

THE ROLE OF RESILIENCE AND READINESS FOR CHANGE ON STUDENTS' INTEREST IN LEARNING: E-LEARNING IMPLEMENTATION DURING COVID-19

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Abstract. COVID-19 affects the learning system at university. This study aims to determine the relationship between resilience and readiness for changes on students' interest to learn in Faculty of Psychology, Universitas Diponegoro, Indonesia, under the implementation of e-learning system during the COVID-19 pandemic. The subjects in this study were 190 Students ($M = 37$, $F = 153$). The sampling technique used was cluster random sampling. The instruments used were the CD-RISC (16 items; $\alpha = .886$), readiness for change questionnaire (28 items; $\alpha = .919$), and interest in leaning questionnaire (14 items; $\alpha = .882$). The multiple regression analysis show that there was a positive and significant correlation between resilience and interest in learning ($r = .555$; $p < .001$), and a positive and significant correlation between readiness for change and interest in learning ($r = .580$; $p < .001$). Furthermore, resilience and readiness for change together can predict students' interest in learning during e-learning implementation ($r = .675$, $p < .001$), $R^2 = .456$, $F = 78,294$; $p < .001$). Resilience and readiness for change effectively contributed 45.6% to predicting students' interest in learning. These results suggest that students have resilience and readiness for change so that their interest in learning remains high despite having to face uncertain situation.

Keywords: resilience, readiness for change, interest in learning, student, e-learning, covid-19.

PERAN RESILIENSI DAN KESIAPAN PERUBAHAN TERHADAP MINAT BELAJAR MAHASISWA: PELAKSANAAN E-LEARNING SELAMA COVID-19

Abstrak. COVID-19 mempengaruhi perubahan sistem pembelajaran di Universitas. Penelitian ini bertujuan untuk mengetahui hubungan antara resiliensi dan kesiapan perubahan terhadap minat belajar mahasiswa, Fakultas Psikologi Universitas Diponegoro dalam penerapan sistem e-learning pada Pandemi COVID-19. Subjek dalam penelitian ini adalah 190 mahasiswa ($M = 37$, $F = 153$). Teknik pengambilan sampel yang digunakan adalah cluster random sampling. Instrumennya adalah CD-RISC (16 item; $\alpha = .886$), skala kesiapan berubah (28 item; $\alpha = .919$), dan skala minat belajar (14 item; $\alpha = .882$). Analisis regresi berganda menunjukkan terdapat hubungan positif dan signifikan antara resiliensi dengan minat belajar ($r = .555$; $p < .001$), terdapat hubungan positif dan signifikan antara kesiapan berubah dengan minat belajar ($r = .580$; $p < .001$), selanjutnya resiliensi dan kesiapan berubah secara bersama-sama dapat memprediksi minat belajar mahasiswa selama implementasi e-learning ($r = .675$, $p < .001$), $R^2 = .456$, $F = 78,294$; $p < .001$). Resiliensi dan kesiapan berubah secara efektif berkontribusi 45,6% dalam memprediksi minat belajar. Hasil ini menunjukkan bahwa mahasiswa memiliki resiliensi dan kesiapan untuk berubah sehingga minat belajarnya tetap tinggi meskipun harus menghadapi situasi yang tidak pasti.

Kata Kunci: resiliensi, kesiapan berubah, minat belajar, mahasiswa, e-learning, covid

INTRODUCTION

Education is considered a primary need in human life and the most important aspect in national development. One of the levels of formal education in Indonesia is higher education. Based on the research conducted by Amelia et al. (2014), enrolling in college changes a life of an individual. Brooker et al. (2017) conducted research on students entering the first year stated

that when they are in college, they experience various changes, such as changes in studying from high school to higher education, changes in social relations, and choices of fields of study or majors. Students must also adapt to cultural, lifestyle, and environmental changes.

