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Online English language learning among tertiary students

Alpino Susanto[1], Karunia Yulinda Khairiyah[1], Zalmi Dzirrusydi[2], Sri Sugiharti[3]
[1]Departement of Special Education, Faculty of Teacher Training and Education, Karimun University, Tg.Balai-Karimun, Indonesia
[2]Departement of Shipping and Port Management, Faculty of Science and Technology, Karimun University, Tg.Balai-Karimun, Indonesia
[3]Departement of English Education, Faculty of Teacher Training and Education, Riau Kepulauan University, Batam, Indonesia

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ABSTRACT

The online learning in English language has been going along with the rapid development and diffusion of the information and communication techologies and shifted from being merely marginal trend to become popular, where the number of higher education institutions has dramatically increased to offer and led to extremely changes many aspect in learning societies. This study explores the technical abilities, technology accessibility and self-directed learning that contribute to student attitudes towards online English learning in predicting the continuance intention of the online learning. This study employed quantitative approach. There were 10 tertiary students interviewed as preliminary study, then 36 students were surveyed through questionnaire in a pilot test. The validated questionaire were used in this study on the 102 students. Rasch measurement model was utilized to validate the 25 items of questionnaire, meanwhile the Smart PLS ver. 2.0 was used to assess the regression of exogen to endogen variables. The study concluded that self- directed learning contributed to the attitude towards online English language learning as mediator to continuance intention of online learning. The ability and positive attitude in using digital technology must be present to support English learning current and forthcoming. The next research can focus more on how students adapt to a variety of rapidly changing technologies to support their English skills.

Corresponding Author:

Alpino Susanto
Departement of Special Education, Faculty of Teacher Training and Education, Karimun University
Teluk Uma Road, Tebing, Tg. Balai-Karimun 29663, Indonesia
Email: susanto.alpino40@gmail.com

1. INTRODUCTION

With the help of digital technology, online learning has shifted from being merely marginal trend to become popular in English language learning. A plethora of researches has been conducted on the digital technology-based learning applications in courses used to count on face-to-face meetings, such as foreign language learning [1]–[4]. Scholars in Indonesia believe that the policy of the Indonesian Ministry of Education of Culture (MOEC) to continue implementing online learning permanently, even after the COVID-19 pandemic subsides, is the strategy of converting traditional learning into hybrid learning, which is also a paramount change to Indonesian upcoming education strategy [5]. Eventhough the issue of internet access may have been slightly resolved by the MOEC's policy by providing free internet quota to students, yet the issue on the online language learning are not merely resolved. Students are expected to adapt to the changes caused by COVID-19 through technical abilities, technology competencies [6], [7] self-directed learning, and attitude toward e-learning [5], [7]–[13].

Blended learning, hybrid learning, e-learning, distance learning, and online learning are the common terms dealing with digital technology and pervasively discussed by scholars lately. Blended learning is a combination of traditional classroom learning such as the face to face and the online learning [2], [14]. Meanwhile hybrid learning is the type of blended learning that focuses more on bridging the physical and virtual classroom closer together into a more complete education [5]. E-learning allows the students to interact with their lecturer only through the internet but not able communicate with their lecturer even if they are in the same premises [15]–[17]. Distance learning is quite similar to the e-learning, but the learner take their course without moving out from their place [18]. Through online English language learning, the students are allowed to interact with their lecturer face-to-face along with language learning online through the internet or software such as the academic information sistem (Siakad), Edlink, or other platform from various provider, through learning management system (LMS) or cloud-base system [2]. In online learning, the students participated in the learning spaces through synchronised and asynchronised [19]. Among the four terms, online learning is considered purely students experience during COVID-19 pandemic, either syncronous or asyncronous virtual classroom, as for several months no one allowed to have a face to face class set up [3], [19].

The delivery of online language learning is usually supported by LMS or asyncronous set up [9], [20], [21]. LMS is a noteworthy tool that functions as a space to regulate the flow of information to and from students, with lecturers, as well as operators with features that allow all data storage, distribution, recording, lecturing, attending list, teaching materials, then summarized, uploaded, or downloaded as needed and per curriculum expectations [4], [21], [22]. Online language learning in some cases is syncronous set up, that students and lecturer can communicate using Zoom or Google Meet platform in the same time premises. Allegedly, the implementation of online language learning has been spurred by the spread of COVID-19, which then have lead to the awareness of most educators about the strength, weakness, opportunity, advantage, and challenge on this e-learning mode [13], [23]–[26].

