The Effect of Students' Adversity Quotient in The Pandemic Era on Their English Learning Achievement

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Abstract
The difficulties that students faced in the learning process during the pandemic era, which could have harmed their English learning achievement, inspired this study. This research investigated the efficacy of Adversity Quotient training as a means of improving students' responses and capacities in dealing with issues during the pandemic era, which is likely to have a positive impact on their English learning outcomes. This study used an experimental design and a quantitative method. The cluster sampling technique was used to pick 78 students as participants which were divided into the experimental and control class. Tests (pre-and post-tests), questionnaires, and documentation were utilized to collect data for this study. The hypothetical test was an independent sample t-test. According to the data obtained, the average post-test score in the experimental class was 79.69, while the control class was 76.21. The value of Sig. (2-tailed) in the hypothetical test was 0.022 (Sig. (2-tailed) 0.05). The null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted based on the interpretation. It means that Adversity Quotient training is highly successful in raising students' adversity quotients to improve learning outcomes during pandemics. This discovery is likely to assist teachers in improving students' abilities when confronted with issues, which will have a positive impact on their English learning accomplishments during the pandemic period.

Keywords: Adversity Quotient, English Learning Achievement, Pandemic Era.

INTRODUCTION

Learning English is now essential to most of people, and that is why it is taught from pre-school level to university level. There are several reasons why English is learned by many people. First, English has become an international language so it is widely used in various places and media. Second, because English has become an international language and is widely used in various places and media, good mastery of English is needed to support communication between individuals who have different nationalities. That is the reason why education curriculum in Indonesia includes English subjects ranging from pre-school level

to university level. In implementing the curriculum and the learning process, the success or failure of students can be understood through the learning achievements that have been accomplished. Learning achievements is a measure to understand the level of student success in the learning process.

Normally, teaching and learning activities are conducted in face-to-face situations set in the classroom environment where teachers and students interact directly. However, the situation immediately changed when the World Health Organization (WHO) considered the COVID-19 virus outbreak to be categorized as pandemic due to its spread and harshness.(Maqableh & Alia, 2021) This condition really has a severe influence on every aspect of human life, starting from social, economic, and educational. Therefore, in the perspective of education, the Indonesian Ministry of Education and Culture released regulations to adjust the teaching and learning process in the middle of the pandemic era, which regulates every educational institution to change any offline activity becomes online activity through virtual platforms which means that teaching and learning process also transforms from face-to-face classroom to online classroom as known as Learning from Home. (Ariyanti, 2020)

Several problems and challenges are inseparably faced by students in the implementation of the learning process in the new situation. It forces the students to do learning activities by using unwell-prepared and low-specification devices they have. They face critical problems in the new learning situation, such as unstable internet connectivity, limited internet quota, limited space for interaction, and other technical problems (Ariyanti, 2020). Psychological and health issues are also faced by the students, such as demotivation, distraction to focus(Maqableh & Alia, 2021), headache, sore eyes even, and even back pain once in a while(Ariyanti, 2020). It can disturb their process to comprehend the learning material, which possibly affects their learning achievement.

However, the students with an excellent ability to face and respond to problems have a high possibility of conducting online learning well and then reaching their success in the learning process. This kind of ability owned by students is called Adversity Quotient (AQ), theorized by Paul G. Stoltz. According to Stoltz, someone's Adversity Quotient refers to his reaction to any kind of difficulty and determines how successfully someone achieves his goals in his life(Stoltz, 2010). Therefore, it can be assumed that the Adversity Quotient of students will potentially have an influence on their results in the learning process in any subject during the pandemic era.

