The role of moral self-regulation in mediating the effect of goal orientation on academic integrity

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Abstract

Previous research has explored possible reasons to conduct academic dishonesty while there are only a few research studies that investigate the strategies to promote academic integrity and do not look at moral self-regulation as a mediating variable. This study, therefore, aims to examine whether moral self-regulation mediates the effects of mastery goal orientation and performance goal orientation on academic integrity. A self-report scale was distributed to 251 students (M = 41%; F = 59%) of one state Islamic university in Jakarta, Indonesia, in which the structural equation model was used to analyse the data. Using the root mean square error of approximation, comparative fit index and Tucker–Lewis Index as indicators of the model of fit, the results proved that moral self-regulation mediated two mentioned variables affecting academic integrity. This finding implies the need to consider the inclusion of moral self-regulation in the academic life of students.

Keywords: Academic integrity, moral self-regulation, mastery goal orientation, performance goal orientation;

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1. Introduction

University students are expected to have academic integrity, which should have been built since the early stages of education. This is important because academic integrity is a symbol of moral code or ethical policy of academics, which includes the values of honesty (avoiding cheating or plagiarism) and maintenance of academic standards, such as discipline and thoroughness in academic research and publishing (Jones, 2011; Stephens, 2019). Additionally, Nesterova et al. (2019) emphasise the importance of academic integrity as it is related to the educational quality and reliability of student achievement. Furthermore, Brennecke (2010) stated that academic integrity is related to the avoidance of academic violation consisting of four indicators, namely being honest on the test, honest in doing assignments, being independent in tasks and not facilitating academic fraud. In line with this, Bretag (2016) defines academic integrity as a commitment to being responsible and courageous in realising those values even in difficult situations.

Some previous studies have revealed more about some negative behaviours related to morale, such as moral disengagement that affects moral behaviours (Bandura, 2002) and cheating behaviour in supporting academic performance (Finn & Frone, 2004). Oran, Can, Senol and Hadimli (2016), for instance, have found that 49.1% of students had carried out plagiarism in their final thesis, while Hensley, Kirkpatrick and Burgoon (2013; as cited in Krou, Acee, Pino & Hoff, 2019) have reported that more than 50% of the students had graduated by cheating.

In Indonesia, as the context of the study, Winardi, Mustikarini and Anggraeni (2017) have shown a very high percentage (77.5%) of accounting students from one of the Indonesian universities who have carried out academic dishonesty. Some other studies in Indonesia have indicated several frauds in academic programmes, manipulation in student identification numbers and attendance and an indication of plagiarism at the doctoral level which involves graduates with the status of state officials (Kurniawati, 2017). Also, a study by Lestarini (2014) has reported frauds and academic dishonesty from 2010 to 2014 in the form of academic paper plagiarism which was sadly carried out by lecturers and even high-rank officers on campuses.

The above-mentioned cases obviously violate the law of the Indonesian Minister of National Education No. 17 the year 2010 on the Prevention and Mitigation of Plagiarism in Higher Education, which stipulates any form of plagiarism is not allowed. Based on this regulation, universities in Indonesia, including the Islamic university where this study was conducted, have commonly established a Rector's decree to regulate students' code of conduct concerning academic integrity.

The emergence of academic dishonesty in higher education is obviously a serious issue that requires careful attention since academic integrity as an important factor in the academic world has been violated (Macfarlane, Zhang & Pun, 2014; Miller, Shoptaugh & Wooldridge, 2011). Academic integrity, which is the focus of this study, can be affected by various factors such as moral reasoning, moral judgment, cultural consequences (Bernardi, Giuliano, Komatsu & Potter, 2004) and goal orientations (Sideridis & Stamovlasis, 2014). In addition to goal orientation, Suralaga (2014) adds religious orientation and moral emotion as other important factors influencing academic integrity. Furthermore, other experts argue that workplace ethical behaviour and personal ethical behaviour (Guerrero-Dib, Portales & Heredia-Escorza, 2020), dishonest behaviour factors, moral development and sources of stress academic perceived (Brown, Giuliano, Komatsu & Potter, 2020) can also affect academic integrity.