The COVID-19 pandemic that hit almost all countries in the world, including Indonesia, caused tremendous panic for the entire community and other sectors of life, including the

education sector (Garad et al., 2021). In this circumstance, the Indonesian government has adopted a policy that aims to break the chain of transmission of the COVID-19 pandemic. One of them is the application of social distancing policy, where residents must carry out all activities at home, such as working, studying, and worshipping. The application of this social distancing policy clearly has a profound impact on all sectors of life, including education sector.

Universitas Diponegoro has decided to apply the online learning system as the main learning system despite the end of the pandemic. The online learning system in Universitas Diponegoro is known as "KULON" or Kuliah Online, conducted by taking advantage of information technology in the teaching-learning process. "KULON" is based on the e-learning concept or remote learning process by combining teaching principles and technology to limit face-to-face sessions between lecturers and students. E-learning is the concept that learning can take place anytime and anywhere so it doesn't have to be in one dimension of time and space (Chow & Shi, 2014).

All teaching-learning process in Universitas Diponegoro is integrated with an application called SIAP. Through this application, students can directly sign in to their classes. The schedule with e-learning is more flexible because it can be adjusted according to the agreement between the lecturer and the students. Lecturers are then obliged to prepare e-learning modules (fill in the information, upload course learning plans and lecture materials (PowerPoint/video, discussion forums, and quizzes/assignments), according to the guidelines for implementing e-learning lectures. Discussions in E-learning can be made in the form of groups or personal. Presentations or group discussions can be done through streaming. Students are required to download material, participate in discussions, and take part in quizzes/assignments. The required attendance for online meetings is 16 meetings. SIAP application is also used when students take the mid-test and final test. The assessment results are also displayed on the SIAP.

Learning achievement in students is indicated by their achievement in completing a subject (Syah, 2013). Learning achievement is influenced by the levels of interest in learning (Slameto, 2013). The results of the study conducted by Riswanto and Aryani (2017) stated that motivation and interest in learning contribute to student achievement. Students who are interested

in certain subjects tend to pay more attention to the learning process (Linvill, 2014). Interest in learning is a psychological aspect of a person that manifests itself in several symptoms, such as passion, desire, feeling like to carry out the process of changing behavior through various activities that include seeking knowledge and experience. In other words, interest in learning that includes attention, liking, a person's interest (students) towards learning is shown through enthusiasm, participation and activeness in learning (Sirait, 2016).

Regarding the change of learning system with e-learning, we also conducted interviews with 10 students of Faculty of Psychology, Universitas Diponegoro related to the implementation of online learning due to the COVID-19 pandemic. Based on the results of these interviews, it can be concluded that students have problems in adaptation, shown by feeling confused about when the assignment should be immediately submitted, disrupted focus on study because they have to adjust to the online learning system and the fear against the COVID-19 pandemic. Considered from another aspect, the impulse control is also indicated as low, feeling easily offended or being unable to control emotions due to small things, such as dissatisfaction with academic services, the problems with an online system, and unavailability of the internet connection to study online. It can also be seen that students have also not been able to achieve positive aspects from adapting to the online system, such as the tendency to make similar mistakes like breaking the rules of conduct of the class and being late or not submitting assignments. These things are conducted regularly despite knowing that these attitudes create problems and have a negative impact on oneself. From the explanation, it can be concluded that students at the Faculty of Psychology, Universitas Diponegoro have low psychological capacities, which will affect learning interest and achievement.

In responding to the interview results, especially in terms of increasing interest in learning, students should be able to positively adapt the strategies in facing difficulties and extraordinary abilities to survive and rise from the difficulties in a healthy manner, which is known as resilience. Amelia et al. (2014) added that there are various individual reactions in facing various challenges or problems in life. The reactions are caused by perspectives on the problem. One of the factors contributing to the differences is resilience. Individuals who have resilience are called

resilient individuals Reivich and Shatte (2003). Windle (2011) defines resilience as the ability of individuals to rise up so that they can overcome stressful situations through the defense of their competence. Resilient individuals have the ability to adapt positively to changes from stressful experiences.