Research conducted by Diana Vivanti Sigit and others in 2019 about the effect of Adversity Quotient and gender on the learning outcome of high school students on Biodiversity subject revealed that Adversity Quotient could affect the students' learning outcome on Biodiversity subject(Sigit et al., 2019). Further research was completed by Mifta Hulaikah and others in 2020 about the effect of experiential learning and Adversity Quotient on students' problem-solving ability in vocational accounting college, which discovered that experiential learning made students' problem-solving ability better meant it had an effect on students' problem-solving ability, Adversity Quotient also had an effect on students' problem-solving ability(Hulaikah et al., 2020). Additionally, research conducted by Fiola Kuhon in 2020 focused on observing and comparing the college students' Adversity Quotient and academic performance in English subject. It aimed to inspect the hypotheses from

several previous kinds of research, which showed that the Adversity Quotient significantly affected students' academic performance. The results showed that most students with a good Adversity Quotient have an excellent performance in English class(Kuhon, 2020). However, most of those researches focused more on the effect of the Adversity Quotient on other variables, not on the way to improve students' Adversity Quotient. Furthermore, those researches were neither conducted during the pandemic era nor had observed the situation in pandemic era which potentially can have a relation or effect to the variables. For that reason, this research aims to observe whether giving Adversity Quotient Training as the treatment which uses LEAD (Listen, Explore, Analyze, Do), has any effect on elevating Students' Adversity Quotient to improve their English learning achievement at the senior high school during the pandemic era.

LITERATURE REVIEW

Adversity Quotient

Stoltz (1997, 2000) offered theories on the adversity quotient (AQ) of an individual on how to deal with such difficulties and struggle to solve them in order to avoid having a significant impact on what an individual would do in his or her career and in life. The adversity Quotient is described as a gauge of a person's resilience and capacity to persevere in the face of pressure, change, and hardship. AQ is basically a degree of how a person responds to harsh conditions or challenging situations (Canivel, 2010).

Paul G. Stoltz, in his book, explains that the success of someone's work in his life is mainly determined by his Adversity Quotient (AQ), that is for the reason that (Stoltz, 2020):

1. AQ is able to give a person information on how far his ability to endure and overcome obstacles and difficulties.
2. AQ shows a prediction of who will be able to control the difficulties successfully and who will collapse under the situation.
3. AQ shows a prediction of who will get beyond anticipations of their potential and performance and who will be unsuccessful.
4. AQ shows a prediction of who will give up and who will withstand until the difficulties last.

From some of the descriptions above, it can be concluded that the adversity quotient is an individual's capacity to face or respond to trouble or difficulty, whether someone views the problem as an obstacle in his journey or continues to persevere in facing it until reaching the desired goal or achieving success.

The adversity quotient consists of four dimensions that construct the Adversity Quotient of an individual. Those dimensions are Control, Ownership, Reach, and Endurance and make an acronym CO2RE(Stoltz, 2010).

CO2RE has an essential role in someone's attitude when facing adversity or problem.

1. **Control**
   The first unit of CO2RE dimension from someone's Adversity Quotient is "Control." This dimension explains how someone can feel and perceive control of himself and control of the situation when facing a challenging situation(Phoolka & Kaur, 2012).
2. **Origin and Ownership**

Origin explains the starting point or what, who, and where the problem comes from. Ownership means how responsible someone on the outcome resulting from the problem. This dimension deals with the responsibility and action of someone to fix the situation regardless of its cause(Stoltz, 2020).

3. **Reach**

   This dimension tells an individual's capacity to restrict the effect of the difficulty on other aspects of life. It is really important for someone to keep the problem from spreading to other areas and getting worse(Stoltz, 2020).

4. **Endurance**

   The last part of the CO2RE dimension is "Endurance." This dimension deal with someone's perception of how long the problem and its cause will endure (Phoolka & Kaur, 2012).

In further research, Stoltz developed a method that can measure someone's Adversity Quotient level, namely Adversity Response Profile (ARP), based on the four dimensions of Adversity Quotient(Stoltz, 2010).

In his book, Stoltz came up with a way to elevate the Adversity Quotient of a person by using the LEAD (Listen, Explore, Analyze, and Do) method.
This method consists of 4 steps (Stoltz, 2020):

1. **Listen**

   In this first step, a person is encouraged to listen to his response to the difficulties. Listening to the response is the essential step in changing and elevating a person's AQ.

