

# THE EFFECT OF SELF-DIRECTED LEARNING ON ACADEMIC RESILIENCE IN STUDENTS

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#### Abstract

This study aims to analyze the effect of Self-directed Learning on Academic Resilience in Students. The research was conducted with IKK students class of 2019, Jakarta State University from December 2022 to January 2023. This research used an associative quantitative method. This study involved 161 respondents who were selected using proportionate stratified random sampling. Dissemination of research questionnaires using Google Forms. Data were analyzed using a simple linear regression test. Based on data processing, it is known that the most self-directed learning samples are in the medium category (75%) and the most academic resilience samples are in the medium category (71%). The results of the regression test showed that self-directed learning has a significant positive effect on academic resilience ( $\beta = 0.386$ , p <0.05). This means that self-directed learning can increase academic resilience in students. The thing that must be done to increase academic resilience is that a student must have independence in learning so that he can overcome all obstacles in the learning process. *Keywords: Academic resilience, self-directed learning, students.* 

#### Introduction

The Covid-19 outbreak has become a turning point in human life throughout the world. This pandemic has had an impact on all sectors of human life. Starting from the economic sector, tourism, social, to education. Suharyanto is of the opinion that to regulate these problems the government has strictly issued policies in all fields to address them (Purandina & Winaya, 2020). UNESCO noted that the Covid-19 pandemic caused nearly 1.2 billion students studying in 158 countries to be unable to go to school/college as before. This figure represents 64.8% of the number of those studying all over the world, as a result of the closure of educational institutions in the midst of a pandemic (en.uniesco.org, 5 May 2020). According to Adiwijaya, around 7.5 million students are 'forced' to do learning from home (Khadijah et al., 2021).

According to data from research involving 1,129 students from several provinces in Indonesia, it was found that learning assignments, boring lecturer teaching methods were the main source of stress and caused students to feel depressed during the Covid-19 pandemic (Kumalasari & Akmal, 2020). The results of the American College Health Association's (ACHA) survey of 937 students showed that 37% felt very burdened with the academic responsibilities they had to face. There are 25.8% of all subjects who feel anxious about academic demands, 15.8% feel depressed about academic pressure (Chasanah et al., 2019). In addition, according to Zhai & Du's research (2020), revealing the fact that the Covid-19 pandemic has affected the mental health of the academic community is an urgent need, related to understanding program development information in the form of actions and public health messages to support students experiencing a resilience crisis (Zhai &Du, 2020). In addition, in Carolan's opinion (2020), during the Covid-19 pandemic, lecturers had to work harder to instill strategies that support student welfare and also foster emotional resilience (Resilience), into their curriculum (Carolan et al., 2020).

In the academic context itself, according to Martin & Mash, revealed that there are dynamic challenges, difficulties, and pressures as a reality in the world of education which is defined as academic resilience (Martin et al., 2003). According to Rojas (2015), Academic resilience is defined as a dynamic process, in which a person shows adaptive behavior when he is faced with problems which lead to the ability he might have to deal with bad events and gain new abilities from the process of facing challenges and difficulties in the academic that is being undertaken. by students (Rojas F., 2015). In achieving a good state of Academic resilience,



students need to have several supporting components. According to Cassidy, academic resilience is a specific, adaptive response for students when facing academic difficulties which can be seen from cognitive, affective, and conative aspects. On the cognitive aspect, academic resilience appears in the form of reflecting and adaptive-help-seeking, namely individuals who reflect on their strengths and weaknesses. On the affective aspect, academic resilience appears in negative affect and emotional responses related to anxiety and avoiding emotional responses. On the conative aspect, academic resilience appears in the form of perversion, namely individuals who try and don't give up (Cassidy, 2016). Maghfira & Azzahra also found that 93 percent of overseas students at Andalas University had low academic resilience. From these studies, it appears that the condition of student academic resilience in Indonesia needs further attention (Ningtyas & Kumalasari, 2021). Based on Challen, Machin, & Gillham, revealed that this resilience plays a role in influencing students to reduce stress and anxiety, this can have a positive effect on student academic performance and current or future well-being (Challen, A.R., Machin, S. J., & Gilham, 2014).

