The Relation between Self-Regulation, Self-Efficacy and Achievement Motivation among Muslim Students in Senior High Schools

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Abstract

This research was conducted to analyze the relationship between self-regulation and self-efficacy in the context of achievement motivation among Muslim Senior High School students in Indonesia. A quantitative correlational method was used, and data sources were collected through a questionnaire with a four to five-point Likert scale. A total of 565 respondents, drawn from a population pool of 1,568, were selected using a simple random sampling technique. Furthermore, data were analyzed through bivariate and multivariate correlation techniques using SPSS Version 20 software. The results showed that, first, there was a significant positive correlation between self-regulation and achievement motivation of students. Second, a positive correlation of statistical significance was evident between self-efficacy and achievement motivation. Third, a strong and significant positive correlation was reported when simultaneously considering self-regulation and self-efficacy. This research served as evidence of self-regulation and self-efficacy in shaping academic performance of students during the academic pursuits. Therefore, the two variables should be accorded significant attention and concern by stakeholders, with a particular emphasis on teachers and parents.

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INTRODUCTION

Achievement motivation of students is crucial and plays a key role in the success of the learning process (Fortuna et al., 2022). Considerable significance was attributed to the pursuit of success, characterized by deliberate efforts and subsequent celebrations, which fostered a strong motivation (Oktasari et al., 2018). Moreover, achievement motivation is important within the school context, particularly among teenagers who find fulfillment in healthy competition (Fakhria & Setiowati, 2017). This is because the variable includes efforts or tendencies to succeed or achieve goals effectively (Alhadabi & Karpinski, 2020; Baron et al., 2016).

Showed that high achievement motivation promoted students to be self-driven in overcoming learning difficulties and studying independently (Aimah & Ifadah, 2013; Retnowati et al., 2018; Aulia & Susanti, 2022; Mukhlis & Sari Rizki, 2022). Therefore, this variable can drive individual students to attain specific learning goals and achievements. Also stated internal factors influencing achievement motivation of students, such as self-concept, self-regulation, emotional maturity, and personality type (Soufi et al., 2014; Suryadi et al., 2017).

Fig 1. Results of Keyword Analysis with VOSviewer

This topic is a significant issue in education based on the VOSviewer keywords in articles discussing the relationship between self-regulation as well as self-efficacy in enhancing achievement motivation among students. The research has been ongoing since 2019, particularly in internationally indexed Scopus research. The analysis shows that self-regulation and self-efficacy can also be applied in learning, specifically for international students. Each country has standards and quality benchmarks for academic achievement; hence, international
students need to understand the concept to attain satisfactory academic performance. The methods used to implement self-regulation and self-efficacy comprise developing strong self-resilience, correlating self-efficacy skills with the standards of academic success, and possessing self-determination. Furthermore, this includes conflict management strategies accumulating diverse learning experiences, and maintaining a strong religious foundation to regulate emotions, goals, and self-motivation.

The aspects to be considered in regulating self-efficacy to enhance achievement motivation are paying attention to psychology, understanding social values, adopting a healthy and religious lifestyle, and having an explicit self-concept. Engaging in activities that promote physical motor skills is also important. Based on the analysis, this research area still needs to be explored in Indonesia.

Fig 2. Results of Abstract and Title Analysis with VOSviewer

According to the VOSviewer Abstract and Title analysis of articles investigating the correlation between self-regulation and self-efficacy in increasing achievement motivation, certain facets guarantee the attention of Muslim students, in the regulation of learning procedures. These include the ability to regulate oneself emotionally, socially, and in terms of life goals, having a solid spiritual foundation as a primary factor for achieving effective regulation, fostering positive relationships with others, and having problem-solving skills for challenges in the school learning process. Therefore, the role of teachers is crucial in assisting students in their classroom learning.
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Fig 3. Results of Author Analysis with VOSviewer

The results from the VOSviewer analysis of the connection between self-regulation and self-efficacy in augmenting achievement motivation show that the research includes the period from 2016 to 2019. These are congruent with the keyword analysis, including articles indexed in Scopus. From the figure, there is no stable increase in the field over the years, indicating that there has not been significant research truly focused on the topic. This issue was explored, even though the concept was still relatively in the early stages. Therefore, this research area is highly significant, pertaining to academic performance of students while considering crucial aspects integral to the learning process in schools.

