Spirituality and Perceived Supervisor Support as Predictors of Academic Integrity of Final-Year Undergraduate Students

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Abstract. Research on academic integrity among final-year students preparing mini-theses is still limited in Indonesia, particularly in Islamic universities. Therefore, this research aimed to assess the influence of spirituality and supervisor support on academic integrity of final-year students at an Islamic university in Bandung. A correlational quantitative method was adopted focusing on the relationship between independent and dependent variables. Using a census method, data was collected from a total of 205 final-year students. The results showed that multiple regression analysis exhibited an F-value of 86.525 with a p-value < 0.05, implying the collective influence of spirituality and supervisor support on academic integrity by 46.1%. These observations showed that spirituality had a greater impact on academic integrity than supervisor support among participants. A detailed explanation of this research was provided in the subsequent sections.

Keywords: Academic integrity, spirituality, supervisor support, muslim students, higher education institutions

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Introduction
A project known as mini-thesis is a crucial final stage for undergraduate students (S1) in Indonesia before obtaining a bachelor's degree which is expected to be beneficial to the wider community. Verrier and Day (2020) further emphasized that a mini-thesis would provide students with an opportunity to develop skills in the selected field of research. However, the task is challenging as several final-year students face problems in writing the mini-thesis. A common problem is that the research conducted does not reflect the students’ original thinking. Many final-year students duplicate the exact titles of previous publications without any differences in title, participants, or methodology. This lack of originality suggests a reluctance to conduct research based on personal ideas, leading to ethically questionable actions in academic context.

Over the past decade, academic dishonesty has increased annually. This issue is not new and has been observed for the past 40 years. Ludlum et al. (2017) explained that numerous survey data suggested high levels of academic dishonesty. For instance, a survey of 555 Deans of Business Schools in the United States (USA) found that 78% of final-year students engaged in academic dishonesty. This is also similar in religious universities in the USA where 37% of 158 students admitted to committing severe academic violations such as plagiarism on final projects and cheating on assignments. Additionally, 127 out of 164 students or 77% of final-year admitted to engaging in academic dishonesty.

Mustapha et al. (2016) reported that 62% of 365 students at Islamic universities in Malaysia engaged in academic dishonesty. In 2014, 55% of 453 students admitted improperly citing sources and committing plagiarism. Among Indonesian students, 98.78% of 574 students confessed to engaging in academic dishonesty over the years not only in preparing the final project (Ampuni et al., 2020).

These issues and data regarding the prevalence of academic violations show a crisis in academic integrity in the education sector. Academic integrity among final-year students is particularly problematic as students adopt various methods to achieve graduation. Previous publications have shown that university learning quality is strongly connected to academic integrity (Ayoub/Al-Salim & Aladwan, 2021). Good
learning practices create a positive environment fostering academic integrity. Additionally, academic solidarity or connection among students and individuals in universities strongly correlates with the integrity (Bieliauskaitė, 2021).

The advancement of technology-facilitated by universities when students are learning in class strongly impacts academic integrity (Holden et al., 2021). Proper and transparent use of the technology can impede students from committing academic dishonesty and increase self-awareness about the importance of integrity. Besides self-awareness, appropriate use of technology can reduce or anticipate acts of academic dishonesty automatically shaping the students' locus of control to comply with the rules (Rinn et al., 2014).

Keohane (1999) further defined academic integrity as a commitment among students to uphold values that developed a positive academic atmosphere. Macfarlane et al. (2014) also described academic integrity as the values and behaviors of academics in performing all tasks. Fostering academic integrity can make the environment more conducive to the personal development of students. Furthermore, academic integrity is a crucial value in education and final-year students are responsible for upholding this honesty, specifically in writing the mini-thesis. Students who do not adhere to proper learning practices typically exhibit poor quality.

Previous publications often connect academic integrity to spirituality which is frequently overlooked even though it addresses moral conflicts (Erenchinova & Proudchenko, 2018). Spirituality is particularly relevant in mini-thesis writing playing an important role, specifically among Muslim students whose religion and spiritual values form the foundation of the educational lives (Chanifah et al., 2021). This foundation can motivate individuals to act honestly and adhere to ethical standards (Reave, 2005).

Academic integrity is often associated with the learning environment and self-awareness (Muhammad et al., 2020). Additionally, personality and culture play crucial roles in influencing students’ academic integrity (Harvey et al., 2020). It strongly correlates with academic performance and school learning quality (Ayoub/Al-Salim & Aladwan, 2021). Demographic factors such as gender, GPA, and place of origin are also significantly related to academic integrity (Soroya et al., 2016).