Due to the COVID-19 pandemic, students' need for resilience is even higher. During the pandemic, e-learning has become the main alternative and plays an important role in the education system. E-learning, like any form of education, also has its own positive and negative aspects (Gherheş et al., 2021). Resilience is important for adaptation in learning (Martin, 2012) and resilience is significantly related to change readiness in individuals (Everall et al., 2006). Moreover, students are one of the resources of the University as an organization. Students must adapt to the system applied by the University. Every University as an organization is required to make changes in order to survive and be competitive in a dynamic environment. These changes include technological changes, financial pressures, policy changes and also the workflow of the business being carried out (Robbins & Judge, 2017). Moreover, Universitas Diponegoro has a mission to become one of World Class Universities. For sure, the University as an organization requires administrative, financial, regulatory changes as well as human resource development and technology advancement to achieve this goal. Those kinds of changes require students' readiness for change.

Holt et al. (2007) defined readiness for change as a comprehensive attitude that is simultaneously influenced by content (what the changes are), process (how the changes are implemented), context (the environment in which change occurs), and individuals (individual characteristics that are asked to change) who are involved in a change in the organization. Collective individual change readiness is reflected in the extent to which individuals or groups of individuals tend to agree, accept, and adopt specific plans that aim to change the current state. Furthermore, (Bernerth, 2004) explained that individual's readiness for change is more than understanding the change itself and showing belief in these changes, readiness is a collection of thoughts and intentions for specific changes.

Based on the above explanation, research on student interest in learning, resilience and readiness for change is important to research, especially related to changes in learning methods

with e-learning and COVID-19. Therefore, this research hypothesis proposed that there is a relationship between resilience and readiness for change on students' interest in learning under the implementation of the e-learning system during the COVID-19 pandemic. This research is expected to be beneficial in the development of psychology, particularly in educational psychology related to the application of resilience, change readiness, and interest in learning. The results of this study are also expected to be used as a further basis for making appropriate interventions to increase resilience and readiness for change so that students' interest in learning continues to increase well even though they have to face various situations.

METHODS

The study employed an associative or correlation research design. It focuses on the relationship between resilience and readiness for change and interest in learning in the students of the Faculty of Psychology, Universitas Diponegoro under the implementation of e-learning system during the COVID-19 pandemic. The independent variables (variable X) are resilience and readiness for change, while the dependent variable (variable Y) is interested in learning.

The research subjects were 190 students (153 female and 37 male) from the faculty of psychology, Universitas Diponegoro who were selected using cluster random sampling. The sampling method was conducted by randomly selecting groups of students from 2017, 2018 and 2019 cohort. Each cohort consisted of four classes. In each of the class, one class representative was selected with a random cluster technique (randomly by group). Based on the results of this selection, there were 71 students from 2017 cohort, 55 students from 2018 cohort, and 64 students from 2019 cohort. The reason for using the cohort of 2017, 2018 and 2019 is because these cohorts consisted of students who experienced changes in the learning methods, from face-to-face learning to e-learning method.

This study used three questionnaires written in a Google form, The first questionnaire was used to measure the resilience, the second was used to measure the readiness for change, and the last was used to measure the interest in learning. All three questionnaires were a 5-point-likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). When filling in the question-

naires, the participants were required to sign in the consent form as well.

The questionnaire used to measure resilience in this study was based on the questionnaire suggested by (Connor & Davidson, 2003), known as The Connor-Davidson Resilience Scale (CD-RISC). It contains 22 question items. The items on this scale represent personal qualities that contribute to individual resilience, or the individual's ability to adapt, survive and also remain resilient when in difficult and threatening circumstances and recover from stressful conditions. The aspects are personal competence, faith, positive acceptance, spiritual influence, and self-control. Some examples of the items in the scale of resilience are "I tend to bounce back quickly after experiencing difficulties and discomfort", "I can handle unpleasant feelings easily" and "I feel that the difficulties make me a better individual".

