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Prevalence of academic resilience of social science students in facing the industry 5.0 era

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ABSTRACT

Academic resilience is an individual's academic resilience in facing academic pressure. In fact, in the industry 5.0 era resilience is needed by individuals to face various challenges in the future. This study determined the prevalence of academic resilience of Social Science students in facing the industry 5.0 era. This research employed survey design. The sample was 116 students of Social Sciences who were selected using proportional stratified random sampling technique. The data collection used academic resilience questionnaire. It was tested for validity and reliability with a KMO and Bartlett's Test value of 0.741. The data was analyzed descriptively. Students' academic resilience was shown by having competence, self-confidence, character, commitment, interest, and self-control to overcome difficult situations at hand. Commitment is an important aspect for individuals to be tough in academic situations.

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676

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1. INTRODUCTION

Industry 5.0 is a new era initiated by the Japanese government and demands that individuals shall not only be able to master science and technology, but also be able to carry out their functions as humans. This means that individuals are asked to be advanced in finding solutions to emerging social problems and to utilize technology, economy and intellectual abilities in the context of sustainable welfare [1]-[5]. The emergence of industry 5.0 was caused by the failure of industry 4.0 which made individuals as an instant gratification where individuals became impatient figures, impulsive, and quick fulfilment of satisfaction [6]-[8]. This raises its problems in individual life, for it reduces the individual's fighting power to get things until Japan finally came up with its idea to develop the industry 5.0 era to balance technology and resolution for social problems and achieve sustainable development goals. One of the goals of sustainable development goals is the development of individual resilience to face rapid changes, such as the presence of the Industry 5.0 era. In fact, it is also said that resilience is an urgent action that must be built to help individuals deal with changing situations or extreme circumstances in their environment, one of which is academic.

Resilience is defined as an individual's ability to succeed in adapting to adversities or distractions or stress, be able to build clear and realistic goals, relate well and be comfortable with others and be able to solve problems experienced [9]-[13]. This explanation shows that resilience is not only related to an individual's ability to bounce back after experiencing adversity through adaptation, but also to be able to solve problems and establish clear goals. Meanwhile, in academics, resilience is defined as an individual's ability to withstand

difficult life events, rise and be able to overcome adversity and adapt positively to academic demands [13]-[17]. Thus, academic resilience can be interpreted as an individual's ability to bounce back, find solutions and goals and adapt and feel comfortable with academic demands and other academic difficulties.

The Indonesian Government is currently intensively proclaiming the freedom of learning, this, of course, encourages stakeholders as curriculum developers to be able to present learning that is open to all students who desire and require studying in certain tertiary institutions according to their interests. This requires students to adapt to the current academic demands at the higher education level. Unfortunately, not all students are able to face changing academic demands due to the lack of academic resilience in themselves. The low academic resilience of individuals is caused by the learning load, high demands for competence and not accompanied by abilities improvements and academic adjustments cause individuals to experience deviant behavior [18]-[21]. Therefore, academic resilience is an important aspect that needs to be understood to understand the current condition of individuals. Individual academic resilience can be described by the presence of competence, self-confidence, character, commitment, interest, self-control, and connection. This study aims to determine which indicators have the potential to describe the academic resilience of social science students towards the 5.0 industrial era.

2. RESEARCH METHOD

2.1. Research design

The survey research obtained the prevalence of academic resilience of Social Science students. The purpose of survey research is to describe quantitatively the current conditions, both characteristics, behavior, and attitudes, and not to test [22]-[26]. The survey was conducted online using Google Form because of the unfavorable social conditions of the community caused by the corona virus disease 2019 (COVID-19) pandemic. Online surveys were able to reach communities in remote areas and reduce potential risks for the research sample [27], [28].

2.2. Participant

The population of this study were students of the Universitas Negeri Malang, especially in social science clusters, which are Guidance and Counseling, Psychology, Economics, Geography, History, Civics Education, and Sociology. The sample was 116 students of Social Sciences who were selected using proportional stratified random sampling technique. The sampling criteria were the first semester students of social science in Universitas Negeri Malang, both male and female who were willing to be the research sample. The reason is that the first semester students were chosen because of demands for freedom of learning from the government which encouraged students to be responsive and adapt to academic demands in higher education.