There are several precondition for students to benefit from technology-based learning [21], [26]–[28]. The precondition in question is about the need for equality between what is expected and what can be achieved, by means of gradual improvements carried out in accordance with the development of supporting infrastructure, knowledge of educators, and students. Some reasons why various IT acceleration projects do not run smoothly in most of the cases are due to the proposed design has not been adapted to environmental conditions and students' abilities [13]. Apart from that, there are a large number of research results that taken as a reference where technology has preceded one step more advanced than readiness for implementation [21], [28], [29].

The COVID-19 pandemic has drastically changed people's habits and perceptions in face-to-face learning, suddenly knowing and experiencing online learning especially in the developing context. Digital technology literacy is one of the positive point on the online learning implementation. Not merely the trend demand but more on the required skill for the students when they graduate. Students today is considered as digital natives who play a very important role in reforming education from conventional to technology based learning. This may be apart from a forced situation such as COVID-19 pandemic which has been widely discussed in various perspectives, but a measure of future educational progress, and the ability of students to actualize it in the world of education is the beginning of a long journey ahead. The significant growth of technology in education has replaced the traditional language learning such as using the blackboard and chalk in explaining the subject by technology-based learning of doing homework on the laptop, internet, or tablet [30]. Among the four major skills: aptitude, technical, job, and soft, the technical skills can be learnt through online learning [31]. The online language learning supplements and supports the students to gain more awareness and confidence in a specialized field, which enhances the possibilities for employment. From the previous definition, online learning used new multimedia technologies and the internet to improve the quality of learning and teaching. It would widely use, and bring revolutionary changes to education. The use of new multimedia technologies and the internet in learning as the means to improve accessibility [30].

There are various things that need to be understood before digital-based learning is truly applied to an educational community. Students should have computer literacy and digital learning competencies [32], self-directed learning and self-regulation for online learning [8], [13], [26]. In this regard, students should have 21st century skills, including information and communication technologies (ICT) literacy, critical thinking, creativity and innovation, self-directed learning skills and metacognitive awareness. Leonard and Saphira [13] states that students should have the readiness for online learning, such as students' preference in course modality, the students' ability to participate in self-directed learning, as well as students' competence and confidence in utilizing computer-mediated communication. Similarly, Hung *et al*. [33] state that students should have learner control, self-directed learning, and motivation [34]. The key to online learning's success, and its competitive advantage, is the high number of teachers and students who intend to continue online learning, a concept termed "continuance intention" [34], [35]. Students who regarded themselves proficient

computer users also had relatively higher positive attitudes toward the online language course and therefore have better grades from the assessment [36].

The previous study on the variable technical abilities, technology awareness, and self-directed learning indicated reliability rank 0.9, 0.82, and 0.78 but their attitude toward online still have apprehension [7]. Some scholars revealed that traditional to online learning is such a transitioning model that involve some uneasiness among students [7], [13], [37]. Proliferation of online learning recommendations is often met with a mixture of requirement and readiness. In the field of education, there are some literatures that can be used as input either to lecturers or students. However, the phenomenon of student readiness is an absolute thing to study, as they are both the object as well as the subject of the learning process itself. A preliminary study was conducted by the researchers, toward 11 students from two different universities in the Riau Islands. The question was very general, seeking the students' opinion and feeling on the online learning and face to face that was held alterlately during COVID-19 pandemic. There were ten students stated that no much issue on the face to face learning activity, as they are get used to since elementary school grade. Five of the students expressed their unreadiness to have the online learning due to the gadget and signal issue, meanwhile the other five students had concern on the LMS (such as academic information system) merged into online learning, such as Zoom, Google Classroom to suport online learning did not seem real learning. Only one student seemed very happy on the online learning as he assumed to have more time outside the campus for extra activities rather than attending the regular class. This shows student's readiness should be taken into consideration before the implementation of online learning.

The objectives of the present research are i) To determine the level of technology accessibility, technical abilities, self-directed learning, attitude towards online English language learning, and continuance Intention; ii) To identify the impact of variables technical abilities, technology accessibility, and self-directed learning on attitude towards online English language learning; iii) To identify the impact of attitude towards online English language learning on continuance intention.

2. RESEARCH METHOD

The purpose of the present study is to develop the students readiness for online English language learning on their continuance intention of e-learning use. The student's readiness was based on the level of students technical abilities, technology accessibility, and self-dirfected learning. The research model was based on the previous studies upon the variables technical abilities (TAB), technology assessibility (TAC), self-directed learning (SDL) [7], [38] readiness for e-learning (REL) [39], and the continuance intention of the e-learning (CI) [35]. To achieve this goal, the present study opted to determine the level of TAB, TAC, and SDL that predict REL and CI. There was no manipulation or intervention on the present study other than administering the instrument(s) necessary to collect the data from respondent. In this type of the present study, the phenomena that occur naturally was the one investigated.

