 0.153 when a T-test is performed. Again, the main reason for the difference was due to the extreme values on the side for the male participant. For instance, 6 (20.7%) respondents believed that the female protagonist is “Relatively Unlikely” (number 3) to continue her cheating behaviors, while only 1 (3.7%) respondents of the male version selected the same choice. In addition, a total of 26 (96.3%) out of 27 respondents of the male version chose number 4-6 on the scale, which are choices that signals different degrees of agreement that Kevin will still continue to engage in VAI.

While most respondents do believe that both the female and male protagonists will still engage in cheating behaviors in the future despite being caught this time, the relatively significant data difference still, to a certain degree, leans towards the theories that the general public believe that females tend to have a higher moral standard than males. In this case, the respondents seem to hold a relatively higher expectation that the female protagonist will stop her cheating behavior in the future.
4.4 Hypothesis 2: Respondents believe that the reasons for the two genders to engage in actions of academic dishonesty are similar.

Similar to previous studies, the overall respondent’s perception shows no significant difference for the two genders on the reasons behind their academic dishonesty.

![Outside pressure as the reason for the cheating; female version](image1)

![Outside pressure as the reason for the cheating; male version](image2)

As shown in the graph, the overall respondents believe outside pressure was an important factor influencing the protagonist’s cheating behavior, shown by the left-skewed graph on both versions. However, there is no statistical difference between the male and female versions on the degree to which the two genders receive outside pressure. The female version has a mean of 4.86, the male version has a mean of 5.0, and the p-value is 0.594 when performing the T-test.

Similarly, for the rationalization statement (fourth statement), “Thinking he/she saw his/her classmates cheat made Kevin/Kayley think cheating wasn’t such a bad thing to do,” there also do not have significant data and distribution differences (Appendix B). The lack of differences for this statement fails to prove the past literature that suggests society has higher moral standards for females than males.

4.5 Classmate’s Unfair Advantage

The fifth statement, “Thinking she/he saw her/his classmates cheat made Kayley/Kevin think they had an unfair advantage over her/him,” produced an interesting difference between the male and female version, which incorporates the second most significant data of the survey with a p-value of 0.338.
The female version produced a mean of 4.34, while the male version had a mean of 4.7. Furthermore, within the female version, 8 (27.6%) participants selected a scale of 1 to 3, which signals different degrees of unlikeliness that Kayley would think her classmates had an unfair advantage over her by cheating. On the other hand, only 3 (11.1%) participants in the male version selected the range 1 to 3. As a rationalization question, this result suggests that the participants think the female protagonist is less likely to self-justify through the reasons of equality, which could possibly be associated with Kohlberg’s theory that boys have a stronger emphasis on ethics of justice compared to girls.

5. Conclusion and discussion

The most prominent trend in the “Findings” section is the relatively more extreme answers from the male version and relatively more distributed answers for the female version. For instance, the extreme answers from all the sections above are consistent with the literature that points out that people believe males’ engagement in academic dishonesty is more prevalent than females’ engagement. Thus, the respondents are more definite with their answers for males.

However, the second most significant result from the statement “Thinking he/she saw his/her classmates cheat made Kevin/Kayley think they had an unfair advantage over him/her” suggests that the respondent believes males are more likely to justify their cheating behavior by claiming equality from other students. This finding could potentially be explained by the public’s belief that there is a higher moral standard in the female population, which makes them less likely to find excuses to rationalize their behaviors. However, the statement “Thinking he/she saw his/her classmates cheat made Kevin/Kayley think cheating wasn’t such a bad thing to do,” which is another statement regarding rationalization, only produced a 0.095 difference in the mean between the responses in the two versions. Thus, the only difference between these two rationalization statements is the additional
aspect of equality in the statement regarding the unfair advantage, which corresponds with Kohlberg’s argument in which males emphasize the ethics of justice. Although the violation of academic integrity itself is against the values of justice, it might be that when a short-term “justice” is presented, male students might value it over the overall justice of the academic system. Thus, when male students see their classmates engaging in such injustice behaviors, they might prioritize this short-term “equality” and pursue similar actions as their classmates to protect their individual benefits.

After all, this research could only provide a preliminary analysis of the potential reasons and effects of a biased-societal perception regarding the two genders in the field of education. However, it has reached the goal of explaining the essentiality of increasing understanding and attention on this topic. For instance, when society holds higher expectations for females’ moral standards, there might be more severe penalties associated with it, as explained by the Shifting Standard Model, which could directly or indirectly lead to the consequences of an exacerbation of the issue of academic dishonesty.

A possible result of this biased perception might be a varying degree of monitoring throughout female and male students’ academic journeys. For instance, if females are believed to engage in less unethical behaviors, parents and faculties might reduce their degree of monitoring on such behaviors for female students with a harsher punishment when caught. Female students, thus, might reduce their engagement in cheating due to the severity of the punishment. On the other hand, although male students might experience more restrictive monitoring, the less severe punishments might not effectively stop the cheating behaviors. However, if the monitoring level is low enough for the female student to take the opportunity and risk the chance, all of such effects might be neutralized.

Due to Covid-19 and time restrictions, this study encountered difficulties producing statistically significant results. For instance, this study was only able to collect a small sample size and employed convenience sampling. Thus, if possible, future studies should focus on redesigning a more specific, professional, and advanced research method to understand this essential subject of academic dishonesty further. Furthermore, for future references, researchers should take into account making faculty members and parents as the focused research group as their standards could directly influence both gendered students’ responses regarding cheating. Thus, establish a significant report for analysis on whether the Shifting Standard phenomenon occurs in the process of monitoring and how that affects students’ engagement in academic dishonesty.

After all, it is essential for all parents, interdisciplinary committees, and educational institutions to stay sensitive to the existence of these biased perceptions, as to reduce the consequences that come with it. Thus, improving the enforcement of existing academic integrity policies and creating a more gender-equal educational environment.

References


