Adversity Quotient, Self-Efficacy and Online Learning Tendencies on Students in Hinterland Region

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ABSTRACT

The covid-19 pandemic, which hit most parts of Indonesia, has led the learning practices to be done by studying from home (BDR) method, this situation triggers the research to determine the differences of students' Online Learning tendencies in terms of their Adversity Quotient (AQ) and Self-Efficacy in hinterland region of Pulau Batam, Kepulauan Riau, Indonesia. The subject in this study were 98 respondents from several Junior High School students located around the hinterland region of Pulau Batam. Samples were chosen using a proportional stratified random sampling. The data collection method used were Adversity Quotient (AQ), Self-efficacy and Students' Online Learning tendencies questionnaires, while the data analysis used was an analysis of variance equipped with descriptive analysis. The results showed that there were differences in students' Online learning tendencies in terms of Adversity Quotient (AQ) and their Self-Efficacy, some students tend to have high Online learning tendencies, while others only had low tendencies. In contrary to AQ, Self-Efficacy students have no effect to Online Learning tendencies. Individuals with lower or better Self-Efficacy understanding may have moderate Online Learning tendencies. When both measured together there is no difference in Online Learning tendency based on AQ and their Self-efficacies results.

Keywords: Adversity Quotient, Self-Efficacy, Online Learning

1. INTRODUCTION

The Corona Virus Disease or well known as Covid-19 is a type of new corona virus which attacks human respiratory system such lungs and other internal organs. This disease is categorized as fatal, since it can lead the failure of human organs functions which cause the patient death. The disease was first identified in December 2019 in Wuhan, China, and since then the pandemic spread all over the world without any exception. This situation changes every movement of human life drastically. Inevitably the Covid-19 pandemic has caused severe changes to education systems around the world. In addition to the measurable economic uncertainties within the short or even long-term perspectives such as, unemployment, turmoil in tourism industry, also there is an intangible damage of educational institutions. Teachers and lecturers, whom are the most critical intellectual resources of any educational organization, must face various kinds of ordeals, including financial, physical, and mental challenges, due to this pandemic [16].

To minimize people contracted with this Covid-19, the Indonesia Minister of Education and Culture issued a circular on March 24, 2020 which regulates the implementation of education approach during the emergency spread of the disease, which is also being practiced by many countries. Provincial and local governments issued policies to temporarily avoid any face-to-face learning activities and replaced it by 'study from home' or 'Belajar Dari Rumah (BDR)' through online learning. This policy applies to all level of education, including elementary, secondary, and university schools. This step is considered appropriate to prevent the spread of the virus in the school or campus environment. Online learning can be an effective solution for activating classrooms

even though schools are closed, and to avoid the enormous risks during this pandemic [10].

Learning is a process of developing students' creative thinking and their cognitive. Meanwhile, the Indonesian term of 'daring' or 'dalam jaringan,' means 'online' in English. The learning process, whether using learning applications or social networking, is called online learning. Online learning is the experience of knowledge transfer using video, audio, images, text communication, and software supported by internet networks [11]. The essential factor in online learning is the readiness of educators and students to interact virtually through all the electronical media [15].

One of the media that can be utilized in the learning system is PC based media by utilizing the web organization. Students can get to the ideal material rapidly through website. The learning system utilizing web-based media is known as the e-picking up learning model. Electronic-based learning model which is a better approach for educating and learning (Widyasari, 2021). E-learning is the premise and legitimate outcome of the improvement of data and correspondence innovation in the learning system. With e-learning, students don't have to consistently sit in class to pay attention to each guidance from the speaker straightforwardly. E-Learning can likewise abbreviate the objective timetable or learning time, and obviously save costs brought about by an instructive program. E-Learning is a type of learning technique that is viewed as students focused. E-learning is relied upon to rouse the improvement of the nature of schooling in Indonesia. Online learning is able to present learning virtually and is able to create a more effective learning process [17].

In the 5.0 education society era, it allows students to directly interact with artificial intelligence specifically programmed to replace the physical presence of instructor or be remotely controlled by the teachers in the learning process. Current technological developments enable online learning to be implemented effectively. The technology adopted in education today has led to a variety of new learning models. Some of these models are learning with the help of electronic devices (e-learning), such as open university programs, which contain material to be studied and distributed by post; distance learning, and online learning, where learning material/media is placed on a server that can be accessed via the internet by the students [16].