There are 7,000 students from the two universities as the population of the present study in Riau Islands. The representative participants were selected by referring to $N/N(d))^2+1$, (N=total population d=precision value 0.1) as the formula suggested by Bungin [40]. The sample considered was 102 students from non English department students. There was no characteristics of social economy background, gender, nor stratified characteristics taken into account. Non-random sampling technique was applied. The present study applied the quantitative research method where generalization was incumbent. The argument about a representative sample was based on the two universities in the Riau islands, Indonesia, having a homogeneous population.

To accomplish the aims of this research, the 25 items of questionnaire was developed to collect data from respondents. The developed questionnaire based on three variable independent (Technical ability, technology accessibility, self-directed learning), one variable intervening (Attitude towards English language e-learning), and one dependent variable (continuance intention) referring to the research model conducted by Ashrafi *et al*. [35] and Hamzah *et al*. [7]. Each of the variable consisted of five statements with a Likert scale choice, starting from strongly disagree to the highest strongly agree. Two statements (item 3 and 24) were negatively phrased to avoid response bias that could occur due to the use of fivepoint Likert format. This research is a survey research, quantitative approach [40]–[42]. The questionnaire was made in two languages; Indonesian and English. The researchers involved two language experts to verify and confirm that the statements in Indonesian and English were in accordance with existing rules. The respondents respond to the questionnaire in Indonesian, as they are all Indonesian.

The first step was to validate the questionnaire using Rasch measurement model (RMM). This is considered as a pilot test. The Rasch Measurement model verifies not only item but also persons [42]. To ensure the validity and reliability of the questionnaire, before conducting the actual research, the researcher employed the questionnaire to the pilot test among 36 students utilizing the RMM version 3.69.1.11. The instrument that was used to obtain the required data should be validated and reliable, as it is known to be very

crucial [43]. From the results of the pilot test, validity and reliability were obtained as depicted in Table 1. The items which were within the accepted category would be used, while the items that were discarded were not used on the present study. Through the RMM, there were five items (4, 16, 17, 21, & 24) dropped due to unfit category. Those items were out of MNSQ category ranged from 0.5 to 1.5 and ZSTD ranged from -0.2 to 2.0. The reliability of the questionnaire was 0.83 for person and 0.68 for item. Some scholars stated that the reliability in the range of 0.60-0.80 are considered moderate, but acceptable [44], [45].

Table 1. Summary of the pilot test data finding

Dependent variable	Independent variable	Rasch measurement model (Winstep 3.69.1.11)	Smart PLS ver 2.0			
			Validity	Reliability	Hypothesis testing (R^2 and Q^2)	Model measurement (t-statistics)
AEL	[redacted]		0.67	0.76	R^2= 0.62, Q^2 =0.16	REL➔ CI (12.24)
CI			0.56	0.62	R^2= 0.47, Q^2 =0.25	[redacted]
[redacted]	TAB	36 persons, 25 items measured	0.64	0.72	[redacted]	TAB➔ REL (1.92)
	TAC		0.53	0.71		TAC➔ REL (0.80)
	SDL		0.54	0.79		SDL ➔ REL (4.11)
Remark		5 items (#4, 16, 17, 21, 24) out of MNSQ category 0.5-1.5 and ZSTD-0.2-2.0. The items were dropped. The reliability 0.83 (person), 0.68(Item)	min 0.5 considered valid. (for loading factor >0,70 for exploratory research)	cronbach alpha >0.9 (excellence), >0.8 (good), >0.7 (acceptable), >0.6 (Questionable), >0.5 (weak), and <0.5 (not acceptable) (George and Mallery, 2003)	Q^2=0.02, 0.15, 0.35 is considered, small, medium, and large effect.	If <1.96 (t table) hypothesis rejected. If >1.96 (t table) hypothesis accepted.

The present study procedure begins with the issue, objective, respondents, and literature review. The questionnaire was used as tool for gathering data in this survey research. The researcher distributed the questionnaire to 102 students. The data collected were analysed with the help of the PLS ver 2.0 software. The Smart PLS data analysis was utilized to define multivariate analysis on the present research. The analysis was to measure the relationship between dependent and independent variables in the concept multiple linear regression is an attempt to predict a dependent variable from several independent variables [41], [42], [46]. Considering the data distribution and applicability on relatively small sample size, PLS was employed. In addition to the merits related to the validity and realiability questioned pilotted through the help of the RMM.