Academic resilience occurs when students use their internal and external strengths to overcome negative experiences, suppress and hinder them during the learning process, so that they are able to adapt and carry out every academic demand properly according to Boatman (Boatman & Boatman, 2014). Seeing the current situation and the need to suppress academic resilience in students, it is this internal factor that students need to pay attention to in the midst of a pandemic where all activities are limited in person. Seen how internal factors also need to be developed that can influence it. According to Hanggara & Amiati, one of the factors or elements within a student that influences academic resilience is student independence. Distance learning requires students to be independent as a form of adaptation in participating in learning properly even without face-to-face processes with lecturers. Students are also required to take the initiative to find, understand, and explore their own learning materials according to their abilities and needs. This opinion was reinforced by Hamka & Vilmala, who stated that self-directed learning (SDL) can affect academic resilience in distance learning because students are independent and not dependent on others and are responsible for achieving their learning goals (Hamka & Vilmala, 2019).

Until now, there are facts according to Chuprina's research (2001), which provides evidence that independent learning (SDL) and resilience are interrelated (Chuprina, 2001). Previous research also on student self-directed learning (SDL) and resilience (Subekti, 2021), found that self-directed learning and resilience are two constructions that are indeed related to one another (Subekti, 2021). According to Brockett & Hiemstra, how is there a significant positive relationship between self-directed learning and resilience among graduate students (Brockett & Hiemstra, 1995). Sumuer (2018) specifically mentions that online learning provides the right amount of challenges, allows collaboration, and a certain level of flexibility that has the potential to maintain the growth of self-directed learning and student resilience (Sumuer, 2018). In Indonesia itself according to Zainuddin et al. (2019) found in their qualitative study that well-designed online learning improves students' SDL (Zainuddin et al., 2019). Therefore, in accordance with existing research. How does the important role of self-directed learning in academic resilience students take place in the learning process to achieve their academic goals.

Briefly, Knowles describes self-directed learning (SDL) as a process in which individuals take initiative, with or without the help of others, in diagnosing their learning needs, formulating learning objectives, identifying human, and material resources. to learn, choose and apply appropriate learning strategies and evaluate learning outcomes (Zhu et al., 2020). Knowles (1975), developed a 5-step model for incorporating SDL into an educational learning culture. These steps include diagnosing learning needs, formulating learning objectives, identifying human and material resources needed for learning, selecting and implementing



appropriate learning strategies, and evaluating learning outcomes (Linkous Holley, 2020). Based on the description above, it can be concluded that self-directed learning is an ability of students who have autonomy in preparing learning strategies, methods, and academic goals independently and according to their needs.

According to the explanation from the statement and the existing data, researchers are very interested in researching how student academic resilience is in the midst of a system of teaching and learning activities in the midst of a pandemic. How to measure student academic resilience itself has several factors in its achievement, one of which comes from oneself or personal to each student. Where at this time the system of teaching and learning activities has changed due to the pandemic. Starting from a face-to-face learning system and turning into distance learning (PJJ). And you can still see how many problems and obstacles exist in the continuity of distance learning in Indonesia, starting from the most basic level to tertiary institutions in particular. With this information, in academic resilience students can be influenced by personal factors, including self-directed learning. Researchers decided to research with the title "The Effect of Self-directed Learning on Academic Resilience in Students". The purpose of this study was to determine the effect of self-directed learning on the academic resilience of students at the Jakarta State University.

