

Dimension of Fraud Triangle and Academic Integrity during Online Learning on Undergraduate Students

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Abstract

Academic integrity is fundamental to learning at the university, it entails commitment to the fundamental values of honesty, trust, fairness, respect, responsibility and courage. The COVID-19 pandemic made a transitioned from offline to fully online courses. Several studies showed cheating rates to be higher in online courses than in offline courses. There are various causes of cheating including fraud triangle. This study aimed to determine the correlation between the dimension of fraud triangle (pressure, opportunity, rationalization) and academic integrity during online learning on undergraduate students. Three hundred students from seven universities in Central Java were participated in this study. Two instruments used were Fraud Triangle Scale and Academic Integrity Scale. Data were analyzed by using correlational quantitative method. The result showed that there is a negative correlation between the dimension of fraud triangle and academic integrity on undergraduate students during online learning ($r_{xy} = -.650, p < .01$). Further analyzed showed that there is a negative correlation between pressure dimension and academic integrity ($r_{xy} = -.540, p < .01$), rationalization dimension and academic integrity ($r_{xy} = -.546, p < .01$) and opportunity dimension and academic integrity ($r_{xy} = -.558, p < .01$) during online learning on undergraduate students. Based on this result, maintain the academic integrity of students in online learning can be done by minimizing pressure during the test, make policies to minimize opportunity to cheat and change the idea that dishonesty is a common behavior.

Keywords: Academic integrity, fraud triangle, online learning, undergraduate students

Introduction

COVID-19 is a global pandemic that also has an impact on the education sector, including at the higher education level. With the e-learning model, all lecture activities are held online including attendance, assignment collection, quizzes, midterms, and end-of-semester exams. Some of the problems that arise from the lecturer's side are not being able to ensure the seriousness of students in participating in lecture activities: Some students being only present at the beginning of class and then leaving, issues about cheating in doing individual tasks, involvement in the work of group tasks, to work on the exam. The problem that arises from the student side is the decrease in learning motivation, using the pattern of "overnight speed system" before quizzes, midterms and end-of-semester exams, present in class but not focused, doing other activities, and

stress due to the demands of heavy tasks but not fully understanding the lecture material delivered. In addition, sometimes, student complaints to lecturers related to members who do not contribute when doing group tasks for various reasons, ranging from power outages, having to work to help parents so that they cannot join google meet/zoom at the appointed time.

Students as people who step on and have higher education are expected to have high integrity to act in accordance with social expectations and existing norms. Academic integrity is a moral principle applied in an academic environment especially related to truth, fairness, honesty. The current online learning conditions demand high integrity in students, especially related to honest behavior, upholding the truth, confident, responsibility and having a strong commitment.

The International Center for Academic Integrity (ICAI) defines academic integrity as consistent behavior in upholding the values of honesty, trust, fairness, respect, and responsibility. The value of honesty is the foundation of teaching, learning, researching, serving, and is fundamental in community life. Trust values are developed by faculty that provide a set of guidelines for assignments, evaluation of student work and efforts to perform tasks honestly, thoughtfully, and originally. The value of fairness is an important factor in creating an ethical community, includes components of being fair, predictive, transparent, clear, and realistic expectations. Respect for community members including respect for differences and opposing opinions. The value of responsibility related to responsibility as a member of the academic community regarding teaching and research. Responsibility is interpreted as being responsible for its mistakes, resisting peer pressure and setting a positive example (Keohane, 1999).

The five values of integrity are very honorable in academic life as the core of college morality. A student is said to have academic integrity if he/she can maintain the correct values consistently in his/her academic environment and activities. It is explained in more detail that individuals with integrity will maintain the right values consistently in the academic environment and activities by prioritizing aspects of honesty, trust, equality/justice, appreciation, responsibility, and courage (Firmantyo & Alsa, 2016). Students who have good academic integrity will produce consistent behavior patterns so that all activities will lead to good values that ultimately create their happiness, peace, and well-being in school (Park in Ramdani & Prakoso, 2019).

Supriyadi (2012) divides integrity into two, namely academic integrity and non-academic integrity. Forms of academic integrity are: (1) Absenteeism, absence of learning activities with or without demonstrable reasons; (2) Plagiarism, using the thoughts, processes, results, or writings of others without giving recognition or appreciation by mentioning the complete source of reference; (3)

Cheating, efforts made by students or others dishonestly aimed at taking unfair advantage in the learning or assessment process; (4) Collusion, cooperate with other students to prepare or work on assignments to be assessed; (5) Fabrication, fabricating data or research results or in recording; (6) Falsification, manipulating materials, equipment, or research processes, or changing/eliminating data or research results so that research results are not recorded accurately; (7) Ghosting, soliciting the services of others (with or without incentives) to write or perform assignments for certain students; (8) Deceit: statements, actions, tools, or tools used dishonestly for the purpose of lying or giving a negative impression; and (9) Gratification, an act to please others who can benefit the student.

