The effect of self-esteem and self-efficacy on the academic resilience of undergraduate students in Jakarta

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Abstract. The high number of dropout undergraduate students in Jakarta is interesting to link with academic resilience to see how far the ability to survive, overcome, and even develop amid difficulties. Some resilience studies have revealed a positive relationship with self-esteem, in which higher self-esteem relates to higher resilience and vice versa. Self-esteem is a strength that comes from within a person. According to some experts, the forming factor of resilience is self-efficacy. This research will examine the influence of these two factors in shaping academic resilience. The total number of respondents was 455 students studying at an A-accredited university in Jakarta. Most respondents were male as many as 234 people (51.3%), and the lowest respondents were female as many as 221 people (48.5%). The findings showed that self-esteem and self-efficacy simultaneously influenced 47.6% on academic resilience, while the remaining 52.4% influenced by other variables. The biggest effect was from self-efficacy as much as 39.8%. The effect of self-esteem on academic resilience was 28.5%. Suggestions for further research are to conduct self-efficacy interventions to improve students’ academic resilience.

Keywords: academic resilience, self-esteem, self-efficacy

1. Introduction

The impact of the failure of an undergraduate student study or dropout (DO) cannot be ignored because it will affect the academic quality, accreditation, and national assessment of a college. It will also affect students’ mental health and future. The cause of DO can range from financial matters, personal problems, to undergraduate students’ mentality. In the Indonesian higher education system, the students experience DO if they violate the maximum provisions of the study period for a bachelor’s program, diploma four or applied bachelor as stipulated by the Minister of Research, Technology, and Higher Education Regulation No. 44 of 2015 concerning National Higher Education Standards [1]. The maximum year is seven, or they do not meet the academic requirements set by each university. Data from RISTEKDIKTI [2] shows the number of DO students in all of Indonesia is as much as 8%. They are mostly in Java. In Jakarta, there are 13% of students. The highest number of DO students is at Private Universities (PTS) in Jakarta (15%), while the rate in State Universities (PTN) is 7%. DO students are expelled or dropped out of college.
From the phenomenon of the rise of DO, it becomes interesting to relate it to academic resilience. According to Yeager and Dweck (2012) [3], academic resilience sees the extent of the ability to survive, overcome, and even develop amid difficulties. Academic resilience is one of the characteristics that enable academic achievement. It distinguishes individuals who succeed from those who do not. Cassidy (2016) [4] states that resilience is characterized by the ability to reverse academic failures and achieve success. Resilience is formed from internal and external factors, including self-esteem and self-efficacy. Resilience is considered as the ability to face challenges and results when someone faces a difficult experience and knows how to deal with or adapt to it. So, increasing resilience is important because humans can develop life skills such as how to communicate and develop realistic abilities in making life plans and take the right steps for their lives (Rojas, 2015) [5].

Hidayati (2014) [6] states that there is a significant positive relationship between resilience and self-esteem. The higher the self-esteem is, the higher the resilience will be and vice versa. Self-esteem is a strength that comes from within a person. High self-esteem is characterized by a feeling of pride, respect for others, and feeling responsible. Individuals who feel proud of themselves realize that it is important to feel proud. They can know who they are and what they are doing or they will achieve.

According to Reivich and Shatte (2002) [7], several aspects can form resilience, one of which is self-efficacy. Self-efficacy, according to Bandura (1997) [8], is a person's belief in his ability to exercise some form of control over their functioning. Characteristics of individuals who have high self-efficacy include: having the confidence to deal effectively with the events and situations faced; persevering in completing tasks; trusting his abilities; seeing adversity as a challenge rather than a threat; seeking out new situations; setting themselves challenging goals and increasing a strong commitment to himself; investing a strong effort in what he does and increasing effort when facing failure; focusing on the task and thinking of strategies to deal with difficulties; quickly restoring the sense of being able to learn from failure; and facing stressors or threats with the belief that they will retain control. The results of this study will look at the factors forming internal resilience with the greatest influence. It is useful to improve undergraduate students' ability to survive, overcome challenges, and adapt and develop, especially in completing lectures (academic resilience). With this capability, it is expected to reduce the number of students who will drop out of college.

