

Psychological Impact of Academic Dishonesty in the Online Assessment Tasks of Engineering Students in one of the State Universities in the Philippines

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Abstract— The covid-19 pandemic affects people all over the world, and one of the most affected areas is the educational system at various colleges and universities. The pandemic has pushed the educational system to a purely online management system that includes assessment activities such as assignments, quizzes, and examinations, as opposed to the traditional face-to-face classroom setup. The abrupt shift to an online setup of these activities has put one of the core values of almost all colleges and universities, Integrity, to the test. This study seeks to identify the factors that contribute to academic dishonesty in the current online educational environment, particularly in the field of engineering education in one of the state universities in the Philippines. It also aims to make recommendations on how to prevent or at least reduce academic dishonesty in online assessment settings. The research study employed exploratory research methodology to investigate the occurrence of academic dishonesty in the current online educational set-up particularly in the field of engineering education in one of the state universities in the Philippines. Out of the 186 student respondents, 160 or 86.02% of the students confessed that they have committed academic dishonesty in one of their online assessment tasks (quiz, exam, assignment, etc.) and 26 or 39.98% of them never committed academic dishonesty. Results shows that checking of notes and lecture handouts is the most common ways they committed academic dishonesty which is 78.13% of the 160 students, while checking of other internet sites during exam, consulting their classmates/someone during exam, and posting of Formulas/Notes in the walls recorded 39.38%, 37.50%, and 36.25% respectively. Fear of failure is the most common personal-intrinsic factor why student engaged in behavioral misconduct which is 73.75% of the 160 students while 61.88% of them chooses dissatisfaction with the teaching as the most common extrinsic factor.

Index Terms— Academic Dishonesty, Assessment Tasks, Engineering Education, Integrity, Online Assessment

I. INTRODUCTION

The covid-19 pandemic affects the lives of people globally and the educational setup from different colleges and universities is one of the most affected by this situation. From the traditional face-to-face classroom setup, the pandemic had pushed the shift of the educational system to a purely online management system which also includes the methodologies in doing their requirements (Aguilar, 2021). Assessment activities such as assignments, quizzes, and examinations are requirements that help the educators to check the accomplishment of the course outcomes in their students.

The sudden shift to an online setup of these activities have tested one of the core values of almost all colleges and universities which is Integrity (Ayoub and Aladwan, 2021). The readily available and fast access to technology has influenced students' behaviours, which range from copying and pasting content from the internet to sharing answers to online quizzes and texting peers (Piascik and Brazeau, 2010). This is a concerning trend because cheating has negative implications for both the students' learning process during their academic studies and for the job market that will be waiting for them after graduation, as well as the ethics they will bring to that market (Barbaranelli et al., 2018; Bashir & Bala, 2018).

According to Reedy et al. (2021), cheating can take place in both proctored and unproctored online exams, just like it can in person.

Seven essential conclusions emerged from the study's findings, the most significant of which was the necessity of redefining what constitutes academic misconduct in order to take into account the modifications brought about by digital tests. Lessons learnt from the study's findings are provided for enhancing academic integrity in digital tests and assessments.

The goal of M. Aguilar's (2021) research is to examine the academic servicing sector, which is thought to be a venue where academic dishonesty is accepted and frequently used. It was determined that pupils in the 21st century lack discipline, especially those who began classes in the academic year 2020–2021, while academic dishonesty is most common at the senior high school and college levels. Additionally, it was found that teachers, including those who hold teaching licences, tolerate academic dishonesty by offering to fulfil students' academic requirements, supporting students' cheating in addition to the reasons given by students for engaging in academic dishonesty. There is a presumption that students get more confidence when they see their lecturers actively engaged in such a business. Although there are many reasons why key players engage in this type of behaviour, it has been found that the overwhelming workload, inability to study independently, lack of support from parents and teachers, laziness, peer pressure, and the pressure to achieve good grades are the main causes for which students seek the assistance of others to complete their requirements, which leads to the conclusion that online learning is ineffective.