The above-mentioned influencing factors are related to self-regulation, which according to Baumeister and Vohs (2004) have a positive effect on individuals and groups on desired outcomes in

carrying out schoolwork, work, popularity, adjustment and interpersonal relationships. Odinokaya, Krepkaia, Karpovich and Ivanova (2019) furthermore add that self-regulation is one of the most main factors that can ensure students' independence and help them solve possible motivational conflicts in managing between studying and other non-academic activities. With regard to its concept, Baumeister and Vohs (2004) define self-regulation as a person's capacity to regulate and control his/her behaviour according to goals or standards.

In line with this, Bandura (2002) in his social cognitive theory emphasises that individuals can train their thinking and behaviour by regulating themselves by following certain moral standards. This thought has shown the importance of morals in activating self-regulatory mechanisms. Based on this, the term moral self-regulation is therefore used in this paper since it is argued in this paper that moral standard leads to moral integrity in academic situations. Furthermore, although not in an academic context, a relevant study has shown that moral self-regulatory depletion contingent upon the moral identity of leaders may promote the integrity of leadership behaviour (Joosten, van Dijke, Van Hiel & De Cremer, 2014).

In the context of higher education, referring to Bandura's (2002) social cognitive theory, a university student who has a high moral regulation, for instance, will have internal standards of academic integrity; he/she believes that academic honesty must be enforced in any conditions. By having internal standards, the university student will avoid academic integrity violations such as cheating friend's answers during exams, copying the task done by a friend and recognising it as his/her work, or even hiring someone else to do his/her tasks. The university student who has moral standards will not allow himself/herself to conduct plagiarism, because he/she knows that cheating, giving cheat sheets, working together, which is not permitted, and taking other people's writing without citing the source is wrongdoing.

Conversely, the university student who does not activate moral regulation can easily carry out academic cheating by carrying out the mechanism of moral disengagement. The study of Detert, Trevino and Sweitzer (2008) who examined moral disengagement concerning unethical decision-making showed a significant relationship between moral disengagement and unethical decision-making. Moral disengagement, which in this paper is considered as the deactivation of moral self-regulation, causes a person to make unethical behaviour more easily without feeling guilty.

Furthermore, the tendency of students or university students to maintain or violate academic integrity can also be caused by their goal orientation in learning (Sideridis & Stamovlasis, 2014). Meece, Blumenfeld and Hoyle (1988) argue that goal orientation is a set of behavioural objectives that determines student approach and engagement in activities of learning. Similarly, Schunk, Pintrich and Meece (2008) define goal orientation as a belief pattern that leads to separate methods of approaching, using and responding to achievement. In other words, goal orientation reflects individual standards in achieving success.

The early theorist of goal orientations, such as Ames (1992), dichotomised mastery goal orientation and performance goal orientation. Mastery goal orientation is a learning orientation that focuses on the mastery of learning; mastering tasks based on the rules of self-standards or self-improvement; developing new skills, increasing competence and striving to achieve thing that is challenging and to gain understanding and insight (Schunk et al., 2008). Dupeyrat and Marine (2005) suggested that mastery goal was usually found correlating with strong and persistent efforts, such as using deep learning strategies by elaborating the management of learning strategies.

In contrast, the performance goal orientation is an orientation that focuses on 'appearance' (Fisher, Minbashian, Beckmann & Wood, 2013). Individuals with this orientation expect to always look 'smart' by getting high scores. Looking smart usually means trying to show something better than others, which is sometimes accomplished without any learning effort. Therefore, students who have this orientation usually study solely to get good grades, praises or high 'academic status'.

In short, the above discussion has shown the importance of moral self-regulation and goal orientation for academic integrity. Additionally, several other researches have indicated that goal orientation is related to self-regulation (Pintrich, 2000; Porath & Bateman, 2006) and, therefore, is connected also to moral self-regulation, which is a specific term used in this study following the moral standards of Bandura (2002). Therefore, there seems to be a strong connection between moral self-regulation, goal orientation and academic integrity. Unfortunately, studies examining the relationship between moral self-regulation and goal orientation in academic-related aspects are still limited; therefore, it is important to explore this issue more.