1.1 Statement of the problem
In some academic resilience references, sources of resilience consist of inside and outside the individual's self. Internal sources include self-esteem and self-efficacy. Existing studies of resilience only relate to one or other variables. In this study, the researchers use these two variables to find out whether there is the influence of these two variables on academic resilience, how the influence is, and which variables have the greatest contribution. Upon findings that there is an effect of self-esteem and self-efficacy on undergraduate student academic resilience in Jakarta, further research can design an intervention program for students with the potential for DO. Thus, they can develop a stronger mentality and complete their studies.

2. Methodology
The present research used a quantitative (multiple regression) method to examine the effect of self-esteem and self-efficacy on the academic resilience undergraduate student in Jakarta.

2.1 Research variables
a) The first independent variable: self-esteem was measured using the Guttman scale
b) The second independent variable: self-efficacy was measured using a Likert scale
c) Dependent variable: academic resilience was measured using a Likert scale
2.2 Hypotheses

a) $H_0$: There was no effect of self-esteem and self-efficacy on the academic resilience of undergraduate students in Jakarta

b) $H_a$: There was an effect of self-esteem and self-efficacy on the academic resilience of undergraduate students in Jakarta

2.3 Research participants and sampling technique

The research participants were active undergraduate students at private universities with A-accreditation in Jakarta and in the transition period from adolescence to adulthood or referred to as growing up (emerging adulthood). Their ages ranged from 18 to 25. Researchers used a non-probability sampling design that was most commonly used in research, namely accidental / convenience sampling. In this type of sampling, researchers only used participants who were easily available. Participants were chosen based on their availability and willingness to respond.

2.4 Research design

The research design used in this study is quantitative. Quantitative research is used to find objectivity through hypotheses that can be tested and studies that are carefully designed that researchers gather data in the form of numbers and statistics. This study also uses a non-experimental design, a research methodology that involves studying how variables are related. This non-experimental research does not depend on variable manipulation. Instead, this study makes observations about how the variables are related to each other and illustrates the findings. Even without direct manipulation, non-experimental research can still explore the relationship between variables using the influence test research method.

2.5 Assessment of academic resilience

Researchers used a measuring instrument from Cassidy (2016) [4] called The Academic Resilience Scale - 30 (ARS-30) to measure student academic resilience. ARS-30 had been translated into Indonesian and modified so that research participants could understand the language of the items used. To maintain consistency of answers and avoid bias, this measuring instrument included positive (favorable) and negative (unfavorable) statement items.

This measuring device consisted of 30 items. Then eight items were added to describe the dimensions better and provide more in accordance with research participants. Overall, there were 38 items from three dimensions, namely perseverance with 14 favorable items and 4 unfavorable items; the dimensions of reflective and adaptive help-seeking with 12 favorable items; and the dimensions of negative affect and emotional response with 2 favorable items and 6 unfavorable items.

Then, ARS-30 uses a Likert scale range, namely Strongly Agree (SS), Agree (S), Disagree (TS), and Strongly Disagree (STS) on each item. The score for each response given by the participant is from 1 for Strongly Disagree (STS) to 4 for Strongly Agree (SS). The total score obtained is added to get the entire score from the participant's response. If the participant gets a high total score, it indicates that the participant has high academic resilience and vice versa. If the participant gets a low total score, this means that the participant has low academic resilience.

The first validity test is face validity. To see the face validity of this measuring instrument, researchers conducted a readability test on students who had similar characteristics to the study participants. Based on the readability test results on six undergraduate students, there are several word choices that are quite difficult for undergraduate students to understand, so that word changes are made on some items.

The next validity test is content validity. The researcher asked two experts to become expert judgments for this research. The researcher conducted a pilot study to test the feasibility of this measuring instrument by distributing it to students with the same characteristics as the study participants. The number of participants from the pilot study was 66 students.