Academic dishonesty among students has a wide range of causes that may be intrinsically or extrinsically driven. Strong self-motivation, rivalry, fear of failure, a lack of expertise in the field, a low sense of self-efficacy, a heavy workload, lack of discipline, laziness, exhaustion, a tendency towards impulsivity, prior poor academic performance, and a lack of moral development are a few examples of personal-intrinsic factors. Extrinsic factors include the staff's disregard for unethical behavior and the lack of consequences for cheating, parental pressure to succeed, teacher dissatisfaction, the perception that there are many opportunities for cheating, the pressure to turn in assignments on time, excessively high academic demands, the content's lack of relevance to the students' future careers, the desire to improve one's social standing, and the need to enter the job market (“Amzalag et al., 2021; Amigud & Lancaster, 2019; Birks et al., 2020; Bretag et al., 2019; Kiekkas et al., 2020; Krou et al., 2020; Murdock & Anderman, 2006”).

Academic dishonesty is a long-standing problem. It dates back to the time when technology invaded our life and encompasses a variety of actions (Amzalag et.al., 2021), thus, it's critical to analyze this issue, especially as learning is increasingly taking place online during the Covid-19 pandemic and even that we are slowly going back to the face-to-face set up of educational system, there is no doubt that online setup will remain to be part of our system and will be use by some educational institution if not all, especially to those who wish to implement distance learning which are still allowed by the Commission on Higher Education (CHED).

This research aims to investigate the occurrence of academic dishonesty in the current online educational set-up particularly in the field of engineering education in one of the state universities in the Philippines, to determine the factors that causes these behavioral misconduct, and to provide recommendations on how to eliminate or at least minimize cheating in an online assessment set-up.

II. METHODS

The research study employed exploratory research methodology to investigate the occurrence of academic dishonesty in the current online educational set-up particularly in the field of engineering education in the private Higher Education Institutions (HEI's) in the Philippines. The study sought to know and understand:

1. How academic dishonesty were done by the students?
2. What are the Personal-intrinsic factors that causes the students to cheat?

3. What are the extrinsic factors that causes the students to cheat?
4. What possible solutions that can be done to minimize if not eliminate cheating in the online assessment of students?

The sample included 186 engineering students from one of the state universities in the Philippines. Online survey was developed and deployed using a google form, it includes six questions related to the conduct of academic dishonesty during online assessment with an open ended questions where the respondents can answer and comments other than what is ask and written in the survey questionnaire.

Causes of academic dishonesty included in the survey questionnaire choices are based from the studies that academic dishonesty among students has a wide range of causes that may be intrinsically or extrinsically driven. Results of the survey were analyzed using multiple response analysis of data collected from the google form and imported to Microsoft excel for further analysis and producing graphical presentations.

III. RESULTS AND DISCUSSION

The Discussion and analysis of results from the survey conducted to investigate the occurrence of academic dishonesty in the current online educational set-up particularly in the field of engineering education in one of the state universities in the Philippines were presented below using a multiple response analysis.

Out of the 186 respondents from one of the state universities in the Philippines offering Engineering programs, 160 or 86.02% of the students confessed that they have committed academic dishonesty in one of their online assessment tasks (quiz, exam, assignment, etc.) and 26 or 13.98% of them never committed academic dishonesty. This result shows that there is really a rampant cheating or academic dishonesty activities in an assessment task conducted online, thus, the needs to establish strategies to eliminate or at least minimize these conduct is a must, this is in line with the study of Reedy et.al (2021) that cheating occurs in all forms of online examinations whether proctored or non-proctored, just as it does in face-to-face examinations.

A. Forms of academic dishonesty

Table 1.0 shows the results of the responses from the 160 students who admitted that they have committed academic dishonesty in at least one of their online assessment task. a total of 306 multiple responses are collected on how the academic dishonesty were conducted where 40.85% of these responses state that students checking their notes and lecture handouts during their online assessment tasks, 20.59% check other internet sites during exam, 19.61% consulted their classmates during exam, and 18.95% have posted formulas/Notes in the walls.

Table 1.0 Percentage of Cases for the different conduct of Academic Dishonesty.