#### Method

Based on the problems studied, researchers decided to use quantitative methods. Because the quantitative method has become the right choice and is often used as a method for research, this quantitative method is a research method in the form of numbers and is analyzed using statistics (Sugiyono, 2019a). The population taken in this study were students of the Family Welfare Science family, undergraduate program class of 2019, Jakarta State University. The data obtained, that the population is 268 students. Based on the calculation in taking the sample which refers to the Slovin formula with an error rate of 5%, the results show that the number of respondents in this study was 161 students. This study used probability sampling technique with proportionate stratified random sampling. Probability sampling is a sampling technique that provides equal opportunities for each element (member) of the population to be selected as a member of the sample (Sugiyono, 2019b). Meanwhile, proportionate stratified random sampling is a sampling technique that looks at how the population has members/elements that are not homogeneous and proportionally stratified (Sugiyono, 2019b). Data collection techniques are the most strategic steps in research because the purpose of research is to obtain data (Sugiyono, 2014). (Sugiyono, 2019a). In this study, researchers used primary data obtained through a respondent questionnaire instrument (student class of 2019). Respondents were asked to fill in or choose answers according to what happened to the respondent. This aims to determine the effect of self-directed learning on student academic resilience. Data analysis used SPSS 20.0 to describe the effect of self-directed learning on academic resilience in students. The analysis technique used is descriptive analysis and prerequisite test. Descriptive analysis namely normality test, linearity test, and correlation coefficient test. As for the prerequisite test used, namely regression analysis, significant regression test, and the coefficient of determination.

#### Findings and Discussions Self-directed Learning

In obtaining data on self-directed learning, the type of instrument self-directed learning skills scale was used, with the KMO test in the form of a questionnaire or questionnaire with the results of 40 questions. This instrument was developed by Ayyildiz & Tarhan (2015). The questionnaire used in this study was a closed questionnaire, which is a questionnaire that has provided questions and answer choices so that respondents only choose according to the limited



choices. The type of questionnaire instrument in this variable uses a Likert scale with a choice of answers, namely Strongly Agree (SS), Agree (SR), Disagree (TS), and Strongly Disagree (STS). It was found that the values of the questionnaires in this study were all valid questions. For the reliability test itself, it shows that the variable is considered reliable with a value of 0.943. The results of the research conducted on IKK students class of 2019 show that the level of self-directed learning in students in the moderate category is 75%.

#### **Academic Resilience**

In obtaining data on academic resilience, an academic resilience scale (ARS-30) instrument was used which was developed by Simon Cassidy (2016), in the form of a questionnaire or questionnaire which has 31 questions. The questionnaire used in this study was a closed questionnaire, which is a questionnaire that has provided questions and answer choices so that respondents only choose according to the limited choices. The type of questionnaire instrument in this variable uses a Likert scale with a choice of answers, namely Strongly Agree (SS), Agree (S), Disagree (TS), and Strongly Disagree (STS). It was found that the values of the questionnaires in this study were all valid questions. For the reliability test itself, it shows that the variable is considered reliable with a value of 0.965. Based on the results of research conducted on IKK students class of 2019. As a result, students can increase the value of academic resilience in the medium category with a percentage of 71%.

#### The Effect of Self-directed Learning on Academic Resilience

Based on the hypothesis test, it can be seen that there is an influence between selfdirected learning and academic resilience in students. The results of this study indicate that the level of self-directed learning in students in the moderate category is 75%. Because each individual can develop several strategies in the learning process such as starting from the attitude toward learning, learning responsibility, motivation, self-confidence, ability to plan learning, ability to use learning opportunities, ability to manage information, ability to apply learning strategies, assessment of learning process, evaluation of learning success. Of the nine IKK class 2019 students' abilities in developing self-directed learning can increase academic resilience in students in the learning process. The success of students in increasing the value of academic resilience can be seen from how students can fulfill the three dimensions of academic resilience, which include perversion, reflecting and adaptive-help-seeking, and negative affect and emotional response.

This is in accordance with the findings by researchers that self-directed learning has an effect on academic resilience in students with a linearity significance of 0.00 < 0.05. Furthermore, after testing the correlation coefficient, self-directed learning has a positive relationship with academic resilience with a value of = 0.436 which means that the higher the self-directed learning developed by individuals, the higher the academic resilience possessed by individuals. The results of this study are supported by Subekti's research (2021) how it appears that students have high SDL along with high resilience in both of these variables (Subekti, 2021). Next, the researchers conducted a hypothesis test to measure the effect of self-directed learning on academic resilience. The results of the hypothesis test with a simple linear regression test yield p-value = 0.00 < 0.05 with a coefficient of determination (R Square) = 0.190 which means that 19% of the academic resilience and healthy variables can be influenced by self-directed learning. Self-directed learning affects academic resilience in IKK students class of 2019 by only 19%, this proves that academic resilience is not only caused by self-directed learning but there are other factors that cause it.