Research has shown that spirituality negatively influences academic dishonesty (Khan et al., 2019) and unethical behavior (Lolang et al., 2023). These publications emphasize the direct connection between spirituality and academic integrity which is the opposite of academic dishonesty. However, Nelson et al. (2017) found conflicting results suggesting no impact on academic dishonesty. This discrepancy is attributed to the underdeveloped spirituality among young adults, as it strongly correlates with age.

Spirituality is an intimate relationship between humans and the Creator, either secular or non-secular (universal). For most individuals, it is often perceived as a force beyond human capability shaping how individuals view the place in the universe and beliefs, forming the meaning of life and a sense of trust (Peterson & Seligman, 2004). Additionally, it is felt during religious practices enhancing potential achievements and freedom (Fridayanti, 2015).

Besides spirituality, another important variable to explore is supervisor support in fostering academic integrity among final-year students. The initial publication conducted by experts on 35 students shows that the right supervisor who teaches proper research ethics ensures academic integrity of the mentees. Observations from student opinions in the initial publication suggest that supervisor support can motivate students to maintain academic integrity during mini-thesis preparation. The experiences provided by supervisors enhance the quality of students' work through well-supervised teaching and correct writing skills as well as offering opportunities for independent research. Supervisors can also be perceived as authoritative figures who provide feedback, help overcome academic difficulties, and teach students to behave with integrity.

In guiding mini-thesis preparation, supervisors generally establish clear parameters for students to achieve such as analytically designing research, ensuring the usefulness, being accountable for data collection, and preparing for the final project. The writing skills described by supervisors support the originality and relevance of ideas, ensuring that the results address existing problems. The objective of this skill is to foster the integrity of the mentees.

Research conducted by Laka and Paska (2023) found that supervisor support positively influenced students' academic integrity in Malang. However, conflicting results from publications in Hong Kong (Gray & Jordan, 2012) showed that guidance from supervisors negatively impacted student integrity. This negative impact is attributed to the intensive relationship during the guidance process, leading to scrutiny beyond the substance of the writing.

Zimet et al. (1988) further defined social support as positive aid from external sources to navigate life processes. According to Zimet, social support is categorized into three forms namely support from family, friends, and significant others. Support from family is typically received when individuals expect advice from parents in decision-making or fulfill emotional needs such as receiving affection from parents. Friends support shows the caring provided by friends in the surroundings such as receiving
motivation and assistance. Support from significant others is characterized by feeling valued, heard, and comforted by a special being. Zimet also categorized supervisor support under the third type of social support namely a significant other. Selecting significant others as supervisor support correlates well. In the educational context, supervisors can be seen as significant others who provide essential support.

The research focus on addressing the phenomenon and conflicting results from previous publications. It is crucial because insufficient attention has been paid to investigating academic integrity among students from Islamic universities. Furthermore, the analysis prompts innovation by combining two independent variables related to academic integrity namely internal and external leading to a novel testing model. The publication is highly limited and has not been conducted among Muslim students in Islamic universities. Understanding academic integrity among senior students is essential for the values and life principles. Therefore, this research aims to explore the roles of spirituality and supervisor support in academic integrity of senior students at Islamic universities.

Methods

Research Design
This research adopted a quantitative correlational method using multiple regression analysis. This method aimed to determine the cause-and-effect relationships between independent and dependent variables (Creswell & Creswell, 2018). The correlational method was selected because participants received materials designed to enhance academic integrity during class sessions. These materials included lessons on paraphrasing, using reference managers, and finding credible sources for writing which the research perceived as developing competencies.

Participants
This research included all 6th-semester students from the 2020 cohort of the Faculty of Psychology enrolled in the Mini-Thesis Proposal course. The sampling method used was census sampling, where all students from six classes were included as participants (Stratton, 2021). Participants were selected based on a database check of Turnitin analysis results for research proposals submitted halfway through the semester exam. The analysis found that 50% of students had a similarity index greater than 30%.

Instruments
Values in Action Inventory of Strengths (VIA-IS) instrument described 24 forms of character strengths in individuals consisting of 240 items (Peterson & Seligman, 2004). A single type of character strength known as spirituality was incorporated. Therefore, the research only used items related to spiritual character strengths. The investigation also allowed for the adaptation of the existing VIA-IS instrument to suit field needs as each character could be unique, although a character might support the dynamics of positive psychology in individuals alongside others (Bleidorn & Denissen, 2015; Feraco et al., 2022; Stichter & Saunders, 2019). This measured spirituality using 10 items from VIA-IS such as "Religious teachings were mostly followed". The response scale used in this instrument followed a five-point Likert scale ranging from strongly agree to strongly disagree. The reliability coefficient for the instrument in this research was α = .837 suggesting good consistency.