Forms of Academic Dishonesty	Frequency	Percent of Responses	Percent of Cases
a	125	40.85%	78.13%
b	63	20.59%	39.38%
c	60	19.61%	37.50%
d	58	18.95%	36.25%
e	0	0.00%	0.00%
f	0	0.00%	0.00%
Total	306	100.00%	

Where:
 a. Checkin
 g of
 notes and
 lecture
 handouts
 .
 b. Checkin
 g of

- other internet sites during exam.
- c. Consult classmates/someone during exam
- d. Posting of Formulas/Notes in the walls.
- e. Impersonation.
- f. no answer

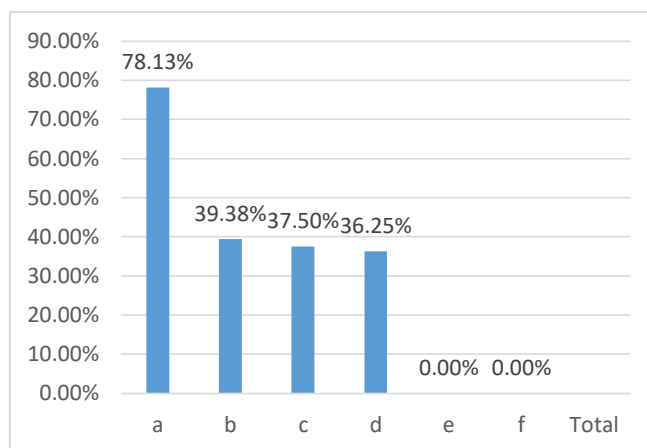


Figure 1.0 Graphical presentation of Percentage of Cases for the different forms of Academic Dishonesty.

Figure 1.0 shows the percentage of cases of the different misconduct, it is evident that Checking of notes and lecture handouts is the most common ways they committed academic dishonesty which is 78.13% of the 160 students, while checking of other internet sites during exam, consulting their classmates/someone during exam, and posting of Formulas/Notes in the walls recorded 39.38%, 37.50%, and 36.25% respectively. Students who has the opportunity to open any materials or resources during the online examinations tends to commit academic dishonesty. This is in line with the study of Holden et.al (2021) that opportunity occurs when students perceive that there is the ability to cheat without being caught, thus, strict monitoring and proctoring must be implemented in such a way that students have no opportunity to perform these kind of activities.

B. Personal Intrinsic Factors

Table 2.0 shows the 42542 responses gathered from the 160 students on what are their personal-intrinsic reasons of committing academic dishonesty. 118 or 21.77% of these responses stated that their misconduct is the result of their fear to fail. A large overload of studies, insufficient knowledge in the topic, and strong motivation to pass are also a great factor in committing academic dishonesty with 15.50%, 13.65%, and 13.10% respectively.

Table 2.0 Personal-Intrinsic factors that causes for Academic Dishonesty.

Reason for Academic Dishonesty (Personal-Intrinsic Factors)	Frequency	Percent of Responses	Percent of Cases
a	71	13.10%	44.38%
b	4	0.74%	2.50%
c	118	21.77%	73.75%
d	74	13.65%	46.25%
e	62	11.44%	38.75%
f	84	15.50%	52.50%
g	19	3.51%	11.88%
h	14	2.58%	8.75%
i	47	8.67%	29.38%

j	16	2.95%	10.00%
k	13	2.40%	8.13%
l	20	3.69%	12.50%
m	0	0.00%	0.00%
Total	542	100.00%	

“Where:

- a. strong motivation to pass
- b. competitiveness
- c. fear of failure
- d. insufficient knowledge in the topic
- e. a diminished sense of self-efficacy.
- f. a large overload of studies
- g. lack of self-discipline
- h. Laziness
- i. Tiredness
- j. an impulsive tendency
- k. previous low academic achievements
- l. low moral development
- m. no answer”

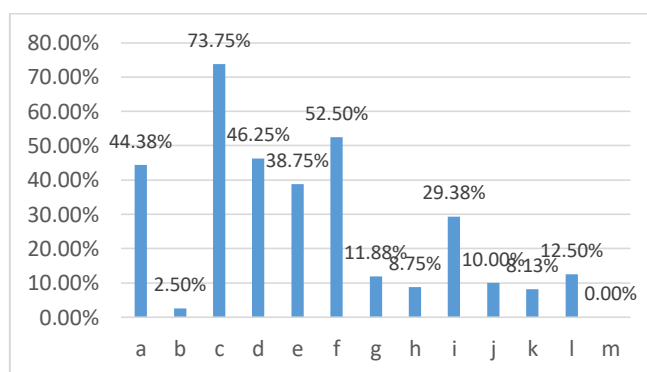


Figure 2.0 Graphical presentation of Percentage of Cases for the personal-intrinsic factors that causes academic dishonesty.