The questionnaire used to measure the variable of readiness for change in this study was based on the dimensions to change according to Holt et al. (2007). It consists of 32 items. The aspects of readiness for change questionnaire include appropriateness, change efficacy, management support, and personal valance. Appropriateness is an individual believes that the proposed changes will be beneficial for the organization, so that there are logical reasons for change and understand the needs in planning the proposed

changes, by focusing on the benefits and effectiveness from implementing change. Change efficacy is individual belief in the ability to implement the changes based on the skills and abilities to perform any tasks related to changes. Management support is individual perceptions that the organization is committed to and supports the implementation of the proposed changes. Personal valance describes individual feelings about personal advantages and disadvantages of the change is implemented. Some examples of items from the readiness for change questionnaire are "My obstacles in accessing online lectures make me lower my standard of achievement in this semester", "The challenges in online lectures increase my competence" and "References for the online course have been provided by lecturers and campus managers so I don't have to worry".

The last questionnaire used in this study is based on the aspects suggested by Djaali (2007). It consists of 15 items, which contains the following aspects: feelings of pleasure, attention in learning, extensive knowledge and awareness. Some examples of items on the questionnaire of interest in learning are: "I am happy to study all psychology courses this semester", "I have studied the material before the online class starts", and "I am quick to respond in the learning process". The Table 3 showing the blueprint for the scale of interest in learning.

Table 1. The Blueprint of the Connor-Davidson Resilience Scale (CD-RISC)

Aspect	Indicators	Item
Personal competence	the ability to achieve goals in any situation	11,10,17,16
Faith	Able to think carefully and stay focused even though in trouble	20,18,6,7,19,15,14
Positive acceptance	Able to find the purpose and meaning of every experience	1,4,5,2,8
Self-control	The ability to control oneself in achieving goals	13,21,22
Spiritual influence	Believe in God	3,9
Total		22

Table 2. Blueprint of Readiness for Change Questionnaire

Aspect	Indicators	Item
<i>Appropriateness</i>	Individual knowledge about the reasons for change	1, 3, 14, 30
	Understand the purpose of the change	31, 9, 2, 20
<i>Change efficacy</i>	Individual ability to carry out tasks	23, 29, 18, 10
	Individual's confidence in the personal competencies to carry out the task	15, 27, 32, 4
<i>Management support</i>	Individuals observe that the organization is committed to change	5, 21, 26, 16
	Individuals feel the support from the organization to successfully implement the changes	19, 11, 6, 22
<i>Personal valance</i>	Individuals are aware that the changes provide improvements in material	25, 7, 12, 28
	Individual perceive that the work environment are better if changes are made	17, 13, 24, 28
Total		32

Table 3. Blueprint of Interest in Learning Questionnaire

Aspect	Indicators	Item
Feeling pleasure	individuals who are interested in a lesson will have an interest in the learning	1, 2, 3, 4
Attention in learning	the concentration or activity of one's passion towards observation, understanding, or others by putting aside other things than that	5, 6, 7, 8
Extensive knowledge	Individuals interested in a lesson will have extensive knowledge about the lesson and the benefits of learning in everyday life	9, 10, 11, 12
Awareness	An effort that is done consciously to learn and realize directed behavior to achieve the expected goals in learning interaction situations	13, 14, 15
Total		15

Table 4. Qualitative analysis of content validity

Instrument	Criteria	Validators (%)				Description
		1	2	3	4	
CD-RISC	Congruence items-indicators	85	85	90	85	Good
	Congruence language-meaning	87	85	85	85	Good
Readiness for change	Congruence items-indicators	85	85	85	85	Good
	Congruence language-meaning	85	87	85	85	Good
Interest in learning	Congruence items-indicators	80	85	85	85	Good
	Congruence language-meaning	80	80	85	80	Good

Table 5. Results of V Aiken's

Instruments	Total Item	Average V index	Status
CD-RISC	22	0,92	Valid
Readiness for change	32	0,83	Valid
Interest in learning	15	0,75	Valid