LITERATURE REVIEW

In previous research related to the influence of self-regulation on student achievement motivation (Nurillah & Chusairi, 2020), Sopiah, (2021) found that the variable in learning had a normal distribution residual value with a result of 1.0%, indicating a non-significant influence. Meanwhile, Winitri et al., (2020) showed that students who possessed the ability to engage in self-regulation when preparing for school studies exhibited a fundamental capacity for enhancing academic performance.

Several research regarding the influence of self-efficacy on achievement motivation were also reported. Fortuna et al., (2022) found that the variable significantly enhanced achievement motivation. The results of Hasanah et al., (2019); Szczepańska-Gieracha & Mazurek, (2020) reported that self-efficacy played a crucial role in determining the level of success in fulfilling assigned tasks.

Zagoto, (2019) further asserted that self-efficacy played a crucial role in guiding their decision-making processes and motivating students to exert persistent efforts even when faced with challenges. Additionally, the variable had an impact on the levels of anxiety or composure experienced by individuals when addressing various tasks in their lives. The results are supported by Damri et al., (2017), where self-efficacy among university students falls into the high category, indicating that most students can convincingly handle academic tasks.

Other research by Doyan, (2017); Ross et al., (2016) reported that self-efficacy significantly affected achievement motivation, contributing 25.73% to the
influence. Self-concept and self-efficacy significantly influenced achievement motivation, contributing a total of 59%. Therefore, the variables play a crucial role for students in achieving success in learning.

Different literature points toward achievement motivation with different proposed solutions. However, achievement motivation remains one of the challenges in the educational landscape (Chassignol et al., 2018; Wang & Eccles, 2013). There are several observable phenomena among Senior High School students in Indonesia. Based on the survey and supported by interview data, a significant portion of students show indifference concerning setting and achieving academic goals. Among the reasons cited are a perceived lack of ability and the presence of classmates who excel academically. These attitudes have repercussions on their learning behaviors, including a lack of enthusiasm during learning, being late to class, delaying communal prayers, passive participation in school extracurricular activities, and other behaviors not reflecting an optimistic attitude among students.

The direct observations at several Senior High Schools further support the previous results. The observational results depict low motivation among students, affecting the approach and response to various school programs and activities. For example, students show limited interest in creating creative and innovative works as well as neglecting their religious duties, such as communal prayer.

Referring to some results, the situations should not occur among students because teachers continuously provide guidance, teaching, and support to increase achievement motivation. Students are motivated to strive for good grades to gain admission to the best universities in the country. They are expected to exhibit behaviors such as not easily giving up on the path to success, delivering the best performance on assignments, and enjoying challenging situations. The concept of self-efficacy includes aspects such as not anticipating immediate rewards, approaching studies with a sense of urgency, actively seeking innovative solutions to problems, and showing creativity in the approach to learning and problem-solving.

The fundamental difference in this topic was that previous research primarily focused on self-regulation and self-efficacy, as well as achievement motivation. However, religious aspects were incorporated as a research instrument and the relationship between the variables was explored.

METHODS

This research used a quantitative correlational method and according to Curtis et al., (2016); Engkizar et al., (2018); Munawaroh et al., (2022); Novebri & Dewi, (2020); Saputri et al., (2021), the approach was appropriate when examining the relationship between variables. Referring to the opinions, the method was consistent with the intended objectives. Data were collected using a questionnaire from 565 respondents selected randomly from the 1,568 population. Respondents were Muslim students from different Senior High Schools in Indonesia.

A set of questionnaires was prepared comprising 29 statement items grouped into three sections for data collection. There were 9, 8, and 11 items related to self-regulation, self-efficacy, and self-regulation and self-efficacy with achievement motivation. The validity and reliability analysis results using Cronbach’s Alpha for all instrument items indicated that the instrument was
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suitable for use, as shown in Table I below.