High economic growth on one hand has made the existence of Batam Island very important because of its role as one of the growth engines for the national economy, but on the other hand this success has created a gap with most of the surrounding areas (hinterland regions). The gap can be seen from the lack of access to economic activities in the hinterland regions of Batam Island and the undeveloped activity of the community in the hinterland area, the difference in the level of community welfare is quite sharp, which is caused by differences in the provision of social service facilities and public services. Hinterland referred to in this study is a remote area located on the border between cities or on the border between Indonesia and foreign countries [4].

The Education office has been good at improving the quality of education in the hinterland region, especially during pandemic Covid-19, but according to the interview results, there are still obstacles in the smooth implementation of the regulations, and this which has been noticed by the government as deemed due to the lower quality of human resources and lacking infrastructures in the rural areas, then the mindset of parents who are less concerned about the importance of education for their children, and the low level of parental education that hinders the child's learning process at home, because parents are the first people in charge of educating their children so that the quality of the children's knowledge can become better, however, in actual condition, parents are difficult to make these things happen due to their low economy income and some of them are older and poor parents who only depend their living as fishermen.

2. LITERATURE

2.1. Adversity Quotient

Adversity Quotient is a method in managing, directing, and thinking that forms a pattern of cognitive and behavioral responses to the stimulus of events in life that are challenging or difficult to cope with. The method also explains a person's ability to observe difficulties and process these difficulties with their intelligence so that they can challenge and solve them. In line with the explanation which also specifies that Adversity Quotient is a means to measure the human response and ability when facing their difficulties or obstacles. Increasing Adversity Quotient can increase other things in the individual such as motivation, intention, performance, stress management, initiative, and several other factors which trigger a person to survive the life ordeals [6].

Adversity Quotient is individual intelligence in solving problems and then turning these problems

into opportunities. AQ is divided into three types of personality traits, namely the *climber* type, the *camper* type, and the *quitter* type. Climbers are characterized by always trying and daring to face all kinds of challenges. Camper normally defined as having the courage to try to face a challenge, but they will stop when they have reached a sense of comfort. This type of quitters has the characteristics of easily giving up or quitting when faced with a challenge. To group someone into the three AQ personality types, an ARP (Adversity Response Profile) questionnaire is used. The ARP questionnaire is used to measure how big a person's AQ is. The questionnaire contains several questions that are grouped into two dimensions. This study uses ARP which was adopted from Stoltz [13]. Stoltz stated that there are four indicators of Adversity Quotient which is usually abbreviated as CO_2RE, namely:

2.1.1. Control (C)

Control measures a person's ability to manage and control a problem. Control has two sides. First, how a person can positively influence the difficult situation he is in. Secondly, how a person can control their own response to the situation they experience.

2.1.2. Ownership (O2)

This indicator questions how a person is ready to admit the problems that occur are caused by themselves. Acknowledging the problems caused by the individual himself means showing a responsible personality.

2.1.3. Reach (R)

The Reach indicator is one part of the Adversity Quotient that assesses the extent to which the problems encountered can affect other parts of a person's life.

2.1.4. Ownership (O2)

Endurance indicator assesses the individual assumption on to which extent the problems occur. Someone who has a low Adversity Quotient will assume that the problems that occur will last forever.

2.2. Self-Efficacy

Self-efficacy is the belief in one's ability to mobilize the motivation, cognitive resources, and actions needed to meet given situational demands [3]. Self-Efficacy is a person's belief in his ability to complete a job, in other words the condition of a person's motivation is based on more what they believe than what is objectively true [6]. Self-Efficacy is a person's belief about one's abilities to succeed in achieving certain goals [7].

Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment. These cognitive self-evaluations influence all manner of human experience, including the goals for which people strive, the amount of energy expended toward goal achievement, and likelihood of attaining levels of behavioral performance. Unlike traditional psychological constructs, self-efficacy beliefs are hypothesized to vary depending on the domain of functioning and circumstances surrounding the occurrence of behaviors [3].

The success of students in achieving learning outcomes is not only influenced by external factors such as the use of learning models but also depends on factors within students, including self-confidence or student self-efficacy. Confidence in all these abilities includes self-confidence, adaptability, cognitive capacity, intelligence, and capacity to act in stressful situations. Self-efficacy will develop gradually and continuously as abilities increase and related experiences increase [9].

Based on the expert's explanation above, it can be concluded that Self-Efficacy is an individual's confidence in his ability to deal with existing difficulties. Each person's Self-Efficacy is different and can be determined based on the three indicators [1]. Here are three indicators of Self-Efficacy:

2.2.1. Magnitude

The magnitude indicator assesses the extent to which a person believes that he or she can complete a task based on the level of difficulty. The levels of the task consist of easy, medium, to difficult levels. This indicator looks at the choices a person takes or avoids.

