

Exploring the Significant Association between Learners' Academic Self-Concept and Academic Achievement in the English Subject

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Abstract

Academic achievement is significantly influenced by the cognitive and emotional involvement of students in their learning experiences, which are motivated by factors including academic self-concept. The purpose of this study is to elaborate the significant association of learners' academic self-concept and academic achievement in the English subject. This research used quantitative data approach and analysis of Product-Moment according to Karl Pearson. There were two variables, namely academic self-concept (X), and Academic achievement (Y). There were 177 samples of this research out of 317 population gotten from simple random sampling. The value of the correlation between academic self-concept and academic achievement was 0.646 r-table (0.001) and the p-value was 0.001 lower than the significance level 0.05. Academic Self-Concept was in the high category because 68% out of samples got 67-82 and categorized as the high. More than 80% samples got scores 70-100 and the Academic Achievement categorized as the very high achievement. There was a significant positive correlation in a strong category between academic self-concept and academic achievement. It is because the higher and lower the score of Academic Self-Concept, the higher and lower the score of Academic Achievement and vice versa. between academic self-concept and academic achievement is 0.646 r-table (0.001) and the p-value is 0.001 lower than the significance level 0.05. Moreover the value of the correlation between English learners' academic self-concept and their income status is 0.679 r-table (0.001) and the p-value is 0,001 lower than the significance level 0.05. Academic Self-Concept were in the "high" category, Academic Achievement were in the "very good achievement" category, and the income status of student were is the "upper income" level. There is a significant positive correlation in a strong category between academic self-concept and academic achievement.

Keywords: *academic self-concept, academic achievement, association, english*

1. Introduction

Academic achievement is referred as a student's level of success in how they perform in school as well as being a material for measuring student academic achievement that can be

measured by the teacher. Referring to Akukananwa et al. (2020) academic achievement encompasses the outcomes of cognitive performance within educational institutions, serving as a metric for evaluating students' progress. Academic achievement is influenced by various factors, including individual beliefs, attitudes, and self-perceptions. A line with that, Deeba et al. (2022) stated that students' perceptions of their own appearance, ethics, sociability, and academic performance form the basis of their self-belief are the personal factors of students that can influence their academic achievement.

One important component that has received a lot of attention in educational studies is academic self-concept (ASC), which refers to a students' subjective impression and assessment of their academic skills, competency, and value in a particular academic field. Referring to Schnitzler et al. (2021) academic achievement is significantly influenced by the cognitive and emotional involvement of students in their learning experiences, which are motivated by factors including academic self-concept. However, people generally see the score of student academic self-concept as beneficial, however occasionally they see it as bad for a few subjects or any particular area of that subject (Deeba et al., 2022). Furthermore, student attitude has an impact on their academic performance and accomplishment, whether it is positive or negative.

Today, it is crucial to learn English since academic communication duties frequently include using English in an international setting (Domański, 2014). Furthermore, English is a very important language, especially in the teaching and learning other languages. Additionally, the Indonesian National Education Curriculum lists English as one of the main subjects that students should learn (Sinthiyah et al., 2021). Several studies have examined the relationship between academic self-concept and academic achievement. For instance, a review of theoretical, methodological, and empirical support for the reciprocal effects model (REM) found that academic self-concept and achievement are mutually reinforcing, each leading to gains in the other (Sewasew & Schroeders, 2019).

Considering the previous issues, the researcher is interested to conduct this study in order to elaborate the significant association between English learners' academic self-concept and their academic achievement by associate of students' family economy factor. The objective of this study is wrapped into the following research questions to address:

1. How the learners' academic self-concept?
2. How the learners' academic achievement?
3. What is the association between learners' academic self-concept and academic achievement in the English subject?

This study could give beneficial information which can be used as an additional reference for other researchers who are interested to conduct a research related to the academic self-concept and academic achievement among learners. Moreover, could help and give insight to future English teacher in knowing the factor that can influence their students' achievement and in the next step can become a support system and mediator for their students.