Table 6. The Blueprint of the Questionnaire Before and After the Piloting

Variable	Aspect	Item Before Tryout	Item After Tryout
Total	Positive acceptance	11,10,17,16	11,10,17,16
	Self-control	20,18,6,7,19,15,14	20,18,7,19,15
	Spiritual influence	1,4,5,2,8	1,2,8
		13,21,22	21,22
Total		3,9	3
Readiness for Change	Appropriateness	1,3,14,30,31,9,2, 20	1,3,14,30,9,2,20
	Change efficacy	23,29,18,10,15,27,32,4	23,29,18,10,15,27,4
	Management support	5,21,26,16,19,11,6,22	21,26,16,19,11,22
	Personal valance	25,7, 12, 28,17,13,24,8	25, 7,28,17,13,24,8
	Total		32
Interest Learning	Feelings of pleasure	1,2,3,4	1,2,3,4
	Attention in learning	5,6,7,8	5,7,8
	Knowledge	9,10,11,12	9,10,11,12
	Awareness	13,14,15	13,14,15
Total		15	14

Notes. The items in the Table 6 are items before and after the tryout process through the item validation process using the Alpha Cronbach.

Table 7. Result of Reability

Instruments	Coeficient	Status
Resilience (CD-RISC)	.886	reliable
Readiness for Change	.919	reliable
Interest in Learning	.882	reliable

Note. The score is score of internal consistency (α).

The validity used in this study is content validity. Testing the content validity of this measuring instrument is done by asking for feedback, evaluation, analysis, and input on the measuring instrument to be used through 4 professional judgments. The items from the three scales are

then analyzed by qualitative and quantitative validity score using Aiken's V.

Qualitative analysis was conducted to review the suitability of items with theory, indicators, and language based on four expert judgments. A qualitative review of the items is based

on the following provisions: (1) Good, reviewing items on theoretical aspects, indicators and language are all appropriate (81-100%), (2) Not good, reviewing these items does not meet a maximum of one theoretical aspect, indicators or language (70-80%), (3) Not good, the item review does not meet all the criteria that have been set (<69%).

Quantitative content validity is carried out in four categories, namely score 1 (irrelevant) if the item does not reflect the indicators at all, score 2 (less relevant) if the ability or material to be measured is not appropriate (needs revision), score 3 (relevant enough) if the indicators and items to be measured are appropriate but there are still language errors, and a score of 4 (relevant) if the indicators and items to be measured are appropriate. The results of the assessment were then analyzed using the V Aiken formula to determine whether or not each item was valid.

After going through the content validity process, the next step is to carry out a piloting. The three questionnaires were distributed to 30 students of the Faculty of Psychology, Universitas Diponegoro. Testing the reliability of the measuring instrument in this study was measured using the alpha cronbach technique through the Statistical Package for Social Science (SPSS) version 22 program. The selection of the item validities uses the process of selecting items through the differentiating power of items using the $r^{ix} \geq 0.30$. items that have a discrepancy score of items below 0.30 are not included in the study,

while items that have a differentiating power of at least 0.30 items will be included as a research scale (see Table 6). Based on the reliability score at Table 7, it can be concluded that the three research scales used in this study have high reliability.

RESULTS AND DISCUSSION

Results

The data were analyzed using multiple regression. First, the analysis was conducted by verifying data normality and linearity. The results of normality test on interest in learning (.094; $p > .05$), resilience (.224; $p > .05$), and readiness for change (.198; $p > 0.05$), indicating that those variables passed the normality test. The data were also linear based on the result of the linearity test (.000; $p < 0.05$). Based on the results, multiple regression can be used to analyze the relationship of resilience, readiness for change, and interest in learning.

From the table 8, descriptive data is used to make subject categorization at table 9. From the categorization results at table 9 it can be concluded that there are students who have very low and low scores for resilience, readiness for change and interest in learning. After carrying out a descriptive analysis, the next step is to analyze the data to test the research hypothesis. The data were analyzed using multiple regression analysis using SPSS 22. The results of the analysis are presented in Table 10-13.