Nevertheless, the study of Suralaga (2014) has reported that goal orientation, especially the performance one, religious orientation and moral emotions had significant effects on academic integrity through moral self-regulation, while mastery goal orientation did not. Therefore, it is interesting to re-examine whether mastery goal orientation, as well as performance goal orientation, influence academic integrity mediated by moral self-regulation. It is argued in this study that students who have a high mastery goal orientation will be challenged to learn more deeply and will maintain their academic integrity by having high moral self-regulation. This is because the goal orientation of a person is normally on performance, not mastery, which can happen because of the demands of lecturers, parents and society in general and be seen visibly.

To address this hypothesis, three research questions are proposed in this study, which are:

1. Does the theoretical model of mastery goal orientation and performance goal orientation affecting the academic integrity mediated by moral self-regulation, fit with empirical data?

2. Does mastery goal orientation affect academic integrity significantly and positively mediated by moral self-regulation?

3. Does performance goal orientation affect academic integrity significantly and negatively mediated by moral self-regulation?

2. Methods

2.1. Design and participants of the study

The quantitative method with a non-experimental design was employed in the study. This study involved originally 273 subjects; however, due to the cleaning process, only 251 were retained in the study. This means that the missing data were removed in this study. The participants came from one state Islamic University in Jakarta, Indonesia, consisting of 11 faculties who were in various years and voluntarily participated in the study. 102 (41%) of them were male, while 149 (59%) were female.

Following the discussion presented in the introduction, the hypothesis tested in this study was that goal orientation (mastery goal orientation and performance goal orientation) affects academic integrity mediated by moral self–regulation, as can be seen in Figure 1.
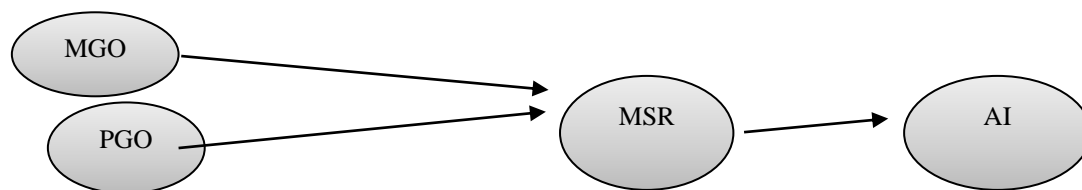
Figure 1. Conceptual framework. MGO, Mastery goal orientation; PGO, Performance goal orientation; MSR, Moral self-regulation; AI, Academic integrity.

2.2. Instruments

The instrument used in the study was a questionnaire to measure academic integrity, moral self-regulation (MSR), mastery goal orientation (MGO) and performance goal orientation (PGO). All of these scales were measured on a 5-point Likert scale ranging from 'never' to 'very often' scored from 1 to 5 for favourable items and 5 to 1 for unfavourable items. The exception is the scale measuring goal orientations (MGO and PGO), whose options consisted of very unsuitable, unsuitable, somewhat suitable, suitable and very suitable. Testing of construct validity was conducted to all scales using confirmatory factor analysis (CFA), which is provided in detail below.

2.2.1. Academic integrity scale

This scale concerns four indicators, namely being honest on the test, being honest in doing assignments, being independent in tasks and not facilitating academic fraud, all of which were 11 items. The results of CFA analysis showed that a fit model was observed, in which χ^2 = 22.31, df = 14, p = 0.072, root mean square error of approximation (RMSEA) = 0.049, which means that a model with one factor measuring the academic integrity variable is acceptable. Furthermore, no item was dropped since all items were significant. Prior to the model fit analysis using structural equation model (SEM), the scores of all items of academic integrity were made into one score factor taking into account the weight of each item. Then, referring to Crocker and Algina (2008), this factor score was transformed into a true score (T = 50 + 10*z) which was then divided into three categories, i.e., low, moderate and high, with a mean score = 50 and standard deviation =10, as can be seen in Table 1.

Table 1. Score interpretation guidelines for academic integrity

Formula	Scores	Interpretation
X < (Mean – SD)	X < 40	Low
(Mean-SD) $\geq X \leq$ (Mean +SD)	40$\geq X \leq$ 60	Moderate
$X \geq$ (Mean + SD)	$X \geq$60	High

2.2.2. Moral self-regulation scale

This scale consisted of 13 items measuring the indicators of moral self-regulation, which includes directing behaviour towards goals based on internal standards, conducting self-control and self-assessment and the choices of moral justification. The CFA analysis carried out on this scale obtained a fit model with χ^2 = 4.64, df = 5, p = 0.460, RMSEA = 0.000; therefore, the model is

acceptable. Further analysis was employed to examine whether each item was significant, which indicates that it is and hence this scale can measure what it should measure.