Multidimensional Scale of Perceived Social Support (MSPSS) consisted of 12 items measuring social support from family, friends, and significant others (Zimet et al., 1988). However, only four items were used for this research modifying the significant other items to measure support from mini-thesis supervisors. An example item was "Received support from supervisor when needed." The response scale for this instrument included seven categories ranging from strongly disagree to strongly agree. The four items measuring supervisor support had a reliability coefficient of α = .850, suggesting consistent instrument reliability.

Academic Integrity Scale (AIS) developed by Ramdani (2018) described the concept of academic integrity among students. It consisted of 17 items using a five-point Likert scale from strongly disagree to strongly agree. An example item in this instrument was "Being honest starts personally." AIS could be used in both Indonesian and English versions but the research used the Indonesian version. The internal consistency reliability (α) of .862 showed that this instrument was suitable for use. Based on the data analysis, all three instruments showed very good reliability values making the selection strong and consistent in measuring existing psychological concepts.

Ethical Clearance
The examination was part of the "Assessment of Academic Integrity in Universities" research, which underwent ethical review by the Nusantara Scientific Psychology Consortium (KPIN) Ethics Committee receiving ethical clearance number 069/2022. All research participants provided informed consent suggesting the willingness to participate.

Analysis Method
The statistical analysis used in this research was multiple regression conducted with SPSS software. This research first performed classical assumption tests including four mandatory assumptions namely normality, multicollinearity, autocorrelation, and heteroskedasticity (Osborne & Waters, 2019;
Srinivasan & Lohith, 2017; Williams et al., 2018). The thresholds for testing assumptions followed the guidelines of Sufren and Natanael (2014). Normality was assumed when the significance value was greater than .05, suggesting normally distributed residual data. Multicollinearity was verified by Variance Inflation Factor (VIF) being less than 10 or tolerance greater than .10. Furthermore, autocorrelation was assessed with the Durbin-Watson test value needing to be in the range of Du < DW < 4-Du. Heteroskedasticity was also determined by observing the residual data pattern and it was absent when the residuals were scattered or unclear.

Results and Discussion

Demographics

Table 1 presented the demographic characteristics of participants, all of whom were in the 6th semester. The average age was 20.53 years with a standard deviation of .75, and there were more females than males. The top four research interests reported were social, clinical, industrial/organizational, and education.

Table 1
Demographics of Participants

<table>
<thead>
<tr>
<th>Demographic Category</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>44</td>
<td>21.5%</td>
</tr>
<tr>
<td>Female</td>
<td>161</td>
<td>78.5%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-21 years old</td>
<td>186</td>
<td>90.7%</td>
</tr>
<tr>
<td>22-24 years old</td>
<td>19</td>
<td>9.3%</td>
</tr>
<tr>
<td>Industry/Organization</td>
<td>25</td>
<td>12.2%</td>
</tr>
<tr>
<td>Family</td>
<td>15</td>
<td>7.3%</td>
</tr>
<tr>
<td>Clinical</td>
<td>40</td>
<td>19.5%</td>
</tr>
<tr>
<td>Research Interests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>19</td>
<td>9.3%</td>
</tr>
<tr>
<td>Development</td>
<td>15</td>
<td>7.3%</td>
</tr>
<tr>
<td>Positivity</td>
<td>5</td>
<td>2.4%</td>
</tr>
<tr>
<td>Islamic Approach</td>
<td>1</td>
<td>.5%</td>
</tr>
<tr>
<td>Social</td>
<td>85</td>
<td>41.5%</td>
</tr>
</tbody>
</table>

Table 2
Descriptive Variables and Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Spirituality</th>
<th>Supervisor Support</th>
<th>Academic Integrity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spirituality</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisor Support</td>
<td>.396*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Academic Integrity</td>
<td>.668*</td>
<td>.379*</td>
<td>1</td>
</tr>
<tr>
<td>Mean</td>
<td>43.44</td>
<td>21.95</td>
<td>73.62</td>
</tr>
<tr>
<td>SD</td>
<td>6.47</td>
<td>3.45</td>
<td>6.47</td>
</tr>
</tbody>
</table>

