Preservice secondary teachers’ beliefs about academic dishonesty: An attribution theory lens to causal search

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\textbf{Keywords}  
Academic dishonesty; attribution theory; causal search; cheating; preservice teachers.

\textbf{Abstract}  
Academic dishonesty is an area of concern across all levels of education. While previous research has largely focused on what behaviours students engage in and what instructors do in response, little is known about why, and even less incorporates a theoretical framework. To contribute to the existing literature, our aim was to examine preservice secondary teachers’ beliefs about academic dishonesty. Moreover, we utilized Attribution Theory as our theoretical framework and examined how preservice teachers engage in causal search when presented with instances of academic dishonesty. Our results demonstrate that preservice teachers have strong beliefs about what is and what is not academic dishonesty; however, context matters. Indeed, when provided with descriptive scenarios compared to discrete behaviours, ratings of academic dishonesty were significantly higher in the former than the latter. Moreover, preservice teachers draw on multiple pieces of information when engaging in the causal search process, identifying not only facts but also embellishments not present in the scenario and highlighting their beliefs around academic dishonesty. Recommendations for educators and administrators for supporting students are provided, as well as limitations and directions for future research.

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Introduction

More than 60% of students at university openly admit to cheating (International Academy for Academic Integrity, 2020). Similarly, K-12 teachers are frustrated and concerned about rampant cheating that can near 70% of students (Hasson, 2017). Although informative, these descriptions of prevalence do not capture the complex psychosocial factors at play in both the people who engage in academic dishonesty and the people who detect it and enforce sanctions. Such complexity is made worse as the concept of academic dishonesty itself seems to be changing with the increased use of artificial intelligence (Peritz, 2022; Perkins et al., 2023). During this time of change, one population that may be particularly important to consider regarding academic dishonesty is preservice teachers. As current students, preservice teachers are aware of the increased opportunities to cheat. As future teachers, they represent gatekeepers of academic integrity as they become responsible for educating young people (Fontaine et al., 2020; Romanowski, 2021). Noticing their important role, research examining preservice teachers regarding academic dishonesty has increased in recent years (Bautista & Pentang, 2022; DiPaulo, 2022; Fontaine et al., 2020; Merkle, 2021; Romanowski, 2021), but it is largely descriptive and ignores psychosocial elements of dishonesty. Therefore, the purpose of this paper is to draw on the interpersonal psychosocial elements of Attribution Theory (Weiner, 1985; 2010) to examine preservice secondary teachers’ perspectives on, and responses to, hypothetical instances of academic dishonesty.

What is academic dishonesty?

Some scholars define academic dishonesty quite broadly as any act of deception or misrepresentation that violates the fundamental principles of academic integrity (McCabe et al., 2012). While some scholars argue that there are general principles that define academic dishonesty, such as intentional acts of fraud (e.g., submitting someone else’s work as your own), others suggest that there is no single definition that encompasses all forms of unethical behaviour in academic settings (Aaron et al., 2011). However, most researchers agree that academic dishonesty should be expansive enough to encompass various behaviours and the contexts in which they occur. The most common behaviours in secondary and post-secondary education usually involve plagiarism, cheating, fabrication, and falsification (Christensen Hughes & McCabe, 2006; Şendağ et al., 2012). The consequences of these actions not only undermine the integrity of the educational system, they raise questions about the qualifications of the individuals engaging in this behaviour (Chibry & Kurz, 2022). For preservice teachers specifically, the impact these actions can have on their roles as future teachers who are integral to the ethical development of students for years to come is important to consider. Perhaps not surprisingly, educational institutions have a renewed sense of urgency in this area with the rapid expansion of Artificial Intelligence, such as ChatGPT (Cotton et al., 2023) and “pay-to-pass” websites (Chibry & Kurz, 2022, p. 203), making it more important than ever to consider how psychosocial theories can help explain academic dishonesty.

Attribution theory

Attribution theory helps explain how individuals understand the causes of their own or others’ behaviour through a process known as causal search. Much like it sounds, causal search is the active process of trying to identify the causes of a behaviour. It often involves observing the behaviour and making inferences about the underlying causes. According to attribution theory, individuals typically engage in causal search when outcomes occur that are negative, unexpected, and important (Graham, 1991; Weiner, 1985; 2000; 2010) and the identified “cause,” also referred to as causal ascription, in turn, leads to predictable cognitions, emotions, and behaviours. Most teachers would agree that discovering cheating would classify as negative, unexpected, and important, thereby triggering a causal search. During a causal search, people look for information from the current situation, past experiences, personal knowledge and beliefs about the individual, and anything else that may seem relevant.