2.2.3. Goal orientation scale

This scale covers the dimensions of mastery goal orientation and performance goal orientation and consists of 12 items. The fit indices resulting from the CFA analysis for this scale indicate that the model fit the data well: χ^2 = 75.69, df = 26, p = 0.00000, RMSEA = 0.087. Similar to the other two scales, all items on this scale were significant and therefore they were all kept.

2.3. Data analysis

To analyse the data, the researchers employed SEM using Mplus (Muthen & Muthen, 2010). SEM was chosen because it is following the research objectives, namely testing the theoretical model and the causal relationship between variables, while Mplus was the preferred software because it can offer more accurate parameter estimation, especially for complex data like those in this study.

In the analysis of SEM, several parameters, namely chi-square, RMSEA, comparative fit index (CFI) and Tucker–Lewis index (TLI), which highly relies on the conventional cut-off values developed under normal theory maximum likelihood with continuous data were used to indicate whether a model testing can be accepted (Xia & Yang, 2019). Xia and Yang (2019) further explain that RMSEA is an absolute fit index, in that it assesses how far a hypothesised model is from a perfect model. On the contrary, CFI and TLI are incremental fit indices that compare the fit of a hypothesised model with that of a baseline model. The application of RMSEA, CFI and TLI is heavily contingent on a set of cut-off criteria, in which the RMSEA value of <0.05 indicates a 'close fit' and <0.08 suggests a reasonable model data fit, while CFI and TLI of > 0.90 indicates an acceptable fit (Xia & Yang, 2019; Wang & Wang, 2012).

Concerning the number of participants for the SEM analysis, this study followed the concept offered by Herzog and Boomsma (2009) and Hoogland and Boomsma (1998), who argue that a minimum of 200 participants is tolerable when using chi-square and RMSEA as a model fit criteria.

3. Results

3.1. Descriptive finding

The descriptive finding in this section aims to describe the true score of academic integrity of the participants, which is presented in general and according to gender.

Table 2. General level categories of academic integrity

No	Categories	Frequency	%
1	Low	31	12
2	Moderate	188	75
3	High	32	13
	Total	251	100

Table 2 displays a general picture of all participants' academic integration, from which we know that the majority of participants have moderate levels of academic integrity. The percentage of those who have low and high levels of academic integrity is interestingly quite similar at 12% and 13%,

respectively. Furthermore, slight differences can be observed in the comparison of academic integrity between males and females as described in Table 3.

Table 3. Academic integrity according to gender

No	Categories	Male		Female	
		Frequency	%	Frequency	%
1	Low	22	22	9	6
2	Moderate	75	73	113	76
3	High	5	5	27	18
	Total	102	100	149	100

Concerning gender differences, it is first important to note that the majority of both males and females have moderate levels of academic integrity, whose percentages are quite similar at 73% and 76%, respectively. However, a higher percentage of females is found to have high levels of academic integrity, at 18%, more than 10% higher compared to their male counterparts. Furthermore, only 6% of females have low levels of academic integrity, while 22% of males have the same level of integrity.