Note: * when p < .01

Table 3
Categorization of Research Variables

<table>
<thead>
<tr>
<th>Category</th>
<th>Spirituality</th>
<th>Supervisor Support</th>
<th>Academic Integrity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>High</td>
<td>113</td>
<td>55.1%</td>
<td>114</td>
</tr>
<tr>
<td>Low</td>
<td>92</td>
<td>44.9%</td>
<td>91</td>
</tr>
<tr>
<td>Total</td>
<td>205</td>
<td>100%</td>
<td>205</td>
</tr>
</tbody>
</table>

Descriptive Variables and Correlation Matrix

The section described the descriptive statistics of each variable used as shown in table 2. The correlation matrix showed a strong relationship between spirituality and academic integrity (r = .668 and p < .01) as well as a close correlation between supervisor support and academic integrity (r = .379 and p < .01). These results suggested significant associations between the independent and the dependent variables.

The descriptive values served as benchmarks for categorizing the research variables. The categorization results in table 3 showed that generally, participants exhibited high levels of academic integrity, spirituality, and support from mini-thesis supervisors.

Multiple Regression Assumptions Test

The first assumption tested concerned the normality of residual data, examined using Kolmogorov-Smirnov (KS) analysis. The result showed a significant value for Asymp.Sig (2-tailed) = .797 > .05, suggesting that the distribution of residual data met the normality assumption. The second assumption regarding multicollinearity was further examined in table 4 where the tolerance and VIF values did not exceed the recommended thresholds, suggesting no significant multicollinearity among the independent variables.

The third assumption named autocorrelation was confirmed with a Durbin-Watson value of 2.187 as shown in table 5. When position in the testing bounds, the results exhibited 1.793 < 2.187 < 2.207, suggesting no autocorrelation in the analysis. The fourth
assumption was the heteroskedasticity of residual data which was evaluated using a scatterplot graph as depicted in figure 1. The residual data dispersion did not form a specific pattern, confirming no heteroskedasticity. All four assumptions for multiple regression were satisfied, enabling the analysis to proceed.

**Multiple Regression Analysis**

The multiple regression analysis exhibited an F value of 86.525 with p < .05, suggesting that spirituality and support from mini-thesis supervisors significantly influenced students' academic integrity in preparing for final assignments. The coefficient of determination (R-squared) was 46.1% while the regression equation derived from this analysis was formulated in the following equation.

\[
\hat{Y} = 28.33 + .941 \text{Spirituality} + .255 \text{Mini_Thesis_Supervisor_Support}
\]

Both independent variables had positive beta values (β1 = .941 and β2 = .255) which were statistically significant. These results proved that spirituality and social support positively influenced academic integrity of students preparing for the final project.

Further analysis showed the contribution of each independent to the dependent variable with spirituality contributing 44.6% and supervisor support contributing 1.5%. This suggested that spirituality had a more substantial influence on academic integrity compared to supervisor support.

This research categorized participants based on variables, showing high scores (> 50%) in spirituality, supervisor support, and academic integrity. This varied with Mustapha et al. (2016) suggesting that 62% of students in Malaysia Islamic universities engaged in academic dishonesty. The higher level of academic integrity among students in Islamic universities in Indonesia and Malaysia was influenced by different levels of spirituality.

The high categorization of spirituality supported previous research showing spirituality role in strengthening academic integrity among students in Islamic universities. Strong religious values shaped students to act honestly and respect others' results. This connection between spirituality and academic integrity correlated with previous publications by Khan et al. (2019) and Lolang et al. (2023).

From an Islamic perspective, spirituality comprised ethics that guided individuals to act according to values strengthening beliefs and fostering behaviors prioritizing honesty as well as integrity. These behaviors enabled students to take responsibility and be accountable for the actions that were believed to be overseen by Allah. Furthermore, strong spirituality among Muslim students stimulated students to uphold moral principles against academic dishonesty.

The connection between spirituality and academic integrity was evident in discussions about academic dishonesty. Spirituality negatively impacted academic dishonesty and unethical behavior (Khan et al., 2019; Lolang et al., 2023), acting as fundamental values driving students to engage positively often leading to different perceptions in a worldly context. Furthermore, spirituality guided students to engage in actions benefiting others correlating with ethical standards. It also showed strong positive associations with quality of life, motivation, and cultural intelligence (Afsar et al., 2016; Panzini et al., 2017; Safaria & Bashori, 2022). However, it was negatively and significantly related to depression, anxiety, and dyspnea disorders (Chaar et al., 2018).