Figure 2.0 shows the percentage of cases of the different personal-intrinsic reasons that causes students to commit academic dishonesty, it is evident that fear of failure is the most common reason why student engaged in this behavioral misconduct which is 73.75% of the 160 students, fear of failure interferes with most people's ability to complete tasks and go about their daily lives. Students can experience fear of failure not only in their daily lives, but also in their studies. As a result, some students choose not to make any effort to make the necessary progress toward their goals (Anoita et.al, 2020). Similarly, fear of failure was a significant predictor of academic dishonesty, suggesting that students who are afraid of failing may be more likely to engage in dishonest behaviors (Gullifer, J. M., & Tyson, G. A., 2014). Other factors such as large overload of studies, insufficient knowledge in the topic, and strong motivation to pass also greatly contributed to the cause which are 4152.50%, 46.25%, and 44.38% respectively of the total respondents. The pressure felt by students to get good grades and the desire to be viewed as successful can create the incentive to cheat (Holdn et.al, 2021). Educators can help students overcome their fear of failure by reminding them that failure can be used to learn, making sure that students are learning in every discussion and by giving them just enough requirements, student may not commit academic dishonesty.

C. Extrinsic factors

Table 3.0 shows the 355 responses gathered from the 160 students on what are their extrinsic reasons of committing academic dishonesty. 99 or 27.89% of these responses stated that their misconduct is due to their dissatisfaction with the teaching of their instructor's while 95 or 26.76% stated that the behavioral misconduct is due to time pressure to hand in assignments. Due to the insufficient time allotted, students are more likely to cheat, as attempting to complete the assessment may be perceived as futile (Munoz & Mackay, 2019). Time constraints are a common method for reducing the possibility of cheating.

Table 3.0 Extrinsic factors that causes for Academic Dishonesty.

Reason for Cheating Extrinsic Factors	Frequency	Percent of Responses	Percent of Cases
a	12	3.38%	7.50%
b	47	13.24%	29.38%
c	99	27.89%	61.88%
d	20	5.63%	12.50%
e	95	26.76%	59.38%
f	38	10.70%	23.75%
g	20	5.63%	12.50%
h	7	1.97%	4.38%
i	11	3.10%	6.88%
j	6	1.69%	3.75%
Total	355	100.00%	

“Where:

- a. absence of disciplinary implications for cheating
- b. parents’ pressure to succeed
- c. dissatisfaction with the teaching
- d. a sense that there are multiple cheating opportunities
- e. time pressure to hand in assignments
- f. excessively high academic demands
- g. content’s irrelevance to the students’ future profession
- h. a desire to attain better social status
- i. a desire to enter the work market
- j. no answer”

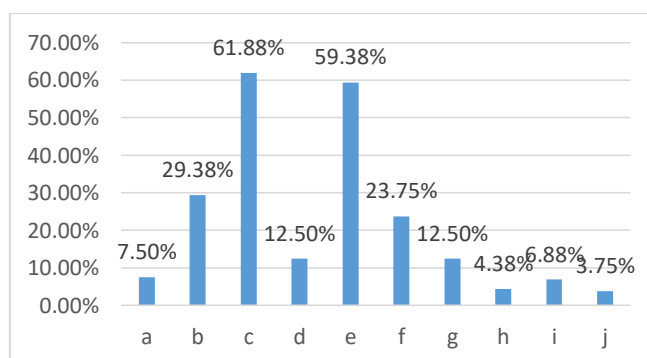


Figure 3.0 Graphical presentation of Percentage of Cases for the extrinsic factors that causes academic dishonesty.