It needs to be mentioned here that student's readiness on the online English language learning adopted from Hamzah *et al*. [7] study about blended learning. Meanwhile the continuance intention refer to the Ashrafi *et al*. [35] study which explored the factors influencing student's continuance intention to use the LMS. To assess students readiness on the online English language learning based on the technical abilities, technology assessibility and self- directed learning, items were then developed. The questionnaire was first translated from English to Indonesian by the help of three linguists [47], [48] to ensure that respondents understood the statement. Table 3 illustrates the full questionnaire. PLS was chosen for four reasons; i) The broad scope and flexibility concerning theory and practice; ii) Can be employed in small sample sizes; iii) Complex models; and iv) Two level of assessments: (a) the measurement model (i.e. reliability, convergent and discriminant validities); and (b) the structural model assessment (i.e. path coefficients and R^2) [35], [42], [49]. The sequence of PLS analysis stated briefly in Table 2 [42], [50]. There are two types of model test includes, namely the outer model (test indicators) and inner model (test hypotheses). Each items measured with standard criteria [42], [49], [50].

Table 2. Smart PLS data analysis

Model test	Output	Criteria
Outer model (Indicator test)	a. Convergent validity	a. Factor Loading >0.7
	b. Discriminant validity	b. Cross loading with latent variables >the corr. value of other latent variable
	c. Average variance extracted (AVE)	c. AVE, criteria >0.50
	d. Composite reliability	d. Acceptable if ≥0.70
Inner model (Hypothesis test)	a. R^2 of endogen laten variabel	a. R^2 in 0.67; 0.30; 0.19 indicates that the model is good, moderate, or weak.
	b. Q^2 of endogen latent variable	b. Q^2 >0 indicates the model has predictive relevance. The effect size Q^2: 0.02, 0.15, 0.35 as small, medium, and large effect.
	c. F^2 (effect size measurement)	c. (>=0.02 is small; >=0.15 is medium; >=0.35 is large).
	d. Coeffisien parameter and t-statistics	d. Estimation value of path analysis in the structural model must be significant. This is done through the bothstraping procedure. t-statistics
		e. >t-table (significant level 0.5, two tailed test, t-table=1.96 (Significant)

3. RESULTS

The questionnaire for the study, prepared in hard copy, manually distributed to respondent. This is to ensure that the questionnaire filled in accordingly. There was only 10 percent of the respondents respond by Whatsapp, especially those who have provided cellular numbers. The respondent's demographic information depicted on the Table 3 consist of gender, age, online experience, and scholarship category. Respondent data contained in the questionnaire showed that males and females were almost evenly matched, while online experience row showed seven respondents <1 year experience in online learning, 95 respondents in 1-2 years. This means the seven respondents did not continue their studies after graduating from high school. All respondents were taken from first semester students, and those who had online learning experience 1-2 years were those who had experienced online learning since the last-year high school during pandemic COVID-19 outbreak. No student experienced online learning before the pandemic. Students in the full scholarship criteria are those who have selected to get Smart Indonesain Card (Kartu Indonesia Pintar/KIP). KIP is a scholarship program that has been provided by the government for those who are less fortunate in the economy, with the opportunity to get a full scholarship until they finish. The details of the description of various measures along with the source are provided in Table 3.

Table 3. Respondent's demographic information

Gender	Frequency	Percentage
Male	46	45%
Female	56	54.9%
AGE		
<23	99	97%
23-25	3	2.9%
More than 25	0	0%
Online learning experience		
<1 year	7	6.8%
1-2 years	95	93%
>3 years	0	0%
Scholarship student		
Full scholarship	50	49%
No scholarship	52	51%

The response rate of all questionnaires showed an average of above 3.7. This shows that all variables are valid. The highest level is on variable Y, then X3, followed by X2 and Z, and finally X1. The start number of items from each variable is five. However, after going through the Rasch measurement model, there were 5 items that were dropped on the variables X1, Y, and Z with a total of 1, 2 and 2 items each. So the current study refers to 20 items. The summary of respondent variable levels is quoted in Table 4.

Table 4. Respondent's level of variable

Variable	Number of items	Mean score
Technical abilities (X1)	4	3.74
Technology accessibility (X2)	5	3.82
Self-directed learning (X3)	5	3.95
Attitude towards online English language learning (Y)	3	4
Continuance Intention (Z)	3	3.82

The mean score of the variables TAB, TAC, SDL, AEL, and CI were 3.74, 3.82, 3.95, 4.00, and 3.82. These value were lower than the previous study conducted by Hamzah *et al*. [7] 3.87, 3.89, 3.73, 3.23. The term of the attitude to blended learning on the previous study is not as the present study term. The preliminary study indicated that the face to face class set up was not much issue to students either utilize internet or other type audio. This is due to the students felt accompanied by lecturer and collegues. The concern from students mostly on the online learning, when they are not in the same class premises.

Table 5 summarizes all items in English and Indonesian that have been measured in this study as well as items dropped. The first digit, in letter, indicates the variable code. The X code, the second digit, is a group of variables X 1, 2 or 3, and the next digit is the serial number of the item. For variables Y and Z, the last 2 digits are the serial number of the item. The total of all items are 25.