Supervisor support positively and significantly influenced students’ academic integrity confirming the results of previous publications (Laka & Paska, 2023). From students' perspective, supervisor support was crucial in shaping academic integrity. Supervisors imparted knowledge about morals and served as role models in academic activities. Experiences with supervisors indirectly motivated students to adhere to university behavioral standards. Ethical research practices showed by supervisors motivated students to follow the example.

The relationship of social support was observed from a closely related publication, which found a positive and significant relationship between supervisor support and academic integrity among students (Laka & Paska, 2023). Furthermore, social support also had a strong association with optimism and mental health (Applehaum et al., 2014), psychological well-being (Chen & Feeley, 2014), motivation, and academic achievement (Cirik, 2015). Social support was negatively related to psychological distress such as depression and stress (Camara et al., 2017; Rueger et al., 2016; Yu et al., 2020).

<table>
<thead>
<tr>
<th>Table 5</th>
<th>The Beta of Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>( \beta )</td>
</tr>
<tr>
<td>(Constant)</td>
<td>28.333</td>
</tr>
<tr>
<td>Spirituality</td>
<td>.941</td>
</tr>
<tr>
<td>Supervisor Support</td>
<td>.255</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 6</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>R Square Change</td>
</tr>
<tr>
<td>Spirituality</td>
<td>.446</td>
</tr>
<tr>
<td>Supervisor Support</td>
<td>.015</td>
</tr>
</tbody>
</table>
This research showed that both internal and external factors simultaneously influenced academic integrity. The results showed that the internal factor of spirituality had a strong impact on students' integrity. Additionally, the importance of external factors such as academic environment and particularly the university climate that upheld spiritual values was recognized. A positive climate in Islamic universities motivated students to behave with integrity. For universities, exploring the role of climate in academic integrity in future publications would provide additional insights and knowledge.

Discussing why spirituality had a greater influence than supervisor support was essential as the research identified a "time gap" between the influences. Participants had been exposed to spiritual values from early childhood up to the current age with an average of 20.53 years. This implied that participants have been learning spiritual values for approximately 20 years. However, supervisor support was typically received for at most one year, during the final project supervision spanning two semesters. The time gap explained why spirituality had a profound impact, specifically on students in Islamic universities who often came from religious schools that instilled and upheld spiritual values.

A closer examination of the literature review identified additional variables perceived to enhance academic integrity, such as self-awareness and learning climate (Muhammad et al., 2020). However, the personality types of individuals and the culture played crucial roles in strengthening the influence of academic integrity (Harvey et al., 2020). Good personality traits also prioritized academic integrity and a positive culture would impact individuals to ethically uphold high standards of integrity.

This research had significant implications for stakeholders including students, mini-thesis supervisors, and educational policymakers in Islamic universities. Specifically, the results showed that spirituality and supervisor support strongly contributed to forming academic integrity. Neglecting these factors when preparing final projects posed an immediate risk of academic dishonesty which was the opposite of academic integrity.

A significant limitation of this research was the measurement of the perception of supervisor support, assessed using only four items from the MSPSS instrument. The results showed a weaker impact on academic integrity while reliability was met. The limited number of items might have contributed to this weakness, as some indicators were not fully represented or detailed. Academic integrity items also used generally measured the condition of academic integrity in students' learning processes in universities. Therefore, adjusting the items used to fit the specific context or situation more precisely in the field was necessary in the future.

**Conclusion**

In conclusion, this research showed that spirituality and supervisor support positively impacted academic integrity of senior students in Islamic universities preparing the final project. Additionally, spirituality evolved as a particularly strong predictor of academic integrity compared to mini-thesis supervisor support. Future publications could consider variables such as self-awareness, personality, university climate, and the collectivist culture perceived by students in Islamic universities as potential predictors.

Recommendations for the future publications included the role of Islamic universities in enhancing the quality of students' spirituality such as exploring religious values, promoting better and positive religious practices, and emphasizing the values that correlated with academic ethics. From the perspective of mini-thesis supervisors who have a tremendous impact, this research suggested that the educators in Islamic universities should educate and guide students academically and cultivate the character with integrity and morality.

**References**


Nelson, M. F., James, M. S. L., Miles, A., Morrell, D. L., & Sledge, S. (2017). Academic integrity of...

Osborne, J. W., & Waters, E. (2019). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research, and Evaluation, 8*(8), Article 2. [https://doi.org/10.7275/R222-HV23](https://doi.org/10.7275/R222-HV23)