Figure 3.0 shows the percentage of cases of the different extrinsic factors that causes students to commit academic dishonesty, it is evident that most common factor that causes students to engage in academic dishonesty is their dissatisfaction to the teaching of their instructors which is 61.88% of the 160 respondents. Studies have suggested that teachers who are perceived as unfair or who do not effectively communicate their expectations may inadvertently contribute to academic dishonesty (DiBattista, D., & Kurzawa, L., 2016). Teachers who focused on building relationships with their students and creating a positive classroom culture were more likely to have students who valued academic integrity (Stoesz, B. M., & Bowers, M. T., 2020). Educators must come out with a new teaching and learning strategies in a way that the students will be encourage to learn the concept and principles of what they are teaching and regularly ask the students about their learnings during discussions.

D. Reasons for not committing academic dishonesty

From the 26 students or 39.98% of the total respondents of the survey who says that they never committed any academic dishonesty at least once in their online assessment tasks, Table 4 shows that 16 or 23.898% of them has their own moral compass and beliefs that ruled out cheating. This is in line with the study of Diekhoff, G. M et al. (1999), that students who had a strong sense of personal ethics and moral beliefs were less likely to engage in cheating behaviors, regardless of their cultural background. Strong moral compass can help protect individuals against academic dishonesty. Teachers and educators may consider promoting moral education and ethical values in their students to reduce the likelihood of cheating and other forms of academic dishonesty.

Table 4.0 Reasons for not committing Academic Dishonesty.

Reasons for not cheating	Frequency	Percent of Responses	Percent of Cases
a	16	23.88%	61.54%
b	14	20.90%	53.85%
c	15	22.39%	57.69%
d	9	13.43%	34.62%
e	4	5.97%	15.38%
f	7	10.45%	26.92%
g	2	2.99%	7.69%
h	0	0.00%	0.00%
Total	67	100.00%	

Where:

- a. It's my own moral compass and beliefs that ruled out cheating
- b. The instructor always reminds us the importance of Integrity and to adhere the core values of the University
- c. I have fear of the possible consequences like failing, suspension or dismissal
- d. I am being monitored during the exam
- e. The type of questions and design of exam make it hard for me to cheat
- f. Exam duration
- g. It's hard to cheat in the current online platform that we are using

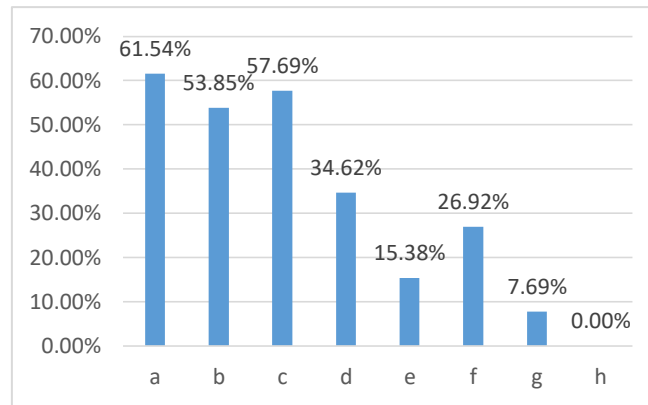


Figure 40. Graphical presentation of Percentage of Cases for the student reasons for not committing academic dishonesty.

Figure 4.0 shows the percentage of cases of the student reasons of not committing academic dishonesty, it is evident that the most common factor that motivate and stop the students is having moral compass and beliefs that ruled out cheating which is 61.54% of the 26 respondents, other reasons such as having fear of the possible consequences like failing, suspension or dismissal, instructor reminding them the importance of Integrity and to adhere the core values of the University, and knowing that they are monitored during the exam also greatly contributed to the reason which are 57.69%, 53.85%, and 34.62% respectively of the total respondents. The current research findings, as well as the differences found between students' and lecturers' attitudes and perceptions, attest to the importance of caring for this student-lecturer relationship, especially during the difficult time of the pandemic, when it is managed solely at a distance. Academic ethics principles should be incorporated into shared discourse between lecturers and students (Amzalag et.al, 2021). Classroom discussions about ethics and its importance in academia should be held for both students and lecturers. It should also be possible to deliver an ethics course in academia, and lecturers and students could collaborate to develop and implement an ethical code. This is in line with the study of Hwang S. (2013) that a program, which included classroom discussions about ethical issues in academia, was effective in increasing students' awareness of academic integrity and reducing incidents of academic dishonesty.