3.2. Hypothesis testing

Following the research questions, the first hypothesis tested whether the theoretical model of mastery goal orientation and performance goal orientation affects academic integrity through moral self-regulation fits with empirical data. Figure 2 shows the analysis of the model fit.
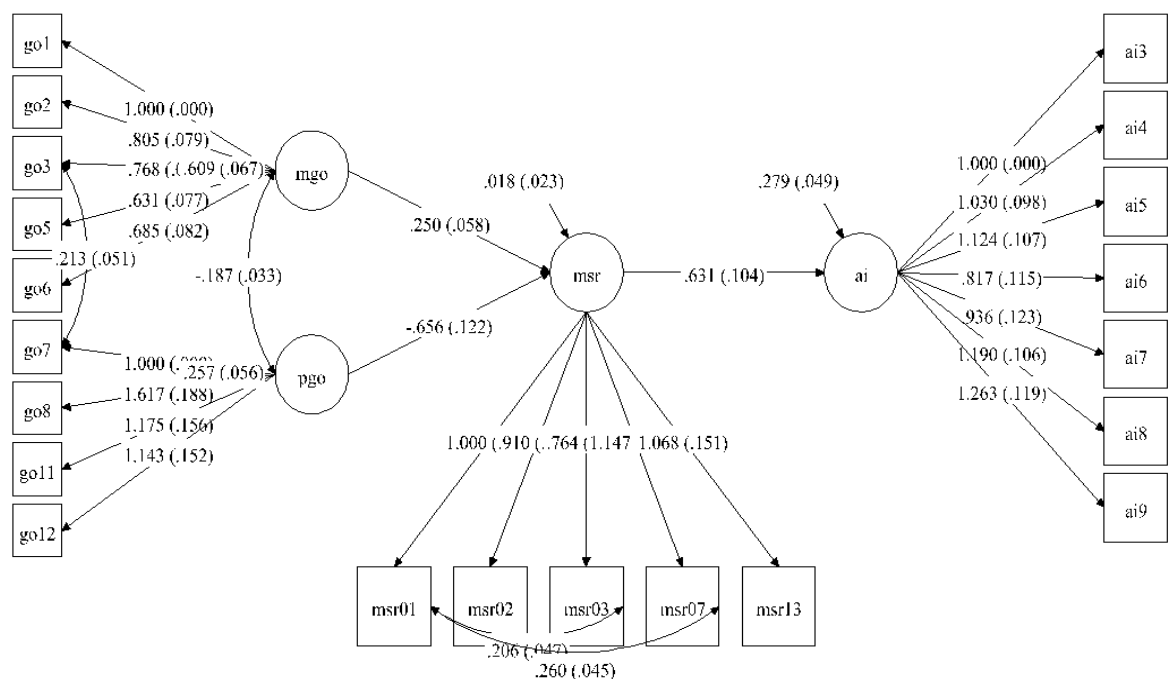

Figure 2. The results of structural relationship model

Table 4. Model fit result

Index	Obtained value	Critical value	Model fit
Chi-square (*p*-value)	0.000	0.05	*ignore
RMSEA	0.060	0.08	Good
CFI	0.920	0.90	Good
TLI	0.906	0.90	Good

*Chi-square fit index is usually only reported but ignored when determining the model fit of structural equation modelling because it is reactive to sample size.

From the results of data analysis, it is found that the RMSEA = 0.060 (<0.08), CFI= 0.920 (>0.90) and TLI = 0,906 (>0.90). Thus, referring to the aforementioned indices resulting from the structural equation modelling, it is observed that the proposed model fits the empirical data. Therefore, a precondition for examining the structural model between exogenous variables (mastery goal orientation and performance goal orientation) with endogenous variables (academic integrity) mediated by moral self-regulation is met. In other words, there is a piece of empirical evidence supporting the next two steps, which is the hypothesis testing of mastery goal orientation affecting academic integrity mediated by moral self-regulation and that of goal orientation affecting academic integrity mediated by moral self-regulation.

To examine the second and third hypotheses of the study, two necessary actions were carried out. The first was a measurement model that aims to see whether the contribution of each item was significant, while the second one was a structural correlation analysis to know whether the exogenous variables directly affect the endogenous variables. The result of the measurement model is presented in Table 5.

Table 5. Measurement model

Item	SLF	SE	*T*-Value	Item	SLF	SE	CR
MSR01	0.47	0.06	8.46				
MSR02	0.44	0.06	7.12	AI9	0.77	0.04	20.51
MSR03	0.36	0.06	6.02	GO1	0.79	0.04	18.07
MSR07	0.54	0.05	10.75	GO2	0.64	0.05	12.94
MSR13	0.51	0.05	10.55	GO3	0.57	0.05	11.33
AI3	0.61	0.05	12.07	GO5	0.5	0.05	9.47
AI4	0.63	0.04	14.76	GO6	0.54	0.06	9.01
AI5	0.68	0.04	16.67	GO7	0.5	0.05	9.13
AI6	0.5	0.06	8.42	GO8	0.84	0.04	21.78
AI7	0.57	0.06	10.42	GO11	0.59	0.05	12.43
AI8	0.72	0.04	17.63	GO12	0.57	0.05	11.1

SLF, Standardised loading factor; SE, Standard error; CR, Critical ratio.