#### Conclusion

Based on the research results that have been obtained, it can be concluded several things as follows:

1. Based on the results of the regression significance test, self-directed learning has an



effect on academic resilience with a regression coefficient of 0.386, meaning that if there is an increase in the variable self-directed learning, it will cause an increase in the academic resilience variable by 0.386 units. This means that the higher the value of the self-directed learning variable, the higher the value of the academic resilience variable. Vice versa, the lower the self-directed learning variable, the lower the value of the academic resilience variable.

2. Based on the test of the coefficient of determination it is known that the value of the coefficient of determination of the effect of self-directed learning on academic resilience reaches 0.190. As much as 19% of the academic resilience variable can be explained by self-directed learning variables.

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## Sample Figure Characteristic Respondent

#### 1. Respondent Age

The characteristics of the respondents are IKK group students based on the year of entry, namely the 2019 class year. The characteristics based on the age of the respondents can be seen in figure 1.



Figure 1. Distribution of Respondents by Age

Based on the results of the study, it shows that the number of respondents who are 20 years old is 21.7% or as many as 35 respondents. The number of respondents who are 21 years old is 67.7% or as many as 109 respondents. Meanwhile, the number of respondents who were >21 years old was 10.6% or 17 respondents.

Based on these data it can be seen that respondents aged 21 years are the most aged than those aged 20 years and> 21 years.

# 2. Gender

Characteristics of respondents based on gender can be seen in figure 2.





# Figure 2. Distribution of Gender

Based on the results of research that has been done, the number of respondents who have a male gender is 13.7%, totaling 22 respondents. As for the female sex, it was 86.3%, totaling 139 respondents.

# 3. Study Program

Characteristics of respondents based on study program can be seen in figure 3.



#### Figure 3. Distribution of Study Program

Based on the results of research that has been carried out using a proportionate stratified random sampling technique. The number of respondents to the family welfare education study program was 52 respondents with a percentage value of 32.3%. For respondents to the culinary education study program, there were 42 respondents with a percentage value of 26.1%. As for the cosmetology education study program, there were 36 respondents with a percentage value of 22.4%. And for the fashion education study program there were 31 respondents with a percentage value of 19.3%.

# 4. Father's Education

Characteristics of respondents based on father's education can be seen in figure 4.



#### Figure 4. Distribution of Father's Education

Based on the results of the study, it was shown that the number of respondents whose fathers had elementary school education (SD) was 4.3% or as many as 7 respondents. The number of respondents whose fathers had a junior high school education level was 9.3% or as many as 15 respondents. The number of respondents whose fathers had a high school education level (SMA) was 47.2% or as many as 76 respondents. The number of respondents whose fathers had an undergraduate degree (S1) was 29.2% or 47 respondents. the number of



respondents whose fathers had an education level of two/three strata (S2/S3) was 9.9% or as many as 16 respondents.

Based on these data, it can be seen that respondents who had fathers with higher education levels had the highest level of education compared to elementary, junior high, bachelor's, or master's/doctoral degree.

# 5. Mother's Education

Characteristics of respondents based on mother's education can be seen in figure 5.



#### Figure 5. Distribution of Mother's Education

Based on the results of the study, it was shown that the number of respondents whose mothers had elementary school education (SD) was 9.3% or as many as 15 respondents. The number of respondents whose mothers had a junior high school (SMP) level of education was 8.1% or as many as 13 respondents. The number of respondents whose mothers had high school education was 46.0% or 74 respondents. The number of respondents whose mothers had an undergraduate education level (S1) was 35.4% or as many as 57 respondents. the number of respondents whose mothers had an education level of two/three strata (S2/S3) was 1.2% or as many as 2 respondents.

Based on these data it can be seen that respondents who have mothers with higher education levels have the highest level of education compared to elementary, junior high, undergraduate, or master/doctoral degrees.