E. Students comments and Suggestions to eliminate or at least minimized cheating

All student respondents of the survey give their suggestions and recommendations on how to minimize if not eliminate cheating or academic dishonesty during online assessment activities. Common suggestions are the following:

1. To require the students to open their cameras during examinations making sure that the student hands, paper and computer are visible,
2. To encourage the teachers to improve in the teaching and learning strategies and methodologies,
3. To give examination questions that are solvable within the given time period to avoid and eliminate time pressure,
4. To emphasize the possible consequences of engaging to any behavioral misconduct to them and to their career in the future,
5. To always remind them the significance of integrity and instill to them importance of having a high moral value.

It was also evident in their comments and suggestions that having an online examination are more prone to cheating than having an onsite or face-to-face examinations, thus for them, a face-to-face set up of classes and examinations are still the best setup in conducting engineering education classes.

Eliminating academic dishonesty in online exams can be a challenging task, but there are several strategies that teachers and educators can use to mitigate the risk of cheating based from other studies.

1. Use proctoring software: One effective strategy for preventing academic dishonesty in online exams is to use proctoring software. Proctoring software can help to monitor students' activity during an exam, such as recording video and audio, tracking mouse movements, and detecting unusual behavior. Studies have shown that the use of proctoring software can help to reduce cheating in online exams (Aguilar-Martínez & Padilla-Meléndez, 2021; Oluyede et al., 2021).
2. Use randomized question banks: Another strategy for preventing academic dishonesty in online exams is to use randomized question banks. Randomized question banks can help to reduce the likelihood that students will share answers or collaborate with each other during an exam. Studies have shown that the use of randomized question banks can help to reduce cheating in online exams (Munoz-Zavala et al., 2020).
3. Use time limits: Setting time limits on online exams can also be an effective strategy for preventing academic dishonesty. Time limits can help to reduce the likelihood that students will have time to cheat or collaborate with each other during an exam. Studies have shown that the use of time limits can help to reduce cheating in online exams (Chen et al., 2019; Roca et al., 2020).
4. Use open-ended questions: Another strategy for preventing academic dishonesty in online exams is to use open-ended questions. Open-ended questions require students to provide a detailed and original response, which can be more difficult to cheat on than multiple-choice questions. Studies have shown that the use of open-ended questions can help to reduce cheating in online exams (Davies et al., 2021; Oluyede et al., 2021).

IV. CONCLUSIONS

The COVID-19 pandemic affects the educational setup of various colleges and universities in the Philippines and academic integrity was severely put to the test as a result of the abrupt transition of the educational system to a purely online management system that includes assessment activities like assignments, quizzes, and exams.

There is a rampant cheating or academic dishonesty activities in an assessment tasks conducted online and the most common form are checking of notes and lecture handouts, checking of other internet sites during exam, consulting their classmates/someone during exam, and posting of formulas/notes in the walls.

Academic dishonesty among students has a wide range of causes that may be intrinsically or extrinsically driven, but the most common factors that causes the students to engage in this behavioral misconduct are fear of failure, insufficient knowledge in the topic, strong motivation to pass, large overload of studies, time pressure to hand in quizzes/assignments, dissatisfaction to teaching and pressure of their parents to succeed.

Educators can help students overcome their fear of failure by reminding them that failure can be used to learn, making sure that students are learning in every discussions and by giving them just enough requirements, student may not commit academic dishonesty.

Proper monitoring like requiring the students to open their cameras in such a way that they are visible during the online assessment activities must be done to minimize if not eliminate academic dishonesty, teachers must also develop new ways of teaching their courses in a way that the students will be encourage to learn the concept and principles of what they are teaching and regularly ask the students about their learnings during discussions. As an educator, teaching and reminding the students the importance of integrity and presenting them the possible consequence of their actions will help them avoid any behavioral misconduct.

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