2.2.2. Strength

Strength indicators relate to a person's belief or expectation of his or her own abilities. Someone who has low expectations will easily feel in doubt which derived from bad experiences they have experienced. Meanwhile, someone who has high expectations will be able to maintain their business even though that person has less experience.

2.2.3. Generality

The generality indicator relates to a person's behavior who feels confident in their abilities and feel confident that they can generalize their gained tasks and experiences when dealing with other tasks that are the same or not the same as their previous tasks or experiences.

Self-Efficacy is the belief that a person can master a situation and produce positive things [8]. Self-efficacy helps people in unsatisfactory situations by encouraging them to believe that they can succeed. Meanwhile, Hmieleski and Baron [5] revealed that self-efficacy is a person's level of confidence in doing certain tasks or jobs well. Self-efficacy can also be a driving factor for a person and can be used to predict certain behaviors.

2.3. Online Learning Tendencies

The COVID-19 pandemic which has spread and infected several people, causing some activities cannot be performed as usual. In the world of education, one of the impacts is a hampered learning process. There are some suggested approaches from the Ministry of Education and Culture, one of which is a learning approach network or online learning. Online learning requires special technology for implementation and requires special skills for teachers to use it especially when it is fully online. Fully online learning is an interaction process learning and all the processes may be done fully online. This matter enables the learning process to be done through the online media [2]. There are four steps, those include learning through the material digital, explore through activities online discussion forums, apply through online assignments, and evaluation through online quizzes and tests. This is different from the results of the research done Sofyana and Rozaq [12], which gave results, that the implementation of learning through WhatsApp by creating a class group on WhatsApp and invite all class members to the group and then lecturer will upload the learning materials and coursework in the group. Students can download materials and assignments through their respective accounts. Students can also conduct group consultation sessions using that WhatsApp.

In online studies, students need facilities for access online learning media. Students need facilities and adequate infrastructure, such as laptops, computers, smartphones, and internet network to access media [15]. Online learning can also be conducted using web-based operations such as

Sevima Edlink or Ruang Guru and any other models presented by the training providers either paid services or free to use such as Google Classroom, etc. However, both teachers and students must understand to use all these models and can interact to the successful online learning process. Digital literacy is now important to both educators and students and this knowledge is now demanded to be taught not only in the information and communication department but also to all teaching departments at school or campus.

3. METHODS

This research was carried out on some Junior High Schools/Sekolah Menengah Pertama (SMP) in Batam located in hinterland regions, which are mostly coastal regions or fishermen villages. There are 6 SMPs which were taken as models for the research. From those 6 schools 98 students were given questions to answer and all the data were collected and analysed using SPSS program. The researcher gave the questionnaires to those students in their schools and collect them after they filled out the forms. Those six schools are in the hinterland regions of Nongsa, Tanjung Riau, Tanjung Uma and Kampung Belian. Location determination is based on the following criteria: (a) The schools are SMP schools private, or government funded, (b) The schools have students with different socioeconomic backgrounds.

The research was carried out for 6 months from June to December 2020. This research used the quantitative method, research design using cross sectional study data. The research was carried out by measuring the data at the same time with data collection technique. This research is using a scale and documentation. Documentation is used for getting condition background data students Self-Efficacy while for measuring online learning tendency and AQ used scale. The AQ scale consists of 20 statement, data analysis techniques in this research is analysis of variance because its purpose is to see the difference in mean through variance testing. Other than that, also used descriptive technique, namely by providing a review or interpretation to the data obtained. So, become clearer and more meaningful compared to more numbers. The steps are data reduction, presentation of data with charts and graphs, then draw conclusions.

4. RESULTS AND DISCUSSIONS

4.1. Normality Test

This research was aimed at finding out if there is a difference in tendency of online learning which is reviewed based on AQ, Self-Efficacy and both. As the first step in this research normality test was done to find out whether the data were normally distributed or not and to test the homogeneity of data to see if the data are homogeneous or not. Based on the normality test, which was done with SPSS program, it revealed that the significance value of 0.809 was obtained. The significance value obtained is more than 0.05. Therefore, it can be concluded that the distribution of the data is normal. The normality test is displayed in below table.