Table 8. Descriptive Results

	N	Minimum	Maximum	Mean	Std. Deviation
Resilience	190	40	80	62.06	7.743
Readiness for change	190	51	132	93.40	13.522
Interest in learning	190	26	70	46.92	7.862

Note. Results of the mean and standard deviation.

Table 9. Range of Scores and Categorization of Subjects Scores

Instruments	Categories	Value range	N	%
Resilience	Very low	$X < 49,5$	13	6.8
	Low	$50 < X \leq 58,5$	47	24.7
	Moderate	$59 < X \leq 67,5$	84	44.2
	High	$68 < X \leq 75,5$	26	13.7
	Very high	$76 < X$	20	10.5
Readiness for change	Very low	$X < 72,5$	12	6.3
	Low	$73 < X \leq 85,5$	42	22.1
	Moderate	$86 < X \leq 98,5$	68	36.3
	High	$99 < X \leq 111,5$	54	28.4
	Very high	$112 < X$	13	6.8
Interest in learning	Very low	$X < 34,5$	9	4.7
	Low	$35 < X \leq 42,5$	48	25.3
	Moderate	$43 < X \leq 50,5$	77	40.5
	High	$51 < X \leq 58,5$	41	21.6
	Very high	$59 < X$	15	7.9

Table 10. Correlations of Resilience, Readiness for Change and Interest in Learning

Variable	<i>r</i>	Sig.	Description
Resilience-Interest in learning	.555	.000	Positive-significant
Readiness for change- Interest in learning	.580	.000	Positive-significant

Note. **) Significant Correlation at .001

Table 11. Regression Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5324.275	2	2662.138	78.294	.000 ^b
	Residual	6358.377	187	34.002		
	Total	11682.653	189			

Table 12. Results of the Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.675 ^a	.456	.450	5.831

Table 13. Coefficient of Regression Line Equation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.044	3.811		.011	.991
	Resilience (X1)	.386	.060	.380	6.405	.000
	Readiness (X2)	.246	.034	.422	7.125	.000

From Table 10, it can be seen that there a positive and significant correlation between resilience and interest in learning ($r = .555$; $p < .001$), and there was a positive and significant correlation between readiness for change and interest in learning ($r = .580$; $p < .001$). From Table 11-12, resilience and readiness for change together can predict students interest in learning during e-learning implementation ($r = 0,675$, $p < 0,001$), $R^2 = 0,456$, $F = 78,294$; $p < .001$). Resilience and readiness for change effectively contributed 45.6% to predicting interest in learning.

The regression equation based on the results in Table 12 shows that $Y = 0.44 + 0.386 X_1 + 0.246 X_2$. Based on the equation, a constant of 0.44 means that if there is no increase in resilience or readiness for change, then interest in learning is considered as 0.44. The variable of interest in learning (Y) changes as much as 0.386 for each unit of change in resilience (X_1) and 0.246 for each unit of change in change readiness (X_2), which means that every unit of interest in learning contributes to 0.386 unit of resilience and 0.246 unit of readiness for change. The variable of readiness for change is the most dominant variable to the variable of interest in learning in students of Faculty of Psychology Universitas Diponegoro, supported by *Standardized Coefficient Beta* at 0.422 or 42.2%. Resilience contributes 0.380 or 38% to interest in learning.

Positive correlation coefficient shows a positive correlation between three variables, meaning that the more positive the resilience, and the higher the readiness for change, the higher the

interest in learning, and vice versa, the more negative the resilience and the lower the readiness for change, the lower the interest in learning. To sum up, there is a significant correlation between resilience and readiness for change and students' interest in learning, so the major hypothesis is **accepted**.

Discussion

Educational sites are places where academic challenges and stresses are a reality of everyday life. The existence of the COVID-19 pandemic has made changes in all systems of life, especially in the field of education. Students in higher education must be able to attend online lectures, which requires them to master the use of technology. The research conducted by Bruffaerts et al. (2018) found that psychological stress and mental health of students increased during the COVID-19 pandemic. Mental health is very important to survive in challenging situations. Even though the students are facing an uncertain situation, they must be able to overcome the challenges by showing a high interest in learning because it is an important factor in learning activities. Interest is expected to support the effort to obtain satisfactory results in every activity. It will help someone learn something, likewise, interest in learning will help students to study the course material provided by the lecturers well.