2. **Explore**

   In this step, a person needs to explore the origin of the difficulties and his accountability towards the consequences of the difficulties.

3. **Analyze**

   This step requires a person to analyze the pieces of evidence of whether he has control over the difficulties, whether the problems reach other parts of his life, and how long the difficulties endure.

4. **Do**

   This is the last part of several steps of the LEAD method. In this step, a person can execute his action after a sequence of steps has been done and after knowing what he is supposed to do. A person can start to make a list of what he can do to fix the problem and also prepare his energy to do an action.

Learning Achievement

Achievement is the result of an activity that has been done or created individually and in groups. Learning achievements are achieved by students in the process of teaching and learning activities by bringing a change and the formation of a person's behaviour. To state that a learning process can be said to be successful, each teacher has their own views in line with their philosophy. But to equalize perception, we should refer to the current curriculum, which has been refined, among others, that a teaching and learning process about a learning material is declared successful if the learning objectives, in particular, can be achieved (Brown & Abeywickrama, 2018).

The learning achievement is the result of a learning assessment that is commonly conducted at the end of the study period. There are some types of assessments that are used by a teacher in the classroom, such as achievement tests, diagnostic tests, placement tests, proficiency tests, and aptitude tests. Those types of assessments are designed based on their own purposes. The learning achievement results from the achievement test, which examines whether the students have achieved the objectives of learning at the end of the learning process.

METHOD

The method of this research is quantitative study because this research will calculate or quantify the number of measurements and research the variables being studied. Quantitative research works with statistics or numbers that allow researchers to quantify the world(Stockemer, 2019). Experimental research is applied as the type of quantitative research design applicable in conducting this research according to the condition in the field. It involves experimental and control groups and gives them the same pretest and post-test steps, but only the experimental group gets the particular treatment(Sugiyono, 2016).
The population of this research is the second-year students of MA Futuhiyyah 2, Mranggen, Demak. There are 264 students from 7 classes; 4 classes of science study program, two classes of social study program, and a class of Language study program in the second year that approximately consist of 31-40 students in each class. In this research, the Cluster sampling technique is applied to get the sample needed. This sampling technique is applied in this research because the population has been divided into several groups or clusters within an enormous population, which is too difficult to randomize the samples(Jackson, 2009). Moreover, the selected sample also required characteristics fixed before the research was conducted. 2 classes consisted of 78 students from eleventh grade MA Futuhiyyah 2 in science study program that involved as the samples of this research. These samples are selected because they have characteristics that represent the most of the population; in this case, the samples have the same ability in English subject as the other study program classes except Language Study Program, which only have a class. Therefore, the samples are divided into two classes: the experimental class and another class as the control class.

Data Collection Technique

There are two techniques to collect the main data in this research, namely test, and Questionnaire. In addition, documentation is also used in this research to collect supporting data. The test is scientifically defined as the technique to measure a person or people's ability, performance, or knowledge(Brown & Abeywickrama, 2018). The test is conducted in this research as the technique to collect the data of students' English learning achievement, which means that the test is used as the measurement of knowledge, skill, and ability acquired by the students in English subject after the learning process. The test in this research consists of Pre-test and Post-test for experimental and control classes. Especially for the experimental class, the pre-test is conducted before the treatment, and the post-test is conducted after the treatment.

The Questionnaire is used to obtain data related to students' adversity quotient or students' ability and attitude when facing problems or challenging situations in English

Learning during the pandemic era. To ease in obtaining research data, the type of Questionnaire used is the Likert Scale. Participants' attitudes or opinions can be measured using a Likert scales Questionnaire designed to measure attitudes or opinions and use a fixed choice response format(Stockemer, 2019). The name of the Questionnaire which is used to measure Adversity Quotient (students' attitudes when facing problems or challenging situations) is ARP (Adversity Response Profile), the way of measuring Adversity Quotient developed by Paul G Stoltz. Measurement of ARP is based on the dimension of Adversity Quotient namely Control, Ownership, Reach, and Endurance and make acronym CORE. The result of this measurement determines how someone handles every obstacle and challenging situation in everyday life(Stoltz, 2010).