Table 5. Questionnaire of the study

Variable	Item no/Item code/Statement (in English)	Item code/Statement (in Indonesian)
Technical abilities (TAB) (X1)	(1) X11 I can access computer any time I want	X11 Saya dapat mengakses komputer kapan saja saya mau.
	(2) X12 I frequently use a computer to access the internet.	X12 Saya sering menggunakan komputer untuk mengakses internet.
	(3) X13 I cannot access to internet anytime I want	X13 Saya tidak dapat mengakses internet kapan saja saya mau.
	(4) X14 I spend a lot of time on internet-related activities	X14 Saya menghabiskan banyak waktu untuk hal-hal yang berhubungan dengan internet ➔ (**Removed based on RMM)**.
	(5) X15 To access the online learning platforms (Siakad, Edlink, Google classroom) is easy for me.	X15 Untuk mengakses platform pembelajaran online (SIAKAD, Edlink, Google classroom) mudah bagi saya.
Technology accessibility (TAC) (X2)	(6) X26 I am comfortable using gadget in English lesson	X26 Saya nyaman menggunakan gadget dalam pelajaran bahasa Inggris.
	(7) X27 I can operate the platform (SIAKAD, Edlink, Zoom, Google classroom) in my gadget.	X27 Saya dapat mengoperasikan platform (SIAKAD, Edlink, Zoom, Google classroom) di gadgetku.
	(8) X28 I am comfortable working with platform (Siakad, Edlink, Zoom, Google classroom) in English subject	X28 Saya nyaman bekerja dengan platform (Siakad, Edlink, Zoom, Google classroom) dalam mata pelajaran bahasa Inggris.
	(9) X29 I can confidently use web browsers to search for information.	X29 Saya yakin dapat menggunakan browser web untuk mencari informasi.
	(10) X210 I can confidently operate platform (SIAKAD, Edlink, Zoom, Google classroom) on my gadget	X210 Saya yakin dapat mengoperasikan platform (SIAKAD, Edlink, Google classroom) di gadget saya.
Self -directed learning (SDL) (X3)	(11) X311 I am comfortable working and learning independently.	X311 Saya nyaman bekerja dan belajar secara mandiri.
	(12) X312 I always strive to do well when working on my assignments.	X312 Saya selalu berusaha untuk melakukannya dengan baik ketika mengerjakan tugas.
	(13) X313 I do not wait until last minute to do my assignments.	X313 Saya tidak menunggu sampai menit terakhir untuk melakukan tugas saya.
	(14) X314 I take notes when studying on my own.	X314 Saya mencatat ketika belajar sendiri.
	(15) X315 I persevere when confronted with challenges.	X315 Saya bertahan ketika dihadapkan dengan tantangan.
Attitude towards Online English language learning (AEL) (Y)	(16) Y16 I find learning English online (Siakad,Edlink, Zoom, Google classroom) more effective and enjoyable than going to classes.	Y16 Saya menemukan belajar bahasa Inggris online (Siakad, Edlink, Zoom, Google classroom) lebih efektif dan menyenangkan daripada pergi ke kelas ➔ (**Removed based on RMM)**.
	(17) Y17 To understand English lessons deeply through online platforms (Siakad, Edlink, Zoom, Google classroom) is easier for me.	Y17 Untuk memahami pelajaran bahasa Inggris mendalam melalui platform online (Siakad, Edlink, Zoom, Google classroom) lebih mudah bagi saya ➔ (**Removed based on RMM)**.
	(18) Y18 I find using technologies (Siakad,Edlink, Zoom, Google classroom) in my study will help me get better results in my English subjects.	Y18 Saya menemukan menggunakan teknologi (Siakad, Edlink, Zoom, & Google classroom) dalam studi saya akan membantu saya mendapatkan hasil yang lebih baik dalam mata pelajaran bahasa Inggris saya.
	(19) Y19 I am motivated to learn English via online platforms(Siakad, Edlink, Zoom, & Google classroom).	Y19 Saya termotivasi untuk belajar bahasa Inggris melalui platform online (Siakad, Edlink, Zoom, Google classroom).
	(20) Y20 I can easily carry out online English activities (Siakad, Edlink, Zoom, Google classroom) with classmates and teachers on and off campus.	Y20 Saya dapat dengan mudah melakukan aktivitas bahasa Inggris online (Siakad, Edlink, Zoom, Google classroom) dengan teman sekelas dan guru di dalam dan di luar kampus.
Continuance intention (CI) (Z)	(21) Z21 I intend to continue using (Siakad, Edlink, Zoom, Google classroom) in the future.	Z21 Saya berniat untuk terus menggunakan (Siakad, Edlink, Zoom, Google classroom) di masa mendatang➔ (**Removed based on RMM)**.
	(22) Z22 I will increase using (Siakad,Edlink, Zoom, & Google classroom) in the future.	Z22 Saya akan meningkatkan penggunaan (Siakad, Edlink, Zoom, Google classroom) di masa mendatang.
	(23) Z23 I will keep using (Siakad, Edlink, Zoom, Google classroom) as regularly as I do now.	Z23 Saya akan tetap menggunakan (Siakad, Edlink, Zoom, & Google classroom) sesering yang saya lakukan sekarang.
	(24) Z24 I will not keep using (Siakad, Edlink, Zoom, Google classroom) as often as I do now.	Z24 Saya tidak akan terus menggunakan (Siakad, Edlink, Zoom, & Google classroom) sesering yang saya lakukan sekarang ➔ (**Removed based on RMM)**.
	(25) Z25 Using (Siakad, Edlink, Zoom, Google classroom) is worth continuing even if it doesn't exist anymore COVID-19.	Z25 Menggunakan (Siakad, Edlink, Zoom, Google classroom) layak terus dilakukan walaupun tidak ada lagi COVID-19.