Teachers may also consider the causal dimensions when evaluating a behaviour as academically dishonest or not. Indeed, according to Weiner (1985), while there are an infinite number of causes for a behaviour, these causes can all be classified according to the dimensions of locus, stability, and controllability. Locus refers to whether the cause of the outcome is internal or external to the individual. Stability refers to how stable or unstable over time the cause is perceived to be. Controllability refers to whether the individual is in control of the cause. Based on these causal dimensions, predictable psychological and behavioural consequences follow (Weiner, 1985; 2018). For example, if a teacher finds evidence of cheating and attributes the cause to the student being lazy, this would be seen as stable, controllable, and internal, and as a result, the teacher would be more likely to feel angry towards the student and offer punishment. Alternatively, if the behaviour was attributed to the student not being taught the rules yet, this could be considered unstable, uncontrollable, and external, wherein the teacher would be more likely to feel sympathetic and offer help. As such, causal search is a critical first step that impacts how behaviours are interpreted and responded to.

The research on academic dishonesty from an attribution theory lens

To date, we found only one study that examined academic dishonesty from an attribution theory lens in terms of preservice teachers. The authors examined how beliefs of controllability related to acts of plagiarism impacted preservice teachers’ views on responsibility, emotions, help-giving, and reporting (Goegan & Daniels, 2023). They determined that when scenarios described students who engaged in plagiarism that was controllable, the preservice teachers were most likely to view that student as responsible, feel anger towards them, support student punishment and recommend that the student be reported, compared to acts of plagiarism that were uncontrollable. In other words, the tenets of attribution theory were correct.
Alternatively, researchers have sought to understand academic dishonesty using attribution theory as a framework more broadly. Most of these researchers used attributions to explain students’ cheating behaviours, despite knowing or feeling that it is “wrong” (Murdock & Stephens, 2007; Stephens, 2017). Both secondary and postsecondary students often see their academic dishonesty being caused by external or uncontrollable factors, such as pressure from parents to receive good grades or insufficient studying support from others (Murdock & Stephens, 2007). Students who also attribute their or their peers’ behaviours to external factors rather than internal factors may be less likely to view their academic dishonesty as a serious violation (Murdock & Stephens, 2007; Stephens, 2017). Seals and colleagues (2014) used attribution theory to provide insight as to why university teaching assistants might consider academic dishonesty to be common in university, but not in their courses.

Research from a K-12 perspective on academic dishonesty rarely incorporates attribution theory. Nevertheless, important links between the findings of previous research and theory can be inferred, particularly in secondary school, where grades have increasing consequences for students (reference). For example, Geddes (2011) found that among high-achieving high school students, the academic reason with the highest agreement among students for cheating was securing a high GPA, while the highest non-academic reason was pressure from parents. While pressure from parents would be considered uncontrollable, the need for a high GPA could be interpreted as either controllable or uncontrollable. Moreover, Galloway (2012) conducted interviews with high-achieving high school students about reasons for cheating, which included feeling forced to cheat, and an academic culture that valued achievement over learning.

How causal search influences dishonesty decisions

Across all levels of schooling, teachers play a crucial role in managing academic integrity among their students and enforcing policy when integrity is compromised. However, policy decisions can also be contingent on the student’s intentionality and previous conduct (Amigud & Pell, 2021). Careful consideration of the level of the course, the type of assignment, and the institution or school board policies and procedures also come into play. Regardless of policies, interestingly, it seems that post-secondary faculty members rarely report cases of academic misconduct and instead attempt to resolve cases based on their own judgements (Kwong et al., 2010; Thomas, 2017). One reason for a preference for personal/professional judgment rather than strict policy adherence is that instructors may view plagiarism as a changing concept that requires judgement (Fyfe, 2022). For example, instead of banning all use of AI, Otsuki (2020) suggests training writers how to work with text-generated AI. Nevertheless, there is little empirical evidence on teachers’ or preservice secondary teachers’ beliefs or decision-making process when it comes to students in K-12 school settings. Regardless of preferences, the decision-making process can be complex, and it is crucial to maintain academic integrity, fairness, and consistency in the academic environment (Gottardello & Karabag, 2022). To our knowledge, no studies have been conducted using attribution theory to examine preservice secondary teachers’ causal search when encountering students’ dishonest behaviours.

What forms of discipline do instructors and teachers recommend?

Štambuk et al. (2015) found that teachers across elementary, secondary and university levels react fairly similarly to acts of cheating. Faculty members suggest various consequences for academic dishonesty (Pincus & Schmelkin, 2003), but typically agree that consequences should be proportional to the severity of the offence and should educate students on the importance of academic integrity (Keener et al., 2019). Some suggested consequences include verbal warnings, grade reductions, re-submission of assignments, and suspension or expulsion (Keener et al., 2019). Again, there is no empirical work highlighting teachers’ or preservice teachers’ perceptions and recommendations for academic dishonesty from an attribution theory lens in primary and secondary education settings. Together, these findings hint at the larger need for consideration of what teachers could or should do when faced with challenging circumstances of academic dishonesty.