2.3. Data collection

The data collection technique uses a self-developed academic resilience scale referred to the theory and results of previous research in determining the indicators of the instrument. The calculation of the validity of the instrument was carried out in two methods, which are expert tests and statistical tests. Expert testing was carried out on two experts in the field of guidance and counselling and statistics. Expert testing is related to the validity of trust because the selected expert or person has expertise in the field being researched, which is resilience and statistics, is able to make decisions with the best judgment and acceptable results [29], [30]. This means that in the research questionnaire expert test, a professional has recommended or discarded a statement that does not represent or is not effective in explaining the variable being researched.

Meanwhile, the statistical test results using factor analysis shows that there are 23 valid items with KMO and Bartlett's Test values of 0.741>0.5. KMO and Bartlett's Test functions to test the strength of the relationship between indicators and variables, so that it is known whether the item is feasible. The KMO and Bartlett's Test score of 0.741 shows that the item is feasible to use to reveal student academic resilience. Meanwhile, the reliability results of the questionnaire showed a value of 0.96. The results of the validity analysis of seven indicators of academic resilience are: 1) Having the knowledge and skills to deal with difficult situations; 2) Having the efficacy to be able to deal with difficult situations; 3) Having good personal qualities; 4) Having a contribution to oneself and others; 5) Able to overcome difficulties positively and adaptively; 6) Control actions and decisions; and 7) Build a sense of security physically and emotionally, only six indicators were declared valid and reliable. The indicator stated that it does not explain the academic resilience of students is to build a sense of security physically and emotionally. Thus, it can be concluded that the scale of academic resilience is feasible and reliable to be used as research data collectors.

2.4. Data analysis

The data was analyzed descriptively. The goal is to understand the phenomenon of academic resilience of Social Science students by collecting data, investigating relationships, analyzing, connecting, and interpreting data to conclude in the form of a percentage [31]-[33]. Percentage is easy to find the actual conditions in the community and interpreting the findings to obtain a high, medium, and low-level picture.

3. RESULTS AND DISCUSSION

3.1. Results

Table 1 shows the result of the academic resilience of social science students. Figure 1 shows that 41% of social science students have very high academic resilience, 52% have high academic resilience, 6% of students have low resilience, and only 2% of students have very low academic resilience. It can be explained that 93% of social science students have high and very high academic resilience. Students who have high academic resilience are indicated by: 1) Having the knowledge and skills to deal with difficult situations; 2) Having the efficacy to face difficult situations; 3) Having good personal qualities; 4) Having a contribution to themselves and other people; 5) Being able to overcome difficulties positively and adaptively; and 6) Control actions and decisions as shown in Table 2.

Table 1. Results of the descriptive analysis of the academic resilience

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Academic resilience	116	56.00	226.00	178.6034	2.57970	27.78422
Valid N (list wise)	116					

Table 2. Overview of academic resilience

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Variable	Very high	High	Low	Very low				
Academic resilience	41%	52%	6%	2%				
Indicators								
Knowledge and skills to deal with difficult situations	28%	63%	7%	3%				
Have the efficacy to be able to deal with situations	23%	62%	11%	3%				
Have good personal qualities	40%	46%	13%	2%				
Have a contribution to him/herself and others	41%	51%	4%	4%				
Be able to overcome difficulties positively and adaptively	60%	31%	6%	3%				
Control actions and decisions	49%	42%	5%	3%				

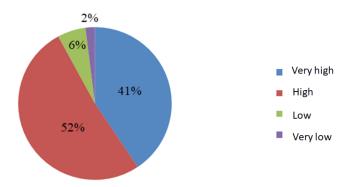


Figure 1. Prevalence of academic resilience

In Figure 2, indicators provide a lot of describing academic resilience of Social Science students in facing the Industry 5.0 era, in terms of their academic resilience conditions from high to very high, can be explained as: 1) Indicator 4 (has a contribution to oneself and others) is 92%; 2) Indicator 1 (being able to overcome difficulties positively and adaptively) is 91%; 3) Indicator 5 (being able to overcome difficulties positively and adaptively) is 91%; 4) Indicator 6 (controlling actions and decisions) is 91%; 5) Indicator 3 (having good personal qualities) is 86%; and 6) Indicator 2 (having the efficacy to be able to face the situation) at 85%.