2. Methods

Starting with a problem description, the quantitative data approach moves on to developing a hypothesis, doing a literature study, and analyzing quantitative data. It may be used to respond to relational queries concerning research variable variables (Creswell, 2012). This research would use qualitative data approach. Statistically, correlation is used to identify whether there is a tendency for two (or more) variables or two sets of data to fluctuate consistently. When there are just two variables, this indicates that the variables co-vary or share a common variance. This method aims to define and quantify the strength of the link (or association) between two or more variables or sets of scores (Creswell, 2012). According to the characteristics above, the method of this research was the correlation. This research used analysis of Product-Moment according to Karl Pearson, usually used to correlate two or more variables based on their correlation coefficient value. It is helpful to describe and find out the significance of the correlation between those variables, variable X, and variable Y. The first variable uses a questionnaire to score learners' academic self-concept; it is considered an independent variable (variable X), the second variable uses the teacher's grade book score to learner's academic achievement score; it is considered a dependent variable (variable Y).

1. Participant

The population of this research was the ninth-grade of learners in SMP Negeri 7 Samarinda in the 2023-2024 academic year. The ninth-grade students were chosen because in this range of age decreases, whilst grade 9 is also the final level in the Junior High School. Liu & Wang (2005) stated that the academic self-concept of grade 2 students was greater than that of grade 8 students. The level of school self-concept increased in seventh grade and then fell to its lowest point in the ninth grade (the average age was 15). The population in this research will be 317 students consisting of ten classes (Class A, B, C,D,E,F,G,H,I,J). Moreover, simple random sampling would use as the sample method in this study. Because every member of a population has an equal probability of being selected for the sample, this kind of sampling strategy will be utilized (Fraenkel et al., 2012). Therefore, 171 of ninth-grade learners in SMP Negeri 7 Samarinda served as the sample for this study.

2. Data Collection

The research instruments are the questionnaire to measure learners' academic self-concept (variable X), and the teachers' grade books to compare the performance grades of the learners (variable Y).

Questionnaire

The questionnaire was constructed based the version of Academic Self-Concept Questionnaire (ASCQ) by Liu & Wang (Liu & Wang, 2005). Therefore, the researcher would distribute the questionnaire to the ninth-grade learners of the SMP Negeri 7 Samarinda in the 2023-2024 academic year. It used to know about the learners' academic self-concept (variable X). The measurement in this study will use the scale by Liu & Wang (2005). Answers to the questions will provide on a 5-point scale, with 1 being the strongest disagreement and 5 being the strongest agreement. The table of the learners academic self-concept classification is as follows:

Table 1. Academic Self-Concept Classification

No	Academic Self- Concept Classification	Range of Score
1.	Very high	83 - 95 (maximum score)
2.	High	67 - 82
3.	Moderate	51 - 66
4.	Low	35 - 50
5.	Very low	19 (minimum score) - 34

Teachers' Grade Books/Score Inventory

Teachers may use this data to keep track of their students' development, pinpoint their strengths and weaknesses, and plan lessons and interventions with confidence. Through a register given by the students' teachers (Herrera et al., 2020), the English teacher would give the formative scores of learners (RUH/Rata-rata Ulangan Harian) and the learners' daily grades and assignment average (RTH/Rata-rata Tugas Harian). Rating of student's achievement would provide on the table below:

Tabel 2. Rating of Student's Achievement

Remarks	Range of Score
Poor achievement	0 - 39
Fair achievement	40 - 49
Good achievement	50 - 69
Very good achievement	70 - 100

The researcher gave the questionnaire about Academic Self-Concept to 171 students of the learners and asked them to fill it out. Then, the researcher would assess scores from a questionnaire on Academic Self-Concept and scores from English Teachers' grade books/score inventory. After that, the researcher would use the Pearson Product Moment Formula to verify whether there is a significant association between academic self-concept and academic achievement.