Method

This correlational study involved two components administered on a single survey embedded in a required education course. Ethics approval was obtained from the Human Ethics Research Office at the researchers’ university.
Procedures

Participants were preservice secondary school teachers enrolled in an assessment course that was part of their teacher education program at a mid-size university in Western Canada. The Fall 2021 offering of the course was in an asynchronous format and consisted of several units, one of which specifically addressed academic success and dishonesty in the classroom. This unit required preservice teachers to complete a series of activities online. The specific items within these activities related to this research project are provided below. Once a preservice teacher had completed the activities, they were prompted with the question, “Can we include your responses here for research purposes?” Consent was granted by answering yes. Data were anonymized and analyzed after the completion of the course.

Participants

There were 210 preservice secondary teachers enrolled in the assessment course where potential participants completed the activities included in this study. In total, 166 individuals indicated that “yes” we could use their responses for research purposes. Participants ranged in age from 20 to 48 (M = 24.80) and predominately identified as white (81%). When asked: “How do you want us to describe your gender?”, 49% of participants identified as women, 46% as men and 5% identified as non-binary or preferred not to disclose. These percentages are consistent with international numbers that find women in the teacher profession average 47% of the total population (OECD, 2019). Data on race could not be located.

Measures

Academic dishonesty discrete behaviours

We asked participants to indicate the extent to which 21 discrete behaviours reflected academic dishonesty. The behaviours included common forms of academic dishonesty identified in the literature, such as submitting someone else’s work as your own and peeking at answers during an exam, as well as less obvious examples, such as collaborating on individual work or omitting references. As an attention check, we also included more innocuous behaviours such as studying from available old exams and forming a study group which are generally not considered dishonest. Participants were presented with the stem “To what extent do you consider the following activities as forms of academic dishonesty,” and indicated their agreement on a scale from 1 (not at all) to 7 (very much so). A full list of behaviours can be found in Table 1 with means, standard deviations, skew, and kurtosis.

Academic dishonesty expanded scenarios

We expanded six of the discrete behaviours into more elaborate scenarios to examine how preservice teachers used contextual information in their consideration of academic dishonesty. These behaviours included exam situations, such as peeking at another student’s answers, sneaking answers into an exam, and communicating answers to another student, as well as situations involving plagiarism, such as submitting someone else’s work as their own and taking credit for ideas that are not their own. The scenarios also varied in the weight of the assignment involved in academic dishonesty and the student’s acknowledgement of their behaviour. The scenarios were written by the first author and reviewed by the co-authors for clarity and ambiguity. Please see Appendix A for the exact wording of all six scenarios. For each scenario, participants first responded to the Likert scale item: “To what extent do you consider the student’s behaviour as academic dishonesty” (1 = not at all to 7 = very much so). Then, participants provided open-ended responses to the following two questions designed to elicit causal search and identify what information in the scenarios influenced their rating: (a) What in the story helped you decide on your response? And (b) What do you think is an appropriate form of discipline (if any) and why?

Plan for analysis

We conducted our analyses in four stages. First, we ran descriptive analyses for the 21 items related to preservice teacher beliefs about behaviours as examples of academic dishonesty or not and ran one-sample t-tests on these items to determine if participants’ responses differed from 4 (neutral). This allowed us to answer our first research question: How do preservice teachers rate behaviours as academically dishonest? We hypothesized that participants would have strong agreement with academically dishonest items and strong disagreement with the innocuous behaviours.

Second, we ran descriptive analyses for the Likert scale item associated with each scenario, including means, standard deviations, ranges, skewness, and kurtosis. Then, we used paired samples t-tests to compare mean scores on the discrete behaviours with mean scores for the expanded scenarios. This allowed us to test the extent to which contextual information shifted preservice teachers’ convictions that the action was dishonest (Research Question 2). We did not have specific hypotheses for these t-tests as they were exploratory in nature, and no previous research could be located with comparable analyses to inform a hypothesis.

Third, we performed a content analysis (Hsieh & Shannon, 2018) to extract themes from participants’ open-ended responses to the prompt, “What in the story helped you decide on your response?” The first and second authors met regularly via video conferencing and, beginning with the first scenario, highlighted meaning units that were then formed into themes across the scenarios from participants’ open-ended responses. To aid in the consistency of coding, a codebook was created that contained a description of what each code covered, what was excluded from a code, and examples from the participants that met each criterion. This codebook was reviewed by all authors before incorporating it into the analysis of the remaining scenarios. Any disagreements in coding were discussed until consensus
was achieved. Inter-rater reliability for scenarios 2 through 5 was calculated at 96.4%. This process allowed us to answer our third research question: What type of information do preservice teachers use when determining if behaviours are dishonest? Based on attribution theory, we anticipated that participants would identify facts from the scenarios and their own beliefs about academic dishonesty in their responses.

Fourth, we performed an additional inductive analysis on the second open-ended response to the prompt “What do you think is an appropriate form of discipline (if any) and why?” to answer our last research question: What forms of consequences do preservice teachers recommend for instances of academic dishonesty? Consistent with previous research, we hypothesized that participants would identify various forms of discipline across the scenarios (Keener et al., 2019; Pincus & Schmelkin, 2003).