<table>
<thead>
<tr>
<th>Table 1. Value of Cronbach’s Alpha instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>X1 (self-regulation)</td>
</tr>
<tr>
<td>X2 (self-efficacy)</td>
</tr>
<tr>
<td>Y (achievement motivation)</td>
</tr>
</tbody>
</table>

According to Tavakol & Dennick, (2011), the minimum acceptable Cronbach’s Alpha value in correlation research was 0.60. Furthermore, Bujang et al., (2018); Vaske et al., (2017) suggested that Alpha values exceeding 0.60 were acceptable. The Alpha values analysis results of the research instrument and the supporting opinions of experts were deemed suitable for use; hence, the instrument was considered consistent and reliable (Lai, 2014; Mayo, 2015; Meltzer et al., 2013; Ranse et al., 2015). The data were analyzed using bivariate and multivariate correlation methods through SPSS Version 20 software.

RESULT AND DISCUSSION

In this section, the author will describe the results of the relationship between self-regulation self-efficacy and achievement motivation in students in Indonesian high schools. To make it easier to read and understand, the author will display the results of the analysis of each regulation in the following table;

<table>
<thead>
<tr>
<th>Table 2. Description of Self-Regulation Score Analysis Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
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<tr>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
</tr>
<tr>
<td>11.</td>
</tr>
</tbody>
</table>
Referring to the analysis results in Table 2, the scores for self-regulation can be observed from 11 items. The initial item pertains to the ambition to attain specific goals and aspirations. Respondents showed strong agreement with the item, as evidenced by its placement within the very high mean category. Second, creating a schedule at home, instructing oneself to study according to the established schedule, being accustomed to managing time, and silencing phone when studying items received a moderate mean. Recognizing the study environment, reviewing exam results as part of the learning process, identifying the subjects, and understanding the significance of each subject falling within the high mean category, underscoring their importance. Furthermore, paying attention to teachers during learning and building good friendships had a high mean category.

Table 3. Description of Self-Efficacy Score Analysis Results

<table>
<thead>
<tr>
<th>No.</th>
<th>Striving to do the following for oneself</th>
<th>N=565 Respondents Mean</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Not being late for class</td>
<td>3.4920</td>
<td>High</td>
</tr>
<tr>
<td>2.</td>
<td>Adhering to school rules well</td>
<td>3.5841</td>
<td>High</td>
</tr>
<tr>
<td>3.</td>
<td>Submitting assignments on time</td>
<td>3.3947</td>
<td>High</td>
</tr>
<tr>
<td>4.</td>
<td>Praying on time</td>
<td>3.4336</td>
<td>High</td>
</tr>
<tr>
<td>5.</td>
<td>Socializing with school friends regardless of their ethnicity</td>
<td>3.8991</td>
<td>High</td>
</tr>
<tr>
<td>6.</td>
<td>Socializing with school friends regardless of their religion</td>
<td>3.8283</td>
<td>High</td>
</tr>
<tr>
<td>7.</td>
<td>Participating in extracurricular activities during leisure time</td>
<td>2.9257</td>
<td>Moderate</td>
</tr>
<tr>
<td>8.</td>
<td>Participating in organizational activities during leisure time</td>
<td>2.6018</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Referring to Table 3, self-efficacy scores can be observed from 8 items. The initial item has garnered strong agreement from respondents, as evidenced by its placement within the high mean category. Adhering to school rules, submitting assignments on time, praying on time, and socializing with school friends, regardless of ethnicity as well as religion items, received a high mean. Meanwhile, participating in extracurricular and organizational activities during leisure time had a moderate mean category.