The 5 items (X14, Z16, Y17, Z21, Z24) labelled removed based on RMM, indicate variable X1 item no 4, Y item no 16 and 17, Z item no 21 and 24. The item codes on X1, X2 and X3, referring to previous studies Hamzah *et al*. [7] who outlined the variables of computer skills and self directed learning as independent factors to assess students' continuance intention use of technology. Meanwhile the attitude is as independent variable precedes the continuance intention. This means that the items that are not marked as "removed based on RMM" are the items used in this study.

The Table 6 shows the outer and inner model. The outerer model refers to the factor loading, AVE, and composite reliability values, while the inner model refers to the t-test, R^2, Q^2, and F^2 values. The earlier phase of PLS measurement are validity and reliability analysis. The hypothesized linkage among the variables were measured using the boothstraping procedure. To begin with, all of the factor loadings were examined above the cut off limit of >0.7 [42], [49]. The AVE score was higher than 0.5 for all constructs,

composite reliability more than 0.7, and R^2 values above 0.8. These values satisfied the threshold acceptance level and supported to internal consistency and convergent validity of the model.

Table 6. The measures of outer and inner model

Variables	No of items	Factor loadings	AVE	Composite reliability	t-statistics	Hypothesis	R^2	Q^2	F^2
TAB	4	0.78, 0.86, 0.87, 0.8	0.692	0.899	TAB➔AEL: 1.22	H0:Accepted Ha: Rejected	0.852	-	TAB➔AEL: 0.13
TAC	5	0.81, 0.7, 0.76, 0.79, 0.8	0.606	0.884	TAC➔AEL: 1.88	H0: Accepted Ha: Rejected	0.836	-	TAC➔AEL: 0.23
SDL	5	0.82, 0.84, 0.77, 0,82, 0.86	0.684	0.915	SDL➔AEL: 4.09	H0: Rejected Ha: Accepted	0.884	-	SDL➔AEL: 0.52
AEL	3	0.87, 0.87, 0.85	0.753	0.901	AEL➔ CI: 19.47	H0: Rejected Ha: Accepted	0.836	0.14	AEL➔ CI: 0.78
CI	3	0.76, 0.87, 0.8	0.655	0.850	-	-	0.738	0.39	

Factor loading is a coefficient that explains the level of relationship between indicators and latent variables, that means the higher, the better. While the AVE value of 0.5 or more indicates satisfactory convergent validity. It means 50% or more of the average variance, in the observed variables. In this study, the loading factor and AVE values were above the minimum standards, namely 0.7 and 0.5. Moreover, the composite reliability ranges from 0.85 to 0.901 which exceeds 0.7. This means all items constantly measure the same construct.

The R^2 measures the regression model, the proportion of the variance for a dependent, explained by an independent variable. In this study, all R^2 value are above 0.8, that means the independent variable can explain the dependent variable. The t-statistics of variables TAB on TAC, and SDL on AEL indicated value less than t-table 1.96 (significant level 0.5, two tailed test). Therefore, the H0 hypothesis (no impact of TAB on AEL, nor TAC on AEL) was accepted. Meanwhile the SDL on AEL and AEL on CI showed t-statistics was more than t-table, means Ha was accepted (there is an impact of SDL on AEL and AEL on CI). The mediation effect of Attitude towards online English Language learning in affecting the Continuance Intention suggested positive impact.