Results
Academic dishonesty discrete behaviours

Descriptive information, including the means, standard deviations, skewness, and kurtosis for the 21 Likert items related to participants’ beliefs about behaviours as academically dishonest or not, are presented in Table 1. Assumptions about the data when performing t-tests were reviewed with one important note, the normality of the distribution. We hypothesized that preservice secondary teachers would have distinct views on these items and anticipated skewness in the data. Nevertheless, we highlight some important findings here. First, participants strongly agreed that most of the items were examples of academic dishonesty, with the top three items being (1) having someone else take your exam for you, (2) submitting someone else’s work as your own, and (3) buying a term paper or essay. Indeed, all of the responses demonstrated large effect sizes apart from the item “re-submitting your own work for a different class,” which only produced a medium effect. This may speak to less understanding of self-plagiarism (to be discussed below). Moreover, four items were endorsed as very strongly not examples of academic dishonesty, being (a) asking for feedback on a draft of an assignment, (b) studying from available old exams, (c) taking a practice exam and (d) forming a study group. Taken together, preservice teachers have very strong beliefs about what constitutes academic dishonesty and what does not.

Academic dishonesty expanded scenarios

Quantitative analyses

Means, standard deviations, and ranges for each of the belief ratings associated with the six scenarios and the eight students involved (A-H) were calculated and are provided in Table 2. Overall, preservice teachers identified the student behaviours in the scenarios as academically dishonest (apart from Student H who is not the central character of Scenario 6). To answer our second research question, we paired participants’ belief ratings from the scenarios with the corresponding Likert-scale items from the 21 items for discrete behaviours and conducted six paired samples t-tests. We excluded scenario 6 from these analyses as, based on further examination of the scenario, it was unclear how the papers of the two students were similar (i.e., in terms of text generated or ideas) and therefore did not connect to the discrete student behaviour items as well as the other scenarios did. Overall, when participants were provided more details via the expanded scenarios, they were more lenient on their rating of academic dishonesty (Table 3).

Table 1: Means for student behaviour items in descending order.

<table>
<thead>
<tr>
<th>Student Behaviour</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>t-value</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Having someone else take your exam for you</td>
<td>6.95</td>
<td>0.41</td>
<td>-0.45</td>
<td>1.33</td>
<td>85.44***</td>
<td>1.35</td>
</tr>
<tr>
<td>2. Submitting someone else’s work for you own</td>
<td>6.33</td>
<td>0.56</td>
<td>0.37</td>
<td>1.07</td>
<td>110.78***</td>
<td>0.86</td>
</tr>
<tr>
<td>3. Buying a term paper or essay</td>
<td>6.31</td>
<td>0.34</td>
<td>0.46</td>
<td>1.34</td>
<td>87.87***</td>
<td>0.76</td>
</tr>
<tr>
<td>4. Submitting someone else’s work as a closed book exam</td>
<td>6.01</td>
<td>0.51</td>
<td>-0.34</td>
<td>1.84</td>
<td>88.62***</td>
<td>0.61</td>
</tr>
<tr>
<td>5. Having someone tell you the answers on an exam</td>
<td>6.78</td>
<td>0.39</td>
<td>0.42</td>
<td>0.44</td>
<td>81.51***</td>
<td>0.74</td>
</tr>
<tr>
<td>6. Obtaining not answers before the exam</td>
<td>6.92</td>
<td>0.21</td>
<td>0.43</td>
<td>1.56</td>
<td>74.44***</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Table 2: Descriptive Information for item “To what extent do you consider the student’s behaviour as academic dishonesty?” by Scenario.

Table 3: Comparison of Likert scale items.

Table 4: Comparison of Likert scale items.

Qualitative analyses

Based on the content analysis in response to the question, “What in the story helped you decide on your response?” we identified three themes: (a) facts, (b) embellishments and (c) beliefs. Facts consisted of the participants correctly identifying details within the scenario that they then utilized.
in their decision of whether the behaviour was an example of academic dishonesty or not. For example, in Scenario 1, participants mentioned: “the student was looking at another student’s answer,” “the student is squirmy” and “the student has pressure from their parents.” Across the six scenarios, 72-83% of the participants identified facts that supported their decision-making about the behaviours.

Embellishments consisted of the participants adding details that were not provided in the scenario. For example, in the case of the student peeking at a peer’s exam (Scenario 1), some of the participants inferred that the student is a “good kid” and had “never done this before,” neither of which are mentioned in the scenario. Moreover, in the case of the student using a previous assignment of their siblings (Scenario 4), participants said both “the sibling didn’t know,” and “the sibling willingly gave their assignment to their sibling,” neither of which is mentioned. Overall, across the six scenarios, 60-75% of participants identified embellishments that were not provided in the scenarios to make their decisions.