3. Data Analysis

To find out about how the learners' academic self-concept, the researcher calculates the result of the questionnaire one by one. After that, the researcher interprets the score of learners' academic self-concept by classifying them into five categories. From these data, the researcher would then look at the English scores that come from the Teachers' Grade Books/Score Inventory, and classified them into the categories. To find out the correlation between learners' Academic Self-Concept (variable X) and Academic Achievement (variable Y), the researcher will use a Pearson Product Moment Correlations. The correlation

technique is an analysis technique to evaluate the hypothesis concerning the correlation between two variables that are examined statistically. The formula of Pearson Product Moment Correlation is:

$$r_{xy} = \frac{N\sum x_i y_i - (\sum x_i)(\sum y_i)}{\sqrt{(N\sum x_i^2 - (\sum x_i)^2)(N\sum y_i^2 - (\sum y_i)^2)}}$$

4. Result

In finding, the results are presented to describe the process of calculating and presenting the result of the data. It is intended to know the learners' academic self-concept, academic achievement, and the association between learners' academic self-concept and academic achievement in the English subject.

Academic Self-Concept

The questionnaire used in this research was adapting the version of Academic Self-Concept Questionnaire (ASCQ) by Liu & Wang (Liu & Wang, 2005) was used to collect data of learners' academic self-concept of the ninth-grade of learners in SMP Negeri 7 Samarinda in the 2023-2024 academic year. The result of learners' academic self-concept with a score range between 55 to 93. The minimum score was 55, and the maximum score was 93. The average (mean) score was 71,67 and the median score was 71. The score which was mostly mentioned as the mode in the academic self-concept score was 71 which appeared thirteen times. It could be concluded that the learner's academic self-concept was in the "high" category. Because based on the table above shows that from 177 students who answer the questionnaire, there were 120 learners who got scores in the "high" category

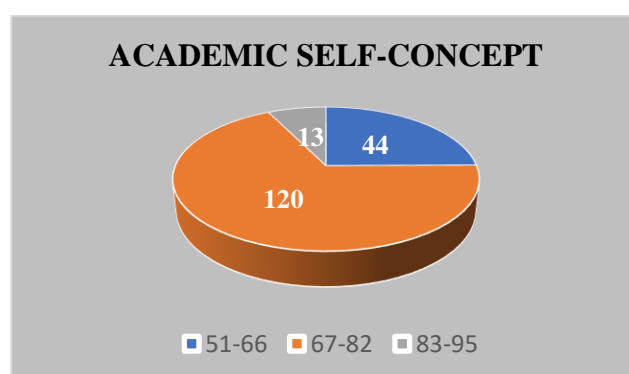
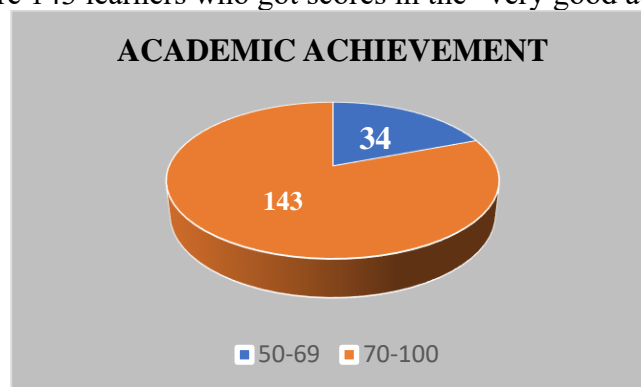


Figure1. Academic Self-Concept

Academic Achievement

The minimum score was 60, and the maximum score was 98. The average (mean) score was 78,29 and the median score was 80. The score which was mostly mentioned as the mode in the students' academic achievement was 70 which appeared twenty four times. It could be concluded that the english students' academic achievement was in the "very good achievement"

category. Because based on the table above shows that from 177 students who fill the income status table, there were 143 learners who got scores in the “very good achievement” category.



5. Discussion

The first research question is, “How the learners’ academic self-concept?”. Based on the result of the research, out of 177 learners, 120 learners or 68% averagely got scores at the high category which is 67-82. The Σ score of academic self-concept score is 12686 divided by the sample which is 177 and the researcher gets the mean score of the academic self-concept questionnaire which is 71.67 and it is categorized as a “high” category. In addition, the percentage of the student who got a score as ordered is 7% for the “very good” score, 68% for the “high” score, and 25% for the “moderate” score.