The last technique is documentation which is used to collect supporting data. Documentation is a record of events that have already passed (Sugiyono, 2016). Data from the results of the documentation can be in the form of writing, pictures, or one's monumental works. In this study, the use of documentation is to obtain English language scores in the first semester, and the scores will be obtained in written form.

FINDINGS

The design of this research is a quantitative research design; consequently, the data needed are obtained in the form of numbers. The quantitative data in the form of number need to be analyzed statistically. In analyzing the data obtained, this research applies independent sample t-Test as the appropriate analysis method. This method is applied to test the research hypotheses based on the means of two samples(Shodiq, 2015). It examines the samples by comparing whether the means of the two data samples are significantly different or not(Stockemer, 2019). Therefore, this analyzing method can be applied to measure how far the variable influences the other variables.

In order to conduct the hypothetical test, this research applied Independent Sample T-test to examine the difference in average (Mean) of the data between experimental and control classes after getting treatments. In addition, in this research, it examined data from post-test and the Questionnaire given together with post-test by using SPSS version 16.0. After the results of this test were gained, then it was interpreted as follows:
- H0: There is no significant difference between experimental class and control class
- H1: There is a significant difference between experimental class and control class
- If the significance value (2-tailed) > 0.05, there is no significant difference in the data. H0 is accepted.
- If the significance value (2-tailed) < 0.05, there is a significant difference in the data. H0 is rejected.

1) Post-test

The following are the hypothetical test results (Independent Sample T-test) for Post-test between control and experimental classes after getting treatments.

Table 1. Summary Table.
Group Statistics

	Kelas	N	Mean	Std. Deviatio	Std. Error Mean
Hasil Belajar Siswa	Post-test in Experimental Class	39	79.69	5.535	.886
	Post-test in Control Class	39	76.21	7.452	1.193

Table 2: The Results of Independent Sample T-test for Post-test

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Hasil Belajar Siswa	Equal variances assumed	3.719	.058	2.346	76	.022	3.487	1.486	.527	6.448
	Equal variances not assumed			2.346	70.145	.022	3.487	1.486	.523	6.452

Based on table 1 (Summary table) showed that the average (Mean) post-test score in the Experimental class (XI MIPA 3) is 79.69, and Control class (XI MIPA 2) is 76.21. Those results indicate that there is a different average between the experimental and control class. Still, it needs to be proven whether the difference is statistically significant or caused by an error.

In order to prove the difference, it can be seen in table 2 (The Results of Independent Sample T-test for Post-test) that the value of Sig. (2-tailed) is 0.022. According to the interpretation of that value, it means that the value of Sig. (2-tailed) = 0.022 < 0.05, then H0 is rejected, and H1 is accepted, so it can be concluded that the difference between the experimental and control class is statistically significant.

2) Questionnaire

Here are the hypothetical test results (Independent Sample T-test) for the Questionnaire in post-test between control and experimental class after getting treatments.

Table 3. Summary Table.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Hasil Kuesioner ARP (in Post-test)	Equal variances assumed	.911	.343	3.441	76	.001	14.615	4.248	6.155	23.076
	Equal variances not assumed			3.441	74.059	.001	14.615	4.248	6.152	23.079

Group Statistics

	Kelas	N	Mean	Std. Deviation	Std. Error Mean
Hasil Kuesioner ARP (in Post-test)	Post-test in Experimental Class	39	159.03	20.219	3.238
	Post-test in Control Class	39	144.41	17.172	2.750

Table 4: The Results of Independent Sample T-test for Post-test

Table 4.20 shows that the Mean Questionnaire score in the Experimental class (XI MIPA 3) is 159.03, and the Control class (XI MIPA 2) is 144.41. Same as the result of the Post-test, these results show that there is a different Mean, but it needs to be verified whether the difference is statistically significant or caused by an error.