Lastly, the beliefs theme reflected how participants used their pre-existing points of view in determining the extent to which the scenario represented academic dishonesty. For example, in Scenario 2, where the teacher found a sheet of paper that had the answers to the test and suspected Student B, a participant said, “it is unfair to make assumptions; however, sometimes teachers must be academic dishonesty detectives;” and “I would have put 7 because cheating in this way on a summative assessment worth 30% of your mark is unacceptable.” Moreover, one preservice teacher wrote about the various factors they would weigh as they undertook a causal search while making a decision:

I would also have to look at my own potential bias towards the student. Why is it that I suspected that the student was cheating? Are there other circumstances in which this paper could have ended up there, or if I am judging this student out of my own preferences?

Moreover, in Scenario 3 where one student communicates the answers to another during a test, the participants identified various beliefs such as “helping out a friend is a natural thing to want to do,” “ultimately, cheating is cheating,” and, “and to make it worse it was on a summative exam.” Examples of facts, embellishments and beliefs for each scenario are provided in Appendix B.

Consequences for acts of academic dishonesty

Within and across scenarios, preservice teachers suggested a wide range of consequences some of which were quite mild such as giving a warning and others of which were highly punitive such as awarding zeros. We identified six common forms of discipline: warnings, re-testing, reducing grades, calling home, detention, and no punishment. Looking at these forms for the first scenario where the student is peeking at answers during a quiz, 83% of participants suggested giving a warning, 31% said re-assess the student, 5% said to change their grade (including giving a zero), 4% said to call home, 4% said detention, 60% said no punishment and 8% said something else (e.g., make the student write a paper why cheating is not acceptable or give the student a choice such as take a zero or redo the test). Note that the percentages add up to greater than 100% for each scenario as participants were able to include more than one form of discipline. A full breakdown of the punishments identify by scenarios is provided in Table 4.

Table 4: Consequences ascribed by the participants by scenario.

<table>
<thead>
<tr>
<th>Categories</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning / Conversation</td>
<td>83%</td>
<td>44%</td>
<td>49%</td>
<td>58%</td>
<td>64%</td>
<td>51%</td>
</tr>
<tr>
<td>Re-test / Re-assess</td>
<td>31%</td>
<td>5%</td>
<td>63%</td>
<td>70%</td>
<td>52%</td>
<td>73%</td>
</tr>
<tr>
<td>Reducing Grade</td>
<td>5%</td>
<td>40%</td>
<td>36%</td>
<td>46%</td>
<td>42%</td>
<td>42%</td>
</tr>
<tr>
<td>(e.g., give zero, adjust grade, losing marks)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call home / Talk to Parent</td>
<td>4%</td>
<td>20%</td>
<td>14%</td>
<td>17%</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>Detention / Suspension</td>
<td>4%</td>
<td>5%</td>
<td>10%</td>
<td>8%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>(e.g., stay at lunch / after school)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Punishment</td>
<td>60%</td>
<td>18%</td>
<td>5%</td>
<td>14%</td>
<td>14%</td>
<td>7%</td>
</tr>
<tr>
<td>Others (e.g., choice of punishment, write a letter)</td>
<td>0%</td>
<td>10%</td>
<td>10%</td>
<td>8%</td>
<td>11%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Discussion

We examined the beliefs of preservice teachers in terms of academic dishonesty, utilizing attribution theory as our conceptual model. Overall, the participants had strong beliefs in terms of what constituted academic dishonesty both in terms of discrete behaviours, and in response to the scenarios. We discuss the findings from each research question to consider how preservice teachers engage in the causal search process and determine consequences when presented with different behaviours that could be defined as academic dishonesty. In closing, we discuss the limitations and potential avenues for future research.

Teachers have strong beliefs

Based on our first research question, that is, how do preservice secondary teachers rate behaviours as academically dishonest, we found that participants rated behaviours strongly in terms of them being academically dishonest or not. Indeed, behaviours such as having someone else take your exam for you, submitting someone else’s work as your own and buying a term paper or essay were all rated strongly as academic dishonesty, while behaviour such as studying from available old exams, taking a practice exam, and forming a study group were rated strongly as not instances of academic dishonesty. However, there was one exception: “resubmitting your own work for a different class.” This finding highlights the importance of students understanding self-plagiarism, or what Cajigas and colleagues refer to as “text recycling” (2022, p. 1697). Self-plagiarism has received more attention in recent years (e.g., Rozhkova & Isaeva, 2022), and as such, more information is needed for preservice teachers in their training considering self-plagiarism and how to respond in their future classrooms.