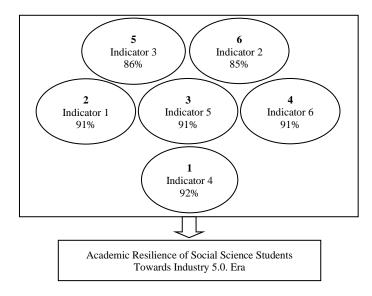


Figure 2. Aspects of academic resilience of social science students towards the industry 5.0 era

3.2. Discussion

this study analyzed the prevalence of academic resilience of social science students in greeting the Industry 5.0 era. Academic resilience is explained by aspects consisting of: 1) Having the knowledge and skills to deal with difficult situations; 2) Having the efficacy to face difficult situations; 3) Having good personal qualities; 4) Having a contribution to oneself and others; 5) Being able to overcome difficulties positively and adaptively; and 6) Controlling actions and decisions. Meanwhile, building a sense of security physically and emotionally does not explain the prevalence of academic resilience of Social Science students. This is because Ginsburg and Jablow [10] stated that building a sense of security physically and emotionally is related to individual connections with family, friends, school, and society. This connection can be established when there are close relationships with family, friends, school, and the community.

Unfortunately, in early adulthood, individuals have entered a period of social isolation, where individuals begin to escape dependence on their parents, both psychologically, economically and sociologically [34]-[36]. This condition occurs because, in their early adulthood, students have started to become more independent people than in the previous period, so that social connections have started to decrease. In early adulthood, students were able to integrate the relationship between subjective expectations and actual needs and were able to arrange and adjust emotional responses flexibly according to environmental conditions [37], [38]. Thus, it can be said that in early adulthood, students have started to build independence within themselves and are reluctant to rely on the social environment, both parents, friends, school, and society, so this aspect does not describe the academic resilience of Social Science students.

Furthermore, the academic resilience of Social Science students is more reflected in the aspects of: 1) Having knowledge and skills to deal with difficult situations; 2) Having the efficacy to face difficult situations; 3) Having good personal qualities; 4) Having a contribution to oneself and others; 5) Being able to overcome difficulties positively and adaptively; and 6) Controlling actions and decisions. The aspect of having knowledge and skills to overcome difficult situations refers to competence while having the efficacy to face difficult situations refers to self- efficacy, having good personal qualities refer to character, and being able to overcome difficulties positively and adaptive refers to commitment [10], [39]. While according to Miljević-Riðički [40], having a contribution to oneself and others refer to attraction and controlling actions and decisions refers to self-control. Thus, it can be stated that the academic resilience of Social Science students is shown by: 1) Competence is related to having knowledge and skills to deal with difficult situations; 2) Self-efficacy is related to having the efficacy to face difficult situations; 3) Character is related to having quality of good personality; 4) Commitment related to having a contribution to oneself and others; 5) Attraction related to being able to overcome difficulties positively and adaptively; and 6) Self-control related to controlling actions and decisions.

Competence is related to the way individuals have to deal with difficult situations effectively based on the experience they have had [10]. This experience provides individuals with the knowledge and skills needed to overcome difficult situations and this is the first aspect that describes academic resilience. The competence needed by individuals for stress resistance is to be able to display positive development and self-adjustment [41]-[43]. Individuals are able to display adaptive behavior and good emotional health against academic difficulties. Furthermore, competencies shaping individual academic resilience depend on the tasks

faced by individuals at their age [44]. This is because resilience is a process that occurs continuously by the developmental tasks faced by individuals in their lives. Therefore, it requires competence to assist individuals in dealing with difficult situations effectively by utilizing knowledge and skills as a form of resistance to academic stress.

The second aspect that describes the academic resilience of Social Science students is self-efficacy related to having the efficacy to face difficult situations. Self-efficacy is associated with lower individual academic stress and is able to help students achieve better academic scores when they are able to be supportive and to encourage others [45]. This means that self- efficacy helps students to achieve the expected academic achievement and avoid stress, thus making them more resilient. This self-efficacy is related to individual perceptions of their abilities to produce better performance and to be able to face difficulties [46]-[54].

The third aspect describing the academic resilience of Social Science students is character related to having good personal qualities. Personal quality is the first factor in resilience and individuals who have good personal qualities show that they are healthy, capable of being more resilient to academic challenges individuals [55]-[57]. Personality is an internal protective factor for individual academic resilience [58]. Thus, it can be said that individuals who have academic resilience are shown by good personal qualities and efficacy in themselves, to be able to encourage academic success.