First of all, it is important to note that the critical ratio (CR) of all items, as presented in Table 5, is above 1.96 indicating that all items have a significant contribution. Also, the size of the

contribution of each item as stated in the SLF ranges from 0.36 as the lowest to 0.72 as the highest. Secondly, it is now safe to go to the next step which is examining the direct effect between variables, i.e., the effect of moral self-regulation on academic integrity, that of mastery goal orientation on moral self-regulation and that of performance goal orientation on moral self-regulation. The result of this structural analysis can be seen in Table 6.

Table 6. Coefficient estimates of variable in the fitted structural model

Structural correlation			Estimate	SE	CR	p-Value
MSR	→	AI	0.50	0.06	8.57	0.00
MGO	→	MSR	0.36	0.09	4.08	0.00
PGO	→	MSR	-0.75	0.08	−9.22	0.00

SE, Standard error; CR, Critical ratio; AI, Academic integrity; MSR, Moral self-regulation; MGO, Mastery goal orientation; PGO, Performance goal orientation.

The CR for all the factors shown in Table 6 is above the critical value of 1.96. Hence, we can observe significant direct and positive effects of moral self-regulation on academic integrity and that of mastery goal orientation on moral self-regulation. Although negative, a significant direct effect of performance goal orientation on moral self-regulation is reported in Table 6, explaining that the higher the performance goal orientation, the lower the moral self-regulation is. Thus, there is empirical evidence to conclude that the exogenous variables (mastery goal orientation and performance goal orientation) have significant effects on moral self-regulation.

Finally, the last analysis carried out in this study was to examine the effect of exogenous variables on academic integrity mediated by moral self-regulation (indirect effect). This analysis is the one addressing the second and the third research questions of this study, whose results are described in Table 7.

Table 7. Indirect effect coefficient between variables

Indirect effect	Estimate	SE	CR	p-Value
MGO→MSR→AI	0.18	0.05	3.73	0.00
PGO→MSR→AI	−0.37	0.05	−6.98	0.00

SE, Standard error; CR, Critical ratio; AI, Academic integrity; MSR, Moral self-regulation; MGO, Mastery goal orientation; PGO, Performance goal orientation.

Table 7 illustrates that the two CR of the effects of MGO on AI mediated by MSR and that of PGO on AI mediated by MSR are significant since the indices are all above the critical value of 1.96. Thus, it can be concluded that the two exogenous variables have significant effects on academic integrity mediated by moral self-regulation. Nevertheless, it is crucial to note that while mastery goal orientation has a significant positive effect, performance goal orientation has the negative one. This means that high mastery goal orientation will raise moral self-regulation and then increase academic integrity. On the contrary, high-performance goal orientation will decrease moral self-regulation and then reduce academic integrity.

4. Discussion

The results revealed that moral self-regulation is a variable that mediates the effects of both mastery goal orientation and performance goal orientation on academic integrity. When the effect of each exogenous variable is seen separately on the moral self-regulation, it is proved that the mastery goal orientation and performance goal orientation, respectively, have significant effects on the moral self-regulation and then affect the university students' academic integrity.

Concerning the two types of goal orientation, the analysis of this study reveals that students who have a high mastery goal orientation will have moral self-regulation to guide their learning behaviour according to their internal standards. They will monitor and assess themselves and will not use any moral justification as well as not compare possible advantages they might get. It is through moral self-regulation that students can maintain and continue developing their moral conduct. Furthermore, the significant negative effects of performance goal orientation on academic integrity mediated by moral self-regulation show that the higher the performance goal orientation of university students, the lower the moral self-regulation and academic integrity are. It has to be admitted that studies related to moral self-regulation are not easy to find, hence not much comparison can be made. However, this finding is in line with the results of an old study conducted by Dupeyrat and Marine (2005) which found out that the performance goal orientation was associated with shallow learning (processing) strategies and had a significant negative correlation with achievements.