The results of this study confirm that the hypotheses are significant. They indicate that students of the faculty of psychology, Universitas

Diponegoro, have a high interest in learning because it is influenced by resilience and readiness for change even though they have to face the COVID-19. This shows that there is also the influence of the condition at now, students who belong to generation Z are actually very adaptable in responding to the advancements in technology and information (Zyainuri & Marpanaji, 2013). Moreover, the existence of a strong collectivist culture in Indonesia, namely social solidarity, also supports high social resilience in the face of the COVID-19 pandemic (Supriatna & Sari, 2020).

Based on the result of multiple regression analysis in this research, resilience has a strong influence on student interest in learning. This can be happened because students who have a high level of resilience are able to adapt from negative feelings, change depressed conditions into positive things, have the ability to solve problems in their lives, and finally be able to encourage individuals to have high achievement motivation (Steinhardt & Dolbier, 2008). Zanthly (2016) suggested that if students are resilient, they possess high-quality understanding in academic matters. Resilient individuals will be able to achieve their goals, think carefully and calmly, focus on problems, adapt and control themselves, and believe in God and fate when experiencing setbacks or negative things (Bonanno et al., 2007).

However, by looking at the results of the descriptive data, there are some students whose resilience, readiness for change and interest to learn are in very low and low categories. Therefore, it should be a concern for Universitas Diponegoro as well as other universities that also implement e-learning as a method of learning in this pandemic. Online lectures should be able to attract students' interest in learning with all the various concepts. However, according to the students, e-learning sometimes lowers students' interest in learning because they do not meet with their lecturers face-to-face and cannot understand the materials as well as when they are explained directly by their lecturers. According to Carey (2020 as cited in Zboun and Farrah (2021), the crucial issue is responding to the pandemic and most importantly providing quality online education. Moreover, undergraduate students who are usually aged between 18 and 25 are still classified in the early adult development phase (Santrock et al., 2012). Early adulthood is considered a difficult time for individuals because a person is required to let go of dependence on parents and try to become independent (Santrock et

al., 2012). Someone who is in early adulthood must have the courage to accept responsibility for the consequences of their own actions, determine their own values and beliefs. Every individual should have high resilience because resilient individuals will be able to endure pressure or sadness and not show negative emotions continuously. If the resilience in an individual increase, the individual will be able to overcome any problems, increase one's potential, be optimistic, be courageous, and achieve emotional maturity

However, the transition in this phase requires students' resilience and readiness for change to adapt to changes in the learning process due to the COVID-19 pandemic. Students before the COVID-19 pandemic were used to conventional teaching methods or face to face learning. Knowledge transfer usually takes place in a face-to-face session in the classroom. If lecturers and students are not in the same classroom, communication and information messages might not delivered effectively. When the message conveyed is interpreted differently by the recipient or there is a distortion between the source (lecturers) and the recipient of the message (students), the communication process can be considered as failed (Sanjaya, 2016). Based on a study conducted by Alawamleh et al. (2020), it was revealed that online learning indeed has a negative impact on communication and its effectiveness between lecturers and students. Furthermore, a large number of students feel more isolated, and the majority of students still prefer classroom classes over online classes due to the many problems they face when taking online classes. Other than that, the issues of e-learning can be personal such as anxiety associated with using technology which poses problems related to computer anxiety. Computer anxiety is a fear of interacting with computers that is disproportionate to the actual danger of the situation and leaves the user in an experience of physical and emotional symptoms (Arora & Dhull, 2017; Gillett-Swan, 2017).