Nevertheless, the extent to which a behaviour was rated as academically dishonest differed when contextual information was present. Indeed, based on our second research question, to what extent does contextual information shift preservice secondary teachers’ conviction that an action is
dishonest, we see across all paired samples t-tests ratings of academic dishonesty dropped when comparing the Likert scale behaviours and the scenarios. Said differently, context matters to preservice teachers. Based on attribution theory, there are an infinite number of causes that one can perceive when it comes to an outcome (Weiner, 1985), and providing preservice teachers with more details provides more room for speculation and interpretation. Importantly, the theory goes on to suggest that once a cause has been determined, there are only three underlying causal dimensions (locus, stability, and controllability, reviewed above). Research by by Goegan & Daniels (2023) suggests that in terms of plagiarism, when scenarios were deemed within the person’s control, preservice teachers were more likely to suggest the student was responsible. Like our results, the largest difference in means was associated with scenario one, wherein the student apologized and said they had been under a lot of pressure to do well at school from their parents and that they had too many other assignments to do; therefore they did not have time to study, perhaps interpreted as uncontrollable and/or not responsible. Alternatively, taking credit for ideas that are not yours (scenario five) had the smallest difference in means which could be interpreted as controllable and responsible. More research is needed to further examine the differences in terms of student actions and teacher consequences for academic dishonesty. Moreover, incorporating scenarios of academic dishonesty into preservice teacher training could provide an important avenue for discussion around responsibility for academic dishonesty and associated consequences before preservice teachers enter the classroom and must make these decisions themselves.

Facts, embellishments, and beliefs

For our third research question, what types of information do preservice secondary teachers use when determining if behaviours are dishonest, we found that participants’ causal search extended well beyond the stated facts of the scenarios to include embellishments and beliefs. This was a departure from our hypothesis that suggested the identification of facts and beliefs, but not embellishments. This reinforces the need to consider the psychosocial elements of dishonesty, such as social norms (Daumiller & Janke, 2020). Indeed, during the causal antecedents stage of the theory, there are many causal rules and biases that can impact an individual (Graham & Taylor, 2016; Pintrich & Schunk, 2002). Rudolph and Tscharaktschiew (2014) highlight the difference between the individual interpreting their own behaviour and an interpersonal perspective wherein the individual interprets the behaviour of others; our study focused on the latter. It would be advantageous to explore if the scenarios had been written in the first person and how that might have shifted the results. Indeed, the fundamental attribution error (Graham & Taylor, 2016) in terms of academic dishonesty would suggest that individuals are more likely to attribute their own behaviour to situational factors (e.g., did not know they were plagiarizing), while in the role of observer, are more likely to attribute the behaviour to personal characteristics (e.g., the student was lazy).

Indeed, similar to eyewitness testimony, there can be various biases beyond the fundamental attribution error. For example, Nayak and Khajuria (2019) identified several internal and external factors affecting the accuracy of eyewitness identification, including prejudice, prior experience, cognitive state, degree of certainty, and racial or personal bias, among others. Borrowing further from the eyewitness testimony research field is the idea of the misinformation effect. Here, “a person recollects that they experienced an event in a way that is consistent with false information provided to them after the event” (Puddifoot, 2020, pp. 255-256). In terms of academic dishonesty, it’s not just about the biases preservice teachers hold before the behaviour occurs but the information gathered afterwards as well. This may speak to the importance of record-keeping when dealing with instances of academic dishonesty. This may also explain an embellishment in Scenario 2, where the student was accused of sneaking a sheet of paper that had the answers into a test. Based on the student “look[ing] concerned, almost guilty, but deny[ing] that the paper is theirs,” many participants adjusted the fact that “the writing looks very similar” to “the writing was a match.” Future research could break down the scenarios into discrete events that occurred after the behaviour was detected to determine if ratings or interpretations change over time.

Consequences

For our fourth research question, what forms of consequences do preservice secondary teachers recommend for instances of academic dishonesty, we found that participants suggested a variety of consequences within and across scenarios (see Table 4). On the one hand, this shows consistency across scenarios and suggests these consequences are indeed common. On the other hand, this shows little consistency within scenarios suggesting there is rarely a singularity to consequences for a specific action. Consistency was reduced even more when the scenarios involved more than one student. For example, in Scenario 3 Student C was signaling answers to student D during an exam. Not only do some of the participants interpret the students’ actions differently, for example, one individual said, “Student C was only trying to help a friend, Student D was cheating”, but also in the severity of the behaviour, as stated by one participant “while student C is not ‘cheating’ on their exam, they are helping student D cheat, student D is more in the wrong than Student C.” The comments by participants may highlight an important element of the definition of academic dishonesty, and that is that the behaviour provides an unfair advantage for the student committing the dishonesty over other students (Hylton et al., 2016). Indeed, another participant said, “Student C knew the material and was wishing to help their pal through [a] tough time. Furthermore, they themselves knew and understood the content. In contrast, Student D was taking the answers and did not know the content.” The idea of benefiting from the action is a distinction that preservice teachers made, and it impacted not only the rating of the behaviours but also the consequences. As a result, many of the participants identified more punitive consequences for Student D than C. This was also present in the participants’ beliefs that academic dishonesty was less severe in formative rather than summative assessment.
presumably because the former is not graded. Therefore, future research should continue to investigate the impact of benefiting from academic dishonesty in relation to how the behaviour is interpreted and the resultant consequences for the individual involved.