Table 4. Description of Learning Motivation Score Analysis Results

<table>
<thead>
<tr>
<th>No.</th>
<th>Striving to do the following for oneself</th>
<th>N=565 Respondent Mean</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Actively practicing to win when participating in competitions</td>
<td>3.3097</td>
<td>High</td>
</tr>
</tbody>
</table>
Persistently completing school assignments at home with optimism even when they seem difficult

Setting rewards if I succeed in achieving my goals

Imposing punishments if I make mistakes

Creating a scale of achievements to aim for

Actively participating in organizations

Striving to create something creative

Striving to create something innovative

Feeling grateful every time I achieve success and blessings from Allah

Recording solutions to past difficulties

Seeking ways to overcome past failures

Referring to the analysis in Table 4, the scores for learning motivation can be observed from 11 items. Actively striving to excel when engaging in competitions and showing unwavering dedication to completing school assignments at home with optimism. Meanwhile, items related to setting rewards upon achieving goals, implementing consequences for mistakes, establishing achievement benchmarks, active inclusion in organizations, the pursuit of creative and innovative endeavors, as well as documenting solutions to encountered difficulties, all fall within the moderate mean category according to the assessments. Feeling grateful after achieving success or receiving blessings from Allah resulted in a very high mean category. Finally, seeking ways to overcome past failures resulted in a high mean category.

Table 5. Description of Correlation Test Analysis Results on Self-Regulation and Self-Efficacy with Achievement Motivation

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.676+</td>
<td>.457</td>
<td>.455</td>
<td>4.12034</td>
<td>.457</td>
<td>236.667</td>
<td>2</td>
<td>562</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 5 shows the Determination Coefficient Test SPPS version 20 "Model Summary" output and R Square value (coefficient of determination) is 0.457. R Square value of 0.457 comes from squaring the correlation coefficient (R) value, namely 0.676 x 0.676 = 0.457, equal to 45.7%. Therefore, there is a correlation between self-regulation (X1) and self-efficacy (X2) simultaneously with achievement motivation (Y) of 45.7%. The remaining 54.3% is determined by other variables outside the equation of this research. This indicates that there is a correlation between self-regulation and achievement motivation.
The importance has also been proven that the level of self-regulation has a positive influence on achievement motivation (Nurillah & Chusairi, 2020; Sopiah, 2021). Furthermore, students can do self-regulation in preparing for learning at school, which is the basis for improving achievement (Winitri et al., 2020). Self-regulation is very important for students to perform well and a key factor in understanding those at risk of experiencing academic difficulties. The results indicate that teachers should be able to help students optimize self-regulation to achieve an increase in achievement motivation and this is highly correlated with the various types of achievements.

In the context of Islamic education, self-regulation and self-efficacy are also mentioned in various Qur’an texts as the meaning contained in the Qur’an Surah al-Insyirah. Individuals should have self-regulation and self-efficacy such as i) sincerely facing all difficulties, ii) believing that the test from Allah is according to the ability of the servants, iii) every difficulty is always accompanied by ease, iv) every problem has a solution, v) Allah raises the degree of those who are patient and successful in facing every problem and difficulty, vi) trying to take lessons from every problem faced, vii) conducting several businesses, and viii) setting the intention for the pleasure of Allah in completing all matters.

Regarding self-efficacy, the content of Surah Al-Insyirah provides valuable lessons, showing that Islam instills a sense of confidence in every individual to manage emotions, thoughts, and actions effectively. This empowerment leads to success in various endeavors and equips individuals with the ability to find solutions to challenges. Self-efficacy is defined as a belief in students in controlling thoughts, feelings, and actions. Students can complete learning tasks and all activities in certain situations as well as times appropriate to the targets set.

Self-efficacy is directly related to the achievement motivation of students (Fortuna et al., 2022; Hasanah et al., 2019). The variable plays an important role in determining the success of individuals in carrying out the tasks (Paais & Pattiruhu, 2020). Developing achievement od students and improving the quality of education to the maximum can increase self-efficacy and achievement motivation. Self-efficacy plays an important role in facilitating decision-making processes and motivating students to take proactive steps toward progress. The variable also fosters resilience and unwavering determination when confronted with adversities. Furthermore, it significantly influences the level of anxiety or calmness as students navigate various tasks and responsibilities in the lives.

