

An Application-Based Online Learning Readiness Study During The Covid-19 Pandemic (Case Study of High School / Vocational High School Students in Tangerang, Banten, Indonesia)

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Abstract

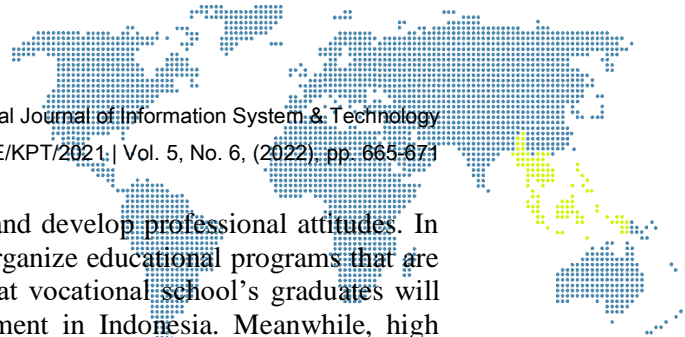
The impact of COVID-19 on learning activities in Indonesia has caused problems for students. Research that has been conducted on the failure of pedagogic delivery by teachers and difficulties in adapting to the use of technology and learning models, cannot be used as references and conclusions. The need to conduct research and literature studies becomes urgent to obtain accurate, reliable and up-to-date information. The research, which was conducted in vocational high schools and high schools in Tangerang district, was related to the readiness of students to learn about conditions during the pandemic and the learning tools used. The results of the study from this research are that there are differences in learning readiness, namely that senior high schools are more prepared than vocational schools. To find out the difference in online learning readiness, the statistical analysis used is ANOVA (analysis of Variance), the calculation uses the help of the SPSS version 20.00 application. Furthermore, this research will be a reference for education providers to innovate learning methods so that students can better participate in the learning process during the pandemic without reducing the quality of learning outcomes.

Keywords: *Readiness to learn after covid, high school and vocational school, omicron*

1. Introduction

The covid 19 outbreak in Indonesia entered a new phase with the emergence of covid omicron as a new variant of covid 19. Previously, citizens were required to vaccinate so that immunity occurred in the body following the fall of victims due to covid [1]. The case of covid 19 omicron was confirmed on December 15, 2021 to the cleaning staff at the Wisma athlete Kemayoran Hospital, Jakarta [2]. The strategy to inhibit the process of transmitting COVID-19 is carried out by limiting community activities both for work, study or for worship that have been done before. All learning activities are carried out from home using an online model. With the large-scale social restrictions (PSBB), all activities carried out by the community are limited, including learning and teaching activities, which were originally carried out in classrooms and then carried out online. In the Circular of the Ministry of Education and Culture, it is explained that the learning process is carried out at home through distance learning to provide a meaningful learning experience for students. This covid pandemic also occurred in the South Tangerang district, Banten province, which had an impact on all real sectors including the education sector. With the covid outbreak holding the movement in the education sector hostage, it is necessary to study online learning readiness for high school and vocational school levels.

Vocational schools are secondary education that prepares students especially to work in certain fields [3]. Vocational high school education is a school that prioritizes the



preparation of students to enter the world of work and develop professional attitudes. In accordance with its form, vocational high schools organize educational programs that are tailored to the types of employment in the hope that vocational school's graduates will make a major contribution to reducing unemployment in Indonesia. Meanwhile, high school is a general further education with a tendency for students to continue to the next level of education.

2. Research Methodology

2.1. Learning

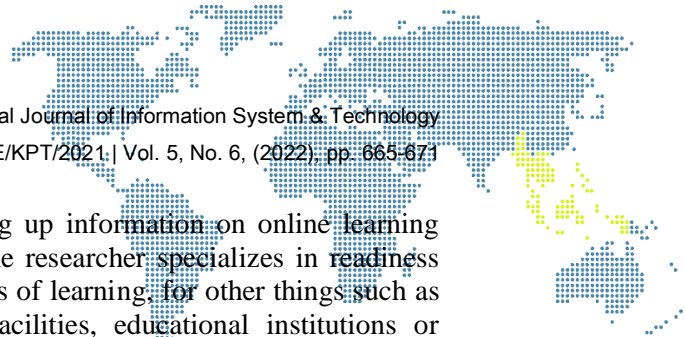
Learning is an interaction process that involves teachers as instructors and learning participants in an effort to achieve the expected goals by using educational principles and learning theories as the main determinants of educational success [4]. Meanwhile, learning is a process organized by teachers and teaching participants to provide certain instructions to acquire and process knowledge, skills, and attitudes.