**Limitations and future directions**

The results here need to be interpreted with consideration of three limitations. First, the lessons that the preservice secondary teachers engaged in prior to completing the survey did not include knowledge concerning the policies for how to handle academic dishonesty. This was not included because the preservice teachers would be eventually teaching in various schools across the province, which could have different guidelines. On the one hand, providing preservice teachers with some guidelines to follow may have reduced the range of consequences identified here. On the other hand, previous research has found that instructors rely more on their personal or professional judgements rather than adhering to policy (Kwong et al., 2010; Thomas, 2017). As such, future research could further extend our findings here to investigate how decisions about consequences specifically are determined. Indeed, Keener and colleagues (2019) suggest that faculty members believe that consequences for academic dishonesty should be proportional to the severity of the offence, but the severity of the offence may be subjective. For example, several of the preservice teachers here had the belief that academic dishonesty was more severe when the assignment was summative rather than formative, while others said cheating is cheating. As such, this is an important area for future research.

Second, we asked the participants, “To what extent do you consider the student’s behaviour as academic dishonesty?” and then “What in the story helped you decide on your response?” Based on attribution theory (Weiner, 1985; 2000; 2010), these two questions perhaps should be reversed. In considering what in the story helped them decide, the preservice teachers were engaging in causal search, that is, trying to determine why the student engaged in the act of academic dishonesty. While rating the behaviour would be after causal ascription, where the reason why has been identified, and the preservice teacher is now passing judgement (Weiner, 1985). Future research should consider the ordering of the questions to align with the components of attribution theory more strongly.

Third, this study was conducted during public health restrictions associated with COVID-19. The course was offered fully asynchronously. It has been shown that COVID-19 increased student concerns about academic dishonesty (Dey, 2021) and a perceived increase in cheating due to the shift to online instruction (Ives & Cazan, 2023). These shifting outlooks on academic dishonesty may have played a role in our results. As such, future research should re-examine the items and analyses here with preservice teachers once public health restrictions have ceased to determine if shifting social factors impacted the results. In addition to reflecting on the COVID-19 context, this study was conducted prior to the release of ChatGPT, so it does not consider preservice teachers’ perspectives on particularly new elements of academic dishonesty. This will be an important consideration for theory-guided research in the future.

**Conclusion**

Overall, our study contributes to the growing research examining academic dishonesty and preservice teachers and offers an attribution theory perspective to consider. Indeed, our findings provide valuable information about how teachers engage in causal search when presented with student actions that may be examples of academic dishonesty and the suggested consequences. Essentially, context matters for teachers when it comes to making decisions about situations of academic dishonesty, which can then impact the resultant consequences for students. As such, results from our study provide researchers, educators, and administrations with vital information about the role of facts, embellishments, and beliefs in terms of interpreting academic dishonesty. As concerns regarding academic dishonesty continue in schools, it is important to keep in mind how these behaviours are understood by educators.

**References**


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**Appendices**

**Appendix A: Descriptions of scenarios**

**Scenario 1:** As part of your assignment in a Chemistry course, you have students complete weekly quizzes. While these quizzes are not for marks, but rather for formative assessment so you can see how students are doing. This week you notice Student A is very sparing in their use. You keep an eye on them and notice them packing at another student's answers. At the end of class, you ask the student to stay behind and ask them about their behavior. Student A starts apologizing and tells you how much pressure they have been under to do well at school from their parents, and that they had too many other assignments to do, so they didn’t have time to study.

**Scenario 2:** You just finished a big test in your Math class. At the end of the test, you have decided to administer a final exam as part of the summative assessment that will be worth 10% of their final grade. You administered the final exam, and everything seemed to be fine, but after the students leave the room, you notice a sheet of paper that has the answers to the test. Based on where you hand the papers, you think it belongs to Student B. The next day you ask Student B about the paper. They look concerned, almost guilty, but deny that it is their paper. After they leave, you compare the writing style to another assignment that they completed, and the writing style is very similar.

**Scenario 3:** Your class is nearing the end of a unit in Social Studies; it is time for a summative assessment test on the material. The test is worth 10% of their final grade. On exam day, you notice Student C acting odd. They keep moving their rear under their desks in what appears to be two different positions. Your test is multiple choice, and you are concerned they are communicating the answers to another student. You talk to Student C about the matter after class, and they admit that they were helping their friend Student D, Student D has been really sick lately and missed a lot of classes. Student D has been having a hard time keeping up with class material.

**Scenario 4:** You are an English teacher, and your class is beginning the poetry unit. As a diagnostic assessment, you ask students to write a short poem. The poems are for you to get a sense of where students are at before you begin your instruction for the unit. Student E is a student in your English class, and they submitted a wonderful poem. The problem is you think you’ve read it before. In fact, there is a similar poem you have written in the last year. You go through your records and find that your suspicions are correct, Student E took their sibling’s work and submitted it as their own. When you ask Student E about it, they admit to taking their sibling’s work and tell you they think they were having writer’s block and couldn’t think of anything to write.