The second research question is, “How the learners’ academic achievement in terms of the English subject?”. Based on the result of the research, out of 177 learners, 143 learners or 80.79% averagely got scores at the very good achievement category which is 70-100. The Σ score of academic achievement score is 13858 divided by the sample which is 177 and the researcher gets the mean score of the academic achievement questionnaire which is 78.29 and it is categorized as a “very good achievement” category. In addition, the percentage of the student who got a score as ordered is 80.79% for the “very good achievement” score, and 19.21% for the “good achievement” score.

The third research question is, “What is the association between learners’ academic self-concept and academic achievement in the English subject?”. Based on the Pearson Product Moment Correlation formula, the value of the correlation between academic self-concept and academic achievement is 0.646 and the value of r_{table} at the significant value of 0.05 (5%) with $df = 177$ was 0.227. It can be concluded that $r_{xy} (0.646) > r_{table} (0.001)$ and the p-value is < 0.001 lower than the significance level (α) = 0.05. It means the Alternative Hypothesis (H_a) is accepted, while the Null Hypothesis (H_0) is rejected. Moreover, based on the correlation index number, the value of $r_{xy} (0.646)$ is in strong correlation (between 0.60 and 0.799). It means there is a positive correlation in a strong category between academic self-concept and academic achievement of the ninth-grade of learners in SMP Negeri 7 Samarinda in the 2023-2024 academic year.

According to Akukananwa et al. (2020), there is significant relationship between secondary school students’ academic self-concepts and their achievements in English Language with the

maximum self-concept score of 136 and minimum self-concept score of 44. Moreover, according to Möller et al. (2020) in the present meta-analysis, 240 effect sizes were aggregated from 68 longitudinal studies to examine the longitudinal relationship between ASC and achievement. The results found that achievement significantly predicted ASC ($\beta = 0.16$, $p < 0.01$) and vice-versa ($\beta = 0.08$, $p < 0.01$) after controlling for the initial level of outcome variables. Moderator analyses found that the effect of ASC on achievement was significantly moderated. Based on the explanation above, the research concluded that in this research, academic self-concept and academic achievement were significantly positively correlated with Pearson's correlation (r) = 0.646.

6. Conclusion

Academic self-concept of the ninth-grade of learners in SMP Negeri 7 Samarinda in the 2023-2024 academic year were in the "high" category. There are 120 out of 177 students or 68% averagely got scores between the bottom of academic self-concept score which is 55 and top up of academic self-concept score which is 93.

Academic achievement of the ninth-grade of learners in SMP Negeri 7 Samarinda in the 2023-2024 academic year were in the "very good achievement" category. The Σ score of academic achievement was 13858 divided by the sample which is 177 and the researcher gets the mean score of academic achievement which is 78.29.

There is a association between academic self-concept and academic achievement of the ninth-grade of learners in SMP Negeri 7 Samarinda in the 2023-2024 academic year. Which is the value of the Pearson Correlation Coefficient (r_{xy}) 0.646 higher than r_{table} 0.001 and p-value is <0.001 lower than significance level (α) = 0.05. It means the Alternative Hypothesis (H_a) is accepted, while the Null Hypothesis (H_0) is rejected. Therefore, it can be concluded that there is a significant positive correlation in a strong category between academic self-concept and academic achievement. It is because academic self-concept can affect in academic achievement and vice versa.

From the conclusions of the research, there are some suggestions for the students, teacher, and other researchers as follows:

1) Students

Increase awareness of their academic self-concept and identify areas where they feel less confident, take the initiative to seek help or additional support if facing challenges in studying English. Moreover, participate in positive activities outside the academic environment that can provide an additional boost to enhance self-confidence.

2) Teachers

Encourage the development of learning programs that can enhance students' academic self-confidence, with a focus on the English language subject, provide additional support, such as counseling or training, for students experiencing difficulties in building their academic self-concept, and engage students in extracurricular activities or collaborative projects that can boost their confidence and academic achievements.

3) Future Research

Conduct further research to identify specific factors that may influence the relationship between academic self-concept and academic achievement, both internally and externally, expand this research to different educational levels and cultural contexts for a deeper understanding of the variability of this relationship, explore the use of intervention methods or specialized programs to improve academic self-concept and academic outcomes for students. Moreover, explore the impact of academic self-concept to academic achievement and vice versa.

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