2.2. Learning Methods and Tools

The approach used in the IQF is Student Central Learning (SCL) which applies learning by prioritizing development of students' creativity, capacity, personality, and students' needs, also develops independence in finding and discovering knowledge[5]. The application of SCL can use several types of learning methods such as Small Group Discussion, Role-Play & Simulation, Case Study, Discovery Learning (DL) and Self-Directed Learning (SDL), Cooperative Learning (CL), Collaborative Learning (CbL).), Project-Based Learning (PjBL) and Problem-Based Learning and Inquiry (PBL). Thorne stated that e-learning is learning that is presented in various ways, one of which is an online learning program that combines activities and information similar to distance learning. An example of using the web as a learning medium is the use of a learning management system (LMS) in the form of Moodle. Mixed learning can use multimedia technology, CD ROM video streaming, virtual classrooms, voice messages, email and conference calls, online text animation and video streaming are tools for integrating traditional & online learning [6]. Online learning and teaching are learning activities that utilize the internet network with flexibility, accessibility, connectivity, and capability to bring up various types of learning interactions [7]. With online learning, educators and students can communicate and discuss without being limited by time and place. Students can interact with teachers through applications such as google classroom, telephone or live chat, zoom or through Whatsapp Group. This requires the readiness of educators and students because there have been major changes in teaching and learning methods.

Learning readiness is the overall condition of a person who makes him ready to give answers in a certain way to situations [8]. Learning readiness can be obtained by students if the student is able and already has a way that can make him respond to learning activities. The existence of readiness will encourage a response in certain ways to do something, either in the form of individuals or certain objects [9]. This learning is an educational innovation to answer the challenge of the availability of varied learning resources and solutions to social restrictions imposed by the government. Online learning with various developments such as blended learning [10] and the impact of application-based learning on character [11]and[12]. are interesting development topics for researchers. Meanwhile, online learning also forces teachers to be able to design online learning and can direct their students to be able to follow online learning [13].

The original learning method centered on the teacher turned into students who must be more active, motivated, have hope for success and have the ability to change [14], for example using video games in explaining material [15] and [16]. The readiness of infrastructure, teachers, and supporting facilities is an important capital so that this learning can run according to the lesson plan. In accordance with the direction and purpose, vocational schools and high schools have different learning characteristics. So



from this point of view the researcher wants to dig up information on online learning readiness in the COVID-19 pandemic situation. The researcher specializes in readiness from the student's point of view as objects and actors of learning, for other things such as the readiness of teachers/teachers, infrastructure/facilities, educational institutions or implementers and curriculum are not the focus of this research.

2.3. Method

This study places high school (SMU) and vocational high school (SMK) students as objects. We chose SMU Negeri 2 Tangerang Regency and SMK Negeri 2 Tangerang Regency where the students were used as samples in this study. The total number of students involved was 557 students.

Table 1. Respondent involvement

Origin of School	Number of Students
High School Students (SMU)	278
Vocational High School Students (SMK)	279
Total	557

A tool to collect data using a questionnaire that has been used by Ray Blankenship and J. Kirk Atkinson from Western Kentucky University. Which was used in his research on "Undergraduate Student Online Learning Readiness". However, the sentence structure was adapted to the conditions of the Tangerang Regency, Banten Province, Indonesia.

Table 2. Online Learning Readiness Questionnaire

Item Number	Statement
1	I can easily access the Internet as needed for my studies
2	I am comfortable communicating electronically.
3	I am willing to communicate actively with my classmates and instructors electronically.
4	I am willing to dedicate 8-10 hours per week for my studies
5	I feel that online learning is at least of the same quality as traditional classroom learning.
6	I feel that my background and experience will be useful for my studies.
7	I am comfortable with written/conventional communication
8	When studying, I am an independent person.
9	I will relearn what I have learned in studying
10	In my studies, I am self-disciplined and find it easy to set aside time for reading and homework.
11	I can manage my study time effectively and easily complete assignments on time
12	As a student/student I enjoy working independently.
13	In my studies, I set goals and have a high level of initiative

Questionnaires were distributed online using the Google Form application, then analyzed with descriptive statistics. To categorize online learning readiness of high school or vocational high school students, the linkert scale is used. To find out the difference in online learning readiness, the statistical analysis used is ANOVA (analysis of Variance), the calculation uses the help of the SPSS version 20.00 application.