Based on the results, 33 items have good validity. It is based on Meyers, Gamst, and Guarino (2013) [9]. The item has good validity if the corrected item-total correlation shows $\geq 0.25$. Then, around 5 items
are less good or have low validity. Reliability, before the item is eliminated by using Cronbach's Alpha, is 0.876. After the item is eliminated, it is 0.896.

2.6 Assessment of self-esteem
Researchers used the Advanced Version of The Coopersmith Self Esteem Inventory (CSEI) to measure self-esteem and conduct face validity. It was a readability test for undergraduate students who have similar characteristics to the research participants. Based on the readability test results on six students, several difficult word choices were changed, and the calculation of scores on this measuring instrument was adjusted to the participants' answers. When the participant answers "Yes", the participant will be given a score of 1. When the participant answers "No", the participant will get a score of 0.

The results of a pilot study from the CSEI measuring instrument show that 34 items have a validity of 0.25. It can be said that these items have good validity. Then, 16 items have low validity. So, the valid items of the measuring instruments to conduct research are 34 items. Reliability, after an item has been eliminated, is 0.886.

2.7 Assessment of self-efficacy
This measuring instrument is based on the theory of self-efficacy from Bandura with three dimensions:
1. Level (Magnitude)
   a. Have a positive view of the work being done.
   b. Have a view of self to be able to complete the given task.
2. Strength
   a. Able to complete all tasks given.
   b. Try to find a way to complete all the assigned tasks.
   c. Feel confident in all your abilities.
3. Generality
   a. Have the ability to learn from experience.
   b. Able to respond to various situations and conditions with a positive attitude.

This measuring instrument uses a Likert scale with four alternative choices of answers given: (SS) Very Suitable, (S) Suitable, (TS) Unsuitable, (STS) Very Unsuitable. On the measurement scale, some items are favorable and unfavorable. Researchers took the data of 66 students as a pilot study to determine whether the item was valid or not. If the correlation number is below 0.25, it is declared invalid. After conducting the validity test, three items were not valid. The number of items on the self-efficacy questionnaire became 45, with reliability based on Cronbach's Alpha of 0.880. It shows that the reliability of this measuring instrument has a high degree and can be used.

3. Research results

3.1 Description of the research participants
Around 455 undergraduate students at A-accredited universities in Jakarta participated in the present study. A summary of the student participants was as follows:
1. Based on gender, there were 234 (51.3%) male student participants and 221 female student participants (48.5%).
2. Based on age, there were 164 people with 19 years old (36%), and participants from the age of 24 were one person (2%).
3. Based on the semester taken, most participants were in semester 3 (265 people or 58.1%), and the lowest participants 88 (19.3%) were in semester 7

3.2 Statistical description of research variables
The Statistical description of research variables can be seen in Table 1.
### Table 1. Statistical Description.

| Variable          | N   | Minimum | Maximum | Mean   | Std. Deviation |
|-------------------|-----|---------|---------|--------|----------------|
| Academic resilience | 455 | 61      | 131     | 106.74 | 9.932          |
| Self-efficacy     | 455 | 66      | 190     | 140.73 | 15.151         |
| Self-esteem       | 455 | 5       | 35      | 21.96  | 5.420          |
| Valid N (listwise) | 455 |         |         |        |                |

#### 3.3 Description of the participants’ academic resilience, self-esteem and self-efficacy

1. As many as 297 (65.3%) of the participants had moderate academic resilience, while 79 (17.4%) had low and high academic resilience.
2. As many as 250 (54.9%) of the participants had moderate self-efficacy, while 103 (22.6%) had high self-efficacy, and 102 (22.4%) had low self-efficacy.
3. As many as 333 (73.2%) of the participants had moderate self-esteem, while 67 (14.7%) had high self-esteem, and 55 (12.1%) had low self-esteem.