The results indicate that a teacher should be able to help students in optimizing self-efficacy to increase achievement motivation. This is highly correlated with successfully obtaining various types of achievements (Damri et al., 2017; Ross et al., 2016). Regarding achievement motivation, conversations related to motivation are always interesting to study and are directly related to individuals. The concept is interpreted as an internal condition that arouses individuals to act, achieve certain goals, and show interest in certain activities. Motivation arises from internal and external sources, which can be seen in the presence of desire, interest, drive, needs, hopes, ideals, appreciation, and respect (Baumeister, 2016; Roberts et al., 2014).

Individual activities are always driven by diverse motivations. According to Węziak-Bialowolska et al., (2019), when an individual engages in an activity devoid of positive motivation, an impact is exerted on emotional well-being. The influence of low motivation in doing a job negatively influenced the results.
achieved by individuals (Van et al., 2015). This is because low or negative motivation influences unpleasant emotions such as annoyance, anger, sadness, and lack of enthusiasm for achieving desired goals (Tamir, 2016).

Bodolica et al., (2021) stated that the favorable facets of motivation played a role in instilling a profound enthusiasm for achieving success, fostering unwavering commitment, promoting proactivity, and consistently capitalizing on extant opportunities. Additionally, it is important to maintain istiqamah, or unwavering consistency to attain established objectives in the face of diverse challenges (Ifadah et al., 2021).

The link between the results of research and Islamic education can be seen from the perspective of Islamic education. It is also found in several verses of the Qur'an such as the following Surah Al-Mujadilah:

يُّهَا َ يٰٓا ذِيْنَََّ الْمَنُوْْٓا اِذَا قِيْل مُْك لَّتَفَسَّحُوْا فِى مَجٰلِسِ ْوَاِذَا قِيْل شُزُوْا ان شُزُوْا فَان يَرْفَعِ الْلُّٰذِيْنَََّ الْمَنُوْا مِنْك ذِيْنَََّ وَالْلُّٰوَاِذَا مِنْك

Meaning: O you who believe, when it is said to you, "Make room in the assembly," make room, and Allah will make room for you. And when it is said: "Stand up", then stand up, surely Allah will elevate those who believe among you and those who are given knowledge a few degrees. And Allah knows best what you do.

The learning from Surah Al-Mujadilah verse 11 related to achievement motivation is that people should have enthusiasm and be serious in carrying out various things, specifically as teachers and students. This verse teaches people to have faith, be patient, have noble character, and obey the rules of Allah. Furthermore, it shows the value of cultivating a fervent appetite for acquiring and applying knowledge since Allah bestows rewards on those who diligently practice the concept.

Quality good deeds such as discipline on time should also be carried out. In the field of education, teachers and students must embody responsive and proactive attributes in the learning journey, enabling the creation of meaningful works under the principles outlined in the Qur'an guidance. Therefore, achievement motivation includes the inherent drive within students to maintain an optimistic outlook on attaining the highest possible levels of accomplishment. This is achieved by continuously enhancing the capabilities across all activities to reach their educational goals.

Suryadi et al., (2017) reported that internal factors influencing achievement motivation are self-concept, self-regulation, emotional maturity, and personality type. Meanwhile, external factors that influence the variable are parenting style, family cultural values, and recognition from others. According to Soufi et al., (2014), one of the factors that influenced achievement motivation was self-regulation. Intrinsic learner achievement motivation factors also included self-efficacy, optimism for success, age, gender, and experience, while extrinsic factors comprised parental parenting, parental education level, family influence, school influence, environmental influence, and friend influence. Therefore, self-regulation and self-efficacy had a relationship with achievement motivation.
CONCLUSION
In conclusion, one of the important factors that contributed to the success of students was the formation of self-motivation to consistently strive for achievement. The formation was certainly a long process and should be influenced by various aspects, including self-regulation and self-efficacy. The aspect possessed significant influence in shaping achievement motivation of students. Therefore, self-regulation and self-efficacy of each student were trained and maintained to nurture a consistently positive attitude in the educational process.

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Factors Causing Plagiarism Among Undergraduate Students in Accomplishing The Coursework on Religion Education Subject. *Khalifa: Journal of Islamic Education*, 1(1), 98. https://doi.org/10.24036/kjie.v1i1.8


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