3. Results and Discussion

The following is the condition of high school students' opinions about online learning readiness which can be seen in students' answers to statements in the online learning readiness questionnaire

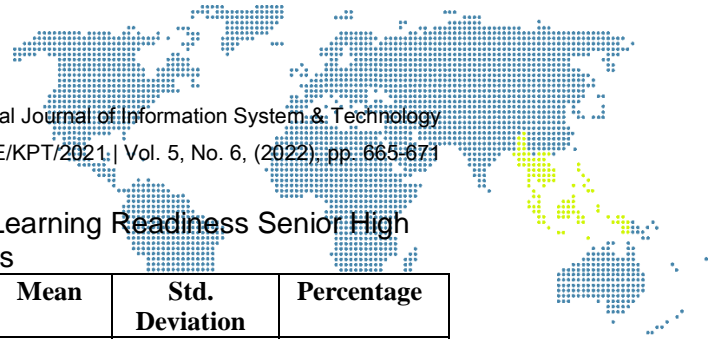


Table 3. Descriptive Statistics Group Online Learning Readiness Senior High School students

Statements	Mean	Std. Deviation	Percentage
I can easily access the Internet as needed for my studies	3.27	0.92	65.47
I am comfortable communicating electronically.	3.04	0.84	60.79
I am willing to communicate actively with my classmates and instructors electronically.	3.48	0.80	69.57
I am willing to dedicate 8-10 hours per week for my studies	3.28	0.81	65.68
I feel that online learning is at least of the same quality as traditional classroom learning.	3.36	0.96	67.19
I feel that my background and experience will be useful for my studies.	3.86	0.76	77.12
I am comfortable with written/conventional communication	3.48	0.92	69.71
When studying, I am an independent person.	3.69	0.79	73.74
I will relearn what I have learned in studying	3.73	0.72	74.53
In my studies, I am self-disciplined and find it easy to set aside time for reading and homework.	3.53	0.94	70.65
I can manage my study time effectively and easily complete assignments on time	3.60	0.85	72.09
As a student/student I enjoy working independently.	3.55	0.84	71.08
In my studies, I set goals and have a high level of initiative.	3.80	0.80	75.83

In responding through student choices to the available alternative answers, the mean, standard deviation and percentage of observation scores from the range 1 (one) to 5 (five) are obtained for each item/statement shown in table 3. This is an opinion for a group of high school students. where the highest average score is 3.86 and the percentage is 77.12%. This shows that the majority of high school students say that their background and experience in online learning will be useful for their studies. Meanwhile, the mean values and the lowest observation participants were 3.04 and 60.79%. This shows that on average high school students think that they feel quite comfortable when communicating electronically

Table 4. Descriptive Statistics Online Learning Readiness of Vocational School Student Group

Statements	Mean	Std. Deviation	Percentage
I can easily access the Internet as needed for my studies	3.40	0.88	68.03
I am comfortable communicating electronically.	3.10	0.82	62.01
I am willing to communicate actively with my classmates and instructors electronically.	3.45	0.80	69.10
I am willing to dedicate 8-10 hours per week for my studies	3.19	0.93	63.80
I feel that online learning is at least of the same quality as traditional classroom learning.	3.19	1.05	63.73
I feel that my background and experience will be useful for my studies.	3.80	0.74	75.99
I am comfortable with written/conventional communication	3.63	0.90	72.62
When studying, I am an independent person.	3.70	0.89	73.91
I will relearn what I have learned in studying	3.61	0.81	72.19

Statements	Mean	Std. Deviation	Percentage
In my studies, I am self-disciplined and find it easy to set aside time for reading and homework.	3.49	0.91	69.89
I can manage my study time effectively and easily complete assignments on time	3.65	0.80	72.90
As a student/student I enjoy working independently.	3.63	0.91	72.62
In my studies, I set goals and have a high level of initiative.	3.75	0.79	74.98