#### 6. Father's Job

Characteristics of respondents based on father's job can be seen in figure 6.



#### Figure 6. Distribution of Father's Job

Based on the results of the study, it was shown that respondents based on the work of their fathers who did not work were 18% with a total of 29 people, entrepreneurs achieved a percentage of 49.1% or as many as 79 people, entrepreneurs amounted to 17.4% with a total of 28 people. Whereas for his father who worked as a civil servant was 15.5% with a total of 25 people. Based on the data above, it can be seen that the highest number of jobs are self-employed, followed by not working, self-employed, and civil servants.

#### 7. Mother's Job

Characteristics of respondents based on mother's job can be seen in figure 7.





#### Figure 7. Distribution of Mother's Job

Based on the results of the study, it was shown that respondents based on the work of their mothers who did not work were 73.3% with a total of 118 people, entrepreneurs achieved a percentage of 7.5% or as many as 12 people, entrepreneurs were 11.8% with a total of 19 people. Whereas for mothers who work as civil servants, 7.5% with a total of 12 people. Based on the data above, it can be seen that the largest number of jobs are unemployed, followed by self-employed, self-employed, and civil servants.

#### 8. Family Income

Characteristics of respondents based on family income can be seen in figure 8.



#### **Figure 8. Distribution of Family Income**

Based on the results of the study, it was shown that respondents based on family income with a vulnerable family income of IDR 1,000,000 - IDR 2,000,000 had a percentage of 12.5% with a total of 20 families. Meanwhile, for families with a vulnerable income of IDR 2,000,000 – IDR 3,000,000, it has a percentage of 19.9% with a total of 32 families. For families with a vulnerable income of IDR 3,000,000 – IDR 4,000,000, it has a percentage of 17.4% with a total of 28 families. In addition, for families with a vulnerable income of IDR 4,000,000 – IDR 5,000,000, it has a percentage of 30.4% with a total of 49 families. And for family income with income > IDR 5,000,000 it has a percentage of 19.9% with a total of 32 families.

#### 9. Family Members

Characteristics of respondents based on family members can be seen in figure 9.



#### **Figure 9. Distribution of Family Members**

Based on the results of the study, it was shown that respondents based on family members



with a total of 2 family members had a percentage of 1.2% with a total of 2 respondents, while for family members totaling 3 family members had a percentage of 14.3% with a total of 23 respondents. In addition, for family members with a total of 4, it has a percentage of 43.5%with a total of 70 respondents. While family members with a total of 5 family members have a percentage of 26.1% with a total of 42 respondents. And for family members with a number of> 5 has a percentage of 14.9% with a total of 24 respondents.

Based on the data above, it can be seen that the most number of family members is 4 family members, followed by 5 family members, > 5 family members, 3 family members, and 2 family members.

# **10.** Order of Children in the Family

Characteristics of respondents based on order of children in the family can be seen in figure



# Figure 10. Distribution of Children in the Family

Based on the results of the study, it was shown that respondents based on the order of children in the family who were categorized as only children had a percentage of 6.2% with a total of 10 respondents, the order of children in families with the category of the eldest child had a percentage of 37.3% with a total of 60 respondents. While the order of children in families with the middle child category has a percentage of 24.2% with a total of 39 respondents. In addition, the order of children in the family with the youngest child category has a percentage of 32.3% with a total of 52 respondents.

#### Sample Table

No.	Self-directed Learning	Jumlah	Presentase	
1.	Rendah (Skor < 109)	20	12	
2.	Sedang (Skor 109-133)	120	75	
3.	Tinggi (Skor >133)	21	13	
Jumlah		161	100	
Minimal		70		
Maksimal		155		
Rata-rata ± Standar Deviasi		$121 \pm 12$		

Table 2. Descri	ption of A	Academic	Resilience

No.	Academic Resilience	Jumlah	Presentase
1.	Rendah (Skor < 92)	23	14
2.	Sedang (Skor 92-114)	114	71
3.	Tinggi (Skor >114)	24	15
Jumlah		161	100
Minimal		68	
Maksimal		124	
Rata-rata ± Standar Deviasi		$103 \pm 11$	