Table 1. Normality Test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Stat.	dB	Sig.	Stat.	dB	Sig.
Residual Standard Value	0.061	98	0.200	0.988	98	0.809

4.2. Homogeneity Test

Homogeneity test is to determine two or more groups have the same distribution of a single categorical variable, the test is done by selecting the samples from each group separately and collect data on a single categorical variable. Results of homogeneity test showed that the data on the calculation the three variables are homogeneous. This matter can be seen from the significance value obtained which is equal to 0.096 which means the value is more than 0.05. Homogeneity test results can be obtained in the following table.

Table 2. Homogeneity Test

	F	df1	df2	Sig.
Online Learning Tendencies	1.986	5	90	0.096

Hypothesis test is used to assess the plausibility of a hypothesis by using sample data. The test provides evidence concerning the plausibility of the given data hypothesis, which means that the researcher can identify the relation and the difference of a group to another or to others. Hypothesis testing is done by using the formula for two-ways analysis of variance (ANOVA). Two-way ANOVA is used to determine the effect of two nominal predictor variables on a continuous outcome variable. The results of the hypothesis are presented in the below table.

Table 3. Homogeneity test

Sources	JK	db	RK	F	Sig.
Between	87909.590	1	87909.590	2285.513	0.000
Adversity Quotient	399.673	2	199.837	5.195	0.009
Self-Efficacy	165.745	2	82.872	2.155	0.126
Adversity Quotient Self-Efficacy	105.078	3	35.026	0.911	0.442
Mistake	2038.583	90	38.464		
Total	407332.000	98			

Based on the variance test above, there is a difference in the online learning tendency when it was viewed by Adversity Quotient (AQ). This indicates that AQ has a positive correlation with the tendency of online learning. AQ contribution to online learning tendency is quite large. AQ gives contribution to students' online learning tendency. Individuals who have a high AQ will affect the online learning tendencies. In this study the difference between students' online learning tendencies can be seen by type their AQ. AQ is categorized into three, namely: climbers, campers, and quitters. Research result shows that online learning tendency. The highest is owned by students who have type climber, while the online learning tendency the lowest is owned by students with quitter type. Climbers believe that everything something will be done. Individual with this type of belief will be very confident with something big and a great will challenge and confront them and this belief then can strengthen students' tendency for online learning. On the other hand, individuals with the quitter type will choose to retreat, avoid obligation, and quit. This individual tends to turn down opportunities which is given to them. This will become the background why the quitter type students have the lower online learning tendency.

Based on the results of this study also it can be seen based on the type of AQ that most students have the type of camper namely as many as 72 people, climber type 18 people and quitter 8 people. This matter shows that respondents generally have a moderate AQ or camper. Camper has a receptive

character challenge, but if you have reached certain level then he will feel satisfied and self-sufficient. Campers tend not to develop themselves and don't make success as their goal.

Table 4. AD category test

No.	Adversity Quotient Category	Frequency
1	Camper (average)	72
2	Climber (high)	18
3	Quitter (low)	8
	Total	98

The findings in this study shows that there is no difference on students' online learning tendency if seen based on their Shelf-Efficacies. There are several the possibility that makes Self-Efficacy does not affect the online learning tendencies, the first is the Self-Efficacy motivates respondents to change the students' perceptions of studying from home, their preference to study at school as normal strongly backed up through their low access to internet infrastructures and expensive electronic devices such as smart phones or computers. The second is Self-Efficacy will more lead the students to use printed information such as books or papers for them to acquire knowledge, rather than using online resources.

Other findings in this study are that there is no interaction effect of AQ and Self-Efficacy to the online learning tendency. Even if measured by separate type AQ has an effect to online learning tendency, but if measured its Self-Efficacy then it has no effect. AQ has four dimensions, namely control, ownership, reach and durability. In general, that four dimensions then describe a person's capacity to deal with difficulties [14]. Therefore, students' online learning tendencies are affected by various other factors that are not measured in this study as the norm subjective.

5. CONCLUSIONS

Based on the results of this study, it can be concluded that there is a difference between students' online learning tendency based on Adversity Quotient (AQ). Average online learning tendency is in the type of climber and the lowest in the quitter type. Different with AQ, students' Self-Efficacy does not affect online learning tendency so there is no difference in students with low, medium, and high Self-Efficacy. If measured simultaneously (interaction between AQ with Self-Efficacy) also does not exist difference in online learning tendency.

AUTHORS' CONTRIBUTIONS

Decky Antony Kifta has been involved in drafting the article or revising it critically for important intellectual content. Fadhila has made substantial contributions to the conception and design, or acquisition of the data, or analysis and interpretation of the data. Ambiyar and Syahril have given final approval of the version to be published. All authors have agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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