One form of academic disintegrity that often arises is related to academic dishonesty. According to McCabe (2014), there were at least six forms of behavior that lead to academic dishonesty, namely: (1) Copying a friend's answer during the test either with or without the knowledge of the person concerned; (2) Using unclear reference sources; (3) Learn the test from someone who has taken it in the previous period; (4) Helping others cheat; (5) Using incorrect excuses when late submitting tasks; (6) Delay the exam time in order to get longer to prepare for the test and so that you can learn from colleagues who have taken it.

There are several factors that cause academic dishonesty, whereas academic dishonesty refers to action that undermine academic integrity. Javed (2019) showed that gender factors, peer acceptance, high self efficacy, fear of facing exams and fear of failure have a significant effect on academic cheating. On the other hand, pressure (self pressure, peer pressure and family pressure) to achieve, difficulty with the course and self justification habits also related to academic dishonesty. Research by Melati et al. (2018) showed that pressure variables and rationalization influence academic fraud. While the results of research from Choo and Tan (in Little & Handel,

2016) showed that pressure, opportunity, and rationalization factors influence fraudulent behavior.

Cendrowski and Martin (2007) mentioned that there are three elements in the fraud triangle, namely motive, opportunity, and rationalization. The element of motive is also called pressure, including the pressure of the necessities of life. The opportunity element describes losing control conditions/activities that allow fraud to occur. The element of rationalization describes the perpetrator views that his/her behavior as a crime, a violation of the law and taking advantage of others. Some students engage in self-talk to justify their actions to themselves even though those actions are not appropriate, such as: "only once", "none will get hurt by this", "everyone cheats in this class". This element of rationalization asserts that cheating will not occur if a person perceives that cheating is wrong behavior and will not do it. Rationalization factors can be managed with proper environmental control including policies delivered in orally exam.

The hypothesis proposed in this study is: (1) There is a negative relationship between fraud triangle and academic integrity in students in the era of the COVID-19 pandemic. (2) There is a negative relationship between the pressure dimension and academic integrity in students in the era of the COVID-19 pandemic. (3) There is a negative relationship between the rationalization dimension and academic integrity in students in the era of the COVID-19 pandemic. (4) There is a negative relationship between the dimension of opportunity and academic integrity in students in the era of the COVID-19 pandemic.

Method

This study used two measuring instruments, namely the Academic Integrity Scale and the Fraud Triangle Scale. The Academic Integrity Scale consists of 25 items, covering six aspects namely honesty, trust, justice, respect, responsibility, and courage. The Fraud Triangle scale consists of 15 items, covering three dimensions, namely: Pressure, Rationalization, and Opportunity.

Before taking research data, a trial was conducted to test the validity and reliability of both measuring instruments. The trial was held on March 22-25, 2021, for 52 students in the 4th semester of the Faculty of Psychology Unika Soegijapranata. The results of the item validity test for the academic Integrity Scale showed that from 25 items, there were 10 items invalid and 15 items valid. The index range of validity started from .320-.628. The results of the item validity test for the Fraud Triangle Scale showed that from 15 items, there were 6 items invalid and 9 aitem valid. The index range of validity started from .376-.687. The results of the reliability test scale showed that the reliability coefficient for the Academic Integrity Scale was 0.849 and for the Fraud Triangle Scale it was 0.826.

After the validity and reliability test is carried out, it is continued with the process of taking research data. The research data collection was carried out from April 1, 2021, to April 15, 2021, by google form. The link was distributed to students in the Universitas Katolik Soegijapranata, Universitas Kristen Satya Wacana, Universitas Muria Kudus, Universitas Setiabudi Solo, Universitas Selamat Sri Kendal, and Unviersiats AKI Semarang. The total number of respondents obtained to 300 undergraduate students

Table 1. Demographic Data

Variable	Category	Percentage
Sex	Male	36.15 %
	Female	63.85%
Age	18-21 years	66 %
	22-25 years	23.7%

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Variable	Category	Percentage
University	>25 years	10.3%
	Soegijapranata Catholic University	41%
	Other Private University	59%

Results

Hypothesis test to determine the relationship between the fraud triangle and academic integrity obtained the results of $r_{xy} = -.650$, $p < .01$. Thus, it can be concluded that there is a significant negative relationship between fraud triangle and academic integrity of students in the pandemic era. The effective contribution is 42.25%.

The correlation between pressure dimension and academic integrity $r_{xy} = -.540$ ($p < .01$); correlation between rationalization dimension and academic integrity $r_{xy} = -.54$ ($p < .01$); and correlation between

opportunity dimension and academic integrity $r_{xy} = -.558$ ($p < .01$).

From the three results, it appears that the dimension of opportunity has the highest negative correlation to academic integrity. Correlation between the dimensions of the fraud triangle and academic integrity can be seen in table 2.

The results of further analysis showed that academic integrity in students in general was in the high category (Me = 57.05, Mh = 45, SDh = 5,792) and Fraud Triangle in general was at a low level (Me = 20.97, Mh = 27, SDh = 5,244).