Several factors can explain this negative effect of performance goal orientation on academic integrity mediated by moral self-regulation. Firstly, for university students, as has been stated by Feldman (2002, as cited in Williams, 2012), it is possible that they may want to impress others by having good scores and hence are motivated to achieve excellent marks in a study programme. This implies a probable situation where those who have a high-performance goal orientation, which is considered to be an extrinsic motivation, behave dishonestly including cheating to obtain the desired scores.

In line with this, Jordan (2001) showed that university students who cheated were more related to extrinsic motivation than those who did not. The university students who engaged in academic dishonesty were generally more interested in getting good scores rather than maintaining the acquisition of knowledge from their studies. Therefore, they are willing to do anything, including cheating, to fulfil their intention to have higher marks, which of course violates academic integrity. In other words, when individuals have a high-performance goal orientation when performing tasks, they are more likely to commit academic dishonesty to get high scores.

Performance goal orientation can be related to personal and contextual factors, which according to Tas and Tekkaya (2010) could be used to predict student cheating behaviour. Another powerful and significant predictor of academic e-dishonesty, such as plagiarism, falsification, delinquency and unauthorised help, according to Sicak and Arslan (2016) is performance-avoidance orientation, which is a type of performance goal orientation.

Different from this, those who have mastery goal orientation, as argued by Krou, Fong and Hoff (2020), will try to achieve their goals by maintaining academic integrity and avoiding academic dishonesty. Therefore, it is important to foster a learning environment that can develop academic integrity. Responding to this urgency, Tas and Tekayya (2010) have stated that the goal of a learning mastery added with self-improvement can prevent students from cheating and hence develop and maintain academic integrity. The finding of this study, especially on the positive significant effect of

mastery goal orientation on academic integrity, can therefore support the study of Tas and Tekayya (2010).

How a university student can have mastery orientation cannot be separated from the influence of educators. Therefore, Anderman and Koenka (2017) suggest various instructional practices and academic policies that can enhance positive motivational beliefs (e.g., mastery goal orientation) potentially reducing academic dishonesty. In this way, it is expected that moral self-regulation can be developed since efforts and learning strategies in achieving the learning goals are part of the formation of moral self-regulation in the academic field. Good learning achievement for university students who have a mastery goal orientation will be achieved by maintaining academic integrity, avoiding cheating and plagiarism and unethical collaboration.

Nevertheless, it is important to note that in reality, university students can have combinations of goal orientations, such as mastery, mastery performance, performance and performance work avoidance, depending on a lot of factors. Referring to the social cognitive theory of Bandura (2002), a person is not formed solely by the inner urge or automatically formed and controlled by external stimulation. In this context, Bandura (2002) stated the importance of the observational learning effect with the existence of modelling through the process of imitation or identification to develop an enabling environment for the development of mastery goal orientation within students. If the processes viewed and received by university students are the only appreciation of the appearance or achievements without looking at the process of obtaining the achievements, then the orientation of the learning objectives which are internalised strongly in university students' personality is only a performance goal orientation, which in this study is proved to negatively affect the moral self-regulation and academic integrity.

Based on the analysis of the results of previous studies, it can be said that the results of the author's study complement the theories about the effects of goal orientation through the use of learning strategies and self-regulation, not only on learning achievements but also on whether or not academic integrity should be maintained.

5. Conclusion and suggestions

This study has confirmed that there are significant positive effects of mastery goal orientation and performance goal orientation on academic integrity through moral self-regulation mediator. This is indicated by the testing results of the theoretical model of mastery goal orientation and performance goal orientation, which affect academic integrity through moral self-regulation mediator fitted with empirical data. With regard to the findings, it is important to elaborate on the results of the study related to moral self-regulation and academic integrity. Future researchers can replicate this study model on different populations by taking subjects from various universities or other educational institutions and develop goal orientation instruments that can reveal the criteria of other types of goal orientations, such as mastery performance or performance work avoidance. Furthermore, to include external variables in studies on moral self-regulation and academic integrity, academic culture variables can be examined

Following the results of this study, the authors suggest that parents and educators, especially lecturers, should foster and develop performance goal orientation, as well as mastery goal orientation of university students, such as by providing exemplary examples to achieve good achievements by way of learning and making efforts earnestly; appreciating the achievements accomplished by university students, as well as appreciating the achievement process among others by discussing and providing feedback on tasks carried out by university students.

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