#### 4. Discussions, conclusions, and recommendation

##### 4.1 Discussions

The results of this study indicate the influence of self-esteem on academic resilience. It is in line with Hidayati’s research [6], stating that there is a significant positive relationship between resilience and self-esteem. The higher the self-esteem is, the higher the resilience will be, and vice versa. Grotberg (2001) [10] explains that resilience is a combination of three sources. One of which is I am, that is, a source that comes from within a person. Resilience can be increased if someone has the power that comes from within themselves. Hidayati (2014) [6] states that self-esteem is one of the predictors that can influence academic resilience that the source is from within individuals. It is in line with the opinion of Grotberg (2001) [10]. Self-esteem is a strength that comes from within a person. High self-esteem is characterized by a feeling of pride in yourself, respect for others, and responsibility. Individuals who feel proud of themselves are those who realize that it is important to feel proud. They can know who they are and what they are doing or will achieve. The same thing is also expressed by Margareth (2016) [11]. Individuals who have high self-esteem can respect other people and have a good relationship with their surroundings. It is what will form an individual having high resilience.

The results of this study also show the influence of self-esteem and self-efficacy. According to Cassidy (2016), academic resilience is students’ ability to change failures in the academic field by achieving success even though it is bad and fails in other respects. In contrast, self-efficacy is a person's belief in his ability to exercise some form of control over the functioning of the person himself and events in the environment (Bandura, 1997) [8]. The results of this study are also supported by Reivich and Shatte (2002) [7], saying that seven aspects can shape individual resilience, one of which is self-efficacy. Self-efficacy is the result of one’s success in solving problems and represents a belief that someone can solve the problems they experience and achieve success. Therefore, self-efficacy is a factor from within an individual that is very important to achieve resilience.

This study shows that self-esteem and self-efficacy simultaneously affect academic resilience by 47.6%. Other variables influence around 52.4%. The influence of self-esteem on academic resilience is 28.5%, and the influence of self-efficacy on academic resilience is 39.8. It is seen that the biggest effect on academic resilience is self-efficacy. When it comes to intervening in academic resilience in individuals, the biggest internal factor that should be intervened must be student self-efficacy. This study has the limitation of only examining internal factors that influence resilience by only using two variables even though there are still 52.4% of other variables that affect academic resilience. For this reason, other studies can relate them to other variables.
4.2 Conclusions
Based on the research that has been done, it can be concluded that self-esteem and self-efficacy significantly affect student academic resilience in Jakarta. It can be seen from the results of calculations with multiple regression analysis techniques showing a significance value of 0.00 <0.05, which means that H0 is rejected, and Ha is accepted. Self-esteem and self-efficacy simultaneously affect the academic resilience variable by 47.6%

The regression coefficient of self-esteem and academic resilience is positive. It can be said that the higher the self-esteem is, the higher the academic resilience will be. It can be seen in the R Square value of 0.285, which indicates that self-esteem has a role of 28.5% on academic resilience. The remaining 71.5% is determined by other variables not examined in this study.

The regression coefficient of self-efficacy and academic resilience is positive. It can be said that the higher the level of self-efficacy is, the higher the academic resilience will be. It can be seen in the R Square value of 0.398, which indicates that self-efficacy has 39.8% of academic resilience. The remaining 60.2% is determined by other variables not examined in this study.

4.3 Recommendations
1. For further researchers, it is expected to get respondents with a balanced frequency in the control data to represent this study better
2. The next research is to do student self-efficacy intervention by conducting experimental research to test whether self-efficacy increases after training
3. For students to continue to be students who can maintain the quality and quality of each university by developing soft skills, especially self-efficacy and academic resilience, they can follow activities to develop soft skills to remain students qualified until graduation and maintain the good name of each university.
4. For A-accredited universities to continue to advance and develop their students’ abilities by making soft skills improvement programs, it can be included in the lecture curriculum. Thus, students can become better personal with academic resilience and self-efficacy abilities the good one.

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