**Scenario 5:** Your class has been busy for weeks writing their research papers in your Social Studies class. As part of this assignment, students are required to limit the ideas of Stalinism to a topic that is personally meaningful. This paper is part of your summative assessment and worth 30% of their final grade. Once the papers are submitted, you notice two very similar papers from Student G and Student H. You show the two students the papers and ask them about the similarities. Student G admits that they asked Student J to send them the paper they were writing to help. Student G gets started as Student J was struggling to come up with an idea. Student G apologizes and says they thought they changed the paper enough to make it reflect their own ideas.
## Appendix B: Examples of facts, embellishments and beliefs from each scenarios

<table>
<thead>
<tr>
<th></th>
<th>Facts</th>
<th>Embellishment</th>
<th>Belief</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Weekly quizzes, formative assessment</td>
<td>They are a good kid. They have never done this before.</td>
<td>I think this is important to apply the consequences of academic dishonesty in all scenarios.</td>
</tr>
<tr>
<td></td>
<td>Student B is not doing well in the class.</td>
<td>Had a good reason (e.g., doing this out of fear).</td>
<td>This behavior is minor. The consequences around it make it less severe.</td>
</tr>
<tr>
<td>2</td>
<td>Quiz final exam (formative assessment) worth 30% of their final grade.</td>
<td>Student B wrote a paper with answers.</td>
<td>Student B intentionally brought in written answers. Because this is such a high stakes exam, cheating has large implications, even if it was small issue or formative assessment.</td>
</tr>
<tr>
<td></td>
<td>You find several papers on desk.</td>
<td>The writing is the same.</td>
<td>The writing is the same.</td>
</tr>
<tr>
<td></td>
<td>The writing on the desk is similar.</td>
<td>Student D wanted a good mark on his/her exam and had no way out.</td>
<td>Student B had good intentions. Student B may have felt a lot of peer pressure.</td>
</tr>
<tr>
<td>3</td>
<td>Test (formative assessment) worth 15% of their final grade.</td>
<td>Student C is acting odd and moving closer to desk.</td>
<td>Hoping out a friend is a natural thing to want to do.</td>
</tr>
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<td></td>
<td>Student C drops a paper on the floor.</td>
<td>They have written block and couldn’t think of anything to write.</td>
<td>The fact that this plan was negotiated between the two students suggests genuine academic dishonesty.</td>
</tr>
<tr>
<td></td>
<td>Student C enters the room.</td>
<td>The student didn’t know.</td>
<td>What student C was “clearing” in their exam, they are helping student D cheat. Student D is more at the wrong than student C.</td>
</tr>
<tr>
<td>4</td>
<td>Short tests (diagnostic assessment), not for grades.</td>
<td>Their sibling didn’t know.</td>
<td>I don’t think having someone block in an exam is going to cause someone else’s work as well.</td>
</tr>
<tr>
<td></td>
<td>You think you’ve read Student E’s paper before.</td>
<td>Their sibling willingly gave it to someone else, but they could also have issues with their confidence in writing.</td>
<td>Since this is a diagnostic assessment, I don’t believe it is as serious as other situations.</td>
</tr>
<tr>
<td></td>
<td>Student E submitted it to the teacher.</td>
<td>They did not have time to come up with an answer.</td>
<td>It is natural to want to help a sibling.</td>
</tr>
<tr>
<td></td>
<td>They had written block and couldn’t think of anything to write.</td>
<td>Did they think they would not get caught?</td>
<td>Cheating is cheating regardless.</td>
</tr>
<tr>
<td>5</td>
<td>Report (summative assessment), 10% of their final grade.</td>
<td>The student made a mistake.</td>
<td>The student made a mistake. They have not been educated on what plagiarism is and why it is so important to avoid it.</td>
</tr>
<tr>
<td></td>
<td>Reading Student F’s paper and something seems off.</td>
<td>They have not been educated on what plagiarism is and why it is so important to avoid it.</td>
<td>I think the amount of plagiarism work she puts is a role.</td>
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<tr>
<td></td>
<td>Student F says that they copied and pasted but it’s not a big deal.</td>
<td></td>
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<tr>
<td></td>
<td>They did not have time to come up with an answer.</td>
<td></td>
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<tr>
<td></td>
<td>It didn’t make sense to come up with an answer.</td>
<td></td>
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<tr>
<td>6</td>
<td>Research paper (formative assessment), 50% of their grade.</td>
<td>Student H didn’t know they were going to steal their ideas.</td>
<td>It doesn’t matter if the situations that these two students had, they cheated.</td>
</tr>
<tr>
<td></td>
<td>You notice two very similar papers from Students G and Student H.</td>
<td>Student H did not cite their sources.</td>
<td>I don’t think it necessarily a bad thing to share a friend what your assignment looks like if they are struggling.</td>
</tr>
<tr>
<td></td>
<td>Student G admits that they asked Student H for feedback.</td>
<td>The papers were the same.</td>
<td>Maybe I’m too old, but I want to believe that students aren’t actively trying to cheat and get away with it.</td>
</tr>
<tr>
<td></td>
<td>Apologies, they changed their paper to reflect their own ideas.</td>
<td>There is a lack of understanding by both students.</td>
<td></td>
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