Table 2. Correlations Between Fraud Dimensions and Academic Integrity

	Academic Integrity	Pressure	Rationalization	Opportunity
Academic Integrity	1	-.540**	-.546**	-.558**
Pressure		1	.479**	.487**
Rationalization			1	.648**
Opportunity				1

***. Correlation is significant at the 0.01 level (1-tailed).*

Discussion

Based on the results, there is a negative relationship between the dimensions of the fraud triangle and academic integrity ($r_{xy} = -.650$, $p < .01$). Macfarlane et al. (2014) mention that individual, situational and environmental factors play an important role in understanding academic integrity. Academic integrity terminology relates to values, behavior and conduct primarily in relation to plagiarism and cheating.

The results of existing research have been linked between the dimensions of fraud triangle and academic fraud which is one form of academic integrity. The results of research from Pamungkas (2015) on 95 students of SMK class XI showed that academic pressure, opportunity, and rationalization

of cheating had a positive effect on academic cheating behavior. While the results of research conducted by Damayanti (2018) on 114 students of the Accounting Study Program at Sanata Dharma University showed the results of a positive relationship between pressure ($r_{xy} = .276$, $p < .01$), opportunity ($r_{xy} = .741$, $p < .01$) and academic rationalization ($r_{xy} = .682$, $p < .01$) with academic cheating behavior. Similarly, the results of research from Sihombing and Budiarta (2020) on 228 accounting students at Udayana University showed the results that pressure, opportunity and rationalization had a positive effect on academic fraud. It is further mentioned that the pressure that students receive both from the outside and inside can encourage someone to commit academic fraud. Opportunities occur due to weak

conditions and situations so that a person can commit fraud without guard and not be sanctioned. Rationalization is a person's consideration of self-justification for wrong behavior.

Not much different from the results of Melati et al. (2018) research showed that someone who feels depressed will tend to commit fraudulent behavior to get what they want. Pressure can be in the form of tasks and exams that are considered very difficult to do, high graduation standards and inability to manage time. Opportunity is interpreted as the situation that existed before the occurrence of fraud stemming from weak supervision, class conditions and internet technology, relationships with seniors. Rationalization occurs when a person feels guilty at the beginning of a catalytic behavior but gradually feels benefited because behaving fraudulently is a common money thing, aims to get good value, can increase self-esteem and a quick way to get what they want. Based on the Theory of Reasoned Action/Planned Behavior mentioned that dishonest behavior has a strong logical basis such as because it is "suppressed".

Related to the high level of academic integrity in students in online learning today shows that students behave honestly, believe in their abilities, be fair, respectful, and courageous, avoid counterfeiting, plagiarism, and other forms of cheating. The cultivation of student codes of ethics and sanctions applied by each university to behavior that leads to disintegrity result in students obeying and behaving in accordance with applicable academic norms. As mentioned by Supriyadi (2012) that students from the beginning are expected to understand and apply ethics including the ethics of dressing, communicating (both verbal and non-verbal), accessing the internet. Further education is carried out on the importance of academic integrity, things that are considered violations and their consequences.

The results of this study also support the results of Research Cole and Swartz (2013) which showed that 64% of students perceive academic integrity (honesty, fairness, respect, responsibility, and trust)

no different in online and face-to-face learning settings in the classroom whether doing exam questions, compiling papers, or developing a project. Meanwhile, the research by Pradipta (2018) on 12 students at a Private University using a descriptive-qualitative phenomenology approach showed that the data was collected using semi structured interviews. Interview guides are based on research questions and aspects of academic integrity, namely honesty, trust, fairness, respect, responsibility. The results of the study showed that private college students strongly uphold the values of academic integrity (honesty, trust, fairness, respect, responsibility with their various understandings express that integrity is a form of student responsibility, there are also those who refer to it as a form of student professionalism, and a form of student totality on the values of academic integrity itself. Research by Cole and Swartz (2013) of 161 undergraduate students showed that 64.5% of students agreed that academic integrity can be applied in online classes.

The low average score in this fraud triangle shows that students set realistic goal to achieve, family and lecturer also give support to the students, on the other side online learning also has an advantage for students. For the opportunity aspect, it seems that the academic regulations are still quite strict and well socialized about the sanctions of cheating behavior. Students also don't rationalize their cheating behaviour by arguing that cheating was socially acceptable, but still perceive that it was an unethical behavior.

Conclusions

Based on the results of data analysis and discussions that have been described above, it can be concluded that: (1) There is a negative relationship between fraud triangle and academic integrity in students in the era of the COVID-19 pandemic. (2) The pressure dimension has a negative effect on academic integrity in students in the era of the COVID-19 pandemic. (3) The dimension of rationalization has a negative effect on academic integrity in students in

the era of the COVID-19 pandemic. (4) The dimension of opportunity has a negative effect on academic integrity in students in the era of the COVID-19 pandemic. Thus, all four hypotheses in the study were accepted.

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