Research on resilience in students in Indonesia is still interesting to study. It is also very important because the level of resilience in students is not in the highest category; most students are in the moderate category of resilience (Amelia et al., 2014). Students are required to be active and creative, so it is common for them to have difficulties and problems in undergoing the learning process in schools, causing students to be depressed Cheung et al. (2016). Readiness for change can also influence the interest in learning. Research conducted by (Muafi, 2018) showed

that readiness for change in employees has a positive effect on learning in their organization. However, it must be admitted that building students' readiness is not easy, considering that they have to break away from their habit of meeting face to face in class. Our finding is consistent with those of previous research that institutions' contingency plans to deal with pandemics and disasters are very important (Dhawan, 2020). Chen (2007) and Lehman et al. (2002) explain that the readiness of an organization or university for change greatly influences the students' readiness for change. This can be influenced by the availability of resources, facilities, and a positive attitude and climate developed by the academic staff. Organizations that are able to develop, in this case, schools, are those that prepare to manage remote teaching and are able to develop a set of personal, interpersonal, and organizational abilities that characterize learning professional communities (Paletta, 2020).

Based on the results of this study, the application of e-learning can be used as a solution for the application of a learning system during the COVID-19 pandemic, perhaps even further used as an education system in the digital era. In addition to components for conducting online classes such as the nature of the content, infrastructure, instructor competencies, and students' readiness for change, the major factor determining the effectiveness of education system in the digital era is technical proficiency of teachers and students related to usage of computer and internet (Muthuprasad et al., 2021). Further, e-learning has many positive advantages. It shortens the learning duration and facilitates interactions between lecturers and students as well as students and students. By using e-learning, students are able to share information and access learning material regularly. With such conditions, students can further strengthen their mastery of learning materials. In e-learning, the roles of teacher are not completely eliminated, because the teacher acts as a facilitator. Considering the benefits of e-learning, its implementation makes the learning process more effective and efficient in terms of time and energy. In addition, it allows students to interact with anyone and access information whenever needed. It also supports student-oriented learning process, so they can participate more actively in the learning process. Empirical research indicated that students' social presence was found to have a strong correlation with perceived and actual satisfaction in the e-learning environment (Richardson et al., 2017). In a study

on an online environment, researchers found that people with a high perceive of social presence have a positive attitude to continue with online learning (Wang & Lee, 2020).

However, based on the results of this research, Universitas Diponegoro as well as other universities in Indonesia need to pay attention that practices of e-learning are often limited to certain varieties and modes in which they are allocated in the online environment (Williams et al., 2012), and it may deliver unwanted challenges ranging from poor communication, a sense of isolation, and frustration (Arora & Dhull, 2017). In this case, teaching is no longer considered as a process for transferring information, but as an instrument to facilitate learning (Garad et al., 2021). For that, educators (teachers or lecturers) also need to increase the capacity of their abilities and creativity in using technology and apply teaching methods that are fun for students. Therefore, educators have to increase their commitment to contribute to the progress of students' learning in any condition (Utami et al., 2021).

CONCLUSION

Based on the results of this study, it can be concluded that interest in learning of the students of Faculty of Psychology, Universitas Diponegoro, under the implementation of e-learning (adjusted learning program due to the COVID-19 pandemic) is influenced by resilience and readiness for change. The results of this study are expected to be used as study materials for universities and lecturers to develop interesting methods and methods of delivering e-learning so that it has a significant effect on learning interest. In addition, it is also necessary to improve the psychological adaptability of students such as resilience and readiness for change.

Universities should improve the application of the learning management system (LMS) in e-learning. With the LMS, universities can track the activities of lecturers and students in the learning process and can also be connected to the existing system at the Ministry of Education and Culture, so that the learning activities can be monitored and used as a reference in college clustering. By using LMS, universities and lecturers can create more attractive e-learning content or appearance according to the students' preferences and needs and provide greater storage capacity according to the server capacity of the university.

ACKNOWLEDGEMENT

This research was supported by Faculty of Psychology, Universitas Diponegoro. We thank our colleagues from Faculty of Psychology Universitas Diponegoro and research subjects that greatly assisted the research.

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