

The Mediating Role of Self-Regulated Learning Strategies in the Relationship Between Academic Dishonesty and Critical Thinking Among High School Students in Hamadan

Ali. Ghasemi¹, Qamar. Kiani^{1*}, Fatemeh. Nazari¹, Sakineh. Jafari²

¹ Department of Psychology, Za.C., Islamic Azad University, Zanjan, Iran

² Department of Psychology, Ab.C., Islamic Azad University, Abhar, Iran

* Corresponding author email address: qa.kiani@iau.ac.ir

Editor

Izet Pehlić
Full professor for Educational sciences, Islamic pedagogical faculty of the University of Zenica, Bosnia and Herzegovina
izet.pehlic@unze.ba

Reviewers

Reviewer 1: Parvaneh Mohammadkhani
Professor, Department of Clinical Psychology, University of Rehabilitation Sciences and Social Health, Tehran, Iran. Email: Pa.mohammadkhani@uswr.ac.ir
Reviewer 2: Mohammadreza ZARBakhsh Bahri
Associate Professor, Department of Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran. Email: M.ZARBakhsh@Toniau.ac.ir

1. Round 1

1.1. Reviewer 1

Reviewer:

In the paragraph beginning with “Among the factors associated with critical thinking, self-regulated learning strategies have attracted considerable scholarly attention” (p. 2), the authors discuss self-regulated learning broadly but do not justify why cognitive strategies, metacognitive strategies, and motivational beliefs were selected as separate mediators rather than dimensions of a higher-order latent construct. A more rigorous theoretical justification for the multidimensional mediation model is required.

The statement that “both assumptions were satisfactory” regarding independence of errors and multicollinearity (p. 6) is not supported by statistical evidence. The manuscript should report diagnostic statistics such as Durbin–Watson values, tolerance coefficients, variance inflation factors (VIFs), and condition indices to allow readers to evaluate these assumptions independently.

Examination of Table 2 reveals several relatively weak correlations, particularly between critical thinking and some self-regulated learning dimensions (e.g., $r = .12$ and $r = .15$) (p. 7). The authors should discuss whether these effect sizes are

practically meaningful and explain how such modest bivariate relationships resulted in comparatively large standardized path coefficients in the structural model.

In Figure 1 and Table 3, the path coefficient from academic dishonesty to critical thinking is reported as $\beta = -.55$ (pp. 7–8). This is a substantial effect size that appears disproportionately large relative to the corresponding correlation coefficient ($r = -.19$). The authors should explain this discrepancy and provide additional information regarding suppression effects, multicollinearity, or model specification issues that may have influenced parameter estimates.

Table 4 reports mediation effects, yet confidence intervals for the indirect effects are not provided (p. 8). Contemporary mediation analysis standards require reporting bootstrap confidence intervals in addition to p-values. The absence of lower and upper confidence bounds makes it difficult to evaluate the robustness of the indirect effects.

Response: Revised and uploaded the manuscript.

1.2. Reviewer 2

Reviewer:

The authors write that “academic dishonesty reflects not only behavioral misconduct but also deficiencies in ethical reasoning, self-regulation, and academic responsibility” (p. 3). This statement is important for the proposed model; however, it is presented without direct empirical evidence linking these specific deficiencies to critical thinking outcomes. The authors should include more recent empirical studies explicitly examining the relationships among ethical reasoning, self-regulation, and critical thinking.

In the final paragraph of the Introduction, the authors claim that “limited empirical evidence is available regarding the potential mediating role of self-regulated learning strategies” (p. 4). This research gap is not sufficiently substantiated through a systematic review of previous studies. The manuscript would be strengthened by providing a more detailed synthesis of prior mediation and SEM studies and clearly identifying how the current study extends existing knowledge.

In the Methods section, the authors report that “the sample size was calculated using Cochran’s formula” and that 324 questionnaires were retained for analysis (p. 4). However, no details are provided regarding the assumptions used in the sample size calculation (e.g., estimated population proportion, statistical power, anticipated effect size). Given that SEM was employed, a power analysis specific to structural equation modeling should be reported.

The sampling procedure described as “multistage cluster sampling” (p. 4) requires greater methodological detail. The manuscript does not specify how schools were selected, whether public and private schools were included, whether stratification by gender or academic track occurred, or how classrooms were randomly chosen. These omissions limit the assessment of sample representativeness and external validity.

In the description of the California Critical Thinking Skills Test, the authors indicate that “the reliability of this questionnaire was also obtained as .74 using Cronbach’s alpha coefficient” (p. 5). Since the instrument uses dichotomously scored items, Cronbach’s alpha may not be the most appropriate reliability estimate. The authors should justify the use of alpha or alternatively report KR-20 coefficients and provide reliability estimates for each subscale.

The section describing the Academic Dishonesty Questionnaire notes that the instrument was validated among university students in Iran (p. 5), whereas the current sample consists of high school students. The authors should provide evidence supporting the validity and reliability of this measure for adolescent populations or report additional psychometric analyses conducted in the present sample.

In the measurement section, the authors provide extensive details regarding item allocation across subscales of the MSLQ (p. 5), yet no confirmatory factor analysis results are presented. Given that latent variables are central to the SEM model, evidence of construct validity, convergent validity (AVE), composite reliability (CR), and discriminant validity should be reported before testing structural relationships.

The Data Analysis subsection contains only one sentence: “Data analysis was performed using structural equation modeling with SPSS Version 26 and AMOS 21” (p. 5). This description is insufficient for replication. The authors should specify the

estimation method, treatment of missing data, assessment of normality, criteria for model fit evaluation, bootstrapping procedures, and the number of bootstrap resamples used.

In Table 1, the mean total score for critical thinking is reported as 16.60 out of a possible 34 points (p. 6). The authors should discuss whether this score reflects low, moderate, or high critical thinking ability relative to established norms. Without interpretation, the practical significance of the descriptive findings remains unclear.

Response: Revised and uploaded the manuscript.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.