The Q^2 predicted the study model, that the variables TAB, TAC and SDL predict 14% on the level of AEL (medium effect). Meanwhile the AEL as the mediator can predict 39% toward CI (large effect). The performance of the 3 exogen variables indicated the SDL as intervening variable mostly contributed toward CI, and among the three, SDL is the highest. This findings answer the second and third objectives of the present study. The objective to identify the impact of variables technical abilities, technology accessibility, and self- directed learning on attitude towards online English language learning has been answered. Among the four exogen variables, the F^2 value 0.52 of SDL ➔ AEL and 0.78 of AEL➔ CI are the highest compare the TAB ➔ AEL and TAC ➔ AEL. Technical abilities and technological accessibility of the present study prove to be a minor hindrance which result a reccurent phenomena of the previous study result [7]. The phenomena of technical abilities and technology accessibility as the minor factor on the students attitude corroborate study [7].

The present study establishes the theoretical usefulness by pointing towards the relevance of addressing the specific factors Self-directed learning through attitude towards online English language learning that exert an influence on continuance intention on the use of online learning. The Figure 1 presents the PLS algorithm which evaluated the reflective structural model.

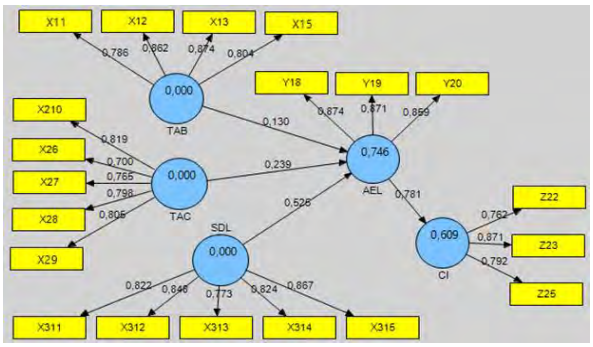

Figure 1. The complete structural model (in PLS algorithm)

4. DISCUSSION

This study focused on tertiary level students readiness for continuance intention to use online learning in Indonesia. Online learning requires an accessible internet connection, gadgets, and such types of devices which not every students has access to these luxurious goods. However, the present study results show that technology mastery and access are less of a concern than self-direct learning. Although in the preliminary study, respondents mostly concerned on the hindrance of online learning, but the study results does not indicate the phenomena of the study result. From the level of respondent, the technology accessibility indicated that the average students have no major issue on the situation. Respondent discreacy of having no sufficient gadget in such online learning laptop as the main, but in fact in an emergency condition, cell phones can still function as an intermediary tool.

Present study indicated that self-directed learning is a crucial factor in building positive attitudes of students in utilizing digital technology in learning. The obstacles is often experienced by students during the online learning as the LMS platform such as Siakad and Edlink (the platform which are commonly utilized in campus) come to appear not so clear on the small gadget screen. But the experience of digital classroom space is the digital literacy skill required. Students need to be accustomed on the digital activities. Students verbally responded that the experience was complained unsufficient by some alumni. Even in some cases there are students who don't know how to send emails. As many researchers have complained about, the context of developing countries is the lack of supporting infrastructure for online learning [13], [21]. But from this study it seems that it has diminished, though not completely gone. But what needs to be watched out for is the positive attitude of students is influenced by their motivation. There is a saying where there is a will there is a way.

The previous study compared the attitudes toward the traditional classroom setting vs blended classroom setting, meanwhile the present study stick to the belief based on the preliminary study that there was no much issue on the face to face classroom set up. In fact, the results of the prilimany study are strenuous as the findings of previous studies [7] that face to face classroom set up makes students more comfortable than online learning. The strength of syncronous and asynronous online learning, as stated by Cahyani *et al*. [25] are in terms of authentic, flexibility, live interaction, development of critical thinking and student-centered learning process. Further Cahyani *et al*. [25] emphasized the weakness of syncronous online learning are accessibility, development of critical thinking, mastery of topics, enjoyable class, connection issues, and network issues meanwhile the asyncronous online learning are due to the lack of interaction, low mastery of content, dull class, connection issues, as well as network issues. Some points from the present study are in line with what was stated by Cahyani *et al*. [25] yet in terms of technology assessibility and technical ability did not significantly affect students' attitudes toward online English language learning, but self-directed learning. The self-directed learning manifest to the attitude toward online English language learning which is a very crucial point as the key to increasing continuance intention of future online learning usage.