In responding through student choices to the available alternative answers, the mean, standard deviation and percentage of observation scores from the range of 1 (one) to 5 (five) are obtained for each item/statement shown in table 4. This is an opinion for a group of SMK students. where the highest average score is 3.80 and the percentage is 75.99%. This shows that the majority of SMK group students say that their background and experience in online learning will be useful for their studies. Meanwhile, the mean value and the lowest observation participants were 3.10 and 62.01%. This shows that on average, SMK students think that they feel quite comfortable when communicating electronically

Table 5. Descriptive Statistics

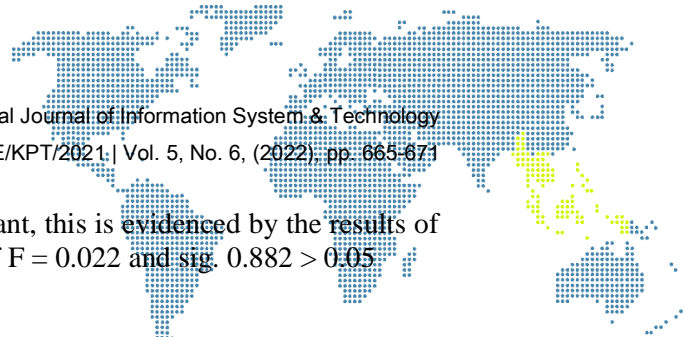
Descriptive Statistics			
Dependent Variable: Online Learning Readiness			
Students	Mean	Std. Deviation	N
Senior High School Students	45.67	6.450	278
Vocational Students	45.59	6.999	279
Total	45.63	6.725	557

From table 5, it can be seen that the mean value of observations for groups of high school and vocational students respectively shows that the average group of high school students is greater than the average group of vocational students. This can be seen that high school students look more prepared when compared to vocational students.

Table 6. ANOVA

Tests of Between-Subjects Effects					
Dependent Variable: Online Learning Readiness					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.002^a	1	1.002	.022	.882
Intercept	1159736.320	1	1159736.320	25599.909	0.000
A	1.002	1	1.002	.022	.882
Error	25142.811	555	45.302		
Total	1184880.000	557			
Corrected Total	25143.813	556			
a. R Squared = .000 (Adjusted R Squared = -.002)					

From table 6 it can be seen that there is a difference in online learning readiness for vocational and high school students but it is not significant, it can be seen from ($F = 0.022$ and $\text{sig. } 0.882 > 0.05$). From the research that has been conducted on high school and vocational high school students regarding online learning readiness, it can be seen that high school students look more prepared when compared to vocational students, this is evidenced by the observational mean value of 45.67 for high school students and 45.59 for vocational students. When viewed from the difference in learning readiness, it turns out that there are differences in the learning readiness of high school students and



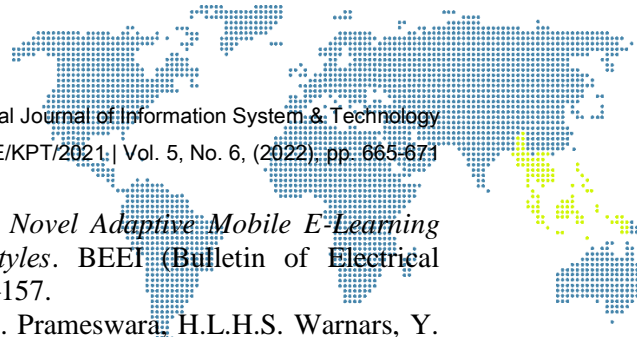
vocational students but this difference is not significant, this is evidenced by the results of calculations in the ANOVA table, where the value of $F = 0.022$ and $\text{sig. } 0.882 > 0.05$.

4. Conclusion

A study of student readiness to take part in learning during a pandemic is something that needs to be done considering the unpredictable ending time. In addition, the application of technology and information in the world of education is very necessary and becomes a supporter of successful learning in the present and future. The current COVID-19 pandemic is affecting the learning atmosphere in Indonesia, especially the Tangerang district. With the pandemic, it is necessary to take strategic steps by the government, stakeholders and education providers so that they can continue to provide quality education for the development of human resources. In this regard, before implementing the strategic plan, a study of the readiness of students to learn is needed so that the strategic plan is right on target. With studies on technology-based learning processes for students and educators, the quality of learning is maintained.

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