To verify the difference, table 4.21 shows the value of Sig. (2-tailed) is 0.001 which means that is less than 0.05 (Sig. (2-tailed) = 0.001 < 0.05). Based on the interpretation of the value, it is considered that H0 is rejected and H1 is accepted, so it can be concluded that the different Mean of Questionnaire scores between experimental and control class is statistically significant.

DISCUSSION

After a sequence of research stages was conducted, the research data collected were analyzed to obtain the research finding. The data analysis showed a different result after the

treatment was given in the experimental and control classes. The average score from the pre-test in the experimental class was 71.49, and in the control class was 70.67; these scores were almost the same, which meant that both classes had the same ability. Then, the average score from the post-test in the experimental class after getting treatment was 79.69, and in the control class was 76.21. Those results exposed that an average increase occurred in both classes, but the average increase in the experimental class was higher than in the control class.

Similarly, a different result was also found in the data from the Questionnaire (Adversity Response Profile) which was used to identify and measure the students' Adversity Quotient. The average score from the first Questionnaire (together with the pre-test) in the experimental class was 143.95, and in the control class was 142.28; these scores explained that both classes were at the same AQ level, namely at the medium level (78-149). Then, the average score from the second Questionnaire (given together with post-test) in the experimental class after getting treatment was 159.03, and in the control class was 144.41. Those results also showed that the increasing average scores occurred in both classes, but it was numerously higher in the experimental class than in the control class. After getting treatment, the experimental class was able to elevate the AQ level from medium level to high level; meanwhile, the control class was still at medium level, although an increasing average slightly occurred. However, the average differences between the post-test and second Questionnaire need to be proven whether the differences are statistically significant or caused by an error. In order to verify the different average scores between experimental and control classes, Independent Sample T-test was conducted as the hypothetical test in this research.

Independent sample t-test calculation for post-test data showed that the value of Sig. (2-tailed) is 0.022 (Sig. (2-tailed) < 0.05). According to the interpretation of that value, then H0 is rejected, and H1 is accepted, meaning that the difference between the experimental and control classes is statistically significant. Therefore, it can be concluded that Adversity Quotient training significantly affects students' English learning achievement.

Moreover, the t-test calculation for the second Questionnaire showed that the value of Sig. (2-tailed) is 0.001 which means that is less than 0.05 (Sig. (2-tailed) < 0.05). Based on the interpretation of the value, H0 is rejected, and H1 is accepted, which means that the different average questionnaire scores between the experimental and control class are statistically significant. So, it can be concluded that Adversity Quotient training significantly affects students' Adversity Quotient.

Based on the t-test results, it can be seen that a significant increase occurred in the experimental class, both students' English learning achievement and their Adversity Quotient. However, when comparing the results of the t-test between both data, a more significant improvement occurred in students' AQ than their English learning achievement. It means that AQ training influences students' English learning achievement and their AQ, but the effect was more significant on students' AQ.

The different treatment given to both classes was the different treatment that affected the better English achievements and Adversity Quotient scores between experimental and control classes. The experimental class was given Adversity Quotient training. In this treatment, the students were given insight into the Adversity Quotient and ways to help

students improve and elevate their AQ by applying LEAD (Listen, Explore, Analyze, and Do), a method applied and stated by Stoltz in his book. Their improved Adversity Quotient made them respond better to the difficulties they faced during learning and made them able to get through the difficulties. Their better AQ also made them not give up easily when facing many difficulties in learning, especially during the pandemic, which disrupted the learning process. Therefore, the students who had better AQ could maximize their learning process, and as a result, they could get better learning achievement.

CONCLUSION

According to the findings from data analysis of this research conducted, it can be concluded that Adversity Quotient training as the treatment has a significant effect on students' English learning achievement and their Adversity Quotient.

Giving Adversity Quotient training to students made them have a better response whenever facing difficulties and able to pass through them in their learning process. The students also did not easily give up when they faced any difficulty in learning, especially during the pandemic era; as a result, it made they were able to optimize their learning activity to get better achievement in English learning. It is also expected to make them resilient in the learning process and their daily lives. So, in general, Adversity Quotient training has a significant effect on students' English learning achievement during the pandemic.

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