5. CONCLUSION

It can be concluded that the level of technical abilities, technology accessibility, attitude towards online English language learning, and continuance intention has indicated that the responses of statements mostly in the level of agree or very agree measure the variables. This has answered the first objective of the present research. The positive trend of these responses can be cited as a basic reference that students have excellent potential to adapt better to online learning in the future, of course, by paying attention to various aspects in their respective environments. However, the second objective of the present research indicated that technology accessibility and technical ability did not significantly affect the attitude of the respondents on online English language learning. It assumes that the respondents had actually gone through an adaptation period of a year at the beginning of high school before continue to college. However, self-directed learning which in theory refers to psychological processes that intentionally direct learners to acquire knowledge and understand how to solve problems is closely related to their attitude towards online learning. Students who are more independently adapt to more technology-based learning be positive attitude in adopting online learning strategies, continuously shows good academic performance. The online english language learning has provided a clear roadmap and opportunity for educators and students to take a more advantages and engage major stakeholders to create novel market in the case the pandemic longer last, or become a general acceptable mode of teaching and learning as declared by MOEC on the hybrid learning discourse. Self-directed learning (SDL) is a very important and dominant variable in increasing the level of student attitudes in using digital technology in the context of English language learning. The continuance intention of online learning will be supported if there is a positive attitude from the students themselves. A situation that has been widely supported by various similar studies. The higher the self-directed learning, the higher the attitude

toward online language learning so that increasing continuance intention is the main conclusion, as well as answer the third objective of the study.

The weakness in the present research, conducted during the COVID-19 pandemic was the small sample size due to the limited space to explore various demographic and other social aspects of students in the context of online learning. It would be helpful to provide an overview of the phenomena with different treatments between purely online-based learning vs face-to-face learning by comparing the education of the two groups, as well as socio-economic factors. Subsequent research can be conducted through action research by distinguishing gender groups. The focus on adapting students to technology could continue to change to support their English language learning. The next study are recommended to consider the research sample by involving more students from various majors. Because online learning, hybrid learning or whatever the term may appear in the future, it is still learning that will continue to innovate and involve digital technology that is changing rapidly. Researchers who will explore this field need to see whether language learning and social science have differences in student readiness. Further researchers can also utilize the developed-questionnaire which had been gone through Rasch model validation and translate as well as compare the level of behavioral readiness and expertise of students, lecturers, and LMS providers in contributing to smooth learning.

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BIOGRAPHIES OF AUTHORS

Alpino Susanto completed his undergraduate education majoring in English education, Faculty of Teacher Training and Education from the University of Riau, Pekanbaru, Indonesia in 1995. He completed his master's degree in management at the Open University, Jakarta, Indonesia in 2012. He completed his Doctoral education at Universiti Tun Hussein Onn Malaysia, Batu Pahat, Malaysia in 2018. He has some experience working as a senior staff and customer service manager for 4 multinational companies in Batam, Indonesia from 1996 to 2013. He started his career as a lecturer since 2013 and now serves as Chancellor of Karimun University, Indonesia. He has written several papers in the field of language learning strategies, learning motivation, and vocabulary skills during his career as a lecturer. He has also been a speaker at various seminars and editor of various national journals. His research in the field of language learning has been widely published in various reputable national and international journals. He can be contacted at email: susanto.alpino40@gmail.com.

Karunia Yulinda Khairiyah is a special education lecturer at the Department of Special Education, Faculty of Teacher Training and Education, Karimun University, Indonesia. She completed her undergraduate education, focus on special need education, Faculty of Teacher Training and Education, Malang State University, Indonesia in 2018. She completed her master degree focus on special need education at Surabaya State University, Indonesia in 2021. Her main research focuses on teaching methods and approach for special needs education. She has written various articles in the field of special need education and published them in some national journals. She is currently the head of the special need education department at Karimun University, Indonesia since she finished her master's education. She can be contacted at email: karuniayulinda@gmail.com.

Zalmi Dzirrusydi is currently a lecturer at the Department of Port and Shipping Management, Faculty of Science and Technology, Karimun University, Indonesia. He is a graduate of the Master of Management at the University of Riau, Indonesia, in 2017. He is an active lecturer in the Quality Assurance Institute at Karimun University, Indonesia. He is also the chief editor of the Maritim journal which has published many researches in the maritime field. He can be contacted at email: zalmi270288@gmail.com.

Sri Sugiharti is currently a leacturer at the Department of English Education, Faculty of Teacher Training and Education, Riau Kepulauan University, Batam, Indonesia. She earned her Bachelor's degree of English Department Teacher Tranining and Education Faculty from Pancasakti University of Tegal, Indonesia in 1999. She achieved two masters from Dr. Soetomo University, Indonesia in 2010 and Sarjanawiyata Tamansiswa University, Indonesia in 2013. She is curretly a Doctoral student of Linguistics and Translation Studies, at Sebelas Maret University, Surakarta, Indonesia. Her research focus is on literature, linguistics, tanslation Studies, and Javanese Culture. She can be contacted at email: srisugihartiwismono@gmail.com.