The fourth aspect describing the academic resilience of Social Science students is a commitment related to having a contribution to oneself and others. High commitment encourages individuals to think of themselves as having the ability to overcome difficult situations so that it is reflected in the resulting in an extra better behavior [59]-[62]. This means that individuals who have academic resilience are shown by a commitment in themselves to overcome the difficult situation at hand by acting effectively to get rid of it. This commitment is needed by students to become tough individuals by caring for others as a form of high emotional abilities [63]. This is by the second aspect of this study stated that commitment can be realized by individuals who have academic resilience by contributing to themselves and others as a form of concern.

The fifth aspect describing the academic resilience of Social Science students is that interest is related to being able to overcome difficulties positively and adaptively. Individual interest in facing difficult situations encourages to be able to survive adaptively to the situations experienced [64]-[66]. This ability to be adaptive will ultimately lead to the achievement of academic success. Adaptive individuals are able to consider their strengths and weaknesses, are willing to seek help when experiencing difficulties, change their approach to learning, provide support and assistance, and monitor efforts made as a form of interest in being involved in academics [67]. In other words, students who show academic interest are able to be adaptive to difficult situations by observing various potentials existing in themselves and their environment.

The sixth aspect describing the academic resilience of Social Science students is that self-control is related to controlling actions and decisions. Self-control is a key aspect that is important for individuals in managing themselves, both emotions, thoughts, and actions [68]-[70]. This is necessary for individuals to form academic resilience in the future. Academic responsibility, financial pressure, and developing social networks are major sources of stress for students, so that students need self-control to control the decisions and actions taken [18]-[20], [71], [72]. This means that students are faced with psychological pressure that harms future conditions and self-control is needed to deal with the stress experienced. Thus, it can be said that self-control describes the academic resilience of students since it relates to the ability to manage or control the actions and decisions that are taken to overcome the psychological pressures they have.

Of the six aspects, aspects of having a contribution to oneself and others (commitment) give a higher picture than other aspects. Contributing to oneself and others have a higher prevalence of 92% to reflect the academic resilience of Social Science students. The results of previous studies, states that commitment is an interesting issue for students in higher education for many students attend their educational institutions only to comply with the norms in society to pursue higher education [73]. This condition causes the presence of students in class not because of feelings of love for subjects, but only trying to obey the rules. Unfortunately, this condition is different from that experienced by Social Science students, in fact, commitment provides a high picture of academic resilience which is shown by contributing to oneself and others.

The high commitment of Social Science students is due to the reciprocal relationship between students and institutions [74]. The importance of the relationship built between the university and students creates a positive bond that exists between the two, improves student experience, and student memory. Besides, students are satisfied with the services provided by the university, so they are willing to set better learning goals, manage studies effectively, and spend time completing studies [75]. This creates a willingness to contribute to oneself and others, one of which is the university. The stakeholders in the university, starting from the rectorate level, lecturers, to the counsellor lecturer can assist students by facilitating a more active and student-centered approach and learning by leveraging student experiences and interests to help increase student engagement, commitment, and retention of educational programs [76]. Thus, the commitment of students to face high academic demands can be stronger and the achievement of psychological well-being, one of which is academic

resilience can be achieved properly. Where in this study 93% of students have good academic resilience to face academic demands in university.

As stated by Al Faruqi [6] that the emergence of industry 5.0 needs to balance between technological, economic and individual intellectual developments. In the past it required immediate and fast fulfilment of needs so that it requires individual commitment to contribute to oneself and other people. The commitment of students to face the fast-changing conditions and balance as well as to make resolutions for a better life and supported by adequate facilities from the university can help develop better academic resilience.

4. CONCLUSION

The academic resilience of students of Social Sciences, Universitas Negeri Malang is described by competence, self-confidence, character, commitment, interest, and self-control. The aspect of commitment shown by contributing to oneself and others is the main indicator that describes the academic resilience of Social Science students. One manifestation of student commitment is the willingness to establish positive relationships between students and universities. This relationship can be manifested, one of them is by being willing to meet the academic needs of students quickly and immediately so that students are able to face academic challenges well. In this regard, further researchers are expected to examine the contribution of commitment to student academic resilience in order to obtain a model of student resilience to academic challenges and useful for guidance and counseling assistance service programs in universities.

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